

CWWA Comments on the Fisheries Act Wastewater Effluent Regulations – Annex A

#	Section	Issue	Comment
1	0.1. General	Complexity - Technical	Can the statistical standard of error be used for a low number of samples in evaluating compliance?
2	0.1. General	Complexity - Technical	The regulation does not seem to be specific to municipal wastewater systems. Does it also apply to privately owned systems?
3	0.1. General	Complexity - Technical	It is extremely difficult to determine however the regulations apply to seasonal discharges from lagoons.
4	1 Definitions: biochemical OD	Complexity - Technical	Section 1: the definition for “biochemical oxygen demanding matter” is self-contradictory since certain chemicals, when dissolved in water can consume dissolved oxygen in the absence of biological involvement.
5	1 Definitions: blackwater	Complexity - Technical	s1, definition of “blackwater” is a circular reference and doesn’t define “blackwater”. It also refers to “greywater”, but “greywater” is not defined.
6	1 Definitions: blackwater	Complexity - Technical	Section 1: Sewage in a large municipality / regional district would include sanitary waste, industrial waste and commercial waste. This does not seem to be reflected in the definitions for blackwater and greywater. Should these not be more completely defined in the regulation?
7	1 Definitions: blackwater	Complexity - Technical	The definition of “blackwater” is insufficient, in that it makes reference to the term being defined. No actual definition of the term “blackwater” is provided. This also affects the definition of “wastewater”, which includes reference to the term “blackwater”. This term is not commonly used in legislation, nor was it used in the CCME Strategy.
8	1 Definitions: blackwater	Complexity - Technical	There should be a definition for black water and suggest "Blackwater is wastewater containing fecal matter and urine."

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9	1 Definitions: suspended solids	Complexity - Technical	In the definitions on page 4, the definition of suspended solids states " "suspended solids" means any solid matter that is present in effluent." This definition would include dissolved solids and should be amended to "measure of particulate weight obtained by separating particles from a water sample using a filter". The CCME model bylaw uses, "Insoluble matter in liquid that is removable by filtration, as determined by the appropriate procedure described in Standard Methods."
10	13 Accredited Laboratory	Complexity - Technical	In item 13 <b>should allow for pH testing by plant that is not accredited</b> since pH testing is best done out in the field.
11	13 re: 8(2)	Complexity - Technical	The availability of labs across the country accredited for acute lethality testing is limited. Some our members have found they will have to ship wastewater considerable distances. Will you be initiating a program to encourage labs to develop rainbow trout acute lethality testing? Is wastewater effluent a dangerous good for shipping?
12	14 (1) Environmental Effects Monitoring	Complexity - Technical	We need guidance on acceptable methods to determine whether effluent represents 10% of total flow at 100 m.
13	14(1) Environmental Effects Monitoring	Complexity - Technical	No detail is provided on how the determination is to be made whether water at 100 meters from the final discharge point is comprised of more than 10% effluent. This may require significant levels of study to determine receiving water flows and concentrations, and methods will differ significantly between stream, river, lake and marine receiving waters. The regulations must define acceptable methods for making this determination. The single-day determination during August-September 2013 timeframe may not allow for completion of this determination for all facilities. Halifax Water owns and operates 15 wastewater treatment facilities, each of which will require this determination. Making this determination on the basis of an annual "bulk flow ratio" as per Schedule 3 would be more appropriate.

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14	14(6) Environmental Effects Monitoring	Complexity - Technical	What constitutes an electronic signature? Presumably this will be clarified in the electronic format specified by the Minister.
15	14, Sched 2 Environmental Effects Monitoring	Complexity - Technical	Yearly freshets are capable of moving benthic communities around and could hamper interpretation of the benthic invertebrate testing specified in Schedule 2.
16	14, Sched 2 Environmental Effects Monitoring	Complexity - Technical	<p>The proposed regulation (Schedule 2, Part 2) may be analytically overly simplistic for the complexities of the receiving environment of south-western BC.</p> <p>a)The monitoring of fish is problematic because they move around from place to place, especially in the estuary.</p> <p>b)The Fraser River sediment transport regime prevents annual invertebrate monitoring so the monitoring program is unsuitable for estuaries.</p> <p>The reference areas are changing over time (in Georgia Strait) due to climate change and ocean current variability (pacific decadal oscillation)</p>
17	14, Sched 2 Environmental Effects Monitoring	Complexity - Technical	Items (v)-(viii) in Schedule 2, 2(1)(c) are not typical parameters in the sewage business and wonder what monitoring Environment Canada has done to warrant their inclusion in the regulation?

