

**BEING A BY-LAW OF THE BOARD OF DIRECTORS OF THE ALBERTA CAPITAL REGION
WASTEWATER COMMISSION GOVERNING THE QUALITY OF THE WASTEWATER ACCEPTED BY
THE COMMISSION**

WHEREAS THE ALBERTA CAPITAL REGION WASTEWATER COMMISSION (hereinafter be referred to as ACRWC) has been established by the Lieutenant Governor in Council under Alberta Regulation 129/85 made pursuant to Part 15.1 of the Municipal Government Act (Alta); RSA 2000, c. M-26 and

WHEREAS the Board of Directors of ACRWC has been duly appointed pursuant to s. 602.04(3)(b) of the said Act and the Board of Directors now wishes to make a By-Law pursuant to s. 602.07(3) of the said Act governing the quality of wastewater accepted by ACRWC;

NOW THEREFORE BE IT ENACTED as a By-Law of the Board of Directors of ACRWC as follows:

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INTRODUCTION

This Bylaw outlines controls for the discharge of pollutants to the sewer system. The objectives of the Bylaw are to:

- Protect the sewer system from corrosion, other damage and obstruction.
- Protect the wastewater treatment plant process from upset.
- Protect the public, ACRWC's and municipal workers and property from hazardous conditions (such as explosions).
- Assist optimum wastewater system efficiency by preventing uncontaminated water from entering the system
- Protect wastewater sludge and biosolids quality.
- Protect the environment from contaminants that are not removed by ACRWC's Wastewater Treatment Plant or EPCOR's Gold Bar Wastewater Treatment Plant.
- Assist ACRWC and its Member Municipalities in maintaining compliance with the operating conditions established by the province of Alberta

1. DEFINITIONS

ACCREDITED LABORATORY – 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.

ACRWC – Alberta Capital Region Wastewater Commission

ADDITIONAL OVERSTRENGTH SURCHARGE - The rate per kilogram per cubic meter of water consumed and charged to a user who releases wastewater to the wastewater works that exceeds one or more constituent concentrations set out in Column B of Schedule “C”.

BEST MANAGEMENT PRACTICES (BMP) — An integrated plan to control and reduce the release of restricted and prohibited waste into the wastewater works to a practicable extent, through methods including physical controls, pretreatment processes, operational procedures and staff training.

BIOCHEMICAL OXYGEN DEMAND (BOD) – The five-day BOD which is 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.

BIOMEDICAL WASTE – Biomedical waste as defined in the Province of Alberta's Waste Control regulation, as amended from time to time.

BLOWDOWN WATER – 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.

CHEMICAL OXYGEN DEMAND (COD) – A measure of the capacity of water to consume oxygen as a result of oxidation of inorganic chemicals and decomposition of organic matter.

CLEAR-WATER WASTE – Includes non-contact cooling water and other water that has not come into contact with wastewater contaminant sources.

CODE OF PRACTICE - a set of practices applicable to specific industrial, commercial or institutional sector operations; a code of practice identifies mandatory procedures, equipment, training or other provisions required as a condition of wastewater discharge into the wastewater works system by the specified sector discharger. A code of practice may be included in approved Best Management Practices.

COMBUSTIBLE LIQUID – A liquid that has a flash point not less than 37.8 degrees Celsius and not greater than 93.3 degrees Celsius.

COMPLIANCE PROGRAM – The necessary steps undertaken by a discharger to bring wastewater discharged into the wastewater works into compliance with the terms and conditions of this Bylaw or related permit. Compliance programs are applicable to existing dischargers only; new discharges must fully comply with the requirements of this bylaw.

COMPOSITE SAMPLE – A volume of wastewater, storm water, uncontaminated water, clear-water or effluent made up of four or more grab samples that have been combined automatically or manually and taken at intervals during a sampling period.

CONNECTION or DRAIN – That part or those parts of any pipe or system of pipes leading directly to a wastewater works.

COOLING WATER – 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.

DENTAL AMALGAM – A dental filling material consisting of an amalgam of mercury, silver and other materials such as copper, tin or zinc.

DENTAL AMALGAM SEPARATOR – Any technology, or combination of technologies, designed to separate dental amalgam particles from dental operation wastewater.

DESIGNATED SECTOR OPERATIONS – means industrial, commercial or institutional sectors required to adopt Codes of Practice approved by ACRWC.

DESIGNATED SEWER OFFICER – The person appointed by the Municipality, and his or her successors or his or her duly authorized representative. (Note the Designated Sewer Officer may hold the position of General Manager, City Manager, Inspector or other position suitable to the organization of the Municipality.)

DOMESTIC WASTEWATER – Sanitary waste produced on residential premises, or sanitary waste and wastewater from sanitary facilities produced on a non-residential property.

EFFLUENT – liquid flowing out of a facility or premises into a sewer.

FLASHPOINT – The temperature at which enough vapour collects on the surface of a liquid to become flammable. The lower the flashpoint, the more flammable the material is.

