The Corporation of the Municipality of Brockton

Brockton
Come home to community

By-Law 2020-128

Being a By-Law to Amend the Municipality of Brockton's Agreement with Veolia Water Canada Inc.

Whereas the *Municipal Act, 2001, S.O. 2001, c. 25*, Section 5(1), as amended, provides that the powers of a municipal corporation are to be exercised by its council;

And Whereas the *Municipal Act, 2001, S.O. 2001, c. 25,* Sections 8, 9 and 11 as amended, authorizes Municipalities to pass by-laws to enable them to govern their affairs and to respond to municipal issues.

And Whereas Veolia Water Canada Inc. is in the business of providing operation and maintenance services for water and wastewater facilities.

And Whereas the Corporation of the Municipality of Brockton is the owner of the Walkerton water supply and distribution system, the Lake Rosalind water supply and distribution system, the Power Subdivision (Chepstow) water supply and distribution system and the Walkerton Wastewater Treatment Plant and the Walkerton Sewage Collection System hereinafter referred to as the "facilities".

And Whereas the Council of the Corporation of the Municipality of Brockton entered into an operations and maintenance agreement with Veolia Water Canada Inc., referred to herein as "Veolia" on September 10, 2016 as per By-Law 2016-025, and the Corporation of the Municipality of Brockton wishes to amend and extend the Agreement with Veolia;

Now Therefore the Council of the Corporation of the Municipality of Brockton enacts as follows;

1.0 That the Corporation of the Municipality of Brockton amend the Services Agreement with Veolia for operating and maintenance services for the facilities attached hereto as Schedule "A" to this By-Law and forming an integral part thereof and;

2.0 That the Mayor and Clerk be and are hereby authorized on behalf of the Corporation of the Municipality of Brockton to execute the attached Agreement as well as any other related documents and;

3.0 This By-Law shall come into full force and effect upon final passage.

4.0 That By-Law 2016-025 be hereby amended.

5.0 This By-Law may be cited as the "Amend Veolia Services Agreement Renewal By-Law".

Read, Enacted, Signed and Sealed this 10th day of November, 2020.

Original Signed By
Mayor – Chris Peabody

Original Signed By
Clerk – Fiona Hamilton

Schedule "A"

Renewal and Amendment Agreement to
Services Agreement for the Operation, Maintenance and Management
of the Water and Wastewater Systems

Amendment Effective Date: June 30, 2021

Party:	Supplier	Municipality
Name:	Veolia Water Canada, Inc.	The Corporation of the Municipality of Brockton

THIS RENEWAL AND AMENDMENT AGREEMENT is entered into between the Supplier and the Municipality, as designated above, pursuant to the Services Agreement for the Operation, Maintenance and Management of the Water and Wastewater Systems made as of July 1, 2016 (the "Agreement").

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

I. AMENDMENT

1. Section 4.2(a) of the Agreement is hereby deleted and replaced with the following (changes underlined for ease of reference only):

   " The Municipality may, subject to 4.2(b), extend the Initial Term or any renewal term for another five (5) year term (the "Renewal Term"), provided that the Municipality shall provide notice to the Supplier of such proposed extension at least six (6) months before the expiry of the Initial Term or the then current Renewal Term. Should the Municipality elect not to extend the Agreement beyond the then current Renewal Term, the Municipality shall pay to the Supplier, no later than the last day of the then current Renewal Term, an amount equal to all of the Supplier's demobilization costs, together with a termination fee equal to the profits the Supplier would have made during the subsequent five-year Renewal Term, the whole as evidenced by an invoice from the Supplier to the Municipality in this regards."

2. Section 4.3(a) of the Agreement is hereby deleted and replaced with the following (changes underlined for ease of reference only):

   "4.3 Annual Price for Renewal Term

   (a) Subject to any adjustment made pursuant to other provisions of the Agreement, the Municipality shall pay the Supplier for providing the Services a price for each Year of the Renewal Term in the following amounts (the "**Annual Price**"):

      (i) for the first Year from July 1, 2021: **seven hundred twenty seven thousand three hundred seventy six dollars ($727,376);**

      (ii) for the subsequent Years of the Renewal Term: **The previous year's price** plus an adjustment for inflation calculated as described in this Article 4.3(b).

   The Supplier shall use the Statistics Canada Consumer Price Index, All Items Ontario ("CPI") to calculate the inflation adjustment. The percentage difference between the CPI during March of the previous Year as compared to the CPI of March of the current Year shall be the inflation adjustment for the following Year."

3. Section 10.2(c)(i) of the Agreement is hereby deleted and replaced by the following (changes underlined for ease of reference only):

> "(i) Breakdown Maintenance for projects under $7,000 per project (up to a maximum annual aggregate of $30,000, which amount shall be adjusted for inflation each Year of the Renewal Term calculated as described in Article 4.3(b)), shall be deemed to come within the scope of the Services and shall be funded by the Supplier, provided, however, that before proceeding with any Breakdown Maintenance, the Supplier shall consult with the Municipality.

4. Section 13.1 of the Agreement is hereby amended by adding subsection (f) thereto, which shall read as follows:

> "13.1 (f) If the Supplier can continue performing Services or part thereof during a Force Majeure event, but such Force Majeure event renders Supplier's performance hereunder more onerous than could have been anticipated at the date hereof, for example, due to
>
> (i) obligation to comply with the legislation enacted or measures taken by the relevant authorities to address the Force Majeure event (including mandatory closures, requisitions, transport limitations, social distancing requirements),
>
> (ii) obligation to observe hygiene and security rules and recommendations resulting from the Force Majeure event,
>
> (iii) inability to supply or distribute to relevant equipment for the tasks to be performed, as a result of shortages of supply resulting from the Force Majeure event,
>
> (iv) inability of a Supplier's subcontractor or supplier to comply with its obligations for the reasons mentioned above;
>
> the Parties undertake to negotiate alternative contractual terms, including for delivery/performance dates, service levels, and payment terms, which would reasonably mitigate the impact of the consequences of the Force Majeure event."

