



Consolidated Version
of
the Sanitary Sewer Bylaw

(being Bylaw No. 6/2018 of the City of St. Albert, as amended by Bylaw No. 45/2018, 5/2019, and 45/2019 consolidated and printed under the authority of the Chief Administrative Officer of the City of St. Albert)

This is certified to be a true copy of consolidated
Bylaw No. 6/2018 of the City of St. Albert.

David S. Leflar
Director of Legal and Legislative Services
Chief Legislative Officer

The text shown in parentheses in various locations throughout this document identifies the corresponding amending bylaw which authorized the change. For example (BL 5/2019) refers to Bylaw No. 5/2019.

CITY OF ST. ALBERT

BYLAW 6/2018

A Bylaw to regulate Sanitary Sewer services in the City of St. Albert.

WHEREAS pursuant to Part 2 of the *Municipal Government Act*, RSA 2000 c.M-26, a Council may pass bylaws for municipal purposes respecting municipal services and public utilities; and

AND WHEREAS Council may provide for the enforcement of such bylaws, including creating offences, specifying penalties, empowering inspections and enabling remedies pertaining to contraventions;

NOW THEREFORE, the Council of the City of St. Albert, duly assembled, hereby enacts as follows:

Part 1 - Interpretation

Title

1. This Bylaw may be referred to as “Sanitary Sewer Bylaw.”

Definitions

2. In this Bylaw:
 - a. “Accredited Laboratory” means any laboratory accredited by an authorized accreditation body in accordance with a standard based on “CAN-P-1585: Requirements for the Accreditation of Environmental Testing Laboratories” established by the Standards Council of Canada, as amended, or “ISO/IEC/EN 17025: General Requirements for Competence of Calibration and Testing Laboratories” established by the International Organization for Standardization, as amended;
 - b. “Additional Over-strength Surcharge” means the rate per kilogram per cubic meter of water consumed and charged to a user who releases Wastewater to the Wastewater System that exceeds one or more constituent concentrations set out in Column B of Schedule ‘D’;

- c. “ACRWC” means the Alberta Capital Region Wastewater Commission, which by service agreement, provides Wastewater treatment services for the City, and is a regulatory and permitting authority for the City. Through this service and relationship, the ACRWC shall review, Sample, consult, and work with the City on product quality and consistency;
- d. “Best Management Practices” and “BMP” mean an integrated plan to control and reduce the release of restricted and prohibited waste into the Wastewater System through methods including physical controls, Pre-Treatment processes, operational procedures and staff training;
- e. “Biomedical Oxygen Demand” and “BOD” mean the determination of the molecular oxygen utilized during a five-day incubation period for the biochemical degradation of organic material (carbonaceous demand), and the oxygen used to oxidize inorganic material such as sulphides and ferrous iron, and the amount of oxygen used to oxidize reduced forms of nitrogen (nitrogenous demand) as determined by the appropriate procedure in Standard Methods;
- f. “Biomedical Waste” is as defined in Alberta Regulation 192/1996 (Waste Control Regulation), as amended from time to time;
- g. “Blowdown Water” means recirculating water that is discharged from a cooling or heating water system for the purpose of controlling the level of water in the system or for the purpose of discharging from the system materials contained in the system, the further build-up of which would or might impair the operation of the system;
- h. “Building Drainage Systems” means the assembly of piping and associated equipment that is privately owned and is used to carry Sewage from land occupied by a Customer to the Sanitary Service Connection;
- i. “Bylaw” means this Sanitary Sewer Bylaw, as amended;
- i.1 “Chief Administrative Officer” or “CAO” means the individual appointed by Council to the position of Chief Administrative Officer under section 205 of the *Municipal Government Act* and pursuant to the Chief Administrative Officer Bylaw; **(BL 5/2019)**
- j. “City” means the City of St. Albert, a municipal corporation, and includes, where the context requires, the area contained within the boundaries of the City of St. Albert;
- k. DELETED **(BL 5/2019)**

- l. “Customer” means a Person who receives Sanitary Sewer services from the City under this Bylaw;
- m. “Chemical Oxygen Demand” and “COD” mean a measure of the capacity of water to consume oxygen as a result of oxidation of inorganic chemicals and decomposition of organic Matter;
- n. “Clear Water Waste” means water that has not come into contact with Wastewater contaminant sources, including Non-Contact Cooling Water;
- o. “Code of Practice” means a set of practices that identifies mandatory procedures, equipment, training or other provisions required as a condition of discharging Wastewater into the Wastewater System by the specified sector discharger, as outlined by the ACRWC. A Code of Practice may be included in approved Best Practices;
- p. “Combustible Liquid” means a liquid that has a flash point not less than 37.8 degrees Celsius and not greater than 93.3 degrees Celsius;
- q. “Connection” or “Drain” means that part or those parts of any pipe or system of pipes leading directly to a Wastewater System;
- r. “Cooling Water” means water that is used in a process for the purpose of removing heat and that has not, by design, come into contact with any raw material, intermediate product, waste product or finished product, but does not include Blowdown Water;
- s. “Dental Amalgam” means a dental filling material consisting of an amalgam of mercury, silver and other materials such as copper, tin or zinc;
- t. “Dental Amalgam Separator” means any technology, or combination of technologies, designed to separate Dental Amalgam particles from dental operation Sewage;
- u. “Designated Sector Operations” means Industrial, commercial or institutional sectors required to adopt Codes of Practice approved by ACRWC;
- v. “Development” is as defined in the Land Use Bylaw (Bylaw 9/2005, as amended);
- w. “Domestic Wastewater” means:
 - i. Wastewater produced on residential premises, or

