

Schedule 2

Schedule 2.1(a) Description of the Facilities

Defined terms set out below but not defined in this Schedule 2

Schedule 2.1(a) shall have the meaning ascribed to such terms in the main body of this Agreement. In the event of any inconsistency between the terms of this Schedule 2

Schedule 2.1(a) and the terms of the main body of this Agreement, the latter shall govern.

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

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

The street address for WWTP is as follows: 60 Lloyd St, Wingham, Ontario

General Description of facility:

The Wingham Wastewater Treatment Plant is an activated sludge secondary treatment plant with chemical Phosphorus removal with a Rated Capacity of 3400 cubic metres per day. As described in ECA 1040- 9HAN94 issued May 30, 2014. The Wingham sanitary sewer system consists of approximately 31 km of gravity sanitary sewers collected at the sewage pumping station on Josephine St, fitted with 3 line shaft pumps, an emergency standby diesel generator, alarms and controls, that discharges raw sewage via a twinned force main to the modified Sutton process treatment plant located at the west end of Lloyd St. The process consists of a bar screen, 2 mechanical surface aerated aeration basins, 2 flight and chain longitudinal clarifiers, discharging either directly to or through 2 storage lagoons a ultraviolet light disinfection unit. Phosphorous removal achieved through gravity separation using ferric chloride. Currently sludge accumulates in the southerly lagoon and removed as required.

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

General Description of facility:

The Wingham water supply consists of 2 independent non gudi groundwater well supplies at Albert and Water Streets using chlorination as primary and secondary disinfection and sodium silicate as iron sequestering complete with standby and portable emergency diesel generators and chlorine contact facilities. Well 3 (Water St, rated at 76 Liters/second discharges directly to the 29 km of distribution watermain where Well 4 (64L/s) discharges to an underground chlorine contact tank and is then pumped to the distribution with 3 line shaft pumps. The distribution also has elevated storage (standpipe) at the west end of John St that has been inspected and deemed potentially needing replaced in the near future. Detailed description contained in MOECC Drinking Water Works Permit and Licences as of January 28, 2016.

(iii) Blyth Wastewater collection, treatment and disposal system

General Description of facility:

The Blyth sanitary sewer system consists of approximately 13 km of gravity sanitary sewers collected at the west end of Thuell St fitted with 3 submersible pumps, controls and alarms, discharging to the sewage treatment plant located at the west end of North St. The sewage treatment plant consists of bar screen and grit removal, 2 aeration basins fitted with fine bubble diffusion and air supplied with 3 rotary lobe compressors, a circular secondary clarifier, chlorination facilities and a tertiary multimedia filter. Phosphorous removal achieved through gravity separation using ferric chloride. Sludge is collected and thickened in a preliminary digester where it is then transferred to a sludge holding tank. Detailed description contained in MOECC C of A 8687-826L6Z issued February 9, 2010.

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

General Description of Facility:

The Blyth Water supply consists of 2 groundwater well supplies with a combined realistic rate of 15 L/s on Thuell St, deemed non gudi, discharging to an in ground chlorine contact/storage facility. There are 2 highlift pumps pumping from the reservoir to the apprx 12.7 km of water distribution piping during normal useage and via a diesel powered higher capacity fire pump during unusual situations. Emergency power is supplied by a manually switched diesel powered emergency generator. A standby well has been constructed in 2015 where design and construction of the new treatment system is anticipated to be completed at end of 2016. Detailed description contained in MOECC Drinking Water Works Permit and License as of January 18, 2016.

