Information Requirements Table for MWR Registrations

Application Tracking Number: Click here to enter text.
Authorization Number:Click here to enter text.
[insert company / project name]

Applicant Summary	
Application Tracking #	
Authorization #	
Applicant / Facility Name	

Ministry of Environment	
Prepared by:	
Title	
Date	

The *Information Requirements Table (IRT) for Municipal Wastewater Regulation (MWR) Registrations* is a tool used by Ministry of Environment staff to document specific guidance and instructions given to a registrant pursuing an exemption from sections 6(2) and (3) of the *Environmental Management Act* to discharge municipal effluent or provide reclaimed water in accordance with the MWR.

Note - this document was developed to capture all the items and complexities concerning municipal wastewater regulation registrations.

Accordingly, for any given application, not all the items will apply and not all required items will warrant detailed discussion of Methods and other concerns.

As part of the Preliminary Application Phase, MOE will discuss with the applicant the items listed in this table to determine what will be required in support of their final application. A tick mark in the "Required" column of the table indicates an information item to be included into the application package as agreed to by both parties or as directed by MOE. Should it be determined that specific Methods will be used to derive this information, this will be specified with a tick mark in the " Methods" column. Specific Methods may not be necessary for applications that will not require a subject matter expert review. In cases where complex impact assessments are to be undertaken, agreement on the Methods used will be required. For simple Methods, the Methods used could be discussed with the applicant in a meeting and noted as agreed to in the table. For more complex Methods, the applicant may be required to submit a " Methods Package" by an agreed date for MOE review, comment and acceptance. Once Methods are accepted by MOE they should be either described in the " Methods" column or a reference made to the document describing the Methods Package.

If required, this document will form part of an Application Instruction Document (AID) which documents application submission requirements for the applicant. The AID is issued by the Director after a preliminary application meeting has occurred.

The MOE will be assessing this application against this table and it is expected that the applicant does the same prior to any preliminary meetings and/or prior to any final submissions. The Ministry will be screening the final received application against the requirements noted in the AID to ensure it is complete before resources are dedicated to a full, detailed review.

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1 **SUMMARY REQUIREMENTS - Minimum Submissions for Registration** Construction & Operation of Wastewater facility prohibited unless in compliance with MWR s. 40, 45-48 & summary requirements below:			
1.1 Registration form [MWR s. 11]	Required ☒ Methods ☐		
1.2 Technical Information Sheet [MWR s. 12]	Required ☒ Methods ☐		
1.3 Detailed Monitoring Program [MWR s. 12, , 86-88, 103, 118, 119]	Required ☒ Methods ☐		
1.4 Receiving Environment EIS includes Construction and Operations [MWR s. 13]	Required ☒ Methods ☐		
1.5 Operating Plan [MWR s. 13, 23]	Required ☒ Methods ☐		
1.6 Commissioning Plan [MWR s. 24]	Required ☒ Methods ☐		
1.7 Contingency Plan [MWR s. 25]	Required ☒ Methods ☐		
1.8 Irrigation Plan – if reclaimed water [MWR s. 26]	Required ☐ Methods ☐		
1.9 QP signed & stamped Design Drawing of treatment and discharge works [MWR s.13]	Required ☒ Methods ☐		
1.10 Site Plan showing all receiving environment monitoring sites, discharge sampling sites and discharge locations [MWR s.13]	Required ☒ Methods ☐		
1.11 Signed & Stamped Certification by QP's (EIS, Design & other requirements) [MWR s. 15]	Required ☒ Methods ☐		
1.12 Municipality notified if required [MWR s. 14]	Required ☐ Methods ☐		
1.13 EOCP Certification of Facility & Operator [MWR s. 47]	Required ☒ Methods ☐		
1.14 Fees [MWR s. 10(2)(c)]	Required ☒ Methods ☐		
1.15 Security / Assurance Plan in place if required [MWR s. 27-30]	Required ☐ Methods ☐		
1.16 Full justification within EIS for any requested substitutions or waivers [MWR s. 8]	Required ☐ Methods ☐		
2 **Proof of Certain Matters [MWR s. 14]**			
2.1 Water conservation measures significant to the facility design and required restrictive covenants in place?	Required ☐ Methods ☐		

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2.2 Approval required by the municipality to construct the facility?	Required ☐ Methods ☐		
2.3 Development permit applied for and the municipality notified of the intent to register?	Required ☐ Methods ☐		
2.4 Does a local service area bylaw apply and to be included with the Registration?	Required ☐ Methods ☐		
2.5 Reclaimed water proposed and notification/approval of a health officer completed?	Required ☐ Methods ☐		
3 **Environmental Impact Studies [MWR s. 18-22]**			
3.1 Provisions for controlling environmental impact during the construction	Required ☒ Methods ☐		
3.2 Provisions for controlling environmental impact during the operation	Required ☒ Methods ☐		
3.3 Potential cumulative impacts of the discharge on the receiving environment	Required ☒ Methods ☐		
3.4 Establishes additional municipal effluent quality requirements if necessary to protect public health or the receiving environment	Required ☐ Methods ☐		
3.5 Establishes pre-discharge receiving environment monitoring locations sampling parameters and frequencies	Required ☒ Methods ☐		
3.6 Establishes post-discharge receiving environment monitoring locations sampling parameters and frequencies	Required ☒ Methods ☐		
3.7 Demonstrates the nature of the discharge will not adversely affect public health or the receiving environment	Required ☒ Methods ☐		
3.8 Addresses the impact on the receiving environment when municipal effluent quality or reclaimed water requirements are met	Required ☒ Methods ☐		
3.9 Addresses the impact on the receiving environment when municipal effluent quality or reclaimed water requirements are degraded	Required ☒ Methods ☐		
3.10 Establishes a receiving environment monitoring program that:			

