

## Comments on the CCME Draft Model Sewer Use By-law

	General Comments	Recommendation
A	<p>CWWA agrees with the consultant's recommendation that the first step in designing a by-law is to set out the objectives for source control within the context of managing the utility; then, the strategies for achieving those objectives should be established; last, the by-law and related limits should be designed to enable and implement the adopted strategies.</p>	<p>A guidance document is needed to outline different approaches taken by municipalities and advise on the advantages and disadvantages of the choices. Different Cities will want to take different approaches to their Source Control strategies based on local technical and political factors. For this, they need a menu from which to assemble the appropriate elements of their by-laws to suit their particular needs.</p>
B	<p>The model bylaw format is very wordy in places, more like a narrative. It is not always written in the very concise, legal language that is generally required in a legally enforceable document. Explanations and justifications are good, but should be in a supplementary document.</p>	<p>Revise the by-law to be more concise and remove wordy sections to a Guidance manual.</p>
C	<p>The model bylaw includes many provisions for permits, agreements and a host of other reporting requirements. All of this should be optional. Some communities may prefer not to burden themselves with the administration of maintaining such programs, and may deal with issues on a simpler basis under a municipal monitoring program.</p>	<p>Allow for flexibility and different ways to attain the same goal.</p>
D	<p>Municipalities can not control domestic sources but only influence them. The Federal government needs to control the products that contain toxic and hazardous wastes. An example is cadmium in bleach. Levels of Cadmium are higher in domestic plants biosolids than in plants with significant industrial and commercial inputs. Control of sector discharges of toxic and hazardous compounds could be done on a national basis by federal regulation which would be more efficient than on a plant by plant basis and the results would be more uniform. Treatable parameters should be dealt with at the municipal level on a site specific basis.</p>	<p>Residential sources should be controlled by the federal government through product controls and or bans. The federal government could also regulate sectors that discharge non treatable, toxic or hazardous substances and this would have an even playing field across the country. This is already being done for NPE's. Municipalities could have stricter limits if required for receiving stream or biosolids requirements.</p>

## MODULE 1: FOR PRIMARILY RESIDENTIAL COMMUNITIES

### 1. Definitions

1	page 1	The definition of ACCREDITED LABORATORY does not acknowledge all accrediting bodies.	The definition should be modified to "The Canadian Association for Environmental Analytical Laboratories (CAEAL) and the Standards Council of Canada (SCC) are such authorized bodies currently and any other authorized body."
2		The definition of Residential and Industrial should be added to the by-law.	
3	page 4	The definition of PERSON is too narrow and needs to be revised since it does not include provincial and federal facilities which in turn would exempt these facilities from the by-law.	Add in the definition after municipality, "provincial or federal agency".
4	page 5	The definition of STANDARD METHODS should be modified as it is too narrow and does not allow for other equally valid methods or analysis equipment manufacturer methods. No charges could be laid when the new edition comes out as it takes time to review and implement changes to the methods.	The definition of Standard methods should be modified to include other methodology such as EPA, provincial methods, equipment supplier methods etc as long as they are established and any method approved by the municipality.
5	page 5	The definition of STORM WATER should be modified to delete "drainage". Drainage could be interpreted as drainage from lagoons etc.	Suggest delete drainage or put drainage from land. There should also be a reference to uncontaminated water.
6	page 5	The definition of WASTEWATER SLUDGE only includes organic solid material but there is also a non-volatile portion of about 15 to 20 %.	Suggest changing the definition to "solid material recovered from the wastewater treatment process".
7	page 6	The definition of UNCONTAMINATED WATER has an ambiguous portion "meets or exceeds" in it.	Suggest "meets or is of better quality".
8	page 6	The definition of WASTEWATER should be amended to exclude storm water or uncontaminated water; otherwise it could be interpreted as included in the definition.	Suggest adding "but does not include storm water or uncontaminated water".
9	page 7	Section 2(1)(a), has a problem in that residential wastewater will not comply. The limits are too low. If you flush a low-flow toilet right now, the discharge will exceed TSS and BOD. If you wash dishes, the sink discharge could exceed the oil and grease limits.	Suggest changing Paragraph 2(1)(a), to "domestic wastewater".
10	page 7	Section 2(1)(c), No hauled wastewater that I've seen tested can meet all the requirements.	Suggest exempting domestic hauled sewage from holding tanks and septic tanks.