FLOW MONITORING POINT – An access place to the private sewer connection for the purpose of:

- A. Measuring the rate or volume of wastewater, storm water, clear water waste or subsurface water released from the premises; and
- B. Collecting representative samples of the wastewater, storm water, clear water waste or subsurface water released from the premises.

FUELS – Alcohol, gasoline, naphtha, diesel fuel, fuel oil or any other ignitable substance intended for use as a fuel.

GRAB SAMPLE – A volume of wastewater, storm water, uncontaminated water or effluent which is collected over a period not exceeding 15 minutes.

GROUND WATER – Water beneath the earth's surface accumulating as a result of seepage.

HAULED WASTE – Any industrial waste which is transported to and deposited into any location in the wastewater works, excluding hauled wastewater.

HAULED WASTEWATER – Waste removed from a 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.

HAZARDOUS SUBSTANCES:

- A. Any substance or mixture of substances, other than a pesticide, that exhibits characteristics of flammability, corrosivity, reactivity or toxicity; and
- B. Any substance that is designated as a hazardous substance within the meaning of the Province of Alberta's Waste Control Regulation 192/1996 as amended from time to time.

HAZARDOUS WASTE – Any Hazardous Substance disposed of as waste.

IGNITABLE WASTE – A substance that:

- A. Is 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;
- B. Is 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;
- C. Is an ignitable compressed gas as defined under federal or provincial regulation as appropriate for the Member Municipality, as amended; or
- D. Is an oxidizing substance as defined under federal or provincial regulation as appropriate for the Member Municipality, as amended.

INDUSTRIAL – Of or pertaining to manufacturing, commerce, trade, business or institutions as distinguished from domestic or residential.

INDUSTRY – Any owner or operator of industrial, commercial or institutional premises from which there is a discharge of any matter directly or indirectly into a sanitary sewer, combined sewer or storm sewer of a Member Municipality, the City of Edmonton, or ACRWC.

INSPECTOR – A person authorized by ACRWC and/or Member Municipality to carry out observations and inspections and take samples as prescribed by this bylaw.

INSTITUTION – A facility, usually owned by a government, operated for public purposes, such as schools, universities, medical facilities (hospitals, nursing stations, nursing homes), museums, prisons, government offices, military bases. Some of these facilities produce non-residential discharges to sewers from, for example, laboratories, chemical use, or industrial processes.

LOWER EXPLOSIVE LIMIT (LEL) – The concentration of a gas or vapour in the air. Below the LEL, there is not enough vapour in the air to fuel a fire.

MATTER – Includes any solid, liquid or gas.

MEMBER MUNICIPALITIES - Those municipalities who are members of ACRWC.

MONITORING ACCESS POINT – 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.

MUNICIPAL SEWER CONNECTION – 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.

MULTIPLE MUNICIPAL SEWER CONNECTION – A municipal sewer connection providing service to two or more premises.

NON-CONTACT COOLING WATER – Water which is used to reduce temperature for the purpose of cooling and which does not come into direct contact with any raw material, intermediate or finished product other than heat.

NON-DOMESTIC WASTEWATER – All Wastewater except Domestic Wastewater, Uncontaminated Water, and Septic Tank Waste.

OIL AND GREASE – *n*-Hexane extractable matter as described in Standard Methods.

OIL – WATER SEPARATOR - 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.

OVERSTRENGTH – Wastewater released to a sewer that is higher in concentration for one or more constituent concentrations set out in Column A of Schedule "C" of this Bylaw.

OVERSTRENGTH SURCHARGE - The rate per kilogram per cubic meter of water consumed and charged to a user who releases wastewater to the sewer that exceeds one or more constituent concentrations set out in Column A of Schedule 'C'.

PATHOLOGICAL WASTE – Pathological waste within the meaning of the Canadian Human Pathogens and Toxins Act, as amended.

PCBs – Any monochlorinated or polychlorinated biphenyl or any mixture of them or mixture that contains one or more of them.

PERSON — An individual, association, partnership, corporation, municipality or an agent or employee of such a person.

PESTICIDE – A pesticide regulated under the Canadian Pests Control Products Act and the Province of Alberta's Pesticide (Ministerial) Regulation and Pesticide Sales, Handling, Use and Application Regulation, all as amended.

PRETREATMENT – The reduction, elimination or alteration of matter in wastewater prior to discharge into the wastewater works . This reduction or alteration can be obtained by physical, chemical, or biological processes, through pollution prevention, or by other means, except by diluting the concentration of the pollutants.

PRETREATMENT PROCESSES – 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. Pretreatment processes prevent or reduce and control the discharge or deposit of matter from the discharger’s premises into the municipal sewer connection.

PRIVATE SEWER CONNECTION/PRIVATE DRAINAGE SYSTEM – 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 property owner’s responsibility.

PROHIBITED WASTE – means prohibited waste as defined in Schedule ‘A’ of this Bylaw.