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3.10.1 Provides for at least one control sampling station upstream up gradient or outside the influence of the IDZ	Required ☒ Methods ☐		
3.10.2 Obtains data to assess the potential impact of the discharge or reclaimed water	Required ☒ Methods ☐		
3.10.3 Obtains data to ensure that the discharge or reclaimed water does not or will not cause water quality parameters outside the IDZ to fail to meet water quality guidelines	Required ☒ Methods ☐		
3.10.4 Documents pre-discharge conditions.	Required ☒ Methods ☐		
3.11 If seasonal variations are significant in the receiving environment, a discharger must conduct pre-discharge monitoring during the most critical period of the year.	Required ☐ Methods ☐		
3.12 If section 42 *overflow* applies the EIS must identify measures to protect public health and the receiving environment and any treatment needed to protect the designated uses of the receiving water body	Required ☐ Methods ☐		
4 **Operating Plan (does not apply to collection system) [MWR s. 22-26]**			
4.1 Details the requirements for the proper operation, maintenance and monitoring of the wastewater facility including lift stations	Required ☒ Methods ☐		
4.2 Details the requirements for staff education and certification	Required ☒ Methods ☐		
4.3 Commissioning plan including:			
4.3.1 Operational procedures required to commission the wastewater facility	Required ☒ Methods ☐		
4.3.2 Monitoring required to demonstrate that no adverse environmental impacts result from commissioning	Required ☒ Methods ☐		
4.4 Contingency plan include:			
4.4.1 Emergency procedures for the wastewater facility including lift stations	Required ☒ Methods ☐		
4.4.2 Procedures for notifying a health officer when necessary	Required ☒ Methods ☐		

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4.4.3 Actions to be taken if municipal effluent quality fails to meet the requirements of this regulation	Required ☒ Methods ☐		
4.4.4 Alternate method of disposal or storage if reclaimed water use is not possible	Required ☐ Methods ☐		
4.5 Irrigation plan for reclaim water that:			
4.5.1 Describes appropriate use including the time of use	Required ☐ Methods ☐		
4.5.2 Specifies maximum application rate and growing season for crops or vegetation	Required ☐ Methods ☐		
4.5.3 Describes the site-specific loading vegetation nutrient and metal limits	Required ☐ Methods ☐		
5 **Security and Assurance Plans [MWR s. 28-31]**			
5.1 Are security and capital replacement funds or an assurance plan required?	Required ☐ Methods ☐		
5.2 Will the submitted proof of security and a capital replacement fund or assurance plan be acceptable to a director?	Required ☐ Methods ☐		
6 **Reliability Category [MWR s. 34-36]**			
6.1 A qualified professional must determine, based on an environmental impact study, which reliability category applies to a proposed wastewater facility	Required ☒ Methods ☐		
6.2 Will the design of the wastewater facility meet the component and reliability requirements [MWR Table 1 & s. 36]?	Required ☒ Methods ☐		
7 **Pumping Facility Requirements [MWR s. 37]**			
7.1 Pumping facilities must include at least 2 pumps with each pump capable of pumping peak design flows	Required ☒ Methods ☐		
7.2 For a 2-pump station will a receptacle be available for a portable generator?	Required ☐ Methods ☐		
7.3 For a multiple pump station, will the station have sufficient capacity to pump peak design flow when the largest pump is out of service?	Required ☐ Methods ☐		

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7.4 For multiple pump station an on-site generator must be available for standby power	Required ☐ Methods ☐		
7.5 Standby power must be capable of being activated before the hydraulic capacity of the pump station is exceeded.	Required ☐ Methods ☐		
8 **Combined Sewers [MWR s. 38]**			
8.1 A qualified professional must not design the construction or expansion of a combined sewer system.	Required ☒ Methods ☐		
9 **Septic Tanks [MWR s. 39]**			
9.1 If the wastewater facility is designed using a septic tank:			
9.1.1 The tank must have a hydraulic capacity of at least 2 days` minimum detention time at the design maximum daily flow.	Required ☒ Methods ☐		
9.1.2 Is the tank fitted with an effluent filter, a screen or an equivalent measure to protect pumps and prevent discharge of solids and floatables?	Required ☐ Methods ☐		
9.1.3 Is the discharge from a small, remote and seasonal facility and is there a request to waive the requirement of an effluent filter, screen or equivalent measure?	Waiver Requested☐ Methods ☐		
9.1.4 The septic tank must be accessible for pump out.	Required ☒ Methods ☐		
10 **Overflows [MWR s. 41-42] The minister may, on written request from a discharger, extend any date in Division 2 – Overflows, and Inflow and Infiltration Requirements**			
10.1 For collection systems of less than 10,000 persons, is the system to be designed to prevent overflows during storm or snowmelt events with a less than 5-year return period?	Required ☐ Methods ☐		
10.2 For municipal wastewater collection systems greater than 10,000 persons or more where overflows or snow melt events occur more than a 5 year return:			
10.2.1 Is there a liquid waste management plan that contains measures to eliminate overflows?	Required ☐ Methods ☐		
10.2.2 Will measures be developed and implemented to eventually eliminate overflows?	Required ☐ Methods ☐		