11	page 7	Section 2(3) the clause should be reworded. The terms "which does not meet" is ambiguous. Does this mean only equal to?	Suggest "equal to or better than".
12	page 7	Section 2(4) requires all ICI wastewater dischargers to complete an Information Report. I think this is unnecessary and creates a heavy bureaucratic burden.	Suggest the permitting requirement be dropped entirely or applied only to Significant Dischargers, which would require definition.
13	page 7	Section 2(6) of the Bylaw requires all industrial dischargers to obtain a Waste Discharge Permit. This requirement is very onerous and could require hundreds of permits in the larger cities.	Suggest the permitting requirement be dropped entirely or applied only to Significant Dischargers, which would require definition.
14	page 8	The prohibition of floating debris in storm sewers would prohibit floating leaves, branches etc. This clause should be reviewed.	Suggest changing to refuse instead of debris.
15	page 8	Section 3(2) should be revised to change "property owners" to "persons".	This would then apply to the owner and anyone having control or in charge.
16	page 9	Section 6(3) should be modified to allow other methods if approved by the municipality. . Some companies do COD analysis on their effluent to get feedback on levels of BOD being discharged. To get a BOD analysis would take 5 days and a COD analysis about two hours.	Suggest wording be that analysis be done by an accredited or otherwise approved laboratory.
17	page 9	Section (7). Submittal of records by restaurants, repair shops and garages, car washes and dentists requires a lot of work to compile and store and enforce. It would be better if the records are inspected at site when issues arise. Also the requirement for storing records for 5 years is onerous and charges could only be made back six months for by-law charges in some jurisdictions.	Clarification on the time frame that a charge could be laid should be obtained and the time frame of keeping records should be linked to the time frame for keeping records. The legislation should be changed to allow for a two year period for charges under waste discharge by-laws.
18	page 9	Section 7.1 (2) refers to CAN/CSA B-481 for grease interceptors. There are actually 5 standards and two are for performance testing. The CSA B481.1 is for performance testing using lard which is based on a 1948 testing procedure. There is also a performance test using oil B481.2 and this is the standard that should be referred to in the model sewer use by-law.	The construction of the grease traps should be as under CAN/CSA B-481. There are two testing methods specified in the standard (one for lard and one for oil) and the testing method referenced in the model sewer use by-law should be for CSA B481.2 which has a performance specification.
19	page 10	Section 7.2 refers to oil and grease interceptors discharging to a sewer. The requirements for the storm and sanitary sewers are quite different for oil and grease.	Storm sewer issues should be dealt separately from sanitary issues.
20	page 10	Section 7(2) should apply to premises in which equipment is serviced as well, not just motor vehicles. Many other types of	The words "motor vehicles" should be changed to "vehicles or equipment" since there are oil and grease issues with equipment