- ii. Wastewater produced from Sanitary Fixtures serving a non-residential property;
- x. “Effluent” means liquid flowing out of a facility or premises into a Sewer or waterbody;
- y. “Flashpoint” means the temperature at which enough vapour collects on the surface of a liquid to become flammable;
- z. “Flow Monitoring Point” means an access place to the Private Sewer Connection for the purpose of:
 - i. measuring the rate or volume of Wastewater, storm water, Clear Water Waste or Subsurface Water released from the premises, and
 - ii. collecting representative Samples of the Wastewater, storm water, Clear Water Waste or Subsurface Water released from the premises;
- aa. “Fuels” means alcohol, gasoline, naphtha, diesel fuel, fuel Oil or any other ignitable substance intended for use as a fuel;
- bb. “Ground Water” means water beneath the earth’s surface accumulating as a result of seepage;
- cc. “Hauled Waste” means any Industrial waste which is transported to and deposited into any location in the Wastewater System, excluding Hauled Wastewater;
- dd. “Hauled Wastewater” means waste removed from a Wastewater collection system, including a cesspool, a septic tank system, a privy vault or privy pit, a chemical toilet, a portable toilet or a Wastewater holding tank;
- ee. “Hazardous Substance” means:
 - i. any substance or mixture of substances, other than a Pesticide, that exhibits characteristics of flammability, corrosivity, reactivity or toxicity, and
 - ii. any substance that is designated as a hazardous substance under Alberta Regulation 192/1996 (Waste Control Regulation) as amended from time to time;
- ff. “Ignitable Waste” means a substance that is:

- i. a liquid (other than an aqueous solution containing less than 24 percent alcohol by volume) and has a flash point less than 93 degrees Celsius, as determined by the Tag Closed Cup Tester (ASTM D-56-97a), the Setaflash Closed Cup Tester (ASTM D-3828-97 or ASTM D-3278-96e1), the Pensky-Martens Closed Cup Tester (ASTM D-93-97), or as determined by an equivalent test method,
 - ii. a solid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a danger,
 - iii. an ignitable compressed gas as defined under federal or provincial regulation, or
 - iv. an oxidizing substance as defined under federal or provincial regulation;
- gg. “Industrial” means of or pertaining to manufacturing, commerce, trade, business or institutions as distinguished from domestic or residential;
 - hh. “Institution” means a facility, usually owned by a government body or an agency thereof, operated for public purposes, such as a school, university, medical facility (hospital, nursing station, nursing home), museum, prison, government office, or military base;
 - ii. “Lower Explosive Limit” or “LEL” means the measure of concentration of a gas or vapour in the air below which there is not enough vapour in the air to fuel a fire;
 - jj. “Matter” means any solid, liquid or gas;
 - kk. “Monitoring Access Point” means an access point, such as a chamber, in a Private Sewer Connection to allow for observation, sampling and flow measurement of the Wastewater, Uncontaminated Water or storm water therein;
 - ll. “Municipal Sewer Connection” means that part of any Drain leading from the Private Sewer Connection and connected to the municipal Sewer and located within the limits of the public road allowance, or other public lands or public land interests held for Sewerage purposes;
 - mm. “Non-Contact Cooling Water” means water used to reduce heat without coming into direct contact with any raw, intermediate or finished material product;

- nn. “Non-Domestic Wastewater” means all Wastewater other than:
 - i. Domestic Wastewater,
 - ii. Uncontaminated Water, and
 - iii. Septic Tank Wastewater;
- oo. “Oil” and “Grease” means n-Hexane extractable Matter as described in Standard Methods;
- pp. “Oil-Water Separator” means a three-stage Oil-Water Separator that meets the Standard for Oil-Water Separators (ULC-S656-14) prepared by Underwriters’ Laboratories of Canada or the equivalent oil-water separation technology able to achieve an Effluent quality of 100 mg/L of Oil and Grease (mineral-synthetic/hydrocarbons) or less;
- qq. “Over-strength” means Wastewater released to the Sanitary Sewer that is higher in concentration with respect to one or more constituent concentrations set out in Column A of Schedule ‘D’;
- rr. “Over-strength Surcharge” means the fee charged to a Customer who releases Wastewater to the Sewer that exceeds one or more constituent concentrations set out in Column A of Schedule ‘D’;
- ss. “Pathological Waste” means pathological waste as described within or within the meaning of the *Human Pathogens and Toxins Act* S.C. 2009, c.24, as amended;
- tt. “PCBs” means any monochlorinated or polychlorinated biphenyl or any mixture that contains one or more of them;
- uu. “Person” means an individual, association, partnership or corporation, including an agent or employee thereof;
- vv. “Pesticide” means a substance regulated under the *Pests Control Products Act* S.C. 2002, c.28 and regulations, *Alberta Regulation 43/1997 (Pesticide [Ministerial] Regulation)* and *Alberta Regulation 24/1997 (Pesticide Sales, Handling, Use and Application Regulation)*, all as amended;
- ww. “Pre-Treatment” means the reduction, elimination or alteration of Matter pollutants in Wastewater prior to discharge into the Wastewater System Sanitary Sewer, which reduction or alteration may be achieved by physical,

chemical, or biological processes, through pollution prevention, or by other means;

- xx. “Pre-Treatment Processes” means one or more treatment processes or devices designed to remove sufficient Matter from Wastewater discharged into the Municipal Sewer Connection to enable compliance with Effluent limits established in this Bylaw;
- yy. “Private Sewer Connection” means that part of any Drain or system of Drains, including Drains or Subsurface Drainage Pipe for surface or subsurface drainage of the land in or adjacent to a building, lying within the limits of the private lands and leading to a Municipal Sewer Connection, the maintenance of which is the Registered Owner’s responsibility;
- zz. “Private Sewer System” means a privately-owned system for the treatment and disposal of Sewage and may include a septic tank with an absorption field or other approved means of disposal;
- aaa. “Prohibited Waste” and “Prohibited Substance” means a substance listed in Schedule ‘A’;
- bbb. “Radioactive Substance” means a substance so defined in the Nuclear Safety and Control Act S.C. 1997 c.9, and regulations, as amended;
- ccc. “Reactive Waste” means a substance that:
 - i. is normally unstable and readily undergoes violent changes without detonating,
 - ii. react violently with water,
 - ii. forms potentially explosive mixtures with water,
 - iii. when mixed with water, generates toxic gases, vapours or fumes in a quantity sufficient to present danger to human health or the environment,
 - iv. is a cyanide or sulphide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapours or fumes in a quantity sufficient to present danger to human health or the environment,
 - v. is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement,