REACTIVE WASTE – A substance that:

- A. Is normally unstable and readily undergoes violent changes without detonating;
- B. Reacts violently with water;
- C. Forms potentially explosive mixtures with water;
- D. When mixed with water, generates toxic gases, vapours or fumes in a quantity sufficient to present danger to human health or the environment;
- E. 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;
- F. Is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement;
- G. Is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure; or
- H. Is an explosive as defined in the regulations under the Canadian Explosives Act, as amended.

RESTRICTED WASTE – means restricted waste as defined in Schedule ‘B’ of this Bylaw.

SAMPLING PORT – 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.

SANITARY SEWER – A sewer for the collection and transmission of domestic or industrial wastewater or any combination thereof.

SEPTIC TANK WASTE – any Waste extracted from a cesspool, septic tank, sewage holding tank, seepage pit, interceptor or other containment for human excretion and wastes.

SEWER – A pipe, conduit, drain, open channel or ditch for the collection and transmission of wastewater, storm water or uncontaminated water, or any combination thereof.

SPILL – A direct or indirect discharge into the wastewater works, storm sewer or the natural environment which is abnormal in quantity or quality in light of all the circumstances of the discharge.

STORM SEWER – A sewer for the collection and transmission of uncontaminated water, storm water, drainage from land or from a watercourse or any combination.

STORM WATER – The water running off the surface of a drainage area during and immediately after a period of rain or snow melt.

SUBSURFACE DRAINAGE PIPE – A pipe that is installed underground to intercept and convey subsurface water, and includes foundation drain pipes.

SUBSURFACE WATER – Groundwater including foundation drain water.

STANDARD METHODS – A procedure or method 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, recent or latest edition or approved in writing by ACRWC.

TOTAL SUSPENDED SOLIDS (TSS) – Insoluble matter in liquid that is removable by filtration, as determined by the appropriate procedure described in Standard Methods.

TOXIC SUBSTANCE – any substance defined as toxic under the *Canadian Environmental Protection Act 1999*, as amended from time to time and within the meaning of Alberta's Waste Control Regulation, as amended from time to time.

UNCONTAMINATED WATER – Water with a level of quality which is typical of potable water normally supplied by a Member Municipality.

WASTE DISPOSAL SITE LEACHATE – The liquid containing dissolved or suspended contaminants which emanates from waste (solid waste or garbage) and is produced by water percolating through waste or by liquid in waste.

WASTE RADIOACTIVE SUBSTANCES – Substances defined in the federal *Nuclear Safety and Control Act* and the regulations passed thereunder, as amended.

WASTEWATER – means the composite of water and water-carried wastes from residential, commercial, industrial or institutional premises or any other source.

WASTEWATER SLUDGE – Solid material recovered from the wastewater treatment process.

WASTEWATER TREATMENT FACILITY – 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.

WASTEWATER DISCHARGE PERMIT - A permit issued by ACRWC which will govern the discharge of non-domestic waste and hauled wastewater into a sewer.

WASTEWATER WORKS – Any works for the collection, transmission, treatment and disposal of wastewater, or any part of such works, but does not include plumbing or other works to which the applicable Building Code applies. Wastewater works, sanitary sewer and sewer in this Bylaw refer to the Works owned by ACRWC, those owned by the Member Municipalities, and those owned by the City of Edmonton which direct wastewater to ACRWC facilities pursuant to the Regional Exchange Agreement entered in 2008.

WATERCOURSE – An open channel, ditch or depression, either natural or artificial, in which flow of water occurs either continuously or intermittently.

2. SANITARY SEWER REQUIREMENTS

- (1) No person shall release, or permit the release of, any matter into the sanitary sewer or wastewater works except:
 - (a) Domestic wastewater;
 - (b) Non-domestic wastewater that complies with the requirements of this Bylaw;
 - (c) Hauled wastewater, including septage, that complies with the requirements of this Bylaw, or where a Wastewater Discharge Permit has been issued by ACRWC;
 - (d) Storm water, Clear-water waste, Subsurface water or other matter where a Wastewater Discharge Permit has been issued by ACRWC.
- (2) No person shall release, or permit the release of, any prohibited substance listed in Schedule 'A' of this Bylaw into the wastewater works.
- (3) No person shall release, or permit the release of, any restricted substance which exceeds the respective concentrations listed in Schedule 'B' of this Bylaw into the wastewater works without a valid Wastewater Discharge Permit.
- (4) When required by ACRWC, non-domestic and hauled wastewater dischargers shall complete and submit an **“Abbreviated Wastewater Discharge Application”** (available on ACRWC website: www.acrwc.ab.ca) to ACRWC.
- (5) When required by ACRWC, non-domestic and hauled wastewater dischargers shall complete and submit a **“Detailed Wastewater Discharge Application”** (available on ACRWC website: www.acrwc.ab.ca) to ACRWC.
- (6) When required by ACRWC, non-domestic and hauled wastewater dischargers shall not discharge to the wastewater works system until the discharger has obtained a **“Wastewater Discharge Permit”** from ACRWC.
- (7) ACRWC may issue, and amend, a Wastewater Discharge Permit to allow the discharge of non-domestic waste and hauled wastewater into a sewer upon such terms and conditions as ACRWC considers appropriate and, without limiting the generality of the foregoing, may in the Wastewater Discharge Permit:
 - (a) Place limits and restrictions on the quantity, composition, frequency and nature of the wastewater permitted to be discharged; and