		equipment are serviced, which also result in oily wastewater.	repair shops.
21	page 10	Section 7.3(1) is very vague, requiring that owners shall take a necessary measures to ensure that sediment is prevented from entering a drain or sewer. What is a necessary measure?	The terminology "shall take all necessary measures" was not specific and could be interpreted numerous ways and should be revised to be specific.
22	page 10	In section 7.3 (1) "car and vehicle wash establishments" should be modified to "vehicle and equipment wash establishments". Outdoor wash areas should also be addressed in this section.	
23	page 11	Section 7(3)(2) incorporates the term, "Goss Trap". This should be avoided as not everyone knows what a Goss Trap is.	"Goss Traps" are not well known and suggest deleting the reference.
24	page 12	Section 7.4(6) refers to documentation required for the transportation of dangerous goods under an applicable municipal bylaw. Manifesting requirements are a federal and/or provincial responsibility.	The transportation of dangerous goods is not a municipal regulation and should not be in the by-law. Keeping of the records of what was done with the waste amalgam should be retained in the by-law.
25	page 12	Section 8(4) requires reporting of spills to other government agencies but there is no authority to do so in the municipal act.	Suggest deleting this paragraph since there would be no authority under the municipal act.
26	page 13	Section 9 uses the term "Designated Sewer Officer". How about Designated Sewer Official? Some by-laws have "Commissioner". The DSO could be confused with the SUBL officer. It isn't really clear who you submit the agreements to, is it the municipality, the SUBL officer or the DSO. (e.g. 14(1) An industry may submit to the municipality.... then in 14(2) An industry may submit to the DSO.... This is already confusing.	Suggest using General Manager and designates.
27	page 13	Authority of Designated Sewer Officer to Investigate (replace with INSPECT) Under case law (R. vs. Jarvis and R vs. Inco) the courts have ruled that there is a difference between inspections and investigations. This model should give strong consideration to differentiating between the two and the powers associated with each. Failing to do so may result in cases being thrown out as a possibility for Charter Violations.	This whole section needs to be redone to comply with case law, otherwise it may be tough to enforce this new model.
28	page 13	Section 9(1) ii-viii) does not mention 24 hours access with production of identification.	The model by-law should be amended to include wording on 24 hour access to sites and this may require enabling legislation in some jurisdictions or it may be done federally.
29	page 13	On page 13, paragraph (1) does not mention anything about obtaining, reviewing, requesting documentation, records, permits, etc....	The ability to obtain records, documents, permits etc. should be added to the model sewer use by-law.
30	page 13	Section 9 (1)(viii) refers to a release, should be a discharge or spill.	The word release should be defined and include such things as spills, discharges etc.

31	page 13	Section 9 (2) What about obstructing? Providing false/misleading information.	Offences should be created for providing false and misleading information similar to provincial requirements.
32	page 14	Section 10 does not mention ticketable offence or short term wordings or issuing field orders or compliance orders.	Ticketable offences and field orders should be added in the guidance manual. The fine limits for municipalities should be increased to the equivalent federal fine limits that could be applied to a municipal sewage treatment plant (\$1 million). The fine limit should be similar across the country.
33	page 15	Schedule A, A (1)(b) would prohibit the discharge of anything that is deleterious to fish into a sewer.	Suggest deleting this paragraph since there would be no authorized discharges
34	page 15	The use of enzymes should be prohibited unless approved by the General Manager/Director for the municipality.	Enzyme use has moved problems downstream from grease interceptors to sanitary sewers.
35	page 15	Toxic, non-treatable or hazardous substances control.	Residential sources should be controlled by the federal government through product controls and or bans. The federal government could also regulate sectors that discharge non treatable, toxic or hazardous substances and this would have an even playing field across the country. This is already being done for NPE's. Municipalities could have stricter limits if required for receiving stream or biosolids requirements.
36	page 15	On page 15, the pH limit is set to the range of 6.0 to 11.5. This is the same as found in the Toronto by-law. This limit may be suitable for very large treatment plants but is not suitable for small treatment plants. Higher pH levels in the sewage treatment plant effluent increase the toxicity of unionized ammonia and the goal is to have a non toxic effluent. The model sewer use by-law pH limit should be decreased to 10.5.	There is concern that the pH limit would be a problem with smaller plants. The more conservative limit of 10.5 should be adopted instead of 11.5. In the guidance document it can be mentioned that a limit of 11.5 could be adopted if it is demonstrated that this would be suitable for the plant discharge. A higher pH could be advantageous for some plants for nitrification by providing more alkalinity. This would not be the case for plants that denitrify or for plants that do not nitrify.
37	page 17	3(1) prohibits the discharge of toxic substances. In the definitions, toxic substances are defined as toxic under CEPA. There are two problems with this issue, one is that some toxic substances are not listed in CEPA but would be excluded and second ammonia is listed as CEPA toxic but is a natural constituent of domestic sewage but is prohibited in the by-law.	The existing definition would prohibit the discharge of ammonia since it is CEPA toxic and this is not possible since ammonia is a component of domestic sewage. There needs to be more discussions on the appropriate definition for toxic.
38	page 17	Under Schedule A, Section B, it is implied that non-contact cooling water is acceptable for disposal to the storm sewer. This needs clarification as to whether this includes chlorinated potable water used as non-contact cooling water. The Environment Canada inspectors in Alberta do not want	Once through cooling water should not go to the sanitary sewer. Provincial requirements can regulate the issue in the form of Certificate of approvals.