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11 **Use of Storage or Conveyance Facilities [MWR s. 43]**			
11.1 A discharger may not use storage or conveyance facilities to reduce the amount of sewer separation required or	Required ☐ Methods ☐		
11.1.1 the amount of inflow and infiltration reduction required unless the facilities immediately reduce and ultimately prevent the occurrence of combined sewer overflows	Required ☐ Methods ☐		
11.2 If facilities are used for the above and primary and secondary treatment is available the discharger must do all the following:			
11.2.1 provide at least primary treatment for flows greater than 2 times the ADWF;	Required ☐ Methods ☐		
11.2.2 use the full secondary capacity of the treatment system;	Required ☐ Methods ☐		
11.2.3 combine the primary and secondary municipal effluent prior to discharge;	Required ☐ Methods ☐		
11.2.4 maintain a minimum receiving environment-to-discharge dilution ratio of 40:1;	Required ☐ Methods ☐		
11.2.5 if disinfection is required, provide adequate excess disinfection capacity to ensure disinfection of the entire discharge flow.	Required ☐ Methods ☐		
12 **Inflow and Infiltration [MWR s. 44]**			
12.1 For collection systems of less than 10,000 persons, maximum average daily flow does not exceed 2 times the ADWF during storm and snow melt events with less than a 5-year return period	Required ☐ Methods ☐		
12.2 For collection systems greater than 10,000 persons or more where maximum average daily flow does exceed 2 times the ADWF during storm and snow melt events with less than a 5 year return:			
12.2.1 A liquid waste management plan that indicates how inflow and infiltration can be reduced	Required ☐ Methods ☐		
12.2.2 The development of a liquid waste management plan or conducting of a study that develops and implements measures to reduce inflow and infiltration	Required ☐ Methods ☐		

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12.3 Where reduction below 2 times the ADWF are not possible or cost effective full secondary treatment for entire flow at all times or storage and conveyance facilities	Required ☐ Methods ☐		
13 **General Operating Requirements [MWR Part 4, s. 45-50]**			
A discharger nust not discharge until ensuring that all of the following requirements are met:			
13.1 A qualified professional must design the wastewater facility to consistently meet the requirements of the Regulation or requirements substituted under MWR s. 8	Required ☒ Methods ☐		
13.2 A qualified professional must have undertaken the flow calculation, wastewater facility design and inspection to ensure that the facility will be constructed to meet design criteria	Required ☒ Methods ☐		
13.3 The facility must be classified under the EOCP	Required ☒ Methods ☐		
13.4 Facility must be operated and maintained by persons who have the education experience and qualifications specified in the operating plan and are certified under the EOCP.	Required ☒ Methods ☐		
14 **Disinfection and Chlorination [MWR s. 52]**			
14.1 A discharger must disinfect municipal effluent if necessary to ensure that receiving water or groundwater used for domestic or agricultural water extraction, recreational uses, or aquatic food production meets water quality guidelines	Required ☐ Methods ☐		
14.2 A discharger must not use chlorination to disinfect municipal effluent without authorization from a director unless			
14.2.1 The discharger first considers alternative disinfection Methods and	Required ☐ Methods ☐		
14.2.2 The municipal effluent discharged to surface water is dechlorinated below 0.02 mg/L total residual chlorine before discharge.	Required ☐ Methods ☐		
15 **Monitoring Facilities, Devices and Requirements [MWR s. 53- 60]**			
15.1 Are suitable sampling facilities to be installed for obtaining a sample of the effluent or reclaimed water?	Required ☐ Methods ☐		

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15.2 Is a suitable flow measuring device to record for each 24-hour period, the effluent volume discharged to be installed and maintained?	Required ☐ Methods ☐ Waiver Requested ☐		
15.3 Provide a suitable flow measuring device to record for each 24-hour period the volume of reclaimed water treated and used.	Required ☐ Methods ☐ Waiver Requested ☐		
15.4 Effluent flow, effluent quality, receiving environment monitoring and quality control data must be submitted as per MWR s. 55 (5)	Required ☐ Methods ☐		
15.5 Sampling schedule and analysis must be undertaken in accordance with MWR s. 56 and 57	Required ☒ Methods ☐		
15.6 Will toxicity monitoring be required for this discharge [MWR s. 58-60]?	Required ☐ Methods ☐ Waiver Requested ☐		
16 **Discharge to Ground [MWR Part 5, s. 68-88]* N/A ☐** (no discharge to ground) ***EIS for ground discharge must include assessment of hydrogeological conditions of the area that may be impacted or influenced by the discharge**			
16.1 A person must ensure that a discharge of municipal effluent within 300 m of a drinking water source meets Class A effluent requirements [MWR s. 80]	Required ☒ Methods ☐		
16.2 Is subsurface travel time at the point where the effluent surfaces, reaches a property line or is intercepted by a water well at least [MWR s. 72]:			
16.2.1 For class A or B municipal effluent, 6 days	Required ☒ Methods ☐		
16.2.2 For class C or D municipal effluent, 10 days	Required ☒ Methods ☐		
16.3 Effluent must not surface, or cause the groundwater table to be raised to the surface [MWR s.73]:			
16.3.1 Within 30 m beyond the disposal site perimeter	Required ☐ Methods ☐		
16.3.2 More than 30 m beyond the disposal site perimeter if there are no adverse impacts and water quality guidelines are maintained	Required ☐ Methods ☐		
16.4 A qualified professional must determine the calculated or actual maximum daily flow [MWR s. 74]	Required ☒ Methods ☐		
16.5 A qualified professional may use the actual maximum daily flow to design the wastewater facility if all of the below are applicable:			