- (b) Require the holder of a Wastewater Discharge Permit to repair, alter, remove, add to, or construct new pretreatment facilities; and
 - (c) Provide that the Wastewater Discharge Permit will expire on a specified date, or upon the occurrence of a specified event.
- (8) ACRWC may issue a **Discharge Abatement Order** to a Member Municipality requiring the Member Municipality to:
- (a) Require and direct a person within the boundary of that Member Municipality to alter the quantity, composition, duration and timing of the discharge or cease discharge of non-domestic waste or hauled wastewater to a sewer or wastewater facility;
 - (b) Comply with any terms or conditions that could be included in a Wastewater Discharge Permit; and
 - (c) Shut down all non-compliant releases.
- ACRWC may amend or cancel a Discharge Abatement Order.

3. PROHIBITION OF DILUTION

- (1) 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 'A' or Schedule 'B' of this Bylaw.

4. SAMPLING

- (1) 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.
- (2) For the purpose of determining compliance with Schedules 'A' or 'B', discrete wastewater streams within premises may be sampled, at the discretion of ACRWC.
- (3) Any single grab sample may be used to determine compliance with Schedules 'A' and 'B'.
- (4) All tests, measurements, analyses and examinations of wastewater, its characteristics or contents pursuant to this Bylaw shall be carried out in accordance with "Standard Methods" 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 ACRWC as agreed in writing prior to sample analysis.

5. SELF MONITORING BY DISCHARGER

- (1) The discharger shall complete any monitoring or sampling of any discharge to a wastewater works as required by ACRWC, and provide the results to ACRWC in the form specified by ACRWC.
- (2) The obligations set out in or arising out of 5(1) shall be completed at the expense of the discharger.

6. ADDITIONAL REQUIREMENTS

6.1 FOOD-RELATED GREASE INTERCEPTORS

- (1) Every 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. Oil & Grease interceptors shall not discharge to storm sewers.
- (2) The owner or operator of the premises referred to in subsection 6.1(1) shall install, operate, and properly maintain an oil and grease interceptor in any piping system at its premises that connects directly or indirectly to a sewer. The oil and grease interceptors shall be installed in compliance with the most current requirements of the applicable Building Code and the National Plumbing Code of Canada, as amended.
- (3) All oil and grease interceptors shall be maintained in good working order according to the manufacturer's recommendations. The testing, maintenance and performance of the interceptor shall meet the requirements of CAN/CSA B-481. Traps should be cleaned before the thickness of the organic material and solids residuals is greater than twenty-five percent of the available volume; cleaning frequency should not be less than every four weeks. Maintenance requirements should be available at the workplace where the grease interceptor is installed. Maintenance and clean out shall be documented at the time it is performed.
- (4) A maintenance schedule and record of maintenance carried out shall be submitted to ACRWC upon request for each interceptor installed.
- (5) The owner or operator of the restaurant or other industrial, commercial or institutional premises where food is cooked, processed or prepared, shall, for two years, keep the records which document the maintenance and clean outs performed for interceptor clean-out and oil and grease disposal.

6.2 VEHICLE AND EQUIPMENT SERVICE OIL AND GREASE INTERCEPTORS

- (1) Every owner or operator of a vehicle or equipment service station, repair shop or garage or of an industrial, commercial or institutional premises or any other establishment where motor vehicles are repaired, lubricated 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. Oil and Grease interceptors shall not discharge to storm sewers.
- (2) The owner or operator of the premises referred to in Subsection 6.2(1) shall install, operate, and properly maintain an oil and grease interceptor in any piping system at its premises that connects directly or indirectly to a sewer. The oil and grease interceptors shall be installed in compliance with the most current requirements of the applicable

Building Code and be maintained as recommended by the Canadian Fuels Association (formerly the Canadian Petroleum Products Institute).

- (3) All oil and grease interceptors and separators shall be maintained in good working order and according to the manufacturer's recommendations and shall be inspected regularly to ensure performance is maintained to the manufacturer's specifications for performance and to ensure the surface oil and sediment levels do not exceed the recommended level. In the absence of manufacturer's recommendations, 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.
- (4) A maintenance schedule and record of maintenance shall be submitted to ACRWC upon request for each oil and grease interceptor installed.
- (5) The owner or operator of the premises as set out in Subsection 6.2(1), shall, for two years, keep the records which document the maintenance and clean outs performed for interceptor clean-out and oil and grease disposal.