Schedule 2.1(b)
Scope of Supplier Services

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

(i) Wingham and Blyth Wastewater Collection, Treatment, and Disposal System

- Continuous monitoring of the Wastewater Treatment Facility processes and response to alerts/alarms
- Daily inspection and maintenance of the Wastewater Treatment Facility to ensure acceptable operation of the headworks, 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 stations 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.
- Screenings and grit disposal as necessary
- Routine hosing/washing of weirs, walls, and channel in aeration and secondary clarifier
- Routine monitoring 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, cleaning, inspection and maintenance of aeration diffusers as per manufacturer specifications, of aeration distribution piping grid, and condition of concrete
- 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 process chemicals as necessary
- Routine monitoring and replenishment of fuel tanks for stand-by generators. Fuel shall be supplied by a supplier within the Municipality.
- Routine cleaning, inspection and maintenance of chlorine pumps, and of chlorine contact chambers
- Routine cleaning, inspection and maintenance of UV disinfection system, including changing of bulbs and sleeves.
- Routine monitoring and recording of wastewater 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 and administer sludge hauling and land application from the Blyth WWTP.
- Manage sludge hauling and land application from the Wingham sludge storage lagoon on an as needed basis. The Wingham sludge hauling and land application shall be handled as a municipal capital project, The contract shall be between a third party and the Municipality at the Municipality's cost, or between VWC and third party as out of scope services
- Routine monitoring and operation of the service water system to minimize potable water usage
- Monthly test operation of the standby generator for approximately 1 hour duration, under load
- Provide for annual visual inspections of Wastewater Manholes, including visual inspection for debris accumulation, structural integrity of walls and access ladders, condition of benching, and infiltration/inflow, and provide a report of manholes needing maintenance or replacement. VWC to provide labour to perform sanitary sewer lateral video inspections, (of blockages) using NH inspection equipment of adequately cleaned and cleared services and to provide a copy of the footage to NH with a report of the issues and an opinion as to the cause of the blockage.
- Provide labour to operate the NH sewer flushing truck to power flush approximately 1/5 of the Wingham and Blyth collection systems annually, with an additional approximate 500m of identified sections annually.
- Provide oversight to Municipal contractor performing mainline camera inspections of approximately 1/5 of the collection system. CCV inspection reports to be reviewed by VWC. (alternatively VWC may provide CCV inspections and/or provision of an Underground Asset Management System (UGAM) for a negotiated rate, such services are currently outside of the scope of work)
- Outside wastes in excess of an average daily intake of 40 m³, or exceeding the North Huron sewer use bylaw at out of scope, but 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 outside wastes 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) Wingham and Blyth Water Supply, Treatment, and Distribution System

- Continuous monitoring of the Water Treatment Facility processes and response to alerts/alarms
- Weekly inspection and maintenance of the Water Distribution stand pipe to ensure acceptable operation of the wells, chlorine 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
- Daily monitoring and operation of the hypochlorite chlorination system and sodium silicate feed system including, checking the chemical feed pumps and optimization of chemical dosing
- Daily distribution free chlorine residual testing
- 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, 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 semi annually.
- Monthly test operation of the standby generator
- Repair and paint hydrants where necessary, and winterize each fall
- Routine monitoring of water standpipe 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, and system pressures), inspection of booster stations, exercising of main distribution shutoff valves, and regular collection of distribution samples
- Exercise 100% 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
- Replacement of upto 2 hydrants annually (cost of hydrants to be charged to Maintenance and Repair Limit)
- 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
- Bimonthly reading of water meters (half of all meters read on a monthly basis)

(iii) General Services

- Monitor the Facilities twenty-four (24) hours per day, seven (7) days per week
- Provide water and sewer locates, water connects and disconnects as required, to a maximum of 150 per year combined. Additional locates and service requests performed on an Out of Scope basis.
- Prepare and submit all required regulatory reports, including monthly, quarterly, and annual reporting.
- Attend Council Meetings on an annual basis, as requested, to report on Facility performance and attendance as needed at Council Meetings to address unusual and urgent issues.
- 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, Computerized Maintenance Management Software Databases, and Compliance Management System
- Within the first ninety (90) days of the start of the Initial Term of this Agreement, provide Owner a list of recommended capital improvements for the Facilities
- 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)
- 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 VWC to perform the Services
- Maintain manufacturer's warranties on new equipment purchased by the Municipality
- Supervise contractors performing sewer or water main cleaning.
- As part of annual capital planning, work with Municipality to plan VWC staff involvement in Municipal Capital projects, including roads projects. VWC staff will assist with or perform water related construction activities, subject to time availability. VWC Staff's top priority will be water and wastewater operations and maintenance and this should not be negatively impacted by involvement in Municipal Capital projects.
- VWC will add one phone line to serve as office line, Municipality will provide all other land line phone and internet access at all sites.

(iv) Staffing, Training, and Corporate Resources

VWC 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, and statutory holidays)
- Provide on-call coverage seven (7) days per week, twenty-four (24) hours per day
- Provide a minimum staff of 3.0 full-time on site employees dedicated to the Municipality project including one (1) Operations Supervisor, and two (2) full-time operators. In addition one (1) part time administrative assistant, and one (1) Project Manager shared with the Goderich Project.
- Fill all vacancies as soon as reasonably possible and within a maximum 4 month period.