5. Schedule 2.1(a) (Description of the Facilities) is deleted in its entirety and replaced by Schedule 2.1(a) attached hereto.

6. Schedule 2.1(b) (Scope of Supplier Services) is deleted in its entirety and replaced by Schedule 2.1(b) attached hereto.

7. Schedule 2.4 (Supplier Rate Schedule for Excluded Services) is deleted in its entirety and replaced by Schedule 2.4 attached hereto.

II. RENEWAL

8. The Initial Term of the Agreement is hereby extended from July 1, 2021 to June 30, 2026 pursuant to Section 4.2(a) of the Agreement.

Except as expressly modified above, all provisions of the Agreement remain unchanged, without novation, and shall remain in full force and effect.

In the event of a conflict or inconsistency between the provisions of the Agreement and the provisions of this Renewal and Amendment Agreement, the provisions of the latter shall control.

IN WITNESS WHEREOF, the Parties hereto have executed this Renewal and Amendment Agreement effective as of the Amendment Effective Date designated above, irrespective of the date of signature.

Veolia Water Canada, Inc.:

By: Original Signed By

Name: Keith Oldewurtel

Title: Executive Vice President

The Corporation of the Municipality of Brockton:

By: Original Signed By

Name: Chris Peabody

Title: Mayor

Original Signed By

Fiona Hamilton

Clerk

Schedule 2.1(a)
Description of the Facilities

Defined terms set out below but not defined in this Schedule 2.1(a) shall have the meaning ascribed to such terms in the main body of the Agreement. In the event of any inconsistency between the terms of this Schedule 2.1(a) and the terms of the main body of the Agreement, the later shall govern.

For the purposes of this Agreement, the Facilities are described generally as follows:

(i) Walkerton Wastewater Collection, Treatment, and Disposal System

Site Location:

The street address of the Walkerton Wastewater Treatment Plant is as follows:

300 Durham Street West
Walkerton, ON
Municipality of Brockton
County of Bruce

The address of the Fischer Dairy Lift Station is as follows:

53 Fischer Dairy Road
Walkerton, ON
Municipality of Brockton
County of Bruce

General Description of facility:

The Walkerton Wastewater Treatment Plant consists of a conventional activated sludge treatment plant with a nominal design capacity of 7,560 m^3/d, including the following additional processes: a continuous phosphorus removal system using ferric chloride, seasonal effluent disinfection using chlorine gas, a two-stage anaerobic digester and process sludge storage system, and two (2) auxiliary storage tanks which can be used to permit the controlled feed of high-strength wastewater into the plant. Treated effluent is discharged to the Saugeen River. The sewage collection system consists of an extensive system of service connections, sewers and maintenance ports located in Walkerton. There are two inverted siphon sewer crossings of the Saugeen River. There is one (1) sewage pumping station located on the wastewater treatment plant site, a Sewage Lift Station, and associated monitoring and control equipment that was constructed in 2020.

Existing Works:

- Raw Sewage Pumping Station equipped with one (1) coarse bar screen, and three (3) pumps

- Standby Power System consisting of one (1) 300 kW generator with the capability to run off of natural gas, or a blend of natural gas and bio-gas

- Inlet Works consisting of one (1) mechanical step screen, and one (1) aerated grit tank rated at 28,388 m^3/d

- Primary Clarification System consisting of three (3) primary clarifiers and two (2) sludge pumps

- Aeration system consisting of two (2) aeration tanks equipped with 30 HP mechanical surface aerators and air diffuser, and two (2) aeration tanks equipped with 40 HP mechanical surface aerators and three (3) air blowers

- Secondary Clarification System consisting of four (4) secondary clarifiers, two of which are equipped with floating siphon sludge collectors, and three (3) return activated sludge pumps

- Disinfection system consisting of one (1) gas chlorinator and two (2) chlorine contact tanks

- An Outfall Sewer consisting of 102 m of 750 mm diameter outfall sewer pipe branching into a 10.4 m long (approximate) 610 mm diameter outfall pipe and a 19.5 m long (approximate) 510 mm diameter outfall pipe discharging to the Saugeen River

- Flow Measurement System consisting of one (1) electromagnetic flow meter for influent measurement and one (1) Parshall flume for final effluent measurement

- Phosphorus Removal System consisting of two (2) ferric chloride dosing pumps and one 27 m^3 chemical storage tank

- Anaerobic Digestion System consisting of a control building with one (1) SWD fixed cover conical bottom anaerobic sludge digester equipped with a gas mixing recirculation system, one fixed roof SWD anaerobic digester equipped with a gas mixing recirculation system, one (1) digester sludge recirculating pump, and one (1) gas compressor

- Sludge Storage facilities consisting of one (1) SWD sludge storage tank equipped with a coarse bubble diffused aeration system and two (2) 10.5 kW rail-mounted propeller sludge mixers

- Plant Control Building housing three (3) air blowers, three (3) activated sludge pumps, two (2) raw sludge pumps, one (1) sludge recirculating pump, one (1) hot water boiler, one (1) tube-in-tube sludge heater, chlorination equipment, washroom, office and laboratory

- A System of Appurtenances and Controls consisting of piping, heating, ventilation, electrical, instrumentation and control systems to operate the plant

(ii) Walkerton Water Supply, Treatment, and Distribution System

Site Location:

The street and legal address of the Walkerton Water Treatment Plant (Well 7 and 9) and the Well 6 Distribution Monitoring Station is as follows:

1244 Bruce Road #3

Part of Lot 6 and 7, Concession 1 NDR
Former Brant Township
Municipality of Brockton
County of Bruce

The legal address of the Walkerton Water Tower and Walkerton Booster Station is as follows:

Lot #12 (Plan 105)
Wallace Street
Walkerton, ON
Municipality of Brockton
County of Bruce

The legal address of the Brockton Water Tower and Brockton Booster Station is as follows:

Part of Lot #25 (Plan 38)
Cunningham Road
Walkerton, ON
Municipality of Brockton
County of Bruce

The address of the proposed Walker West Booster Station is as follows:

135 Devinwood Avenue
Walkerton, ON
Municipality of Brockton
County of Bruce

General Description of facility:

The Walkerton Water Supply and Distribution System is a groundwater based water system consisting of two (2) supply wells and associated buildings and equipment including an ultraviolet (UV) disinfection system, chlorination system, surge suppression tank, standby diesel generator, water distribution piping network, two (2) elevated storage facilities, three (3) water booster pumping stations, and associated monitoring and control equipment.

Existing Works:

- Well 7: a 381 mm diameter drilled well approximately 76.2 m deep, equipped with a lines-shaft vertical turbine pump delivering 56.8 L/s at a TDH of 55.0 m

- Well 9: a 350 mm diameter drilled well equipped with a submersible pump rated at 56.8 L/s delivered at a TDH of 55.0 m, located near Well 7 and connected to water treatment plant by a 200 mm diameter supply line

- Well 6: an observation and monitoring well located approximately 150 m from the water treatment plant on the same property; building used as a distribution system monitoring station equipped with a continuous free chlorine analyzer, well used for groundwater monitoring only

- A Water Treatment Plant recently upgraded to utilize a primary disinfection system consisting of ultraviolet disinfection equipment including:

    - Two (2) 300 mm diameter UV reactors (one duty, one standby), on-line UV transmittance sensors, UV intensity monitoring sensors, automatic cleaning system and associated controls, instrumentation and appurtenances,

    - One (1) secondary disinfection system consisting of a 9.0 kg/d rated gas chlorinator, chlorine analyzer, chlorine leak detector and associated pumps and controls

    - One (1) baffled chlorine contact tank located at Well 7

    - Two (2) 37.3 kW high-lift pumps (one duty, one standby), each rated at 57.9L/s connected from the high-lift pumps to a 350 mm diameter distribution main,

    - One (1) 100 kW diesel standby power generator

    - Two (2) water towers to provide storage and pressure

    - One (1) booster pumping station located at the Brockton Water Tower site

    - One (1) booster pumping station located at the Walkerton Water Tower site

(iii) Lake Rosalind Water Supply, Treatment, and Distribution System

Site Location:

The street and legal address of the Lake Rosalind Water Treatment Plant is as follows:

442 Lake Rosalind Road #4
Part of Lot 68, Concession 3 NDR
Former Township of Brant
Municipality of Brockton
County of Bruce

General Description of facility:

The Lake Rosalind Water Supply and Distribution System services Lots 67, 68, and 69, Concession 3 in the former Township of Brant. This system has a rated capacity of 80 L/min and services approximately 68 homes. Two (2) groundwater wells supply water to a 91 m^3 reservoir. Wells in operation are: Well 1 and Well 3. The distribution system is served by approximately 1,200 m of 100 mm diameter (4" nominal) PVC watermain. Raw water is disinfected prior to entering a cartridge filtration system, which then enters a chlorine contact chamber before flowing into the reservoir. The raw water pumps are activated based on reservoir level. Treated water is pumped from the reservoir by high-lift pumps to the distribution system via a series of pressure retention tanks, which serve to maintain system pressure. Flow rate and volume pumped is recorded by a flow meter installed on the piping system.

Existing Works:

- Well 1: a dug well approximately 3 m deep equipped with a jet pump having a capacity of 0.35 L/s.
- Well 3: a 200 mm diameter drilled well approximately 22.9 m deep equipped with a submersible pump rated at 1.28 L/s.
- One (1) air relief valve on the distribution system
- A water treatment plant (pump house) containing:
    - Two (2) cartridge filtration systems (one duty one standby)
    - Two (2) liquid chlorine (sodium hypochlorite) metering pumps (one duty, one standby)
    - One (1) 190 L chemical storage tank
    - One (1) 30.1 m3 in-ground chlorine contact chamber
    - One (1) 91.0 m3 concrete reservoir located under the pump house
    - Two (2) submersible high-lift pumps rated at 5.3 L/s each
    - Six (6) steel hydro-pneumatic pressure retention tanks
    - One (1) continuous free chlorine residual analyzer
    - One (1) continuous turbidity analyzer
    - One (1) 50 mm diameter flow meter/totalizer
    - One (1) 56 kW standby diesel generator

(iv) Chepstow Water Supply, Treatment, and Distribution System

Site Location:

The legal address of the Chepstow Water Treatment Plant is as follows:

51 John Street
Part of Lot 7, Concession 7
Former Township of Greenock
Municipality of Brockton
County of Bruce

General Description of facility:

The Chepstow Water Supply and Distribution System supplies water from a groundwater source to the Powers Subdivision in the former Township of Greenock. This system has a rated capacity of

2.21 L/sec and services approximately 19 homes. One groundwater well supplies water to the pump house. The water treatment system consists of cartridge filtration, and a two stage disinfection system that contains UV disinfection and chlorination.