- vi. is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure, or
 - vii. is an explosive as defined in the regulations under the *Explosives Act* R.S.C. 1985, c.E-17, as amended;
- ddd. “Registered Owner” means the Person in whose name the fee simple title to a parcel of land is registered in accordance with the *Land Titles Act* R.S.A. 2000 c.L-4;
- eee. “Restricted Waste” and “Restricted Substance” means a substance listed in Schedule ‘B’;
- fff. “Sample” means a volume of Wastewater, storm water, Uncontaminated Water, clear-water or Effluent collected by the following:
- i. “Composite Sample” made up of four or more grab samples that have been combined automatically or manually and taken at intervals during a sampling period; or
 - ii. “Grab Sample” means a volume of Wastewater, storm water, Uncontaminated Water or Effluent which is collected over a period not exceeding 15 minutes;
- ggg. “Sampling Port” means a valve, tap, or similar device on equipment, a Drain pipe or at another suitable location, to allow for sampling, consistent with technical guidelines that the ACRWC and/or Member Municipality may establish from time to time;
- hhh. “Sanitary Fixtures” means a Drain, sink, toilet or similar fixture that receives Sewage;
- iii. “Sanitary Service Connection” means the piping and associated connections that connects a Building Drainage Systems to a Sanitary Sewer;
- jjj. “Sanitary Sewer” means a Sewer for the collection and transmission of domestic or Industrial Wastewater or any combination thereof;
- kkk. “Sanitary Sewer Service Charge” means any of the following as billed to a Customer:
- i. the Sewage flat rate charge,
 - ii. the Sewage transmission charge,

- iii. the Over-strength surcharge, if any,
 - iv. the Additional Over-strength Surcharge, if any, and
 - v. the late payment charge, if any;
- III. “Sanitary Sewer System” means any works owned by the City and designed for the collection, transmission, treatment and disposal of Wastewater specifically, or any part of such works, but does not include plumbing or other works to which the applicable Alberta Building Code applies.;
- mmm. “Schedule” means a schedule attached to and forming a part of this Bylaw, which include the following;
- i. Schedule A – Prohibited Wastes
 - ii. Schedule B – Restricted Wastes
 - iii. Schedule C – Fees Charges and Indemnities
 - iv. Schedule D – Overstrength Limits and Charges
- nnn. “Section” means a Section of this Bylaw;
- ooo. “Sediment” means the material that settles at the bottom of a liquid consisting of solid particles.
- ppp. “Septic Tank Wastewater” means Wastewater pumped from a septic tank;
- qqq. “Sewage” means household, commercial and Industrial waste conveyed in water;
- rrr. “Sewer” means a pipe, conduit, Drain, open channel or ditch owned by the City and designed for the collection and transmission of Wastewater, storm water or Uncontaminated Water, or any combination thereof;
- sss. “Spill” means a direct or indirect discharge into the Wastewater System, Storm Sewer or the natural environment which is abnormal in quantity or quality;
- ttt. “Storm Sewer” means a Sewer for the collection and transmission of Uncontaminated Water, storm water, drainage from land or from a Watercourse or any combination;
- uuu. “Storm Water” means the water running off the surface of a drainage area during and immediately after a period of rain or snow melt.
- vvv. “Subsurface Drainage Pipe” means a pipe that is installed underground to intercept and convey Subsurface Water, and includes foundation Drain pipes;

- www. “Subsurface Water” means Ground Water, including foundation Drain water;
- xxx. “Standard Methods” means procedures or methods set out in Standard Methods for the Examination of Water and Wastewater published jointly by the American Public Health Association, American Water Works Association and the Water Environment Federation, as approved in writing by ACRWC;
- yyy. “Total Suspended Solids” and “TSS” means insoluble Matter in liquid that is removable by filtration, as determined by the appropriate procedure described in Standard Methods;
- zzz. “Toxic Substance” means any substance defined as toxic under the Canadian Environmental Protection Act S.C. 1999 c.33 and regulations, as amended, and so described within or within the meaning of Alberta Regulation 192/1996 (Waste Control Regulation), as amended from time to time;
- aaaa. “Uncontaminated Water” means water of a quality that is typical of potable water normally supplied by the City;
- bbbb. “Utility Bill” means a billing statement for utility services provided to a Customer by the City;
- cccc. “Wastewater” means the composite of water and water-carried wastes from residential, commercial, Industrial or institutional premises or any other source.
- dddd. “Wastewater Sludge” means solid material recovered from the Wastewater treatment process;
- eeee. “Wastewater System” means Sanitary Sewer System;
- ffff. “Wastewater Treatment Facility” means any structure or thing used for the physical, chemical, biological or radiological treatment of Wastewater, and includes sludge treatment, Wastewater Sludge storage and disposal facilities;
- gggg. “Wastewater Discharge Permit” means a permit issued by ACRWC which governs the discharge of non-domestic waste and Hauled Wastewater into a Sewer;
- hhhh. “Watercourse” means an open channel, ditch or depression, either natural or artificial, in which flow of water occurs either continuously or intermittently;

**PART 2 - Protecting the City's Sanitary Sewer System
Sanitary Sewer Requirements**

3. A Person shall apply for, obtain and comply with all permits and authorities required of, and issued by, all applicable permitting authorities, including the City and the ACRWC, during the sanitary servicing infrastructure construction, connection and operation phases.

Release / Discharge / Dilution

4. No Person shall release, or permit the release of, any Matter into the Sanitary Sewer System except:
 - a. Domestic Wastewater;
 - b. Non-Domestic Wastewater; or
 - c. Storm water, clear-water waste, Subsurface Water or other Matter where a Wastewater Discharge Permit has been issued by the ACRWC.
5. Notwithstanding Section 4, no Person shall release, or permit the release into the Wastewater System:
 - a. any prohibited substance listed in Schedule 'A' of this Bylaw; or
 - b. any Restricted Waste which exceeds the respective concentrations listed in Schedule 'B' of this Bylaw, except with a valid Wastewater Discharge Permit from the ACRWC.
6. No Person shall discharge directly or indirectly, or permit the discharge or deposit of Wastewater into a Sanitary Sewer where water has been added to the discharge for the purposes of dilution to achieve compliance with Schedule 'B' of this Bylaw.
7. Any Person in breach of Section 4, 5 or 6 shall, in addition to any penalty that may be imposed under this Bylaw, indemnify the City for the cost of repair of any damage to the City's Sanitary Sewer System.

