NOVA SCOTIA
Environment

WATER AND WASTEWATER FACILITY CLASSIFICATION APPLICATION FORM

APPLICATION INSTRUCTIONS

- Please print or type.
- In keeping with the privacy provisions of the *Nova Scotia Freedom of Information & Protection of Privacy Act*, Environment will only use personal information for the purpose for which the information was obtained or compiled, or for a use compatible with that purpose.
- Include the classification application fee.
- Cheques may be made payable to the Nova Scotia Minister of Finance.
- Completed applications should be returned to your local district office of Nova Scotia Environment.
- Only complete sections applicable to your facility.

OFFICE USE ONLY

Date Received
Classification
Certificate #
Certificate Date

FACILITY CONTACT INFORMATION

FACILTY OWNER			
PRIMARY CONTACT		POSITION	
ADDRESS		CITY	
PROVINCE	POSTAL CODE	PHONE NUMBER	FAX NUMBER

CLASSIFICATION APPLIED FOR

☐ Water Treatment	FACILITY NAME
☐ Water Distribution	FACILITY NAME
☐ Wastewater Treatment	FACILITY NAME
☐ Wastewater Collection	FACILITY NAME

OFFICIAL VERIFICATION

I hereby certify with my signature that the information contained in this application was completed to the best of my knowledge.

PRINT NAME	POSITION
SIGNATURE	DATE

WATER DISTRIBUTION FACILITY CLASSIFICATION

Only complete this section if you requested a **water distribution facility** to be classified.

POPULATION SERVED

WASTEWATER COLLECTION FACILITY CLASSIFICATION

Only complete this section if you requested a **wastewater collection facility** to be classified.

POPULATION SERVED

WATER TREATMENT FACILITY CLASSIFICATION

Only complete this section if you requested a **water treatment facility** to be classified.

MAXIMUM POPULATION SERVED	DESIGN FLOW (AVERAGE DAY)	PEAK MONTH'S (AVERAGE DAY)

Size	
	Design flow average day, or peak month's average day, whichever is larger (1 point per 1.892 million litres. Round up.) Design flow: Consider this to be the design capacity of the plant. Examples 40 MLD = 19 point 18.9 MLD = 10 points (20 points maximum)
Water Supply Source	
☐	Seawater/saltwater
☐	Groundwater (non-GUDI)
☐	Groundwater under the direct influence of surface water (GUDI)
☐	Surface Water/GUDI
Average Raw Water Quality – applies to all sources (surface and groundwater). Key is the effect on treatment process changes that would be necessary to achieve optimized performance	
☐	Little or no variation – no treatment provided except disinfection
☐	Minor variations e.g. "High quality" surface source appropriate for slow sand filtration
☐	Moderate variations in chemical feed, dosage changes made: monthly
☐	Variations significant enough to require pronounced and/or very frequent changes
☐	Severe variations – source subject to non-point discharges, agricultural / urban storm runoff, flooding
☐	Raw water quality subject to agricultural or municipal waste point source discharges
☐	Raw water quality subject to industrial waste pollution
Raw water quality is subject to:	
☐	Taste and/or odour for which treatment process adjustments are routinely made
☐	Colour >15 TCU (not due to precipitated metals)
☐	Iron or /and manganese : Fe (2 points) or Mn (3 points) concentrations above aesthetic objective 3 points maximum allowed
☐	Algal growths for which treatment process adjustments are routinely made
Chemical Treatment / Addition Processes	
☐	Fluoridation
☐	Disinfection / Oxidation (Note: Points are additive to a maximum of 15 points allowed for this category.) Check all that apply: • Chlorination ☐ • Hypochlorination ☐ • Generated on site ☐ • Chlorine gas ☐ • Chloramination ☐ • Chlorine dioxide ☐ • Ozonation ☐ • UV Irradiation ☐ • Iodine, Peroxide or similar ☐ • Potassium permanganate ☐ (if used with greensand filtration do not apply)
☐	pH adjustment for process control (e.g. pH adjustment aids coagulation
☐	Stability or Corrosion control (if the same chemical is used for both corrosion control and pH adjustment, no not apply)
Coagulation / Flocculation and Filter Aid	
☐	Primary coagulant addition
☐	Coagulant aid / Flocculant chemical addition (in addition to primary coagulant use)
☐	Flocculation
☐	Filter aid addition (non-ionic / anionic polymers)