Existing Works:

- One 150 mm diameter drilled well approximately 57 m deep equipped with a 3 HP, 230 V submersible pump rated at 2.21 L/s

- A water treatment plant (pump house)containing:

    - Two (2) cartridge filtration systems (one duty, one standby)

    - An ultraviolet disinfection system consisting of two (2) UV reactors (one duty, one standby)

    - One (1) 50 mm diameter magnetic flow meter

    - Four (4) 455 L hydro-pneumatic pressure retention tanks

    - Two (2) chlorine metering pumps (one duty, one standby)

    - Two (2) 23 L sodium hypochlorite solution tanks (one duty, one standby)

    - One (1) continuous free chlorine analyzer

    - One (1) continuous turbidity analyzer

(v) Community Centers

Site Location:

The address of the Community Centers are as follows:

Bradley Community Center
1682 Sideroad 5
Municipality of Brockton
County of Bruce

Elmwood Community Center
38 Concession 10
Elmwood, Ontario
Municipality of Brockton
County of Bruce

Cargill Community Center
999 Brant Line
Cargill, Ontario
Municipality of Brockton
County of Bruce

General Description of facilities:

- Each facility is a drinking water system that is regulated by O. Reg 319/08 (Small Drinking Water Systems)

Existing Works:

- Each facility consists of cartridge filtration system and an Ultra Violet Disinfection system

Schedule 2.1(b)
Scope of Supplier Services

Defined terms set out below but not defined in this Schedule 2.1(b) shall have the meaning ascribed to such terms in the main body of the Agreement. In the event of any inconsistency between the terms of this Schedule 2.1(b) and the terms of the main body of the Agreement, the later shall govern.

The Supplier shall provide the following scope of Services expressly set forth below and which can be reasonably implied to be the Supplier's responsibility in connection with the Services except, where it is expressly stated to be a Municipality responsibility under this Agreement.

(i) Walkerton Wastewater Collection, Treatment, and Disposal System

- Continuous monitoring of the Wastewater Treatment Facility processes and response to SCADA alerts/alarms
- Daily inspection and maintenance of the Wastewater Treatment Facility to ensure acceptable operation of the headworks, primary and secondary wastewater treatment clarifiers, secondary treatment systems, biosolids management systems, pumps, blower and aeration systems, chemical feeders, and all ancillary equipment
- Operation of the raw sewage pumps at the wastewater pumping station to minimize plant bypasses and flooding of the collection system, while optimizing treatment process efficiency
- Routine removal of screenings and scum from the pump station wet well
- Routine cleaning of grit channels
- Routine raking and inspection of bar screens, step screen, and barminuter
- Screenings and grit disposal as necessary
- Routine hosing/washing of weirs, walls, and channel in aeration and secondary clarifier
- Routine sounding of clarifier for sludge depth to ensure acceptable return rates
- Routine observation of sludge collection mechanisms for operation, alignment, tension, gearbox leakage, oil condition, and operating temperature
- Routine exchange of gearbox lubricants
- Routine dewatering of clarifier basins and inspection of respective chain and flight collector alignment, mechanical condition, and condition of concrete
- Routine dewatering of aeration basins, inspection and maintenance of aeration diffusers as per manufacturer specifications, of aeration distribution piping grid, and condition of concrete

- Utilize flow splitting to optimize seasonal variations in flows while maximizing treatment efficiency

- Optimization of dissolved oxygen and blower operation in the aeration process to minimize energy usage and maintain biological treatment

- Operational monitoring and optimization of chemical feed rates and return sludge rates

- Daily monitoring and operation of secondary clarifiers and return activated sludge system to optimize solids removal, minimize hydraulic loading, and minimize solids carryover

- Routine monitoring and replenishment of chlorine feed tanks, ferric chloride tanks, and other process chemicals as necessary

- Routine monitoring and replenishment of fuel tanks, including diesel fuel used for heating in the Raw Sewage Pumping Station

- Routine skimming of chlorine contact chambers and clarifiers

- Routine monitoring and operation of the anaerobic digester gas mixing system to ensure full utilization of the digester capacity, maintain consistent primary digester temperatures, maintain adequate pressure to prevent gas flow to waste gas burners and digester pressure relief valves, maximize supernatant return to the treatment system, and ensure the condensate drain system is working as per design

- Scheduling of digester loadings as regularly as possible to ensure maximum volatile solids reduction and gas production

- Routine monitoring and operation of the gas chlorination system including, checking the self-contained breathing apparatus, checking operation of the exhaust fans, checking for leaks, inspection and replacement of chlorine tanks, and optimization of chlorine dosing

- Routine monitoring and recording of wastewater influent and effluent flows, pump station running hours, diesel generator running hours, utilities usage, volume of chemicals used, volume of sludge disposal, and any other parameters deemed necessary to meet compliance requirements and provide an acceptable level of process evaluation information

- Routine sampling, analysis, and recording of any process wastewater parameters deemed necessary to meet compliance requirements and provide an acceptable level of process monitoring and evaluation

- Manage the sludge hauling and land application The sludge hauling and land application contract shall be between a third party and the Municipality at the Municipality's cost

- Routine monitoring and operation of the service water system to minimize potable water usage

- Monthly test operation of the standby generator

- Operation of the hot water boiler to maximize the usage of digester gas, and minimize the use of natural gas supply

- Provide for manhole inspection and flushing of the entire Wastewater Collection System during the term of the agreement, including inspection for debris accumulation, structural integrity of walls and access ladders, condition of benching, and infiltration/inflow

- Provide sewer locates as required

- Manage the receipt and treatment of brewery waste at the Walkerton waste water treatment plant (sewage disposal plant) provided Supplier shall not be obligated to receive or treat brewery waste exceeding an average daily intake of 120 m3.

- Brewery waste in excess of an average daily intake of 120 m3 may be accepted for disposal on the agreement of both parties provided such excess amount does not impede the ability of the system to function properly or endanger compliance with operational requirements.

- Supplier shall monitor the treatment of brewery waste and advise Municipality of any abnormalities or compliance issues related to such treatment.