6.3 SEDIMENT INTERCEPTORS

- (1) Every owner or operator of the premises from which sediment may directly or indirectly enter a sewer, including but not limited to premises using a ramp drain or area drain and vehicle wash establishments, shall take all necessary measures to ensure that such sediment is prevented from entering the drain or sewer in excess of the limits in this Bylaw.
- (2) All sediment interceptors shall be maintained in good working order according to manufacturer's recommendations and shall be inspected regularly to ensure performance is maintained to the manufacturer's specifications for performance. In the absence of manufacturer's recommendations, 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.
- (3) The owner or operator of a premises as referred to in Subsection 6.3(1), shall, for 2 years, keep the records which document interceptor clean-out and sediment disposal.
- (4) A maintenance schedule and record of maintenance shall be submitted to ACRWC upon request for each sediment interceptor installed.

6.4 DENTAL WASTE AMALGAM SEPARATOR

- (1) Every owner or operator of the premises from which dental amalgam may be discharged, which waste may directly or indirectly enter a sewer, shall install, operate and properly maintain 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, except where the sole dental-

related practice at the premises consists of one or more of the following specialties or type of practice:

- (a) Orthodontics and dentofacial orthopaedics;
 - (b) Oral and maxillofacial surgery;
 - (c) Oral medicine and pathology;
 - (d) Periodontics; or
 - (e) A dental practice consisting solely of visits by a mobile dental practitioner who prevents any dental amalgam from being released directly or indirectly to the wastewater works.
- (2) Notwithstanding compliance with Subsection 6.4 (1), all persons operating or carrying on the business of a dental practice shall comply with Schedules 'A' and 'B' of this Bylaw.
 - (3) All dental waste amalgam separators shall be maintained in good working order and according to the manufacturer's recommendations.
 - (4) A maintenance schedule and record of maintenance shall be submitted to the ACRWC upon request for each dental amalgam separator installed.

6.5 FOOD WASTE GRINDERS

- (1) In the case of industrial, commercial or institutional premises where food waste grinding devices are installed in accordance with the Building Code, the effluent from such food waste grinding devices must comply with Schedule 'A' and Schedule 'B'.

6.6 PRETREATMENT FACILITIES

- (1) When not adhering to the requirements and prohibitions to the bylaw or where required by ACRWC, the owner or operator shall install on the premises, and prior to the sampling point, a wastewater pretreatment facility.
- (2) The owner or operator shall ensure the design, operation and maintenance of the pretreatment facility achieves the treatment objectives and operates and is maintained in accordance with the manufacturer's recommendations.
- (3) The owner or operator shall not deposit the waste products from the pretreatment facility in a wastewater works and shall ensure any waste products from the pretreatment facility are disposed of in a safe manner.
- (4) The maintenance records and waste disposal records shall be submitted to ACRWC upon request.
- (5) The owner or operator shall keep documentation pertaining to the pretreatment facility and waste disposal for two years.

7. HAULED WASTEWATER/WASTE

- (1) No person shall discharge hauled wastewater/waste to the wastewater works unless:

- (a) The carrier of the hauled wastewater/waste, operating as a waste management system is certified according to all applicable federal and provincial legislation, as amended from time to time;
 - (b) The carrier meets all conditions for discharge that are or may be set from time to time with respect to the discharge of hauled wastewater/waste by ACRWC; and
 - (c) Hauled wastewater/waste meets the conditions set out in all applicable federal and provincial environment protection regulations, as amended from time to time.
- (2) No person shall discharge or permit the discharge of hauled wastewater/waste to the wastewater works:
- (a) At a location other than a hauled wastewater/waste discharge location approved by ACRWC;
 - (b) Without a manifest, in a form approved by the Member Municipality of ACRWC in which the hauled wastewater/waste is being discharged, completed and signed by the carrier and deposited in an approved location at the time of discharge; and
 - (c) Without the use of a discharge hose placed securely in the discharge port at the approved location.

8. NON-CONTACT COOLING WATER

- (1) The discharge of non-contact cooling water or uncontaminated water to a sanitary sewer or from any residential property is prohibited unless the discharge is in accordance with a Wastewater Discharge Permit.

9. WATER ORIGINATING FROM A SOURCE OTHER THAN THE MUNICIPAL WATER SUPPLY

- (1) The discharge of water originating from a source other than the Municipality's water supply, including storm water or groundwater, directly or indirectly to a sanitary sewer is prohibited, unless:
- (a) The discharge is in accordance with a Wastewater Discharge Permit.