Monitoring / Sampling

8. For the purpose of determining compliance with this Bylaw, the City may:
 - a. enter upon private premises to monitor Wastewater discharge or take Samples of Wastewater streams; or

- b. require the Registered Owner or occupant of any premises, at his or her expense, to take Samples and submit analyses thereof, in such form as the City requires, to the City for consideration.
9. Where sampling is required for the purposes of determining the concentration of constituents in the Wastewater, storm water or Uncontaminated Water, the Sample may:
 - a. be collected manually or by using an automatic sampling device; and
 - b. contain additives for its preservation.
10. All tests, measurements, analyses and examinations of Wastewater, its characteristics or contents pursuant to this Bylaw shall be carried out in accordance with current "Standard Methods" as commonly applied by professionals for such purposes, and be performed by an Accredited Laboratory for analysis of the particular substance(s) using a method which is within the laboratory's scope of accreditation or to the satisfaction of the City as agreed in writing prior to Sample analysis.
11. The Registered Owner or operator of Industrial, commercial or institutional premises shall install and maintain in good repair in each Private Sewer Connection a suitable Monitoring Access Point to allow observation, sampling and flow measurement of the Wastewater, Uncontaminated Water or storm water therein where installation of a Monitoring Access Point is not possible, an alternative device or facility may be substituted with the prior written approval of the City.
12. The Monitoring Access Point (or authorized alternative) shall be:
 - a. located as close to the property line as possible, unless the City has given prior written approval for a different location;
 - b. designed and constructed in accordance in accordance with City standards;
 - c. constructed and maintained by the Registered Owner or operator of the premises at his or her expense; and
 - d. accessible to the City for the purposes of observing, sampling and flow measurement of the Wastewater, Uncontaminated Water or storm water therein.

PART 3 - Connecting to the City's Sanitary Sewer System
Chief Administrative Officer's Authority
(BL 5/2019)

13. The CAO has the power and authority to do all things necessary for the construction, maintenance and management of the Sanitary Sewer System. **(BL 5/2019)**
14. The CAO may establish standards and policies for the design, construction, and maintenance of the Sanitary Sewer System and any connection to the Sanitary Sewer System. **(BL 5/2019)**
15. Notwithstanding the requirements of this Bylaw, the CAO may prohibit or set discharge concentrations and/or limit the loading rate for any other material or substance not included in the Schedules hereto, where required to protect Wastewater System or processes, meet Effluent standards or other legislated requirements, or control biosolids quality. **(BL 5/2019)**

No Connection Without Approval

16. A Person shall not connect any piping or fixture to the City's Sanitary Sewer System without first obtaining the approval of the CAO. **(BL 5/2019)**

Obligation to Connect to City's Sanitary Sewer System

17. Unless otherwise permitted by the CAO, no Development shall proceed on a parcel of land adjacent to the City's Sanitary Sewer System unless the Registered Owner connects the parcel to the City's Sanitary Sewer System in accordance with this Bylaw. **(BL 5/2019)**
18. If the City's Sanitary Sewer System is extended such that a Sanitary Sewer is adjacent to a parcel of land that has a private Sewage disposal system, the Registered Owner shall, upon notice from the City, within the time specified by the City, decommission the private Sewage disposal system and connect to the City's Sanitary Sewer System. All costs to decommission the private Sewage disposal system and to connect to the City's Sanitary Sewer System shall be paid by the Registered Owner of the land.

Application for Connection to the City's Sanitary Sewer System

19. A Person wishing to connect any piping to the City's Sanitary Sewer System shall first apply to the CAO for approval. An application shall include: **(BL 5/2019)**
 - a. construction drawings identifying details of the proposed connection, associated piping, fittings and installations, and any other information

required by the City to ensure the safe and effective operation of the City's Sanitary Sewer System;

- b. details regarding the applicant's interest in the land;
- c. payment of any applicable offsite levies or any other outstanding amounts in relation to the property that are due to the City by function of bylaw or City policy; and
- d. payment of any amounts due under Development Agreements in relation to the property.

Approval of Connection to the City's Sanitary Sewer System

- 20. The CAO shall approve an application under Section 19 if: **(BL 5/2019)**
 - a. the City is satisfied with the proposed design, connection, associated piping and installations;
 - b. the applicant is the Registered Owner of the parcel of land to be served by the connection or the agent of the Registered Owner;
 - c. the parcel of land is adjacent to the City's Sanitary Sewer System; and
 - d. the lands are located within the City.
- 21. Notwithstanding Section 20, the CAO may add conditions to the approval, including but not limited to the following requirements: **(BL 5/2019)**
 - a. to install a Flow Monitoring Point in a manner and in a place accessible to the City;
 - b. to install, in a manner and in a place accessible to the City:
 - i. a Grease and Oil interceptor,
 - ii. a sand and grit interceptor, or
 - iii. both, and
 - c. to comply with standards, codes of practice and additional requirements as adopted by the City from time to time, based on Best Management Practices pertaining to Wastewater management, which standards or codes may include those prescribed by the ACRWC.

Over-strength Surcharge

22. The City may assess and apply Over-strength and Additional Over-strength Surcharges for Wastewater discharges that exceed the limits of treatable parameters set out in Schedule 'D'. Surcharges are assessed to the Customer occupying the property from which the applicable discharge originates, and sampling for the purposes of this Section shall proceed in accordance with this Bylaw.

Food-related Grease Interceptors

23. Every Registered Owner or operator of a restaurant or other Industrial, commercial or institutional premises where food is cooked, processed or prepared, for which the premises is connected directly or indirectly to a Sanitary Sewer, shall take all necessary measures to ensure that oil and Grease are prevented from entering the Sanitary Sewer in excess of the provisions of this Bylaw.
24. The Registered Owner or operator of the premises referred to in Section 23 shall:
 - a. in compliance with the most current requirements of the Alberta Building Code and National Plumbing Code of Canada (as amended), install, operate and properly maintain an Oil and Grease interceptor in any piping system that connects directly or indirectly to a Sanitary Sewer;
 - b. operate and maintain Oil and Grease interceptors in good working condition according to the manufacturer's recommendations and in compliance with the requirements of CAN/CSA B-481;
 - c. where manufacturer's recommendations cannot be produced, ensure that the floating oil and grease shall not accumulate in the final stage chamber of the oil and grease separator in excess of 5% of the wetted height, and the settled solids shall not accumulate in the final stage chamber of the oil and grease separator in excess of 25% of the wetted height. Maintenance and clean out shall be documented at the time it is performed.
 - d. document and submit a maintenance schedule and record of maintenance to the City upon request for each interceptor installed. These records shall be retained for a minimum of two years; and
 - e. not allow Oil and Grease to be discharged into the Sewer.