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18	14, Sched 2 Environmental Effects Monitoring	Complexity - Technical	Has Environment Canada estimated the number of environmental effects reports it will receive from municipalities for the 4,000 sewage treatment plants? Do you have sufficient budget to have the reports reviewed within six months? Is there sufficient number of consultants to do the work for municipalities?
19	14, Sched 2 Environmental Effects Monitoring	Complexity - Technical	Definition of “exposure area” should be expanded to clarify how it applies to the benthic invertebrate community.
20	14, Sched 2 Environmental Effects Monitoring	Complexity - Technical	The “area in which fish exposed to effluent” needs to be defined with greater certainty. Is this 50% effluent, 10% effluent, 1% effluent, et cetera.
21	17 Monitoring Report	Complexity - Technical	In Section 17, we understand monitoring reports are required for final discharge points only. Is this correct?
22	17 Monitoring Report	Complexity - Technical	<b>It is recommended that the quarterly reports be submitted when there has been an exceedance to the national standards or acute toxicity and for the subsequent 3 quarters if there has been no exceedance or acute toxicity and otherwise annually within 90 days of the new calendar year.</b> Reporting of data that meets compliance should not bog down the regulators. There are more than 4,000 sewage treatment facilities in Canada and a reasonable method to keep costs down would to require reporting when there is a compliance failure.

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23	18-19 Records	Complexity - Technical	In sections 18 and 19 for record keeping, there is a time frame listed that says the records could be disposed of after 5 years. <b>It is recommended that a two year time be put in the regulation.</b> It is my understanding that charges cannot be laid after two years.
24	21(1) Transitional Authorizations	Complexity - Technical	21(1) and (2) both seem to be based on annual averages. Would this be for all results collected for both? Particularly w.r.t (2) , this seems out of synch with the rest of the requirements re: ammonia in the regulations which focus on the maximum concentration observed.
25	21(1) Transitional Authorizations	Complexity - Technical	s21(1) "expressed on an annual basis": Does this mean "calculated annual average(s)"? If so, this could be expressed more clearly. (Wording could be clearer in 21(2), as well.)
26	22(f) Application for Transitional Authorization	Complexity - Technical	<p>The intent of sub-section 22 (f) is not clear. Is the requirement to submit, within 18 months (S. 21(4)), a plan to bring each facility into compliance with the national standards? If so, this is an onerous requirement, as such plans may take significant time and resources to prepare. The required content for such a plan should be specified. There may not be sufficient local consulting capacity to allow completion of such plans.</p> <p>Sub-section (t) requires, for any facility for which the compliance timeframe depends on points allocated for CSO discharges under Schedule 4, "a plan for the modifications to the wastewater system that are envisaged to eliminate ... the deposit of effluent ... via any overflow point of a combined sewer". This is inconsistent with the CCME Strategy, which clearly states that the national goal is to eliminate SSOs, but does not state that goal for CSOs. Halifax Regional Municipality (HRM) has extensive areas of combined sewers, and it is impossible on both practical and financial terms to separate such systems or to capture or store all wet weather flows to "eliminate" discharges.</p>
27	22(f) application of transitional authorization for NH <sub>3</sub> ,	Complexity - Technical	Can the "mixing zone" criteria in the temporary authorization for un-ionized ammonia apply re: a transitional authorization? (i.e., would consistently meeting the surface water quality guideline at 100 m be an acceptable outcome with respect to ammonia and acutely lethality solely related to ammonia) for the purpose of the plan to submitted under 22(f)