- For new sewer service connections, on infill lots, lay pipe and make connections on municipal property. Excavation, supply and placement of bedding, backfill etc is excluded. New service connections for new subdivisions or developments are excluded

(ii) Walkerton Water Supply, Treatment, and Distribution System

- Continuous monitoring of the Water Treatment Facility processes and response to SCADA alerts/alarms

- Daily inspection and maintenance of the Walkerton Water Treatment Plant (Well 7 and 9), the Walkerton Well 6 Distribution Monitoring Station, the Walkerton Water Tower, the Geeson Avenue Booster Station, the Brockton Water Tower, and the Brockton Booster Station to ensure acceptable operation of the wells, UV disinfection systems, pressure and level control systems, pumping systems, chemical feeders, analyzers, and all ancillary equipment

- Routine monitoring of well static water levels as per Applicable Laws and timely reporting of any abnormal fluctuations in ground water levels

- Periodic inspection and maintenance of UV sensors and cleaning systems

- Replacement of UV bulbs on low output or after 5,000 h of use

- Routine monitoring and operation of the gas chlorination system including, checking the self-contained breathing apparatus, checking operation of the exhaust fans, checking for leaks, inspection and replacement of chlorine tanks, and optimization of chlorine dosing

- Routine monitoring and optimization of chlorination contact process to achieve inactivation and removal of regulated pathogenic organisms while maintaining acceptable levels of free chlorine in the treated water and distribution systems

- Routine monitoring and recording of raw water influent and treated water flows, standby generator running hours, utilities usage, volume of chemicals used, free chlorine residual, treated water turbidity, UV transmittance, and any other parameters deemed necessary to meet compliance requirements and provide an acceptable level of process evaluation information

- Maintain chlorine residual in the distribution system

- Conduct water main flushing and hydrant flushing and testing scheduled such that all of the water mains and hydrants have been flushed and tested throughout the Walkerton Water Distribution System annually during the term of the agreement

- Monthly test operation of the standby generator

- Repair and paint hydrants where necessary, and winterize each fall

- Routine monitoring of water towers through visual inspections, checking controls and valves, and monitoring pressure and water levels

- Routine monitoring of distribution system by looking for major leaks (visual and through water usage trending), inspection of booster stations, exercising of main distribution shutoff valves, and regular collection of distribution samples

- Exercise at least 50% of the valves in the Water Distribution System annually.

- Preparation of strategies to mitigate water main leakage as necessary, and repair water main breaks as per Emergency Response procedures

- Provide water service disconnects and reconnects as required

- Provide water locates as required

- For new water service connections on infill lots, lay pipe, and make connections between water main and property owners piping at curb stop. Excavation, supply and placement of bedding material, backfill, etc. are excluded. New service connections for new subdivisions or developments are excluded

(iii) Lake Rosalind Water Supply, Treatment, and Distribution System

- Continuous monitoring of the Water Treatment Facility processes and response to SCADA alerts/alarms

- Daily inspection and maintenance of the Lake Rosalind Water Treatment Plant to ensure acceptable operation of the wells, pressure and level control systems, pumping systems, chemical feeders, analyzers, and all ancillary equipment

- Routine monitoring of well static water levels as per Applicable Laws and timely reporting of any abnormal fluctuations in ground water levels

- Daily monitoring of cartridge filter differential pressure, and replacement of cartridge filters as per Applicable Laws

- Daily monitoring and operation of the liquid chlorination system including checking the chemical feed pumps, monitoring and replacement of sodium hypochlorite as necessary, and optimization of chlorine dosing

- Routine monitoring and optimization of chlorination contact process to achieve inactivation and removal of regulated pathogenic organisms while maintaining acceptable levels of free chlorine in the treated water and distribution systems

- Periodic inspection and cleaning of the chlorine contact chamber as required

- Routine monitoring and recording of raw water influent and treated water flows, standby generator running hours, utilities usage, volume of chemicals used, free chlorine residual, treated water turbidity, and any other parameters deemed necessary to meet compliance requirements and provide an acceptable level of process evaluation information

- Maintain chlorine residual in the distribution system

- Conduct water main flushing and hydrant flushing and testing scheduled such that all of the water mains and hydrants have been flushed and tested throughout the water distribution system annually during the term of the agreement

- Monthly test operation of the standby generator

- Routine monitoring of distribution system by looking for major leaks (visual and through water usage trending), exercising of main distribution shutoff valves, and regular collection of distribution samples

- Preparation of strategies to mitigate water main leakage as necessary, and repair water main breaks as per Emergency Response procedures

- Provide water service disconnects and reconnects as required

- Provide water locates as required

- For new water service connections on infill lots, lay pipe, and make connections between water main and property owners piping at curb stop. Excavation, supply and placement of bedding material, backfill, etc. are excluded. New service connections for new subdivisions or developments are excluded