10. SPILLS

(1) 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) If there is any immediate danger to human health and/or safety
 - a. 9-1-1 emergency
 - b. The applicable Member Municipality's Utility Department's emergency number. (The member shall then notify ACRWC's Wastewater Treatment Plant's Control Room at 780 416 9967)

or

- (ii) If there is no immediate danger:

- a. The applicable Member Municipality's Utility Department's emergency number. (The member shall then notify ACRWC's Wastewater Treatment Plant's Control Room at 780 416 9967), and
 - b. the owner of the premises where the spill release occurred, and
 - c. any other person whom the person reporting knows or ought to know may be directly affected by the spill release.
- (b) Provide a detailed report on the spill to the applicable Member Municipality's Utility Department and to ACRWC via email: discharge@acrwc.ab.ca, within five working days after the spill, containing the following information to the best of his or her knowledge:
 - (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) The person responsible for the spill and the person having the charge, management and control of the spill shall 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) Nothing in this Bylaw relieves any persons from complying 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; or,
 - (ii) Any other Bylaw of the Member Municipality.
- (e) The Member Municipality may invoice the person responsible for the spill to recover costs of time, materials and services arising as a result of the spill. The person responsible for the spill shall pay the costs invoiced.
- (f) ACRWC may require the person responsible for the spill to prepare and submit a spill contingency plan to ACRWC to indicate how risk of future incidents will be reduced and how future incidents will be addressed.

11. AUTHORITY OF ACRWC AND/OR MEMBER MUNICIPALITY TO INVESTIGATE

- (1) ACRWC, together with, or when designated by, its Member Municipality, has the authority to carry out any inspection reasonably required to ensure compliance with this bylaw, including but not limited to:
 - (a) Inspecting, observing, sampling and measuring the flow in any private
 - (i) sewer,
 - (ii) wastewater disposal system, and
 - (iii) 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 drainage systems, pretreatment facilities and storm water management facilities;
 - (d) Collect and analyze samples of hauled wastewater coming to a discharge location into the wastewater works;
 - (e) Make inspections of the types and quantities of chemicals being handled or used on the premises in relation to possible release to the wastewater works;
 - (f) Require information from any person concerning a matter;
 - (g) Inspect and copy documents or remove documents from premises to make copies;
 - (h) Inspect chemical storage areas and spill containment facilities and request Safety Data Sheets (SDS) for materials stored or used on site;
 - (i) 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.
- (2) No person shall hinder or prevent ACWRC and/or the Member Municipality from carrying out any of their powers or duties.

12. AUTHORITY OF GENERAL MANAGER

- (1) Notwithstanding the requirements of this Bylaw, the General Manager of ACRWC may prohibit or set discharge concentrations and/or limit the loading rate for any other material or substance not included in the Bylaw schedules where required to protect wastewater works or processes, meet effluent standards or other legislated requirements, or control biosolids quality.

13. DISCONNECTION OF SEWER

- (1) Where wastewater which:
 - (a) Is hazardous or creates an immediate danger to any person;
 - (b) Endangers or interferes with the operation of the wastewater works and/or the wastewater treatment processes; or

(c) Causes or is capable of causing an adverse effect;

is discharged to the wastewater works, the ACRWC may require the Member Municipality, in addition to any other remedy available, to disconnect, plug or seal off the sewer discharging the unacceptable wastewater into the wastewater works or take such other action as is necessary to prevent such wastewater from entering the wastewater works.

- (2) The member municipality may be required to prevent the wastewater from being discharged into the wastewater works until evidence satisfactory to ACRWC has been provided confirming that no further discharge of hazardous wastewater will be made to the wastewater works.
- (3) Where ACRWC takes action pursuant to subsection 13(1), the Member Municipality may by notice in writing advise the owner or occupier of the premises from which the wastewater was being discharged, of the cost of taking such action and the owner or occupier, as the case may be, shall forthwith reimburse the Member Municipality for all such costs which were incurred.

14. ACCESS TO INFORMATION

- (1) All information submitted to and collected by ACRWC that is contained in plan summaries, reports, surveys, monitoring and inspection and sampling activities will, except as otherwise provided in this section, be available for disclosure to the public in accordance with the Freedom of Information and Protection of Privacy Act.
- (2) In the event that any person in submitting information to the ACRWC, as required under this article, where such information is confidential or proprietary or otherwise, may be exempt from disclosure under the Freedom of Information and Protection of Privacy Act, the person submitting the information shall so identify that information upon its submission to ACRWC and where such information is exempt from disclosure, ACRWC shall comply with the requirements of the *Freedom of Information and Protection of Privacy Act*.

15. MONITORING ACCESS POINTS

- (1) The 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, provided that, where installation of a monitoring access point is not possible, an alternative device or facility may be substituted with the prior written approval of ACRWC:
 - (a) when the sewer connection is new;
 - (b) when the premises is redeveloped; and
 - (c) when required to do so by ACRWC and the Member Municipality.
- (2) The monitoring access point or alternative device or facility, such as a sampling port, shall be located on the industrial, commercial or institutional premises, as close to the property line as possible, unless ACRWC and the applicable member municipality have given prior written approval for a different location.

- (3) Each monitoring access point, alternative device or facility installed shall be designed and constructed in accordance with good engineering practice and the requirements of ACRWC and the Member Municipality, and shall be constructed and maintained by the owner or operator of the premises at his or her expense.
- (4) The owner or operator of an industrial, commercial or institutional premises shall at all times ensure that every monitoring access point, alternative device or facility installed as required by this bylaw is accessible to ACRWC and the Member Municipality for the purposes of observing, sampling and flow measurement of the wastewater, uncontaminated water or storm water therein.