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	CBOD and SS		
28	29(1)(c) Temporary Authorization	Complexity - Technical	The instream ammonia concentration to be met under a temporary authorization for ammonia is based on a chronic value and should be based on a long-term average. Calendar month is suggested.
29	29(1)(c) Temporary Authorization for NH3	Complexity - Technical	“100 m from the point of entry where effluent is deposited in that water via the final discharge point” is a very limited mixing zone. This would require that approximately 100-fold mixing occurs within 100 m, a situation which is expected to be rare, particularly in flowing streams where pluming will occur.
30	3 Deleterious Substances	Complexity - Technical	The use of "biochemical oxygen demanding matter" in s3(a) may be too general in that it includes substances beyond those measured by the test for "carbonaceous biochemical oxygen demand" (CBOD).
31	30 Application for a Temporary Authorization	Complexity - Technical	Section 30: The wording of sub-section (i) is not clear regarding the location and spacing of the four required sampling points.
32	4(1) General Authorization and Limits	Complexity - Technical	Confirmation is required that the criterion under the Temporary Authorization for Un-ionized Ammonia whereby you have to meet the surface water quality guideline for ammonia 100 m does not apply if are meeting the effluent standard in 4(1)(d).
33	4(1) General Authorization and Limits	Complexity - Technical	It is unclear whether a facility meeting the conditions in 4(1) requires a written authorization.
34	4(2) Compliance	Complexity - Technical	Part 4(2) on page 7, defines the averaging period of quarterly if the effluent volume is greater than or equal to 17,500 m <sup>3</sup> per the previous 4 quarters and monthly if the volume exceeds 17,500 m <sup>3</sup> in

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	Analysis		the previous 12 months. This type of definition is problematic for sewage treatment plants near the cut off value. <b>It is recommended that the period be changed to the previous calendar year to simplify the determinations.</b>
35	4(3) Compliance Analysis	Complexity - Technical	Part 4(3) is totally confusing. Could this be written more clearly?
36	42 DONCEs	Complexity - Technical	There are occasions when plugging in a wastewater system will cause the system to surcharge and wastewater to enter a storm sewer which would then convey the wastewater to the local aquatic environment. Would this be considered a DONCE?
37	42(2)(a) DONCEs	Complexity - Technical	Guidance is needed on examples of “deposit out of the normal course of events that may reasonably be expected to occur from the wastewater system and that may reasonably be expected to result in damage or danger to fish habitat or fish or the use by man of fish”. "Reasonable" is a subjective term.
38	44 Coming Into Force	Complexity - Technical	Does “Deposits out of the Normal Course of Events” in Schedule 8 include combined and/or sanitary sewer overflows and wastewater treatment plant bypasses as may occur during heavy or extreme weather events?
39	5(2) Volume Measurement	Complexity - Technical	Part 5(2) (a) specifies that the measurement be by continuous measurement if over 2,500 m <sup>3</sup> per day. Again <b>the regulation refers to running averages and this should be changed to calendar averages.</b>
40	7 Monitoring	Complexity -	We note that the regulated substances consist of BOD, TSS, Chlorine, and un-ionized ammonia.

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	Requirements	Technical	Three of these are clear in that the reference trail can be followed to the sampling and the analytical methods. However, this is not the case for Chlorine. Subsection 7(2) requires a composite sample; however, Chlorine is consumed and therefore a composite sample is not appropriate. In addition, the analytical method is never stated. We also note that it is not possible to scientifically measure a concentration of 0.02 mg/L in a wastewater matrix. That is why the CCME strategy allowed for the measurement of excess dechlorinating agent as proof of meeting a concentration of less than 0.02 mg/L of Chlorine.
41	7(3) Monitoring Requirements	Complexity - Technical	In item 7. (3) there is a requirement to do the testing for all the parameters should additional sampling be done "for more certainty". <b>There should be a statement that if samples are done more frequently than required, then all the samples should be reported so that submitted samples are not picked from the "best days".</b>
42	8 Acute Lethality Testing	Complexity - Technical	<p>Section 4 and Section 8 are unclear as to the consequences of one or multiple acute lethality LC<sub>50</sub> test failures:</p> <ul style="list-style-type: none"> <li>a) There is no clear threshold to be deemed 'acutely lethal' which would then presumably result in the need for further authorization.</li> <li>b) At what point of the testing process set out in Section 8 is it necessary to apply for an authorization? For example, does test failure require an application under Part 2, Transitional and Temporary Authorizations to Deposit, for the discharge?</li> <li>c) The determination of an acutely toxic final discharge is problematic. We see in section 8 repeat tests are prescribed. However, it appears that the repeat tests, in subsection 8(3), unlike the first test, no longer allows for the procedure for pH stabilization as provided through EPS1/RM/50. In relation to subsection 8(3) is the phrase "but in accordance with section 6 of the reference method" intended to exclude pH stabilization procedure as referred to in paragraph 12(b)? This would be extremely problematic for Metro Vancouver, in fact depending on how this is interpreted, some of our secondary plants would periodically fail the test.</li> </ul>