Vehicle and Equipment Service Oil and Grease Interceptors

25. Every Registered Owner or operator of a vehicle or equipment service station, repair shop or garage or of an Industrial, commercial or institutional premise or any

other establishment where motor vehicles are repaired or maintained, and where the sanitary discharge is directly or indirectly connected to a Sanitary Sewer, shall install an Oil and Grease interceptor designed to prevent motor Oil and lubricating Grease from passing into the Sanitary Sewer in excess of the provisions of this Bylaw.

26. The Registered Owner or operator of the premises referred to in Section 25 shall:
- a. in compliance with the most current requirements and recommendations of the Alberta Building Code and the Canadian Fuels Association (formerly the Canadian Petroleum Products Institute), install, operate, and properly maintain in good working condition an Oil and Grease interceptor in any piping system that connects directly or indirectly to a Sanitary Sewer;
 - b. inspect regularly to ensure the interceptor's performance is maintained to the manufacturer's specifications for performance and to ensure the surface Oil and Sediment levels do not exceed recommendations;
 - c. Where manufacturer's recommendations cannot be produced, ensure that the floating oil and grease shall not accumulate in the final stage chamber of the oil and grease separator in excess of 5% of the wetted height, and the settled solids shall not accumulate in the final stage chamber of the oil and grease separator in excess of 25% of the wetted height. Maintenance and clean out shall be documented at the time it is performed.
 - d. document and submit a maintenance schedule and record of maintenance to the City upon request for each interceptor installed. These records shall be retained for a minimum of two years; and
 - e. not allow Oil and Grease to be discharged into the Sewer.

Sediment Interceptors

27. Every Registered Owner or operator of a business or premises from which Sediment enters a Sewer, including but not limited to vehicle wash establishments and those premises that use a ramp Drain or area Drain, shall install a Sediment separator designed to prevent Sediment from entering the Drain or Sewer in excess of the limits in this Bylaw.
28. The Registered Owner or operator of the premises referred to in Section 27 shall:
- a. according to manufacturer's recommendations, inspect and maintain all Sediment interceptors in good working condition;

- b. where manufacturer's recommendations cannot be produced, ensure that the settled solids shall not accumulate in the final stage chamber of the sediment interceptor in excess of 25% of the wetted height. Maintenance and clean out shall be documented at the time it is performed."
- c. document and submit a maintenance schedule and record of maintenance to the City upon request for each interceptor installed. These records shall be retained for a minimum of two years; and
- d. for 2 years, retain the records which document interceptor clean-out and Sediment disposal.

Dental Waste Amalgam Separator

- 29. Every Registered Owner or operator of a premises from which Dental Amalgam may be discharged directly or indirectly into a Sewer shall install, operate and properly maintain a Dental Amalgam separator(s) with at least 95% efficiency in amalgam weight and certified ISO 11143 - "Dentistry - Amalgam Separators" in any piping system at its premises that connects directly or indirectly to a Sewer.
- 30. The Registered Owner or operator of the premises referred to in Section 29 shall:
 - a. according to manufacturer's recommendations, inspect and maintain in good working condition all dental waste amalgam separators; and
 - b. document and submit a maintenance schedule and record of maintenance to the City upon request for each separator installed. These records shall be retained for a minimum of two years.
- 31. Notwithstanding Section 29, all Persons operating or carrying on the business of a dental practice shall comply with Schedules 'A' and 'B'.

Food Waste Grinders

- 32. In the case of Industrial, commercial or institutional premises where food waste grinding devices are installed in accordance with the Alberta Building Code, the Effluent from such food waste grinding devices shall comply with Schedules 'A' and 'B'.

Pre-Treatment Facilities

- 33. When not adhering to the requirements and prohibitions to this Bylaw or where required by ACRWC, the Registered Owner or operator shall install on the premises, and prior to the sampling point, a Wastewater Pre-Treatment facility.

34. The Registered Owner or operator shall ensure the design, operation and maintenance of the Pre-Treatment facility achieves the treatment objectives and operates and is maintained in accordance with the manufacturer's recommendations.
35. The Registered Owner or operator shall not deposit the waste products from the Pre-Treatment facility in a Wastewater Works and shall ensure any waste products from the Pre-Treatment facility are disposed of in a safe manner.
36. The maintenance records and waste disposal records shall be submitted to the City upon request.
37. The Registered Owner or operator shall keep documentation pertaining to the Pre-Treatment facility and waste disposal for two years.

Spills

38. In the event of a Spill to a Wastewater works, the Person responsible or the Person having the charge, management and control of the Spill shall:
 - a. immediately notify and provide any requested information with regard to the Spill to:
 - i. 9-1-1 emergency, if there is any immediate danger to human health and/or safety; or
 - ii. if there is no immediate danger:
 - a) the City;
 - b) the owner of the premises where the Spill release occurred; and
 - c) any other person who may be directly affected by the Spill;
 - b. provide a detailed report on the Spill to the City and to ACRWC via email (discharge@acrwc.ab.ca) within five (5) working days after the Spill, detailing the following information:
 - i. location where Spill occurred;
 - ii. name and telephone number of the person who reported the Spill and the location and time where and when they can be contacted;
 - iii. date and time of Spill;
 - iv. material Spilled;
 - v. characteristics and composition of material Spilled;
 - vi. volume of material Spilled;
 - vii. duration of Spill event;

- viii. work completed and any work still in progress in the mitigation of the Spill;
 - ix. preventive actions being taken to ensure a similar Spill does not occur again; and
 - x. copies of applicable Spill prevention and Spill response plans;
- c. do everything reasonably possible to contain the Spill, protect the health and safety of citizens, minimize damage to property, protect the environment, clean up the Spill and contaminated residue and restore the affected area to its condition prior to the Spill;
- d. comply with any notification or reporting provisions of:
- i. other government agencies, including federal and provincial agencies, as required and appropriate for the material and circumstances of the Spill; and,
 - ii. any other Bylaw of the City;
- e. pay any City invoice to recover costs of time, materials and services arising as a result of the Spill;
- f. if required by the City, prepare and submit a Spill contingency plan to the City to indicate how risk of future incidents will be reduced and how future incidents will be addressed.

Other Requirements Continue to Apply

39. Compliance with and approvals granted under this Bylaw does not relieve the applicant or Person from the obligation to obtain approvals required under any other enactment and compliance with any other enactment, including but not limited to the *Safety Codes Act* RSA 2000 c.S-1.