(iv) Chepstow Water Supply, Treatment, and Distribution System

- Continuous monitoring of the Water Treatment Facility processes and response to SCADA alerts/alarms
- Daily inspection and maintenance of the Chepstow Water Treatment Plant to ensure acceptable operation of the wells, pressure and level control systems, pumping systems, chemical feeders, analyzers, and all ancillary equipment
- Routine monitoring of well static water levels as per Applicable Laws and timely reporting of any abnormal fluctuations in ground water levels
- Daily monitoring of cartridge filter differential pressure, and replacement of cartridge filters as per Applicable Laws
- Periodic inspection and maintenance of UV sensors and cleaning systems
- Replacement of UV bulbs on low output or after 5,000 h of use
- Daily monitoring and operation of the liquid chlorination system including checking the chemical feed pumps, monitoring and replacement of sodium hypochlorite as necessary, and optimization of chlorine dosing
- Routine monitoring and optimization of chlorination contact process to achieve inactivation and removal of regulated pathogenic organisms while maintaining acceptable levels of free chlorine in the treated water and distribution systems
- Routine monitoring and recording of raw water influent and treated water flows, standby generator running hours, utilities usage, UV transmittance, volume of chemicals used, free chlorine residual, treated water turbidity, and any other parameters deemed necessary to meet compliance requirements and provide an acceptable level of process evaluation information
- Maintain chlorine residual in the distribution system
- Conduct water main flushing such that all of the water mains have been flushed and tested throughout the water distribution system annually during the term of the agreement
- Monthly test operation of the standby generator
- Routine monitoring of distribution system by looking for major leaks (visual and through water usage trending), exercising of main distribution shutoff valves, and regular collection of distribution samples
- Preparation of strategies to mitigate water main leakage as necessary, and repair water main breaks as per Emergency Response procedures
- Provide water service disconnects and reconnects as required

- Provide water locates as required

- For new water service connections on infill lots, lay pipe, and make connections between water main and property owners piping at curb stop. Excavation, supply and placement of bedding material, backfill, etc. are excluded. New service connections for new subdivisions or developments are excluded

(v) Community Centers

- Provide weekly checks of Raw and Treated Water Turbidities
- Annual Replacement of Ultra Violet Bulbs
- Annual maintenance and replacement of filter cartridge
- Quarterly Bacteriological sampling.

(vi) General Services

- Monitor the Facilities twenty-four (24) hours per day, seven (7) days per week

- Maintain a clean work environment to promote occupational health and safety, and protect the Municipal assets

- Provide window washing, janitorial services, and maintenance of HVAC systems as required

- Provide and maintain the Process Control (Hach WIMS®), Computerized Maintenance Management Software (JOB Plus®) Databases, and Compliance Management System

- Provide certified operators as required by Applicable Laws

- Provide for third party compliance related laboratory analyses as required by Applicable Laws

- Cooperate with and accompany any regulatory authorities on any scheduled or unscheduled inspections, review any inspection reports or orders prepared by such regulatory authority, and prepare any reports or notifications to the Municipality on a timely basis to address any identified deficiencies or recommendations in relation to the Facility or the Services

- Perform and document all required maintenance in accordance with this Schedule 2.1(b)

- Within the first ninety (90) days of the start of the Initial Term of this Agreement, provide Owner for approval a complete and detailed schedule of all routine and preventive maintenance activities for the Facilities, including threshold values for preventive maintenance testing along with appropriate justification

- Provide annual testing and calibration of flow measuring and analytical equipment by an independent firm

- Routine testing of safety equipment

- Routine exercising of standby equipment to ensure 100% operability

- Maintain existing or future Municipality owned inventories of spare parts pertaining to or part of the Facilities and provide inventories of any consumables deemed necessary by the Supplier to perform the Services

- Maintain manufacturer's warranties on new equipment purchased by the Municipality

- Supervise contractors performing sewer or water main cleaning.

(vii) Staffing, Training, and Corporate Resources

The Supplier shall provide appropriate staffing of the Facilities with certified operators and other trained staff as required by Applicable Laws and Standard Industry Practice. The following general staffing provisions shall be made:

- Staff the Facilities five (5) days per week (Monday through Friday during Regular Work Hours), eight (8) hours per day; and four (4) hours per day on weekends (Saturday and Sunday, excluding statutory holidays)

- Provide on-call coverage seven (7) days per week, twenty-four (24) hours per day

- Provide a minimum staff of 4.83 full-time (equivalent) on-site employees dedicated to the Municipality project including, one (1) project manager, one (1) part-time administrative assistant, three (3) full-time certified operators, and one (1) temporary summer student or part-time summer position to assist in seasonal maintenance activities

- Provide staff visits to each water and wastewater Treatment Facility, once per day, seven (7) days per week (including statutory holidays)

- Provide staff with cell phones such that they can be reached at any time in case of an emergency situation

- Initiate a response to Call-Outs within thirty (30) minutes during Regular Work Hours and within sixty (60) minutes outside of Regular Work Hours

- Provide qualified employees from nearby sites operated by the Supplier to fill the required positions on an interim or long-term basis as a backup plan during staff shortages

- Provide corporate support resources and a corporate management team generally as described in the Proposal to be available to the Municipality project as required

- Provide employees with a compensation and benefits package as outlined in the Proposal

- Train site personnel as relevant to his/her respective position in ethics and compliance policies, environmental, health, safety and security (EHSS), supervisory skills, unit processes, process control and troubleshooting, operations, maintenance, equipment troubleshooting and repair, sampling and field testing techniques, laboratory procedures, personal computer use, sludge handling and disposal, energy management and all other topics relevant to their position

- Provide a safety program in accordance with Applicable Laws and Standard Industry Practice which comprises policies, training, and procedures including, but not limited to, the provision of a Safety Policies and Procedures Manual, a site-specific Environmental Compliance Manual, and Standard Operating Procedures (SOP)

(viii) Quality Assurance/Quality Control (QA/QC)

The Supplier QA/QC program will be the primary means by which the Supplier delivers on the Performance Guarantees. QA/QC will generally comprise the program as outlined in the Proposal, including an integration of the following 11 unit function operations and 3 industry standard tracking software packages:

- Compliance Management System
- Peer Audit Review Program (Formal Comprehensive O&M Audit)
- Hach WIMS® (Process Control Software)
- Process Control Management Plan (PCMP, Process Oversight System)
- JOB Plus (Computerized Maintenance Management Software)
- Laboratory QA/QC (Laboratory Management Program)
- Outside Laboratory QA/QC Program
- Safety Program
- Triple I Program (Incident, Injury, and Injury Free reporting/tracking program)
- Environmental Compliance Action Plan (Site-Specific Plan)
- Customer Satisfaction (Site-Specific Plan)
- Environmental Compliance and Reporting

The Supplier shall closely monitor the operational performance of each of the systems for which it is responsible. Monthly reports will be submitted to confirm that the project has complied with all regulatory requirements. These monthly reports would include, but not be limited to, records of the Facility's operations compliance, water quality analysis, maintenance plans and activities, public inquiries, plant tours, and any other information considered relevant to the project and the partnership with the Municipality.