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43	8 Acute Lethality Testing	Complexity - Technical	In assessing ammonia toxicity, detailed laboratory protocol would be better presented in a separate guidance document as noted herein. Also, for pH determination at 15 degrees C, protocol and definition clarity is required.
44	8 Acute Lethality Testing	Complexity - Technical	WET testing has to be done on the same sample as NH3 or you could get non-toxic one day and > NH3-N limit another.
45	8(1) Acute Lethality Testing	Complexity - Technical	In item 8. (1), the frequency <b>should be based on calendar year</b> not and not a running average. See previous comment under General
46	8(1) and in general	Complexity - Technical	“Calendar year” means the year from January 01 – December 31. Is this the intent?
47	8(3) Acute Lethality	Complexity - Technical	The Procedure for pH Stabilization EPS 1/RM/50, as described in s. 12 (b) should be allowed for additional tests required under 8(3).
48	S1 definitions	Complexity - Technical	Definition of combined sewer overflow necessary – there are a number of different conventions: the physical structure, an escape from the sewer system (e.g., back-up and surcharging of manholes), rather than the bypass-type situation the regulations are based on; i.e., there are different usages of this term
49	Sched 4, 3(b) CSO Points	Complexity - Technical	In Schedule 4, item 3(b), we understand that this language refers to a river or stream i.e. watercourse only. Is this correct? If, so this should be specified

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50	0 RIAS	Costs	Combining willingness to pay and property value measures of benefit probably entails double counting of benefits. It is also difficult to do property value based assessments rigorously. Sounds like this benefit cost analysis should be peer reviewed.
51	0.1 General	Costs	Transitional Authorizations are required to discharge non-compliant effluent during the timeframe within which the plant must become compliant. This authorization requirement was not anticipated, and imposes an administrative burden.
52	0.2 RIAS	Costs	Enforcement costs average \$564,000 / year over the time period of analysis. This is enough money for perhaps 5 full time enforcement officers for the entire country. And the electronic reporting system will only cost \$40,000 per year. These costs seem low.
53	0.2 RIAS	Costs	No new funding is identified or associated with this proposed regulation. The CWS-MMWE commits the federal and provincial governments to cost-share.
54	0.2 RIAS	Costs	In the Cost-Benefit statement, a total national cost estimate of \$5.9 billion for compliance is provided, which is stated to include both capital and operating costs, as well as other costs such as monitoring. There are no details in the explanation of how this estimate was derived, but it is significantly less than a previous CCME estimate of \$13 billion for capital costs alone, not including CSO and SSO management. Halifax Water estimates that costs for compliance in the Halifax-Dartmouth region of Nova Scotia will be well in excess of \$1 billion over 30 years, so this \$5.9 billion national estimate seems to fall far short of the actual costs. If that is so, then the claimed cost-benefit ratio is therefore inaccurate.
55	0.2 RIAS	Costs	The statement under <i>Community Impacts</i> , that “the proposed Regulations are expected to be affordable to communities” is not supportable. Individual households and businesses are directly impacted by present and future rate increases, so it is not accurate to characterize these as “indirectly impacted”. There will be substantial impact to ratepayers to meet the requirements of the Regulations