Investigations

40. To ensure compliance with this Bylaw the City or any appointed agent of the City may:
- a. inspect, observe, Sample and measure the flow in any private Sewer system, Private Sewer Connection, Wastewater disposal system, and Flow Monitoring Point;
 - b. take Samples of Wastewater, storm water, clear-water waste and Subsurface Water being released from the premises or flowing within a private drainage system;

- c. perform on-site testing of the Wastewater, storm water, clear-water waste and Subsurface Water within or being released from private Sewer systems, Pre-Treatment facilities and storm water management facilities;
 - d. make inspections of the types and quantities of chemicals being handled or used on the premises in relation to possible release to the Wastewater System;
 - e. require information from any Person concerning a matter;
 - f. inspect chemical storage areas and Spill containment facilities and request Safety Data Sheets (SDS) for materials stored or used on site; and
 - g. inspect the premises where a release of prohibited or Restricted Wastes or of water containing prohibited or Restricted Wastes has been made or is suspected of having been made, and to Sample any or all Matter that could reasonably have been part of the release.
41. No Person shall hinder or prevent the City or its agent from carrying out its duties or exercising their powers.

Applicant Responsible for Costs

42. If an application for a Sanitary Sewer connection is approved, the applicant is responsible for all costs associated with connecting to the City's Sanitary Sewer System, which include the costs of any necessary and permitted works on City land or on the City's Sanitary Sewer System. Such costs may include the expense of rehabilitating existing service infrastructure and mainline connection points on City property to accommodate the connection.

Owner's Responsibilities

43. The Registered Owner of the land shall maintain the Building Drainage Systems and Sanitary Service Connection at the Registered Owner's expense.
44. The Registered Owner's obligations under Section 43 include but are not limited to:
- a. maintaining the Building Drainage Systems and Sanitary Service Connection in a state of good repair;
 - b. protecting the Building Drainage Systems and Sanitary Service Connection from freezing or damage of any other sort; and

- c. ensuring that the Sanitary Fixtures, Building Drainage Systems and Sanitary Service Connection do not leak.
45. Notwithstanding Sections 43 and 44 , if the City deems it necessary in its sole discretion, the City may construct, inspect, maintain or repair the Building Drainage Systems and Sanitary Service Connection. All costs associated with the referenced construction, inspection, maintenance or repair are amounts owing to the City by the Registered Owner.

City's Responsibility

46. The City is responsible for the City's Sanitary Sewer System to the point of connection with a Sanitary Service Connection at the Registered Owner's property line. The City is not responsible for any Sanitary Sewer fixtures, Building Drainage Systems or Sewer service connections or for the consequences of any failure of any connection to the City's Sanitary Sewer System.

Interrupting the Provision of Sanitary Sewer Services

47. The CAO may interrupt the provision of Sanitary Sewer services to any number of Customers and take any appropriate action: **(BL 5/2019)**
- a. for the purposes of constructing, maintaining or repairing the City's Sanitary Sewer System or other utility; or
 - b. as a result of any emergency.
 - c. Where Wastewater:
 - i. is hazardous or creates an immediate danger to any Person;
 - ii. endangers or interferes with the operation of the Wastewater System and/or the Wastewater treatment processes; or
 - iii. causes or is capable of causing an adverse effect if discharged into the Wastewater System.
48. If the CAO gives notice of an interruption of Sanitary Sewer services, it is unlawful to deposit anything, including Sewage into a sanitary fixture or Building Drainage Systems, in the area affected by the interruption. **(BL 5/2019)**

PART 4 - Supply of Sanitary Sewer Services
Application for Sanitary Sewer Services

49. A Person who applies for a supply of potable water from the City under this Bylaw is deemed to apply for Sanitary Sewer services from the City, except:
- a. if the property receives a supply of potable water from the City but does not have an approved connection to the City's Sanitary Sewer System; or
 - b. if the application for a supply of potable water is incomplete or otherwise refused in accordance with this Bylaw.
50. Subject to Section 49, the City shall approve an application for the supply of Sanitary Sewer services to a property if:
- a. the City has established an account for the applicant in accordance with this Bylaw;
 - b. the property has an approved connection to the City's Sanitary Sewer System;
 - c. the property is located in the City; and
 - d. the applicant is the Registered Owner of the property or presents the Registered Owner's written authority to apply.
51. The City is not required to approve an application for the supply of Sanitary Sewer services if:
- a. the supply of potable water to the applicant has been discontinued under this Bylaw and the applicant has not remedied the failure or problem leading to the discontinuance of the supply of potable water; or
 - b. the applicant is in breach of this Bylaw.
52. Upon approval of the application to supply Sanitary Sewer services, the City may use the account established under this Bylaw to track the Sewer charges owing by that Customer.

Cancellation of Sanitary Sewer Services by Customer

53. If, in accordance with this Bylaw, a Customer requests that the City disconnect the supply of potable water, that Customer is deemed to request that the City discontinue that Customer's Sanitary Sewer service.

54. A Customer is responsible for Sanitary Sewer service charges incurred to the date that the water supply is disconnected, plus any late payment charges as a result of the failure of the Customer to pay a Utility Bill issued after the service is discontinued.

General Obligations of the Customer

55. The Customer and the Registered Owner (if not the same) shall provide the City with access to the applicable property for the purpose of:
- a. inspecting the Sanitary Service Connection;
 - b. assessing whether the Sewage introduced into the City's Sanitary Sewer System is Over-strength, a prohibited substance or a restricted substance; and
 - c. maintaining the Building Drainage Systems and Sanitary Sewer connection.

Service Charges and Costs

56. Each Customer shall pay the monthly Sewer charge calculated in accordance with:
- a. Schedule "C"; and
 - b. Schedule "D", if Sewage from the parcel of land occupied by the Customer is found to be over-strength, that is, contains one or more constituents that exceed the prescribed levels.
57. A Customer and/or any responsible party shall be responsible for, in addition to any applicable Over-strength surcharges in Schedule D, costs related to obtaining Samples and testing for Over-strength Sewage. Such costs shall be considered a debt owing to the City.
58. A Utility Bill issued by the City may include the billing for Sewer service charges with the charges for other utilities supplied to the Customer:
- a. if a payment is made on the Utility Bill account, but that payment does not cover all components of that bill, the payment shall be apportioned *pro rata* among the various services noted on the Utility Bill;
 - b. a payment by a Customer shall be applied:
 - i. first to any outstanding charges, including late payment charges,
 - ii. then to Utility Bills in the order in which they were rendered, and

- iii. finally, to any current amount due.