Clarification / Sedimentation	
☐	Sedimentation (plain, tube, plate)
	Contact adsorption
	Other Clarification processes (air flotation – DAF, ballasted clarification, etc)
☐	Upflow clarification (“sludge blanket clarifier”)
Filtration	
☐	Granular media filtration (surface water /GUDI) < 122 lpm / sq m
☐	Granular media filtration (surface water /GUDI) >122 lpm / sq m
☐	Groundwater filtration
☐	Membrane filtration
☐	Diatomaceous earth (pre-coat filtration)
☐	Cartridge / bag filters
☐	Pre-filtration (staged filtration, pressure sand w/o coagulation, etc.)
☐	Slow sand
Other Treatment Processes	
☐	Aeration
☐	Air stripping (including diffused air, packed tower aeration)
☐	Ion exchange / softening
☐	Greensand filtration
☐	Lime-soda ash softening (includes: chemical addition, mixing/flocculation/clarification/filtration
☐	Granular activated carbon filter (do not include if already as a bed layer in another filter)
☐	Powdered activated carbon
☐	Reservoir management employing chemical addition
	Blending sources with significantly different water quality • To achieve health related compliance ☐ • For aesthetic reasons ☐
☐	Electrodialysis
☐	Other: Certification authority may assign 2 to 15 additional points for processes not listed elsewhere in this document. (Specify:_____)
Residual Disposal	
☐	Discharge to surface, sewer, or equivalent
☐	On-site disposal, land application
☐	Discharge lagoon / drying bed, with no recovery /recycling – e.g downstream outfall
☐	Backwash recovery /recycling: discharge to basin or lagoon and then to source
☐	Backwash recovery / recycling : discharge to basin or lagoon and then to plant intake
Facility Characteristics –Instrumentation – Use of SCADA or similar instrumentation systems to provide data, with:	
☐	Monitoring / alarm only, no process operation – plant has no automated shutdown capability
☐	Limited process operation – e.g. remote shutdown capability
☐	Moderate process operation –alarms and shutdowns, plus partial remote operation of plant
☐	Extensive or total process operation – alarm and shutdowns, full remote operation of plant possible

WASTEWATER TREATMENT FACILITY CLASSIFICATION

Only complete this section if you requested a **wastewater treatment facility** to be classified

MAXIMUM POPULATION SERVED	DESIGN FLOW (AVERAGE DAY)	PEAK MONTH'S (AVERAGE DAY)

Variation in Raw Waste	
☐	Variations do not exceed those normally or typically expected
☐	Recurring deviations or excessive variation of 100 to 200% in strength and/or flow
☐	Recurring deviations or excessive variation of more than 200% in strength and/or flow
☐	Raw wastes subject to toxic waste discharges
0 1 2 3 4	Impact of septage or truck-hauled waste, zero is low (circle one)
Preliminary Treatment	
☐	Plant pumping of main flow
☐	Screening or Comminution
☐	Grit Removal
☐	Equalization
Primary Treatment	
☐	Clarifiers
☐	Imhoff Tanks or similar
Secondary Treatment	
☐	Fixed Film Reactor
☐	Activated Sludge
☐	Stabilization ponds without aeration
☐	Stabilization Ponds with aeration
Tertiary Treatment	
☐	Polishing ponds for advanced waste treatment
☐	Chemical/physical advanced waste treatment w/o secondary
☐	Chemical/physical advanced waste treatment following secondary
☐	Biological or chemical/biological advanced waste treatment
☐	Nitrification by designed extended aeration only
☐	Ion exchange for advanced waste treatment
☐	Reverse osmosis, electrodialysis and other membrane filtration techniques
☐	Advanced waste treatment chemical recovery, carbon regeneration
☐	Media filtration

Additional Treatment Processes	
☐	Chemical Additions
☐	Dissolved Air Flotation
☐	Intermittent Sand Filter
☐	Recirculating Intermittent Sand Filter
☐	Microscreens
☐	Generation of Oxygen
Solids Handling	
☐	Solids stabilization
☐	Gravity thickening
☐	Mechanical dewatering
☐	Anaerobic digestion of solids
☐	Utilization of digester gas for heating or cogeneration
☐	Aerobic digestion of solids
☐	Evaporative sludge drying
☐	Solids reduction (including incineration, wet oxidation)
☐	On-site landfill for solids
☐	Solids composting
☐	Land application of biosolids by contractor
☐	Land application of biosolids under direction of facility operator in direct responsible charge
Disinfection	
☐	Chlorination or Ultraviolet irradiation
☐	Ozonation
Effluent Discharge	
☐	Mechanical post aeration
☐	Direct recycle and reuse
☐	Land treatment and disposal (surface or subsurface)

Continued on next page

Instrumentation	
☐	The use of SCADA or similar instrumentation systems to provide data with no process operation
☐	The use of SCADA or similar instrumentation systems to provide data with limited process operation
☐	The use of SCADA or similar instrumentation systems to provide data with moderate process operation
☐	The use of SCADA or similar instrumentation systems to provide data with extensive or total process operation
Laboratory Control – Bacteriological/Biological	
☐	Lab work done outside the plant
☐	Membrane filter procedures
☐	Use of fermentation tubes or any dilution method; fecal coliform determination
Laboratory Control - Chemical/Physical	
☐	Lab work done outside the plant
☐	Push button or visual methods for simple tests such as pH or settable solids
☐	Additional procedures such as Dissolved Oxygen (DO), Chemical Oxygen Demand (COD), Biological Oxygen Demand (BOD), gas analysis, titrations, solids, volatile content
☐	More advanced determinations such as specific constituents; nutrients; total oils, phenols
☐	Highly sophisticated instrumentation such as atomic absorption, gas chromatography