		chlorinated water being discharged to the storm sewer.	
39	page 19	Schedule B. All of these limits need to be backed up by research and provided in a guidance manual.	"Municipal by-laws reviewed" does not constitute a rationale.
40	page 19	The terminology "Restricted Waste or Contaminants" is a concern. BOD is not a contaminant, nor is pH.	The wording "in excess" has been used in the past or the definition of contaminant could be added.
41	page 19	The limit for animal and vegetable oil and grease is listed as 85 mg/L. This is lower than any other by-law reviewed. This is a parameter that is degraded in the sewage treatment plant. The concern for oil and grease is the plugging of sewers and odours in the sewer system. There has been no logic provided to have the limit set to 85 mg/L.	There was no justification for the limit to be lowered and this was one parameter that could be treated at a sewage treatment plant. Any limit proposed for oil and grease should be attainable using the CSA standard CSA B481.2. The guidance manual should describe options and concerns so that the individual municipalities can decide what is best for their specific circumstances.
42	page 19	Numerical limits should have only 1 significant figure. (e.g. the limit for Methylene Chloride 0.0981mg/L, why not 0.1? With analytical uncertainty, we would be chasing after our tails with some of these limits.	There are too many figures in the limits and these should be reduced to one or two.
43	page 19	The limits for organics should be reviewed with respect to what is degraded in the sewage treatment process as well as worker safety. Why would you require treatment upstream that is duplicated downstream? The labor law for workers entering confined sewer space is having fresh air supplies. How was this taken into account for the worker safety?	Limits should be set using a staged approach including the following: a. Protection of infrastructure from corrosion and explosions. b. Protection of workers c. Protection of processes d. Protection of environment e. Pollution Prevention. Protection of workers should take into account confined space procedures when considering the level of protection required for workers.
44	page 19	The limit for benzene is listed as 0.010 mg/L and the reason for the limit is set as worker safety. This is hard to believe since the drinking water standard for benzene is 0.005 mg/L. You can drink half the concentration and not be affected but can't work in sewage with levels above 0.010 mg/L? I agree with the limit but the rationale is that 75% of benzene is not degraded in the treatment plant but volatilized according to an EPA study on the fate of contaminants. Therefore the contaminant should not be discharged to the sanitary sewer.	Agree with the limit but more explanation is needed in the guidance manual for the rationale.
45	page 19	On page 19, hexachlorobenzene is listed as 0.055 mg/L. In the NPRI data for hexachlorobenzene there are no listings for discharges to the sanitary sewer. Why is this parameter included in the model sewer use by-law?	A rationale should be provided for including this parameter and the limit.
46	page 20	The limit for total phenols should specify a method used for their detection. The phenolic compounds detected by the 4-aminoantipyrine method are readily degradable by activated	This is a treatable parameter for secondary plants and could be subject to surcharge agreements.