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56	14 (1) Environmental Effects Monitoring	Costs	100 m from the point of entry where effluent is deposited in that water via the final discharge point 100 m is too restrictive. It is felt this will include small municipalities for which costs will be inordinately high; i.e., upstream/downstream monitoring costs would be the same for a small discharge as they are for a large discharge.
57	14, Sched 2 Environmental Effects Monitoring	Costs	<p>Environmental Effects Monitoring requirements are extensive, including benthos and fish monitoring. Such requirements were not anticipated, and were not provided for in the CCME Strategy.</p> <p>The scope is such that a consulting contract will be required to carry out each study. Environmental Effects Monitoring will be required for all plants where the concentration of effluent 100M from the discharge is &gt;10% of ambient. This will be difficult to determine and may require specific study of each receiving water situation, and must be determined by Dec 31, 2013. Halifax Water currently owns twelve wastewater treatment facilities, and there are three new facilities currently undergoing commissioning. The additional level of study required for this number of facilities is significant. (note repeat of comments included under Environmental Monitoring section by HWRC).</p>
58	6 Flow Monitoring Equipment	Costs	<p>[Can you reference the particular section?]</p> <p>It is recommended that plants greater than 50,000 m<sup>3</sup> per day that nitrify be required to sample weekly. The additional testing is a cost across the country that does not provide any value and this can be an incentive to increase the number of plants to nitrify.</p> <p>If some variation is desired in the sampling days, then the requirement for one day between samples be deleted in the regulation.</p>
59	8 Acute Lethality	Costs	Acute toxicity testing off effluent is required. This raises concerns for local capacity to conduct the required amount of testing for wastewater facilities in Nova Scotia. There is only one small

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	Testing		company in NS accredited for acute toxicity testing.
60	8(3) Acute Lethality Testing	Costs	The samples can be adjusted for pH. If a sample is acutely lethal, then samples must be taken twice per month until three consecutive samples are non-acutely lethal. <b>It is recommended that if 12 consecutive tests pass the acute lethality testing, then the plants greater than 50,000 m<sup>3</sup> be done quarterly for acute testing. This is just the flip side of the testing requirement in item 8.(3).</b>
61	0.1 General	CSOs	Combined Sewer Overflows (CSOs) and Sanitary Sewer Overflows (SSOs) do not appear to be addressed by transitional or bypass authorization – is this an oversight or intentional? The CWS-MMWE includes national standards for CSOs and SSOs in Outcome 1.
62	18 Records	CSOs	The Identification Report for each wastewater system is to include the location and receiving water characteristics of all CSO and SSO discharge points. Halifax Water has in excess of 100 wet weather overflow points within the wastewater systems.
63	22 Application for Transitional Authorization	CSOs	There is a requirement for a plan to “eliminate” CSOs (section 22 also ref. s. 25) This is inconsistent with the CCME Strategy, which clearly states that the national goal is to eliminate SSOs but does not state that goal for CSOs. Elimination of CSO discharges is impossible for older combined sewers, and it is impossible on both practical and financial terms to separate such systems or to capture or store all wet weather flows to “eliminate” discharges.
64	22(r) Application for Transitional Authorization	CSOs	If you need a transitional authorization for your final discharge point, and have CSOs, do you have to include them in the point totals to determine the length of the authorization, or is this optional?
65	4(1) General Authorization	CSOs	If you are meeting all the standards at the final discharge point, but have CSOs are there any authorization requirements?