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16.5.1 The actual daily flow is equal to or greater than 37 m^3/d	Required ☐ Methods ☐		
16.5.2 Water conservation measures are used	Required ☐ Methods ☐		
16.5.3 A restrictive covenant is placed on each property requiring that water conservation measures are continuously used	Required ☐ Methods ☐		
16.6 If actual maximum daily flow is used then daily discharge volume monitoring is required.	Required ☐ Methods ☐		
16.7 Class A, B or C effluent must meet the quality requirements set out in MWR Table 3. For class C lagoon systems the TSS level must not exceed 60 mg/L [MWR s. 75]	Required ☒ Methods ☐		
16.8 Class A and B effluent that is discharged to a drainfield must have filtration and monitoring controls (alarm) to prevent solids carrying over into the disposal field.	Required ☐ Methods ☐		
16.9 For class A or B municipal effluent, a discharger must ensure that the minimum unsaturated soil depth is 0.5 m [MWR s. 76]	Required ☐ Methods ☐		
16.10 For class C or D municipal effluent, a discharger must ensure that the minimum unsaturated soil depth for maximum daily flows of			
16.10.1 Less than 37 m^3/d is 0.75 m	Required ☐ Methods ☐		
16.10.2 37 m^3/d or more is 1 m.	Required ☐ Methods ☐		
16.11 Advanced Treatment such that total nitrogen is below 10 mg/l is required for the following locations [MWR s.77]:			
16.11.1 The Abbotsford-Sumas Aquifer in Abbotsford;	Required ☐ Methods ☐		
16.11.2 The Hopington and Langley/Brookswood Aquifers in Langley;	Required ☐ Methods ☐		
16.11.3 The Lower Nechako River Aquifer in Prince George;	Required ☐ Methods ☐		
16.11.4 The Lower Cowichan River Aquifer in Duncan;	Required ☐ Methods ☐		
16.11.5 The Grand Forks Aquifer in Grand Forks;	Required ☐ Methods ☐		
16.11.6 The Merritt Aquifer in Merritt;	Required ☐ Methods ☐		
16.11.7 The Osoyoos West and Osoyoos East Aquifers in Osoyoos;	Required ☐ Methods ☐		

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16.11.8 The Vedder River Fan Aquifer in Chilliwack;	Required ☐ Methods ☐		
16.11.9 The aquifers stretching from Osoyoos Lake to Tuc-el-Nuit Lake and from Tuc-el-Nuit Lake to Vaseux Lake.	Required ☐ Methods ☐		
16.12 Drainage pipe length (or a chamber distribution system) in each drain fields must be at least the length calculated using MWR Table 4 [MWR s. 78]	Required ☒ Methods ☐		
16.13 ASTM C33 sand filled trenches may be used to reduce percolation if discharging less than 37m3/day of class A or B effluent and percolation rates are less than 2 min per 25 mm	Required ☐ Methods ☐		
16.14 Flows greater than 37 m^3/d, if perc rates exceed 20 min per 25 mm, a qualified professional must supervise and ensure construction has not reduced trench wall permeability	Required ☐ Methods ☐		
16.15 Flows less than 37 m^3/d if perc rates exceed 20 min per 25 mm trench wall permeability may be reduced if the native soil depth exceeds 1.35 m from the bottom of the field to the level of the water table	Required ☐ Methods ☐		
16.16 Drainage pipe length may be reduced to a maximum of 40% if actual maximum daily flows (MWR s. 74 (2)) are used and the discharge is class A or B effluent	Required ☐ Methods ☐		
16.17 Drainfields with deeper, narrower trenches and reduced drainage pipe length (factor of $1/H^{0.5}$ or 0.8) may be used for perc rates less than 5 min per 25 mm, flows greater than 37 m3/d and cover of at least 0.15 m	Required ☐ Methods ☐		
16.18 A pressure distribution system is used for drainage pipes fed by a dosing syphon or pump;	Required ☐ Methods ☐		
16.19 Unless a pressure distribution system is used, the drainage pipe is at least 70 mm in diameter;	Required ☐ Methods ☐		
16.20 The drainage pipe cover is at least 0.15 m and meets local frost protection requirements.	Required ☒ Methods ☐		
16.21 A discharger must ensure that visual inspection ports are installed in the drain field.	Required ☒ Methods ☐		
16.22 Drainage pipes are provided in 2 drain fields, each having at least the length of drainage pipe required	Required ☒ Methods ☐		

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16.23 A third undeveloped drain field is retained as a standby area.	Required ☒ Methods ☐		
16.24 Drain fields are constructed with trenches spaced at least 3 m between the center of each trench OR	Required ☐ Methods ☐		
16.25 Drain fields are constructed at least 2 m apart ifthe performance of the drain fields would not be adversely affected and the standby area is at least doubled	Required ☐ Methods ☐		
16.26 Drainfield trenches are at least 0.6 m in width, with trench bottoms at least 0.3 m below the pipe invert.	Required ☒ Methods ☐		
16.27 All discharges to ground and standby areas meet the setback requirements in MWR s. 82 and Table 5	Required ☒ Methods ☐		
16.28 A discharger must ensure that subsurface fields, the standby area and a surrounding buffer strip as set out in row 2 ("building drain, buffer strip") of Table 5 are:			
16.28.1 Kept free of buildings or hard surfacing of any kind, and	Required ☒ Methods ☐		
16.28.2 Are not used for building drains or any activity that may cause damage to the system or interfere with its operation.	Required ☒ Methods ☐		
16.28.3 The wastewater facility itself is a building for the purposes of Table 5.	Required ☒ Methods ☐		
16.29 For the purposes of water well within unconfined aquifer, if, based on a hydrogeological assessment to determine the minimum distance required to protect the water quality of a water well,	Required ☐ Methods ☐		
16.29.1 The distance from the water well must be extended in accordance with the hydrogeological assessment, or	Required ☐ Methods ☐		
16.29.2 The maximum daily flow is more than or equal to 37 m^3/d, the distance may be decreased, if authorized by a director, to a distance of no less than 90 m.	Required ☐ Methods ☐		
16.30 If infiltration basins are to be used as per MWR s. 83 then:			
16.30.1 At least 2 basins must be provided to allow cleaning of one basin while the other is operating and to act as a safety factor for unusual conditions;	Required ☐ Methods ☐		