		sludge bacteria.	
47	page 20	The ammonia limit is listed as 24 mg/L. In domestic plants the ammonia concentration for a small plant (500 m <sup>3</sup> /day) is 40 mg/L and for a plant rated at 10,000 m <sup>3</sup> /day the average was 23 mg/L with peaks as high as 35 mg/L. The ammonia limit is too low for small to medium sized sewage treatment plants.	A rationale for this limit is needed. Smaller plants exceed this limit due to domestic sewage. Ammonia can be treated by plants that nitrify and so could be surchargeable but for plants that do not nitrify increased ammonia can increase effluent toxicity.
48	page 20	Chloride and sulphate limits (no real rationale was given in Appendix three).	A rationale should be provided. It was thought these parameters could be addressed under P2 or BMP's as well. Concern was expressed about discharges from salt piles into sewers and what the net benefit to society was for safe transportation.
49	page 20	How can municipalities justify the stricter limits to industry since we can currently meet our biosolids land application requirements with the current metal limits in the model sewer use by-law. We have worked with industry to install treatment processes to meet the current limits and this has improved our sludge quality greatly for metals. If it is something that is not a national requirement I don't know how we can ask them to meet even stricter limits.	A federal regulation would be required for local industries to lower metal discharges. This could be done by CEPA standards for sectors in a similar fashion to Nonyl phenols. Another possible solution would be Best Management Practices being required by federal regulation for sectors.
50	page 20	The total chromium limit is listed as 0.37 mg/L. This limit is based on Best Demonstrated Available Technology. The limit is too low. Levels in the sludge are near or less than soil background conditions.	The limit is too low and should not be based on Best Demonstrated Available Technology (BDAT). The cost of requiring BDAT has not been provided.
51	page 20	Similar argument for nickel as total chromium. Limits should not be set based on Best Demonstrated Available Technology.	The limit is too low and should not be based on Best Demonstrated Available Technology (BDAT). The cost of requiring BDAT has not been provided.
52	page 20	The zinc limit is set as 0.03 mg/L based on inhibitory effects. Levels of domestic sewage have higher concentrations of zinc than this.	The limit was too low since domestic sewage has higher concentrations of zinc. A rationale should be developed for this parameter that includes capabilities of treatment and nation wide costs to attain a limit.
53	page 20	The lead limit is set at 0.1 mg/L based on inhibitory effects. It is not evident why the inhibitory limit is placed as the discharge limit when there is orders of magnitude difference in what the sewage treatment plant raw sewage concentration would be. Setting limits based on inhibitory levels is far too conservative. Even background soil conditions for urban areas are listed as 120 ppm.	The limit is too low and that there would be dilution prior to entering the treatment plant and impacting bacteria.
54	page 20	Sulphide as H <sub>2</sub> S are too low. Concentration above 0.3 ppm is	Sulfides could be covered under general prohibitions.

		frequently detected in sewage during summer.	
55	page 21	Does the Supplemental List of Substances have any concentration limits associated, or is the detection limit considered the limit?	More guidance for the parameters in the supplemental list is required.

**MODULE 2: (Clauses for Sector-Specific Wastes)**

56	page 27	Section 12(5). Why are dental offices a special exclusion from the requirement to have a maintenance access point? They should be treated the same as everyone else.	Section 12 (5) should be deleted and sampling manholes could be required for dental offices.
57	page 27	Section 13-Extra-strength Surcharge Agreements (should be Extra Strength Sewage Surcharge unless we are applying an extra-strength surcharge (like an extra-strength aspirin!). Industry should be allowed to enter into an ESSA for any treatable parameter. It should not be limited to BOD/TSS/TP/TKN only.	Conventional parameters that are treatable at the sewage treatment plant could be subject to extra strength sewage surcharges.
58	page 27	Section 13(1). Why require an Extra Strength Surcharge Agreement. Why not just bill the customer if extra strength wastewater is discharged as determined from a municipal monitoring program? Make it a bylaw provision and skip the extra paperwork.	Extra Strength agreements should be optional since some municipalities will want to surcharge without any written agreements for treatable parameters.