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	and Limits		
66	42 Deposit Out Of The Normal Course Of Events	CSOs	Under Consultation - Reporting Requirements, there is a statement that “overflows from combined sewers would be subject to the requirements for deposits out of the normal course of events”. CSO structures are approved components of wastewater collection systems for areas having combined sewers, and as such are anticipated and approved by provincial regulators, not “out of the course of normal events”.
67	42 Deposit Out Of The Normal Course Of Events	CSOs	<p>Section 42: The direction taken here is significantly different from that in the CME Strategy.</p> <p>Deposits out of the normal course of events are not defined. In a combined sewer system, Combined Sewer Overflow (CSO) points are designed and approved system elements, and as such, overflow events from CSOs are anticipated and approved to occur on some regular basis during high flows, and are considered to be part of the normal course of events. Similarly, in separated sanitary systems, most or all pumping stations are designed to have an overflow point (SSO – sanitary sewer overflow) which is approved as an overflow point under conditions of high flow due to inflow and infiltration. Overflows from these CSO and SSO points are quite distinct from emergency events such as leaks, forcemain breaks, pump malfunctions, power failures, etc. which truly are events outside the norm. This section must specify precisely what events leading to deposits of effluent are considered to be “outside the normal course of events”, and should not include designed and approved CSO and SSO wet weather discharge events.</p>
68	43 Notice for Deposit Out Of The Normal Course Of Events	CSOs	Section 43: Similar to S. 42, this section must specify which events require reporting, which should not include designed and approved CSO and SSO overflow events.
69	Sched. 4, item 2 CSO points	CSOs	It has been noted that CSOs are typically not monitored for occurrence of overflows. Can you specify an acceptable method to estimate the # of overflows deposits/yr.?

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70	14 Environmental Effects Monitoring	Environmental Effects Monitoring	Environmental Effects Monitoring (EEM) requirements are considerably more extensive than anticipated, including benthos and fish monitoring. The scope is such that a consulting contract will be required to carry out each study. EEM will be required for all plants where the concentration of effluent 100M from the discharge is >10% of ambient. This will be difficult to determine and may require specific study of each receiving water situation, and must be determined by Dec. 31, 2013. Halifax Water currently owns twelve wastewater treatment facilities, and there are three new facilities currently undergoing commissioning. The additional level of study required for this number of facilities is significant.
71	14 Environmental Effects Monitoring	Environmental Effects Monitoring	The application of the criterion, 10% or more of effluent at the regulatory boundary, will likely result in monitoring programs being discontinued at primary treatment plant ocean outfalls and monitoring will likely take place at secondary treatment plant outfalls, which is counterintuitive.
72	14(2) Environmental Effects Monitoring	Environmental Effects Monitoring	<p>For section 14, clarification is required regarding the scope of the evaluation of effluent dispersion ratios.</p> <ul style="list-style-type: none"> <li>a) Subsection 14(2) also does not recognize historic work and effort in documenting comprehensive data. Metro Vancouver has already done this type of work. Can we make use of previous applicable work, rather than redoing work?</li> <li>b) Subsection 14(2) sets the date of August or September 2013. The timing is unrealistic for Metro Vancouver since we need to do this for 5 plants concurrently. Can the measurements be taken in 2012, or 2011?</li> </ul>
73	14(2) Environmental Effects	Environmental Effects Monitoring	Subsection 14(2) sets the date of August or September 2013. The timing is unrealistic for Metro Vancouver since we need to do this for 5 plants concurrently. Can the measurements be taken in 2012, or 2011?

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	Monitoring		
74	14(8) Environmental Effects Monitoring	Environmental Effects Monitoring	In sub-section 8 (End of Monitoring), the intent is not clear. Does this mean that no further monitoring studies are required after 2025?
75	0 Legal	Harmonization	<p>It was understood that the CCME Strategy contemplates a “one-window” approach to administration and enforcement of the provisions of the Strategy, through federal-provincial agreements.</p> <p>However, it seems that the federal regulations as drafted do not contemplate this, as all the contacts, authorizations, enforcement and reporting relationships within the regulations are federal.</p> <p>If these regulations are brought into force before federal-provincial agreements are in place, the one-window concept will be lost.</p>
76	0.1 General	Harmonization	This regulation does not link with other government regulations and there is no indication of how this regulation will align or harmonize with others i.e., the promised single window approach is not apparent as noted in the CWS-MMWE in Outcome 2.
77	0.2 RIAS	Harmonization	In general the regulations as drafted impose a significant regulatory and administrative burden on municipal water and wastewater operators and utilities, in addition to the very large long-term capital and operating costs associated with compliance with the national performance standards and objectives. We do not believe the federal government should impose additional regulations in connection with the CCME Strategy until firm commitments are in place for federal and provincial