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16.30.2 For 2 basin systems, each basin must be capable of accepting all the municipal effluent under annual average rainfall conditions;	Required ☐ Methods ☐		
16.30.3 Subject to Division 1 *[General Requirements]*, discharge of municipal effluent to an infiltration basin must meet at least class C requirements.	Required ☐ Methods ☐		
16.31 If sand mounds or seepage beds are to be used as per MWR s. 84 then:			
16.31.1 Sand mounds and seepage beds are to be constructed using American Society for Testing and Materials C33 sand to reduce percolation;	Required ☐ Methods ☐		
16.31.2 The discharger must be **authorized by a director** to use the sand mounds and seepage beds.	Required ☐ Methods ☐		
16.32 Monitoring wells must be installed, in sufficient number and orientation, to measure background and receiving environment water quality.	Required ☒ Methods ☐		
16.33 The qualified professional must consider horizontal as well as vertical monitoring well arrays for sampling	Required ☒ Methods ☐		
16.34 A minimum of 4 monitoring wells per aquifer are required, one of which must be a background monitoring well	Required ☒ Methods ☐		
16.35 Effluent monitoring and reporting must be undertaken in accordance with MWR s. 86, Tables 6, 7 and 8 and s. 87(2)(3)	Required ☒ Methods ☐		
16.36 For maximum daily flows of 500 m^3/d or more weekly presence/absence coliform monitoring is required in accordance with MWR s. 87(1)	Required ☒ Methods ☐		
17 **Discharge to Water [MWR Part 6, s. 89 to 103] N/A ☐ (no discharge to water)**			
17.1 Toxicity monitoring requirements [MWR s. 58-60] for discharges to water other than open marine waters is required unless:			
17.1.1 The discharge quality does not exceed a maximum BOD5 and TSS of 10 mg/L each;	Required ☐ Methods ☐		
17.1.2 The discharge does not exceed a maximum daily flow of 50 m^3/d;	Required ☐ Methods ☐		

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17.1.3 The discharge is diluted such that at the outside boundary of the initial dilution zone the dilution ratio exceeds 100:1;	Required ☐ Methods ☐		
17.1.4 A director waives the requirement on the basis that the discharge does not adversely affect the receiving environment.	Required ☐ Methods ☐ Waiver Requested☐		
17.2 The edge of the Initial Dilution Zone [MWR s. 91] must be located at least 300 m away from the following:			
17.2.1 Recreational areas; (200 MPN at IDZ)	Required ☒ Methods ☐		
17.2.2 Aboriginal commercial or recreational shellfish harvesting areas; (14MPN at IDZ)	Required ☒ Methods ☐		
17.2.3 Domestic or agricultural water intakes;	Required ☒ Methods ☐		
17.2.4 Any sensitive area requiring protection identified in a notice given by a director.	Required ☐ Methods ☐		
17.2.5 The IDZ may overlap only if the combined effects to not cause water quality parameters outside the combined IDZ to fail to meet WQG.	Required ☐ Methods ☐		
17.3 The Initial Dilution Zone for Marine Waters and Lakes [MWR s. 92] requirements include:			
17.3.1 IDZ calculation as per MWR s. 92 (1)	Required ☐ Methods ☐		
17.3.2 In embayed marine waters and lakes the IDZ must not extend closer to shore than mean low water	Required ☐ Methods ☐		
17.3.3 In open marine waters the edge of the IDZ must be located outside of the shallow water zone in which surf will form along the shore.	Required ☐ Methods ☐		
17.4 The Initial Dilution Zone for Streams, Rivers and Estuaries [MWR s. 93] requirements include:			
17.4.1 IDZ calculation as per MWR s.93 (1)	Required ☐ Methods ☐		
17.4.2 For estuaries the IDZ must not extend closer to shore than mean low water.	Required ☐ Methods ☐		
17.5 The Municipal Effluent Quality Requirements as set out in MWR s. 94 and listed in Table 9, 10, or 11 must be met	Required ☐ Methods ☐		