16. OVERSTRENGTH SURCHARGE

- (1) ACRWC may assess Overstrength and Additional Overstrength Surcharges for wastewater discharges that exceed the limits of treatable parameters set out in Schedule 'C'.
- (2) Overstrength and Additional Overstrength Surcharges are assessed to the Member Municipality where the Wastewater discharge originates.
- (3) Testing of the wastewater being discharged into the sanitary sewer to determine Overstrength Surcharges shall be conducted by ACRWC and/or the Member Municipality, or by the discharger to the satisfaction of ACRWC that a representative sample is obtained, using automated sampling devices or in accordance with the following manual sampling protocol:
 - (a) Samples from the wastewater produced at a location will be collected each day for a minimum of two days;
 - (b) A minimum of four grab samples of equal volume shall be taken each day, such samples to be taken at least one hour apart;
 - (c) The analysis shall be conducted on a composite sample made of each day's grab samples;
 - (d) The respective results of these tests for each of the days on which samples are taken, shall be averaged to determine the characteristics and concentration of the effluent being discharged into the wastewater system.
- (4) The Overstrength and Additional Overstrength Surcharge Rates will be reviewed and adjusted accordingly from time to time as determined by ACRWC.

17. COMPLIANCE PROGRAMS

- (1) ACRWC may require an industry to apply for, and then issue, a Wastewater Discharge Permit to discharge wastewater to the Wastewater Works that does not comply with Schedule 'A' and/or 'B' of this bylaw. The Industry shall be entitled to make non-complying discharges in the amount and only to the extent set out in the permit.
- (2) As a term set out in the Wastewater Discharge Permit, ACRWC may require an industry to submit a Compliance Program setting out activities to be undertaken by the industry that would result in the prevention or reduction and control of the discharge or deposit of matter and/or uncontaminated water, ground water or storm water from the industry's

premises into municipal sewer connections or private sewer connections to any sanitary sewer. This may include, but is not limited to planning, design and construction or installation of facilities or works needed to implement the approved Compliance Program.

- (3) Each Compliance Program shall include the following :
 - (a) A description of the processes at the premises which produce discharges that do not comply with the requirements of this Bylaw.
 - (b) A description of those processes at the premises which are to be the subject of the Compliance Program.
 - (c) A list of non-complying pollutants present at the premises at any stage of the operations at the premises.
 - (d) A description setting out the types, quantities and concentrations of all non-complying pollutants discharged, directly or indirectly, to a sewer.
 - (e) A description of current wastewater reduction, recycling, wastewater treatment and compliance activities at the premises with respect to discharges to a sewer from the premises.
 - (f) A description of compliance options for non-complying pollutants and wastewater discharge and an evaluation of those options.
 - (g) A list of possible targets and timeframes (in compliance with any Wastewater Discharge Permit that may have been issued to the discharger) to reduce or eliminate the discharge of non-complying matter to the wastewater works.
 - (h) A declaration from an authorized person that the content of the Compliance Program is,
to the best of that person's knowledge, true, accurate and complete.
- (4) Every proposed Compliance Program shall be for a specified length of time during which pretreatment facilities or other measures are to be installed or implemented and shall be specific as to the remedial actions to be implemented by the industry, the dates of commencement and completion of the activity and the materials or other characteristics of the matter to which it relates. The final activity completion date shall not be later than the final compliance date in the Compliance Program.
- (5) Industries which are required to submit a Compliance Program shall also submit a Compliance Program progress report to ACRWC within 14 days after the scheduled completion date of each activity listed in the Compliance Program.
- (6) ACRWC may terminate any proposed Wastewater Discharge Permit related to a Compliance Program by written notice at any time to the Industry in the event that the Industry fails or neglects to carry out or diligently pursue the activities required of it under its Compliance Program.
- (7) In the event that an Industry submitting a Compliance Program is not sent written notice from ACRWC that its Compliance Program is not approved by ACRWC within 90 days of the Industry delivering a copy of the Compliance Program to ACRWC, the Compliance Program shall be deemed to have been approved by ACRWC.
- (8) Where an Industry receives notice from ACRWC that its Compliance Program has not been approved, ACRWC shall provide the Industry with a date by which it must submit an amended Compliance Program to ACRWC for approval in accordance with this article.