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			financial contributions toward these costs.
78	42 Environmental Effects Monitoring	Harmonization	<p>Response plans are required to address any “deposits out of the normal course of events”. This was not anticipated and imposes an additional administrative burden. Emergency Response Plans are already required by provincial regulators, so this appears to be a duplication of requirements.</p> <p>[BK- I expect you could use the plans you've created for the province. If everything works out the way it should, this will be administered by your province.]</p>
79	0 Legal	Liability	There is no ‘emergency clause’ in the proposed regulations similar to Operating Certificates (OC) under the BC Environmental Management Act. Is the owner/operator <i>liable</i> even if due diligence has been followed? The need to document diligence per the existing OC requirements results in rigorous and attentive management of the system. Also, the CWS-MMWE includes a strategy for SSOs due to emergencies (Outcome 1), which the proposed regulation does not.
80	0 Legal	Liability	We are extremely concerned that non-compliance is a criminal offence.
81	28 Revocation of a Transitional Authorization	Liability	In section 28 if a Transitional Authorization is revoked, what requirements then apply to the facility in question? A wastewater treatment facility cannot cease operation, and it will not be possible to immediately alter or modify any wastewater treatment facility to immediately make it compliant.
82	29-35 Temporary Authorization	Liability	Sections 29 to 35 appear to allow the discharge of un-ionized ammonia under a temporary (3 year) authorization which is renewable. This is consistent with the CWS-MMWE, however this regulation only allows a transitional [temporary?] authorization so there is no long-term certainty
83	4(1) General Authorization and Limits	Liability	<p>Authorization to deposit deleterious substances is provided under part 4(1) of the regulation with the following conditions:</p> <ol style="list-style-type: none"> <li>1. the average carbonaceous biochemical oxygen demand due to the quantity of biochemical</li> </ol>

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			<p>oxygen demanding matter in the effluent did not exceed 25 mg/L;                      2. the average concentration of suspended solids in the effluent did not exceed 25 mg/L;                      3. the average concentration of total residual chlorine in the effluent did not exceed 0.02 mg/L; and                      4. the maximum concentration of un-ionized ammonia in the effluent was less than 1.25 mg/L, expressed as nitrogen (N), at 15°C ± 1°C.</p> <p><b>This is a beneficial aspect to the regulation protecting the municipality from charges that could be laid by private citizens that a substance was discharged even if there was no impact.</b></p>
84	42 Deposit Out Of The Normal Course Of Events	Liability	<p>The response plan required is extremely complicated the way the section is presently worded because of the very large number of substances which could enter municipal wastewater from ICI and residential sources which could potentially be deleterious and it would take much longer than 45 days to deal with every possible scenario. Limiting this to the deleterious substances named in s3 would be feasible.</p>
85	0.1 General	Liability – Transition Periods	<p>There is a mixture of specific and relative dates in the proposed regulations. It is suggested these all be made specific at the time of publication of the final regulation (unless there is some chance that “registration” could end up occurring on an unpredictable timeline after publication of the final regulations).</p>
86	23(2) Issuance of Transitional Authorization	Liability – Transition Periods	<p>s23(2) The timelines for transitional authorizations in s23(2) are currently 10, 20, and 30 years from Dec. 31, 2009. These should be changed to reference the date of registration of the final regulations <del>or approximate date of publication</del>.</p>
87	23(2) Issuance of Transitional	Liability – Transition	<p>The regulation sets firm completion dates for treatment plant upgrades of 2019, 2029, and 2039 depending on a point system. This is not consistent with the timelines in the CCME’S Strategy for</p>