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Information	Requirements	Comments	Location in Final Application
17.6 If the dilution ratio for streams rivers and estuaries is less than 100:1 a QP must determine if effluent quality must be better than in MWR Tables 9-11.	Required ☐ Methods ☐		
17.7 If the dilution ratio to streams rivers and estuaries used for recreational or domestic water extraction is less than 40:1 a person must not discharge unless all of the following requirements are met:			
17.7.1 The discharge meets advanced treatment requirements; (BOD 10/TSS 10)	Required ☐ Methods ☐		
17.7.2 No other discharge options are available;	Required ☐ Methods ☐		
17.7.3 The discharge is authorized by a director.	Required ☐ Methods ☐		
17.8 Seasonal discharges or discharges to streams, rivers and estuaries not used for recreational or domestic water extraction may be approved by a director if dilution ratio of > 20:1	Required ☐ Methods ☐		
17.9 Discharge is prohibited if the dilution ratio is less than 10:1	Required ☐ Methods ☐		
17.10 For discharges to marine waters having a maximum daily flow of less than 10 m^3/d a discharger must use a septic tank that meets the design requirements in MWR s. 39.	Required ☐ Methods ☐		
17.11 For all lagoon systems the maximum TSS level is 60mg/L	Required ☒ Methods ☐		
17.12 The following additional requirements are specified if the maximum daily flow is more than or equal to 50m3/d [MWR s. 95]			
17.12.1 Flows up to and equaling 2 times the ADWF, treatment and effluent quality requirements determined by daily flow multiples that require secondary treatment	Required ☐ Methods ☐		
17.12.2 Flows more than 2 times the ADWF during a storm or snowmelt event with a less than 5-year return period must have a LWMP or specific study and implement it	Required ☐ Methods ☐		
17.12.3 A director may increase the factor to 3 times the ADWF for areas of the province where permafrost or freezing ground conditions require connection of roof drains	Required ☐ Methods ☐		

Information Requirements Table for MWR Registrations

Application Tracking Number: Click here to enter text.
Authorization Number:Click here to enter text.
[insert company / project name]

Information	Requirements	Comments	Location in Final Application
17.12.4 Director may substitute different phosphorus requirements if the maximum daily flow is more than or equal to 50m3/d if specified in an EIS [MWR s. 95(5)]	Required ☐ Methods ☐		
17.12.5 Ammonia discharge standard must be back calculated from the edge of the IDZ if the maximum daily flow is more than or equal to 50m3/d [MWR s. 95(6)]	Required ☐ Methods ☐		
17.13 A discharger, unless using a septic tank, must ensure that the number of fecal coliform organisms meets the following requirements as applicable [MWR s. 96]:			
17.13.1 If discharging to shellfish bearing waters the mean or geometric mean must be less than 14/100ml with not more than 10% of the samples exceeding 43/100ml	Required ☐ Methods ☐		
17.13.2 If discharging to recreational use waters the geometric mean at the edge of the IDZ must be less than or equal to 200/100ml	Required ☐ Methods ☐		
17.14 Advanced Treatment Requirements (Nutrient Removal) [MWR s. 97] - Unless a director gives notice of a maximum seasonal loading rate in respect of the body of water a discharger must not discharge to the following bodies of water municipal effluent having a total annual average phosphorus content of more than 0.25mg/L:			
17.14.1 The Okanagan Basin	Required ☐ Methods ☐		
17.14.2 The Christina Lake Basin	Required ☐ Methods ☐		
17.14.3 The Thompson River at Kamloops	Required ☐ Methods ☐		
17.14.4 The Cowichan River	Required ☐ Methods ☐		
17.14.5 The Nicola River at Merritt	Required ☐ Methods ☐		
17.14.6 The Cheakamus River at Whistler	Required ☐ Methods ☐		
17.14.7 A person other than a municipality must not discharge into the Okanagan Basin, a municipality must not discharge effluent with greater than mg/L total nitrogen.	Required ☐ Methods ☐		

Information Requirements Table for MWR Registrations

Application Tracking Number: Click here to enter text.
Authorization Number:Click here to enter text.
[insert company / project name]

Information	Requirements	Comments	Location in Final Application
17.15 Discharge to the Saanich Inlet is under a moratorium - discharger required to first conduct an enhanced EIS as recommended by the Saanich Inlet Study [MWR s. 98]	Required ☐ Methods ☐		
17.16 A discharger must not discharge to any of the following areas unless the discharger first conducts an enhanced EIS and a director gives notice that advanced treatment will protect the receiving environment [MWR s. 98]			
17.16.1 Lakes having a surface area of less than 100 ha	Required ☐ Methods ☐		
17.16.2 The Southern Interior Region surface water	Required ☐ Methods ☐		
17.16.3 The Interior Douglas Fir Biogeoclimatic Zone surface water	Required ☐ Methods ☐		
17.16.4 The Ponderosa Pine Biogeoclimatic Zone surface water	Required ☐ Methods ☐		
17.16.5 The Montane Spruce Biogeoclimatic Zone surface water	Required ☐ Methods ☐		
17.16.6 The Bunchgrass Biogeoclimatic Zone surface water.	Required ☐ Methods ☐		
17.17 Outfall Requirements [MWR s. 99 to 102]			
17.17.1 Outfalls designed to meet IDZ requirements under this regulation	Required ☒ Methods ☐		
17.17.2 Outfalls designed such that air entrapment is prevented.	Required ☒ Methods ☐		
17.17.3 Adequate weighting is provided to prevent movement from currents, ice or possible entrainment of air	Required ☒ Methods ☐		
17.17.4 The outfall is protected from corrosion.	Required ☒ Methods ☐		
17.17.5 The outfall diffusers are located at a sufficient depth to maximize the frequency that municipal effluent is trapped below the surface of the water.	Required ☒ Methods ☐		
17.17.6 The outfall diffusers are located to intercept the predominant current and void small currents that tend to move toward the shore	Required ☒ Methods ☐		
17.17.7 The outfall diffusers are designed to ensure that each diffuser section will provide at least 10:1 dilution within the IDZ	Required ☒ Methods ☐		
17.17.8 The outfall diffusers are designed to ensure that outside the IDZ the discharge does not cause water quality parameters to fail to meet WQG.	Required ☒ Methods ☐		

Information Requirements Table for MWR Registrations

Application Tracking Number: Click here to enter text.
Authorization Number:Click here to enter text.
[insert company / project name]