- (9) In the event that a Compliance Program resubmitted to ACRWC in accordance with Subsection 17 (8) of this section does not comply with the requirements of this bylaw, ACRWC shall so notify the Industry, within 30 days of delivery to ACRWC of the amended Compliance Program, and the Industry shall be in contravention of Subsection 17 (1) and shall continue to be in contravention of this section until such time as ACRWC approves an amended Compliance Program resubmitted by the Industry, in accordance with this section.
- (10) When required by ACRWC, an Industry which has received approval from ACRWC for its Compliance Program shall submit a revised and updated Compliance Program for the approval of ACRWC within the timeframe specified by ACRWC. Such revised and updated Compliance Program shall, in addition to the requirements otherwise set out in this section, detail and evaluate the progress of the Industry to accomplish the objectives set out in its Compliance Program.
- (11) A copy of the Compliance Program shall be kept at all times at the premises in respect to which it was prepared and shall be available for inspection by ACRWC and/or the Member Municipality at any time.

18. BEST MANAGEMENT PRACTICES & CODES OF PRACTICE


- (1) The General Manager is authorized to approve the adoption of Best Management Practices which include Codes of Practice. The provisions of this bylaw requiring compliance with Best Management Practices, including Codes of Practice apply to all Best Management Practices approved by the General Manager.
- (2) ACRWC has adopted one or more Best Management Practices which include Codes of Practice which applies to the Designated Sector Operations, as outlined in ACRWC's Code of Practice Registration Form for Designated Sector Operations, available on ACRWC's website at www.acrwc.ab.ca.
- (3) A code of practice does not apply to a discharging operation that is subject to a Wastewater Discharge Permit, unless otherwise specified in the Wastewater Discharge Permit.
- (4) A code of practice does not apply to the discharge of domestic wastewater.
- (5) Nothing in a code of practice relieves a person discharging wastewater from complying with this bylaw, a Wastewater Discharge Permit or any other applicable enactment.
- (6) ACRWC may require a discharging operation to obtain a Wastewater Discharge Permit if considered necessary by ACRWC due to circumstances not covered by a code of practice.
- (7) As a condition of discharge of wastewater into a sewer connected to a Wastewater Works, an operator of a discharging operation listed within ACRWC's Code of Practice Registration Form for Designated Sector Operations must submit to ACRWC a completed Code of Practice registration form:
 - (a) Within 90 days of the date of adoption of the applicable code of practice in the case of a discharging operation in existence on the adoption date; or
 - (b) In all other cases, within 30 days of the discharging operation commencing the discharge of wastewater into a sewer connected to a Wastewater Works.

- (8) An operator must report to ACRWC any change in the ownership, name, location, contact person, telephone number, or email address of a discharging operation registered under a code of practice within 30 days of the change by submitting a completed code of practice registration form referred to in Section 18.2 showing the changes.
- (9) An operator must within 30 days of any change in the discharging operation registered under a code of practice resulting in the operation no longer meeting the definition applicable to that type of discharging operation report the change by submitting a completed code of practice registration form referred to in Section 18.2 describing the changes.
- (10) If a code of practice establishes a requirement in relation to a specific discharging operation which differs from a provision in this bylaw, the requirement in the code of practice prevails.

19. MEMBER MUNICIPALITY OBLIGATIONS

- (1) The Wastewater to be treated by ACRWC is delivered to ACRWC's Wastewater Works by the Member Municipalities.
- (2) The Member Municipalities will reflect the requirements and prohibitions of this ACRWC Bylaw in the Member Municipality's utility or wastewater bylaws.
- (3) Each Member Municipality shall take action to enforce their utility and wastewater bylaws should a person in that Member Municipality breach the municipal bylaw, resulting in a breach or contravention of the ACRWC's Bylaw.
- (4) Each Member Municipality shall include an "Offences" section (or similar) detailing penalties for contraventions of their bylaw such as violation notices to comply, violation tickets, fines, discharge abatement orders and court order.
- (5) If a Member Municipality fails to take reasonable steps to enforce that municipality's utility and wastewater bylaws such that a breach or contravention of the ACRWC's Bylaw #8 occurs, the Member Municipality shall pay to ACRWC any increased fees or pre-estimate of damages as approved by the Board of ACRWC.

ENACTED at a meeting of the Board of Directors of THE ALBERTA CAPITAL REGION
WASTEWATER COMMISSION at a meeting duly held on the 18th day of March AD, 2016.


CHAIRMAN


GENERAL MANAGER

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 Group4" 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.
- (j) Pesticides which are not otherwise regulated in this Bylaw.
- (k) Reactive waste.
- (l) Toxic substances which are not otherwise regulated in this Bylaw.
- (m) 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.
- (n) 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, shaving, 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)

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 'C'.

SCHEDULE 'C' WASTEWATER OVERSTRENGTH LIMITS

	Column A	Column B
Substance	Overstrength Surcharge Concentration Limits, mg/L	Additional Overstrength Concentration Limits, mg/L
Biochemical Oxygen Demand (BOD)	300	3000
Chemical Oxygen Demand (COD)	600	6000
Nitrogen, Total Kjeldahl (TKN)	50	200
Oil and Grease, Total (O&G) – Animal and Vegetable + Mineral and Synthetic/Petroleum Hydrocarbons	100	400
Phosphorus, Total (TP)	10	75
Suspended Solids, Total (TSS)	300	3000