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	Authorization	Periods	MWWE which indicated completion dates in Appendix B for treatment plant upgrades of 2021, 2031, and 2041 depending on risk assessments.
88	4 General Authorization and Limits, etc.	Liability – Transition Periods	<p>In the draft regulation there are a number of references to running averages. These averages could move municipalities from one level to another and back again. Volumes of flow are generally higher in the winter during snow melt events and so municipalities could be switch from quarterly to monthly criteria and then back to quarterly in the summer. The regulations require flow meter data to be within +-15% and so there is a wide range of flow built into the regulation. <b>It would provide regulatory clarity on standards if they were based on calendar year averages.</b></p>
89	44(2) Coming Into Force	Liability – Transition Periods	<p>s44(2) We have serious concerns that the regulation is unintentionally creating a period during which municipalities will be highly vulnerable to prosecution, particularly by private interests. While the substances specified in s3 could be argued to be deleterious substances already under the Fisheries Act, the regulation will highlight this.</p> <ul style="list-style-type: none"> <li>• The 24 month delay in the implementation of s4 which grants the “general authorization” [our term] represents a period when even the very best municipal wastewater treatment plants will clearly be discharging deleterious substances without authorization under the Fisheries Act.</li> <li>• It is unclear why s4 is delayed when applications for transitional and temporary authorizations could proceed earlier. However, even the temporary authorization for ammonia is not triggered for two consecutive months or quarters. With a minimum few weeks for processing an authorization, a facility could be out of compliance and not be authorized to discharge for two months or more before receiving a temporary authorisation.</li> <li>• Similarly, an application for a transitional authorization is based on analysis on one year’s data, collection of which may not start in some instances until required by the regulation, leaving the wastewater system vulnerable during the data collection period.</li> </ul> <p>To prevent the regulation from creating this undesired situation, it is necessary to authorize deposits of wastewater from any wastewater system which is undertaking all actions necessary to comply with the regulation during the first 24 months after registration.</p>

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#	Section	Issue	Comment
90	44(2) Coming Into Force	Liability – Transition Periods	s44(2) There could be an inconsistency in the timing of section 14 coming in force 24 months after the Regulation is registered in that one does not have to determine the condition that triggers the requirement does not have to be determined until August or September of 2013 (s14(2)) if the Regulation is not registered prior to August 2011. The reference to August or September of 2013 would have to be changed if there is any delay in the registration of the regulations.
91	5(2) Volume Measurement	Liability – Transition Periods	It takes time to acquire and install continuous measurement equipment and this is not provided in systems that are under 2,500 m3 and then exceed it due to a wet year.
92	s44 Coming Into Force	Liability – Transition Periods	It is noted that municipalities which must introduce new monitoring volume as per ss. 5 & 6, and composition of effluent as per sections 7 and 8 and water and will need some time to arrange this and this can't be done before the final Regulations are published. Therefore some delay is required for these and any other related sections coming into force. Six months is suggested.
93	0.1 General	SSOs	There is little mention of SSOs. Are there any requirements for them?
94	0.1 General	Style	Suggest that the detailed prescriptive components of this regulation (for example the environmental effects monitoring studies) should be removed from the regulation, and reference a supporting guidance document which could then be modified as needed. This approach was used for the Pulp & Paper Environmental Effects Monitoring (EEM) Program, and Metal Mining EEM Program.
95	0.1 General	Style	It would seem American English has been used for spell-checking.

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#	Section	Issue	Comment
96	4 General Authorization and Limits, etc.	Toxicity	<p>S4: The handling of toxicity remains to have serious problems. There seems to be an assumption in s4 and most of the regulation that toxicity will be due only to ammonia. However, this may not be true, and this seems to be acknowledged in s29 in one of the conditions allowing an application for a Temporary Authorization to Deposit Un-Ionized Ammonia: "any acute lethality of the effluent is due only to the presence of the un-ionized ammonia in the effluent." There are numerous substances which could enter municipal wastewater from ICI and residential sources which could cause a lethal response in rainbow trout fingerlings on their own, or synergistically with or without ammonia. The presumption may be that such "other toxicity" will show up as an adverse impact on the biological processes in a wastewater treatment plant and be detected that way, but the biological processes are typically much less sensitive to such pollutants than higher life forms. The extent of the presence of toxicity in municipal treatment plant effluents is unknown in the absence of the collection of a considerable amount of data and very complex investigation of causal relationships.</p> <p>No avenue for being in compliance with the regulation is provided if lethality is due to some substance other than ammonia or synergistic effects. <u>It is suggested that the condition of non-acutely lethal effluent not be applied as a condition of authorization of discharges until more is known on this subject; i.e., the monitoring, reporting and investigation of effluent toxicity could remain as requirements and the data analyzed before any regulations setting toxicity requirements are finalized.</u></p>