Information	Requirements	Comments	Location in Final Application
17.17.9 The outfall diffusers are designed to achieve maximum dilution in a river, stream or estuary located in the channel in which most of the water flows.	Required ☒ Methods ☐		
17.17.10 A QP must ensure that outfalls are located such that they are protected from wave, boat and marine activity	Required ☒ Methods ☐		
17.17.11 Outfalls must be located at a depth of at least 40m below mean low water in the Okanagan Basin	Required ☐ Methods ☐		
17.17.12 Outfalls must be located 10m below mean low water in estuaries, lakes or marine water with a surface area greater than 100ha ($1km^3$)	Required ☐ Methods ☐		
17.18 Critical Flow Calculation [MWR s. 100] - outfalls to estuaries lakes or marine waters with a surface area greater than 100ha meet depth, flow and distance requirements	Required ☐ Methods ☐		
17.19 A discharger must ensure that all outfalls are marked on shore with a sign that meets the following requirements [MWR s. 101]:			
17.19.1 The sign must indicate with wording acceptable to a director the length and depth of the outfall	Required ☒ Methods ☐		
17.19.2 The sign must be at least $1m^2$	Required ☒ Methods ☐		
17.19.3 The colours of the lettering and the background must contrast sufficiently and the sign must be located such that it is clearly visible from both land and water.	Required ☒ Methods ☐		
17.20 Effluent quality and quantity must be monitored and reported in accordance with MWR s. 103 and Table 12	Required ☒ Methods ☐		
18 **Reclaimed Water [MWR Part 7, s. 104 to 119] N/A ☐** (no reclaimed water)			
18.1 A person must not provide reclaimed water unless			
18.1.1 written notice of the proposed use of reclaimed water has been given to a health officer at least 60 days before registering or a health officer has approved the useof reclaimed water	Required ☐ Methods ☐		

Information Requirements Table for MWR Registrations

Application Tracking Number: Click here to enter text.
Authorization Number:Click here to enter text.
[insert company / project name]

Information	Requirements	Comments	Location in Final Application
18.1.2 A person may provide reclaimed water without health officer notice or authorization if the use is authorized under a local service area bylaw [MWR s. 105(3)]	Required ☐ Methods ☐		
18.2 If reclaimed water is to be used for indirect potable reuse [MWR s. 106], the provider must			
18.2.1 Conduct an enhanced environmental impact study, having terms of reference established in consultation with a director	Required ☐ Methods ☐		
18.2.2 Consult with all persons and organizations who may have an interest or duty that may be impacted by the use of the reclaimed water	Required ☐ Methods ☐		
18.2.3 Be authorized by a director to use the reclaimed water for indirect potable reuse	Required ☐ Methods ☐		
18.3 Unless a director provides otherwise under Section 8, IDZ are not applicable to reclaimed water used for:			
18.3.1 Stream augmentation	Required ☐ Methods ☐		
18.3.2 Creating impoundments	Required ☐ Methods ☐		
18.3.3 Maintaining wetlands or marshes	Required ☐ Methods ☐		
18.4 A provider of reclaimed water must meet the applicable municipal effluent quality requirements set out in MWR s. 108 and listed in Table 13	Required ☒ Methods ☐		
18.5 Turbidity limits under Table 13 must be met before disinfection of the reclaimed water.	Required ☒ Methods ☐		
18.6 A provider of reclaimed water must conduct toxicity testing if an environmental impact study indicates that testing is necessary [MWR s. 58(3)]	Required ☐ Methods ☐		
18.7 For the purposes of fecal coliform monitoring requirements under MWR Table 13:			
18.7.1 The median value from the results of the last 5 samples for which analyses have been completed, must not be more than the coliform limits specified in Table 13	Required ☒ Methods ☐		

Information Requirements Table for MWR Registrations

Application Tracking Number: Click here to enter text.
Authorization Number:Click here to enter text.
[insert company / project name]

Information	Requirements	Comments	Location in Final Application
18.7.2 If irrigating food crops that will be eaten raw, *Escherichia coli* must be monitored daily and be less than 1 CFU/100 mL or 2 MPN/100 mL	Required ☐ Methods ☐		
18.8 If the use of reclaimed water is categorized as having **greater, moderate or lower exposure potential** [MWR s. 109]:			
18.8.1 Reclaimed water is not used for irrigation, or impounded within 30 m of any water well or in-ground reservoir unless a director authorizes a lesser distance	Required ☐ Methods ☐		
18.8.2 A provider of reclaimed water must ensure that the reclaimed water is not used for irrigation within the 3 days before, and during, the harvesting of crops	Required ☐ Methods ☐		
18.8.3 A provider of reclaimed water must ensure that windblown spray will not go beyond the property boundary or reach areas accessible to the public	Required ☐ Methods ☐		
18.8.4 A provider of reclaimed water must ensure that the maximum ground surface slope when applying the reclaimed water is not more than 20%	Required ☐ Methods ☐		
18.8.5 A provider of reclaimed water must develop information and communication materials and provide copies annually to all users	Required ☐ Methods ☐		
18.9 If the use of reclaimed water is categorized as having **greater exposure potential**, to remove viruses the provider must [MWR s. 110]:			
18.9.1 Provide for the chemical addition of a coagulant or polymer, followed by filtration;	Required ☐ Methods ☐		
18.9.2 Provide for 60-day storage after secondary treatment, if	Required ☐ Methods ☐		
18.9.2.1 Municipal effluent quality requirements are met after storage and treatment,	Required ☐ Methods ☐		
18.9.2.2 No short circuiting is occurring or likely to occur, and	Required ☐ Methods ☐		
18.9.2.3 No viruses at levels of concern to a health officer are detected in the reclaimed water;	Required ☐ Methods ☐		
18.9.3 Provide an equivalent form of treatment that is authorized by a director.	Required ☐ Methods ☐		