- 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 VWC 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
- 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)

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

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

- Compliance Management System
- Peer Audit Review Program (Formal Comprehensive O&M Audit)
- Process Control Software
- Process Control Management Plan (PCMP, Process Oversight System)
- Computerized Maintenance Management Software
- Laboratory QA/QC (Laboratory Management 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

VWC 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, software will generate the operations database and monitor the process control..

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

- VWC shall provide a corporate level safety management program to monitor occupational health and safety of the project.
- VWC 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 VWC 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.
- VWC shall utilize a Compliance Management System to ensure all required reporting and other necessary functions are completed on time.
- VWC shall provide staff at the project level access to the corporate Regulatory Compliance Database as required.
- VWC shall provide staff at the project level access and training with respect to the corporate Safety Policies and Procedures Manual.
- VWC 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.
- VWC 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.
- VWC 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.

- VWC shall provide a Safety Incentive Program to reinforce the importance of safety and recognize those who achieve outstanding safety performance,.

(vi) Residuals Management

VWC 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, VWC shall arrange for and manage sludge disposal utilizing the contract(s) for disposal procured and managed by the Municipality. Sludge disposal shall be 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 Wastewater Treatment Plants, by the Municipality, subject to the Change of Law provisions set forth in Article 2.10.

(vii) Disaster, Contingency, and Emergency Programs

VWC 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. This plan shall be developed based on any existing plans for the Facilities, and the Municipalities Emergency Plan. In the case of an Emergency Response, VWC 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.

(viii) Asset Management

VWC shall provide for asset management of the Facilities in accordance with the objectives provided, 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. VWC 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

VWC 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 updated annually.
- Ensuring the security of the facilities by locking doors, gates and access hatches.
- 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

VWC 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.

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 VWC on a monthly and annual basis. VWC 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.

VWC 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 \$10,000 or more

shall be treated as per the main body of this Agreement. Routine and predictive maintenance costs up to a single item or event cost of \$9,999 or annual aggregate cost of \$24,999 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.

VWC shall assist the Municipality with its preparation and maintenance of the NH Municipal Financial Plan through use of CMMS data.

(ix) DWQMS

VWC 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
- Provide ongoing maintenance of operation plans
- Provide annual internal audits as required under DWQMS
- Provide annual Management review as required under DWQMS
- Participate in external DWQMS audits every 3rd year
- Participate in annual external surveillance audits
- Maintain documentation according to document management system
- Provide Annual report and presentation to Council on the DWQMS system
- Cost of internal and external audits are included in the scope of work
- Fees required for amendments to facility approvals, permits and licenses, due to changes or upgrading of Facilities shall be the responsibility of Municipality

Schedule 2.2
Supplier Rate Schedule for Excluded Services

Defined terms set out below but not defined in this Schedule 2. shall have the meaning ascribed to such terms in the main body of this Agreement.

Where VWC provides Out of Scope Services, the following rates shall apply:

	Veolia Hourly Rate	Subcontracted Costs	Unit Price
Monday Through Friday - Business Hours	\$60.00		
Overtime Monday Through Friday	\$90.00		
Weekends and Holidays	\$125.00		
Operator Call-ins for Out of Scope Services (minimum 3 hrs.):	\$90.00	Cost plus VWC Markup of 13%	
Project Manager Regular Work Hours:	\$80.00		
Project Manager Regular After Hours:	\$140.00		
Professional or Skilled Trades Regular Hours:	\$95.00		
Utility locates , and Water Shutoffs and Turn-ons in excess of forty (150) per year			\$55.00
Other Out of Scope Services		Cost plus VWC Markup of 13%	

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

Schedule 2.3(a) Drinking Water Performance Guarantee

Defined terms set out below but not defined in this Schedule 2.8(a) shall have the meaning ascribed to such terms in the main body of this Agreement. In the event of any inconsistency between the terms of this Schedule 2.8(a) and the terms of the main body of this Agreement, the latter shall govern.

(i) **Wingham Water Supply, Treatment, and Distribution System**

	Raw Water Influent Specification	Drinking Water Specification
Flow		
Maximum Monthly Average (m ³ /d)	11807	11807
Maximum Day (m ³ /d)	11807	11807
Quality Parameters		
Total Coliform (CFU/100mL)	-	Non-detectable
E. Coli (CFU/100mL)	-	Non-detectable
Turbidity (NTU)	1.0 (sustained)	1.0 (sustained)
Free Residual Chlorine (mg/L)	-	0.20