Payment

- 59. The Customer shall pay in full, in a manner prescribed by the City, the Sewer charge within twenty-one (21) days of the date that the City specifies as the billing date on the Customer's Utility Bill.
- 60. If a Utility Bill is not paid in full twenty-one (21) days after the date shown as the billing date, a late payment charge as set out in Schedule "C" is added to the unpaid amount for that billing period.

Billing Errors

- 61. If, in accordance with this Bylaw, a Customer's Utility Bill for water services is adjusted due to a billing error, an appropriate adjustment shall be made to the Customer's Sewer charge.
- 62. If the City issues a Utility Bill that contains an error in calculating, applying, or failing to apply a Sewer charge (including but not limited to an Over-strength surcharge), the City may adjust the Utility Bill or issue a supplementary Utility Bill that corrects the error.
- 63. If a Customer objects, in the manner specified on the Utility Bill or supplementary Utility Bill, to the calculation or application of a Sewer charge (including but not limited to an Over-strength surcharge), the City shall consider the objection and may:
 - a. dismiss the objection, if no error has been made; or
 - b. adjust the Sewer charge, if an error has been made.
- 64. Adjustments made to Utility Bills shall be addressed such that:
 - a. the Customer shall pay the amount of any shortfall at the time of the next billing (or as otherwise specified by the City); or
 - b. the City shall deduct the amount of any overpayment from the next billing(s).

Application of Deposit

- 65. If a Customer has posted a deposit for any utility service, the City may:

- a. apply the deposit to any amount that is in arrears for Sewer charges or any other amount owing under this Bylaw; or
- b. apply it to the final account of the Customer on termination of the Sanitary Sewer service.

Enforcement of Amounts Owing

66. The City may enforce payment of any amount owing under this Bylaw by:
 - a. adding the amount owing to the tax roll as may be prescribed by law;
 - b. disconnecting the water supply to the Customer;
 - c. taking action in any court of competent jurisdiction; or
 - d. any combination of the above.

PART 5 - Enforcement

Offence

67. A Person who contravenes any provision of this Bylaw is guilty of an offence.

Continuing Offence

68. In the case of an offence that is of a continuing nature, a contravention of a provision of this Bylaw constitutes a separate offence with respect to each day, or part of a day, during which the contravention continues, and a Person guilty of such an offence is liable to a fine in an amount not less than that established by this Bylaw for each separate offence.

Fines and Penalties

69. A Person who is guilty of an offence under this Bylaw is liable:
 - a. to a fine in an amount of \$1,000 for a first offence under this Bylaw;
 - b. to a fine of \$2,500 for each subsequent offense beyond a first offence; or
 - c. on summary conviction, to a fine not exceeding \$10,000.00 or to an order of imprisonment for not more than 1 year, or both.

Municipal Violation Tag

70. A Peace Officer may issue, with respect to an offence under this Bylaw, a Municipal Violation Tag specifying the fine amount established by this Bylaw.
71. Where a Municipal Violation Tag is issued, the fine amount indicated thereon may be paid as directed in lieu of prosecution.

Violation Ticket

72. A Peace Officer may issue, with respect to an offence under this Bylaw, a Violation ticket:
 - a. specifying the fine amount established by this Bylaw; or
 - b. requiring an appearance in court without the option of making a voluntary payment.
73. Where a Violation Ticket specifies a fine amount, a voluntary payment equal to the specified fine amount may be made as directed.

PART 6 - Bylaw Coming Into Effect

74. This Bylaw shall take effect, and Bylaw 33/2001 shall be repealed, upon the signing and passing of this Bylaw.

SCHEDULE "A"

PROHIBITED WASTES

No Person shall discharge directly or indirectly or deposit or cause or permit the discharge or deposit of Wastewater into a Sanitary Sewer or Municipal Sewer Connection or Private Sewer Connection, to any Wastewater works in circumstances where:

(1) To do so may cause or result in:

- (a) A health or safety hazard to a Person authorized by the ACRWC or a Member Municipality to inspect, operate, maintain, repair or otherwise work on a Wastewater works;
- (b) An offence under any applicable federal or provincial legislation, as amended from time to time, or any regulation made thereunder from time to time;
- (c) Wastewater Sludge from the Wastewater Treatment Facility to which Wastewater discharges, either directly or indirectly, to fail to meet the objectives and criteria as listed in any applicable federal or provincial legislation, as amended from time to time;
- (d) Interference with the operation or maintenance of a Wastewater works, or which may impair or interfere with any Wastewater treatment process;
- (e) A hazard to any Person, animal, property or vegetation;
- (f) An offensive odour emanating from Wastewater works, and without limiting the generality of the foregoing, Wastewater containing hydrogen sulphide, carbon disulphide, other reduced sulphur compounds, amines or ammonia in such quantity as may cause an offensive odour;
- (g) Damage to Wastewater works;
- (h) An obstruction or restriction to the flow in Wastewater works.

(2) The Wastewater has two or more separate liquid layers.

(3) The Wastewater contains:

- (a) Hazardous substances;
- (b) Combustible Liquid;
- (c) Biomedical Waste, including but not limited to the following categories: human anatomical waste, animal waste, untreated microbiological waste, waste sharps and untreated human blood and body fluids known to contain viruses and agents listed in "Risk Group 4" as defined in "Laboratory Biosafety Guidelines" published by Health Canada, dated 2004, as amended.
- (d) Specified risk material for bovine spongiform encephalopathy as defined in the federal Fertilizers Regulations (C.R.C., c. 666), as amended from time

to time, including material from the skull, brain, trigeminal ganglia, eyes, tonsils, spinal cord and dorsal root ganglia of cattle aged 30 months or older, or material from the distal ileum of cattle of all ages.