Information Requirements Table for MWR Registrations

Application Tracking Number: Click here to enter text.
Authorization Number:Click here to enter text.
[insert company / project name]

Information	Requirements	Comments	Location in Final Application
18.10 If the use of reclaimed water is categorized as having **greater exposure potential** daily fecal coliform testing is required except that:			
18.10.1 Weekly coliform testing may be implemented after an initial 60 days of compliance with the daily fecal coliform quality limit	Required ☐ Methods ☐		
18.10.2 If fecal coliform is detected, daily testing must be reinstated and 7 consecutive non-detect results must be achieved before weekly testing resumes.	Required ☐ Methods ☐		
18.11 If the use of reclaim waste is categorized as having **moderate exposure potential** and the reclaimed water is used to [MWR s. 111]:			
18.11.1 Irrigate commercially processed food crops, the crops undergo chemical or physical processing sufficient to destroy pathogens	Required ☐ Methods ☐		
18.11.2 Irrigate livestock grazing fields,			
18.11.2.1 Milking animals are prohibited from grazing for 6 days after irrigation ends, and	Required ☐ Methods ☐		
18.11.2.2 Other livestock are prohibited from grazing for 3 days after irrigation ends, unless the meat is inspected under the Meat Inspection Act (Canada).	Required ☐ Methods ☐		
18.12 If the use of reclaimed water is categorized as having moderate or low exposure potential a provider of reclaim water must [MWR s. 112]:			
18.12.1 Ensure that worker contact with the reclaimed water is minimized	Required ☐ Methods ☐		
18.12.2 Provide, if frequent worker contact is likely, a higher level of disinfection to a maximum CFU of less than 14/100 mL, or equivalent MPN, based on daily sampling.	Required ☐ Methods ☐		
18.13 A provider of reclaimed water must not provide the reclaimed water for use unless it is first disinfected	Required ☐ Methods ☐		
18.14 A provider of reclaimed water must ensure that, when distributing reclaimed water, the minimal total chlorine residual at the point of use is maintained at 0.5mg/L unless			
18.14.1 The addition of chlorine will detrimentally impact aquatic flora or fauna	Required ☐ Methods ☐		

Information Requirements Table for MWR Registrations

Application Tracking Number: Click here to enter text.
Authorization Number:Click here to enter text.
[insert company / project name]

Information	Requirements	Comments	Location in Final Application
18.14.2 At the point of use, fecal coliforms remain below the levels set in Table 13 in section 108, and users are adequately informed regarding appropriate use	Required ☐ Methods ☐		
18.15 A person must not provide or use reclaimed water unless all of the following are met [MWR s. 114]:			
18.15.1 There is an alternate method of disposing of the reclaimed water that meets the requirements of this regulation or is authorized by a director	Required ☒ Methods ☐		
18.15.2 Treatment processes are built with the minimum number of components specified in the applicable reliability category for the alternate method of disposal	Required ☒ Methods ☐		
18.15.3 If there is no immediate means of conveyance to the alternate disposal method, the wastewater facility has 48 hours' emergency storage outside the treatment system.	Required ☒ Methods ☐		
18.15.4 A director may waive the requirement for an alternate method of disposal for reclaimed water that is not generated from residential development or institutional settings if an alternate method is not required to protect public health or the receiving environment and the wastewater facility has:	Required ☐ Methods ☐ Waiver Requested☐		
18.15.4.1 48 hours' emergency storage and the ability to shut down generation of municipal wastewater within 24 hours, or	Required ☐ Methods ☐		
18.15.4.2 A dedicated storage to hold 20 days of flow, the maximum volume of surplus reclaimed, and storm or snowmelt events	Required ☐ Methods ☐		
18.15.5 If reclaimed water is discharged from a wastewater facility directly into a wetland, a director may waive the requirement for an alternate method of disposal	Required ☐ Methods ☐ Waiver Requested☐		
18.16 Failure to Meet Municipal Effluent Quality Requirements Sec 115	Required ☐ Methods ☐		
18.16.1 If municipal effluent does not meet municipal effluent quality requirements, a provider of reclaimed water must ensure that the municipal effluent is diverted immediately to			
18.16.1.1 an alternate method of disposal, as provided for in section 114 (1) (a) *[alternate disposal or storage]*, or	Required ☒ Methods ☐		

Information Requirements Table for MWR Registrations

Application Tracking Number: Click here to enter text.
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[insert company / project name]

Information	Requirements	Comments	Location in Final Application
18.16.1.2 emergency storage or a dedicated storage system, as described in section 114 (1) (c) or (2),	Required ☒ Methods ☐		
18.17 A provider of reclaimed water must not use a dual distribution system to convey reclaimed water unless [MWR s. 117]			
18.17.1 The system has design, construction, maintenance and inspection safeguards to prevent cross connections	Required ☐ Methods ☐		
18.17.2 The person is certified in cross connection control inspections, conducted for the purposes of controlling and protecting potable water systems	Required ☐ Methods ☐		
18.17.3 Effluent quality and quantity must be reported in accordance with MWR s. 118 and Table 14	Required ☐ Methods ☐		
18.18 A provider of reclaimed water categorized as having indirect potable use or greater exposure potential must install a continuous monitoring system.	Required ☐ Methods ☐		