Supplier technical and management staff, including senior management shall be responsible for monitoring the PCMP. As part of the PCMP, the Hach WIMS® software will generate the operations database and monitor the process control. Subject to availability of OPS software compatible with the proposed systems, the process control software and CMMS shall be supplemented by the use of Hach WIMS®, which will be used by operators to record process readings such as DO, flow, temperature, etc. electronically to be uploaded to the database. When implemented, this system shall be used for maintenance activities in place

of paper work orders, wherein any maintenance activity is input as work is performed into a PDA, which will be uploaded to the database on a daily basis.

Specific items to be implemented by the Supplier QA/QC program as per the Proposal are as follows:

- The Supplier shall provide a corporate level EHSS management program to monitor occupational health and safety of the project.

- The Supplier shall perform audits or inspections as required to determine compliance with all Applicable Laws with respect to environmental, health and safety compliance programs.

- All incidents and "near-misses" shall be investigated by the Supplier for root cause analysis, and corrective actions/measures shall be put forward to eliminate future similar incidents. This program shall be documented in the Triple I database.

- The Supplier shall utilize a Compliance Management System to ensure all required reporting and other necessary functions are completed on time.

- The Supplier shall provide staff at the project level access to the corporate Regulatory Compliance Database as required.

- The Supplier shall provide staff at the project level access and training with respect to the corporate Safety Policies and Procedures Manual.

- The Supplier shall provide the Facilities with a site-specific Environmental Compliance Manual, which sets forth all aspects of environmental compliance, including all site-specific operating permits and approvals.

- The Supplier shall provide detailed Standard Operating Procedures (SOPs) and associated training for all activities that may place an employee at risk, including written step-by-step procedure outlines, required safety equipment, proper equipment handling, and hazards associated with each activity.

- The Supplier shall implement a Safety Training Program to ensure that staff is competent in all necessary safety procedures, corporate policy, and regulatory requirements in accordance with Applicable Laws and Standard Industry Practice, including site-specific training, a 3-month evaluation for new staff, minimum monthly training classes for all employees, annual reviews, personal protective equipment, SOPs, and Emergency Plans.

- The Supplier shall provide a Safety Incentive Program to reinforce the importance of safety and recognize those who achieve outstanding safety performance, including cash awards of at least $200/employee for one-year with no lost-time accidents, and $500/employee for 5 years with no lost-time accidents.

(ix) Residuals Management

The Supplier shall provide for the safe disposal of any and all solid and liquid waste material produced by the water and wastewater Facilities in accordance with Applicable Laws.

In addition, the Supplier shall arrange for and manage sludge disposal in accordance with the Nutrient Management Act (NMA), 2002, as amended from time to time, and in accordance with the Nutrient Management Strategy to be developed for the Walkerton Wastewater Treatment Plant subject to the Change of Law provisions set forth in Article 2.10.

(x) Disaster, Contingency, and Emergency Programs

The Supplier shall prepare and provide for Municipal approval an Emergency Plan for the Municipality Facilities to the satisfaction of the Municipality within six (6) months of the start of the Initial Term. In the case of an Emergency Response, the Supplier will be responsible to ensure all necessary actions are performed, including those specified in the Emergency Plan. The costs associated with such emergencies will be considered the responsibility of the Municipality to the extent that such services fall outside the scope of Services outlined in this Schedule 2.1(b). The Emergency Plan shall be a site-specific disaster, contingency, and emergency preparedness plan that will be tailored to the exact needs of the Municipality Facilities, and generally follow the scope as given in the sample plan provided in the Proposal.

(xi) Asset Management

The Supplier shall provide for asset management of the Facilities in accordance with the objectives provided in the Proposal, and prioritizing:

- Reliability,
- Criticality, and
- Cost effectiveness

The objective of the Asset Management program will be to maintain a high state of reliability in a cost effective manner while protecting the Facilities and assets. The Supplier will develop life-cycle templates for all major assets at the Facilities, which will quantify and evaluate elements like initial cost, criticality, average expected life, average expected overhaul cycle, and all applicable scheduled and unscheduled service activities. These templates shall become part of the CMMS and serve as the basis for asset management of all critical assets.

The Asset Management program will involve both maintenance and operational procedures. The emphasis of the maintenance plan will be:

- Safeguarding the investment in equipment and Facilities
- Using the predictive, preventive, and proactive maintenance programs, which can extend the life, performance reliability and efficiency of equipment
- Ensuring that maintenance is performed in accordance with the equipment manufacturer's warranty, specifications, and Standard Industry Practice

The primary maintenance tool will be the Computerized Maintenance Management System (CMMS). The Supplier shall begin population of the CMMS database in JOB Plus® (OPS Systems Inc.) during the transition period, and complete the database to the satisfaction of the Municipality within six (6) months of the start of the Initial Term. All software (or a licensed copy of the software) and data associated with the CMMS shall become the property of the Municipality. The Municipality shall have unimpeded read-only access to this database to review maintenance activities and costs. The CMMS shall be used by project staff

to schedule and document all preventive maintenance activities required under equipment warranty provisions, as well as the work recommended by the equipment manufacturers following the expiration of the warranty periods. The CMMS program shall be designed to minimize record-keeping tasks, thereby allowing maintenance personnel to spend more time on equipment maintenance. The CMMS will assist the operations and Municipal staff on a reliability-based program as follows:

- Organizing a regular preventive maintenance program for each piece of equipment
- Prioritizing and scheduling preventive and corrective maintenance
- Tracking corrective and preventive maintenance work orders and summarizing the total effort by area, craft, and equipment type
- Analyzing maintenance program and equipment repair costs
- Ensuring that equipment operating time is scheduled to minimize damage to equipment caused by extended idle periods
- Automatically assigning preventive/predictive maintenance tasks from the calendar to create a balanced workload schedule
- Maintaining a complete maintenance history on each piece of equipment by activity and cost
- Assisting with cost-effective decisions, such as repair or replacement, from a firm knowledge base
- Maintaining a record of predictive maintenance measurements and providing the means to more accurately identify future problem areas
- Preparing printed work orders for issuance to appropriate trades
- Preparing and tracking purchase orders and managing parts inventory
- Preparing exception reports and indicating equipment status and repair priority

The Supplier shall perform day-to-day preventive maintenance including, but not limited to the following:

- Carrying out a routine lubrication program including greasing and oiling as specified in the lubrication schedule
- Performing maintenance duties on equipment by following the preventive measures procedures, including testing motor windings, and checking machinery and electrical equipment when required
- Maintaining an inventory on all equipment and tools
- Ensuring the security of the facilities by locking doors and gates

- Inspecting process control equipment to ensure proper operation of all pumps and treatment systems, chemical feed systems, etc.

- Checking pumping stations for operational condition in addition to routine readings

- Cleaning chambers, reservoirs and all other facilities

- Monitoring and enforcement of equipment warranties and activities required to preserve such warranties

- General cleaning, calibration, equipment adjustments, lubrication, repairs, and painting to preserve the condition and appearance of the Facilities

The Supplier shall perform predictive maintenance techniques to monitor and test equipment used during normal operation. This data shall be used to indicate if conditions exist that may lead to equipment failure, including trending analysis to predict equipment useful life. Predictive maintenance techniques include the following:

- Vibration analysis

- Oil analysis

- Infrared thermography

- Motor circuit evaluation

- MCC thermography

This comprehensive maintenance approach should ensure that all plant equipment that is part of the Facilities is always in top condition to provide for maximum performance, dependability and life span. This program shall be augmented by the Supplier corporate and regional staff in terms of training and support. In addition, the Supplier shall make use of various local firms that possess the skills and technology that may be required to supplement the Supplier resources.

All maintenance activities shall be documented and included in summary reports to the Municipality. Summary reports shall also include work order backlog, projects completed, projects scheduled, total monthly and year-to-date repair and maintenance costs, and an assessment of the program and staff utilization. Summary reports shall be provided by the Supplier on a monthly and annual basis. The Supplier shall provide the Municipality full documentation validating that the appropriate maintenance procedures are being performed on all Municipally owned equipment in accordance with manufacturer recommendations and Standard Industry Practice. The documentation will indicate the defined service intervals and a description of the service activities in sufficient detail to satisfy the interest of the Municipality. The maintenance program shall include documentation of maintenance and spare parts inventory.

The Supplier shall provide all personnel material, parts, equipment, subcontractors, and services necessary to maintain the Facilities structures, process equipment, buildings, HVAC systems, electrical equipment, instrumentation and controls, sewage collection systems, water distribution systems, etc. to maintain high efficiency operations, long-term reliability and preservation of capital investment, excepting that Capital Expenditures, Unexpected Expenses, Excluded Services, and breakdown maintenance of $7,000 or more

shall be treated as per the Services Agreement. Routine and predictive maintenance costs up to a single item or event cost of $7,000 or annual aggregate cost of $30,000 shall be considered within the scope of Services, including the cost of labour, services, materials and replacement parts, lubricants, filters, belts, and all other consumable materials.

(xii) DWQMS

The Supplier shall obtain and maintain accreditation as the operating authority under the Safe Drinking Water Act.. Supplier shall undertake:

- Operate water facilities according to DWQMS operational plans
- Ongoing maintenance of operation plans
- Annual internal audits as required under DWQMS
- Annual Management review as required under DWQMS
- Participation in external DWQMS audits every 3rd year
- Maintain documentation according to document management system

Schedule 2.4
Supplier Rate Schedule for Excluded Services

Defined terms set out below but not defined in this Schedule 2.4 shall have the meaning ascribed to such terms in the main body of the Agreement.

Where the Supplier provides Excluded Services, the following rates (which shall be subject to annual CPI adjustment pursuant to Article 4.4(b)) shall apply:

	Hourly Rate	**Subcontracted Cost**	**VWC Mark-up**	**Total**
Monday Through Friday - Business Hours	$63.09			
Overtime Monday Through Saturday	$97.49			
Sundays and Holidays	$108.98			
Shutoffs and Turn-ons in excess of Thirty five (35) per year (Note 2)				$45.89
Utility locates in excess of forty (40) per year				$63.09
Raise or lower curb stops in excess of twenty five (25) per year				$63.09
New Service Installations for fill in lots beyond ten (10) per year		Cost plus VWC Markup	13%	
Service Thawing (1)		Cost plus VWC Markup	13%	
Water Main or sewer Swabbing, cleaning, jetting, or televising using 3rd party services,		Cost plus VWC Markup	13%	
Sewer backup clearing, or rodding using municipalities equipment in excess of five (5) per year		Cost plus VWC Markup	13%	
Sewer Televising with Municipalities equipment beyond (25) per year		Cost plus VWC Markup	13%	

(1) All supervision for subcontracted service will be charged at the above applicable rates.

(2) Shutoffs and Turn-ons includes all services to a given address within one business day.