(ii) **Blyth Water Supply, Treatment, and Distribution System**

	Raw Water Influent Specification	Drinking Water Specification
Flow		
Maximum Monthly Average (m ³ /d)	1776	1776
Maximum Day (m ³ /d)	1776	1776
Quality Parameters		
Total Coliform (CFU/100mL)	-	Non-detectable
E. Coli (CFU/100mL)	-	Non-detectable
Turbidity (NTU)	1.0 (sustained)	1.0 (sustained)
Free Residual Chlorine (mg/L)	-	0.20

Schedule 2.3(b) Wastewater Performance Guarantee

Defined terms set out below but not defined in this Schedule 2.8(b) shall have the meaning ascribed to such terms in the main body of this Agreement. In the event of any inconsistency between the terms of this Schedule 2.8(b) and the terms of the main body of this Agreement, the latter shall govern.

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

VWC shall meet the effluent quality below based on the Wastewater Influent Specification to ensure compliance with ECA #1040-9HAN94

	Wastewater Influent Specification	Wastewater Effluent Specification	Objectives (Best Efforts)
Flow			
Maximum Monthly Average (m ³ /d)	3400	3400	
Carbonaceous Biochemical Oxygen Demand (CBOD₅)			
Maximum Monthly Average (mg/L)	200	25.0	15.0
Maximum Monthly Average (kg/d)		85.0	51.0
Total Suspended Solids (TSS)			
Maximum Monthly Average (mg/L)	200	25.0	15.0
Maximum Monthly Average (kg/d)		85.0	51.0
Total Ammonia Nitrogen (NH₄⁺ + NH₃)			
Maximum Monthly Average (mg/L) Non freezing period	30 (TKN)	2.0	0.8
Maximum Monthly Average (kg/d) Non Freezing period		6.8	2.7
Maximum Monthly Average (mg/L) Freezing period	30 (TKN)	7.7	3.0
Maximum Monthly Average (kg/d) Freezing period		25.0	10.2

Total Phosphorus (TP)			
Maximum Monthly Average (mg/L)	4.0	1.5	.5
Maximum Monthly Average (kg/d)		5.1	1.7
Hydrogen Sulphide			
Maximum Monthly Average (mg/L)		ND <0.02	ND
E Coli ⁽¹⁾			
Annual Geometric Mean Density (CFU/100 mL)	-	200	150
pH			
At all times	6.0 - 9.0	6.0 – 9.0	6.5 – 9.0

(ii) Blyth Wastewater System

VWC shall meet the effluent quality below based on the Wastewater Influent Specification to ensure compliance with ECA #8687-826L6Z (Being Replaced March 2016).

	Wastewater Influent Specification^(a)	Wastewater Effluent Limits as per ECA^(b)	Objectives (best efforts)
Flow			
Maximum Monthly Average (m ³ /d)	730 (avg)	2,730 (peak)	
Carbonaceous Biochemical Oxygen Demand (CBOD₅)			
Maximum Monthly Average (mg/L) May - Oct	250	5	4
Maximum Monthly Average (kg/day) May - Oct		3.7	
Maximum Monthly Average (mg/L) Nov - April	250	15	4
Maximum Monthly Average (kg/day) Nov - April		11	
Total Suspended Solids (TSS)			
Maximum Monthly Average (mg/L) May - Oct	200	5	4
Maximum Monthly Average (kg/day) May - Oct		3.7	
Maximum Monthly Average (mg/L) Nov - April	200	15	4
Maximum Monthly Average (kg/day) Nov - April		11	
Total Ammonia Nitrogen (NH₄⁺ + NH₃)			
Maximum Monthly Average (mg/L)	35 (TKN)	17 Jan 21 Feb 14 March 6 April 3 May 1 June – Sept 3 Oct – Nov 11 Dec	1 May – Nov 3 Dec - April

Total Phosphorus (TP)			
Maximum Monthly Average (mg/L) May - Oct	5	0.3	0.1
Maximum Monthly Average (kg/day)		0.2	

May - Oct			
Maximum Monthly Average (mg/L) Nov - April		1	0.1
Maximum Monthly Average (kg/day) Nov - April		0.7	
Total Chlorine Residual			
Maximum Monthly Average (mg/L)		0.2	
E Coli ⁽¹⁾			
Annual Geometric Mean Density (CFU/100 mL)	-	200	100
pH			
At all times	6.0 - 9.5		6.0 – 9.5

- a) Raw sewage monitoring shall be sampled as a composite sample bi weekly as indicated in ECA #8687-826L6Z.
- b) Effluent monitoring shall be bi weekly composite, grab or calculated as indicated in ECA #8687-826L6Z.