- (e) Dyes or colouring materials which may or could pass through a Wastewater works and discolour the Wastewater works Effluent;
 - (f) Fuel;
 - (g) Ignitable Waste.
 - (h) Pathological Waste.
 - (i) PCBs. Pesticides which are not otherwise regulated in this Bylaw.
 - (j) Reactive waste.
 - (k) Toxic Substances which are not otherwise regulated in this Bylaw.
 - (l) Waste radioactive substances in excess of concentrations greater than those specified for release to the environment under the Nuclear Safety and Control Act and Regulations or amended versions thereof.
 - (m) Solid or viscous substances in quantities or of such size to be capable of causing obstruction to the flow in a Wastewater works, including but not limited to ashes, bones, cinders, sand, mud, soil, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, unground garbage, animal parts or tissues, and paunch manure.
- (4) The Wastewater contains a concentration, expressed in milligrams per litre, in excess of any one or more of the limits in Schedule 'B' of this Bylaw, unless:
- (a) The discharge is in accordance with a valid Wastewater Discharge Permit;
 - (b) The discharge is authorized in a Code of Practice approved by ACRWC; and
 - (c) All requirements of Section 6 of the Bylaw, Additional Requirements, have been fully satisfied.

SCHEDULE 'B'

RESTRICTED WASTES – SANITARY SEWER DISCHARGES

- (1) The following are restricted substances in a concentration in excess of the levels set out below:

Table A - CONVENTIONAL CONTAMINANTS

| Substance | Concentration Limit [mg/L, except as noted] |
|---|--|
| Biochemical Oxygen Demand | 10,000 |
| Chemical Oxygen Demand | 20,000 |
| Nitrogen, Total Kjeldahl | 500 |
| Oil and Grease, Total – Animal and Vegetable + Mineral and Synthetic/Petroleum Hydrocarbons | 500 |
| Phosphorus, total | 200 |
| Suspended Solids, Total | 5,000 |

Table B - ORGANIC CONTAMINANTS

| Substance | Concentration Limit [mg/L] |
|---|---------------------------------------|
| Benzene | 0.5 |
| Ethylbenzene | 0.5 |
| Oil and Grease – Mineral and Synthetic/Petroleum Hydrocarbons | 100 |
| Phenols, Total (or phenolic compounds) | 1.0 |
| Toluene | 0.5 |
| Xylene | 0.5 |

Table C - INORGANIC CONTAMINANTS

| Substance | Concentration Limit [mg/L] |
|---|---------------------------------------|
| Arsenic (As) | 1.0 |
| Cadmium (Cd) | 0.10 |
| Chlorine, Total (Cl ₂) | 5.0 |
| Chromium (Hexavalent) (Cr ⁺⁶) | 2.0 |
| Chromium, Total (Cr) | 4.0 |
| Cobalt (Co) | 5.0 |
| Copper (Cu) | 2.0 |
| Cyanide (CN) | 2.0 |
| Lead (Pb) | 1.0 |
| Mercury (Hg) | 0.10 |
| Molybdenum (Mo) | 5.0 |
| Nickel (Ni) | 4.0 |
| Selenium (Se) | 1.0 |
| Silver (Ag) | 5.0 |
| Sulphide (S ⁻) | 3.0 |
| Thallium (Tl) | 1.0 |
| Zinc (Zn) | 2.0 |

Table D - PHYSICAL PARAMETERS

| Parameter | Limit |
|--|-----------------------|
| Flashpoint | Not ≤60.5° C |
| Lower Explosive Limit (LEL) in headspace | 10% of the LEL |
| pH | 6.0 – 11.5 (unitless) |
| Temperature | 60° C |

- (2) Concentrations that do not exceed the constituent concentrations limits listed in Schedule 'B' are permitted for discharge, however may be subject to an Overstrength Surcharge outlined in Schedule 'D'.

SCHEDULE "C"

(Amended December 16, 2019)

(Rates effective January 1, 2020)

| Fees, Charges and Indemnities | 2020 |
|--|--|
| 1. Sewer Flat Rate Charge | \$11.47 per month |
| 2. Sewer Transmission Cost (a) Residential (calculated on basis of 80% of potable water supplied) | \$2.32 per cubic meter of water supplied |
| (b) Non Residential (calculated on basis of 100% of potable water supplied) | \$1.86 per cubic meter of water supplied |
| 3. Late Payment Charge | 2.5 % of the amount of the utility bill that is unpaid twenty-one (21) days after the billing date |
| 4. Wastewater Service Line Disruption Callouts (a) Deficiencies contained on City Property | \$0 |
| (b) Deficiencies contained on both City and Private Property | \$85 |
| (c) Deficiencies contained on Private Properties | \$170 |
| (d) Sewer / CCTV Mainline Cleaning – Per Hour | \$234 |
| 5. Supplemental Capital Contribution | \$3.20 |

BL 45/2019

SCHEDULE 'D'

(Amended December 16, 2019)
(Rates effective January 1, 2020)

OVERSTRENGTH CHARGES

1. The overstrength surcharge for each kilogram of surchargeable matter per cubic metre of wastewater that exceeds the concentration indicated for that matter as follows:

| Substance | Overstrength Charge Applies Above: | Charge |
|--------------------------------|--|--------------|
| (a) biochemical oxygen demand, | 300 mg/L | \$0.3254/kg |
| (b) chemical oxygen demand, | 600 mg/L or twice the B.O.D. concentration in the sewage, whichever is greater | \$0.3254/kg |
| (c) oil and grease, | 100 mg/L | \$0.2815/kg |
| (d) phosphorous, | 10 mg/L | \$13.5701/kg |
| (e) suspended solids, | 300 mg/L | \$0.2681/kg |
| (f) total kjeldahl nitrogen | 50 mg/L | \$2.0257/kg |

ADDITIONAL OVERSTRENGTH CHARGES

2. The additional overstrength surcharge for each kilogram of surchargeable matter per cubic metre of wastewater that exceeds the concentration indicated for that matter as follows:

| Substance | Overstrength Charge Applies Above: | Charge |
|--------------------------------|---|-------------|
| (a) biochemical oxygen demand, | 3000 mg/L | \$0.3254/kg |
| (b) chemical oxygen demand, | 6000 mg/L or twice the B.O.D. concentration in | \$0.3254/kg |

| | | | |
|-----|-------------------------|--|--------------|
| | | the sewage, whichever is greater | |
| (c) | oil and grease, | 400 mg/L | \$0.2815/kg |
| (d) | phosphorous, | 75 mg/L | \$13.5701/kg |
| (e) | suspended solids, | 3000 mg/L | \$0.2681/kg |
| (f) | total kjeldahl nitrogen | 200 mg/L | \$2.0257/kg |

BL 45/2019