The B.C. Municipal Sewage Regulation was brought into force in July 1999. The regulation provides authorization (with minimum standards and requirements) for the treatment, reuse and discharge of domestic sewage, wastewater or municipal liquid waste. The Municipal Sewage Regulation applies to all discharges of domestic sewage within provincial jurisdiction except those addressed by the Sewerage System Regulation (under the *Health Act*) and discharges from individual single-family or duplex dwellings.

The B.C. Ministry of Environment intends to revise the Municipal Sewage Regulation in three stages. This response form, and the associated ministry policy intentions paper for consultation (intentions paper), address proposed "stage 1" revisions with respect to use of reclaimed water, liquid waste management plans, registration and other provisions of the regulation.

Comments regarding the proposed intentions of the ministry are being solicited and will be carefully considered in preparing regulatory amendments. The ministry welcomes all suggestions with respect to potential changes discussed in the intentions paper, or other aspects of the regulation of municipal sewage and liquid waste management.

Comments to the ministry should be made on or before January 29, 2010.

The intentions paper and response form have been posted on the ministry's website. The website can be accessed by clicking on the address below, or from the Ministry of Environment homepage, by following the Environmental Protection Division, Policy Intentions Paper link. See: www.env.gov.bc.ca/epd

Those interested are invited to submit comments on the ministry's intentions – using the instructions and questions provided on this response form. Individuals or organizations may also make written submissions to the ministry without following the format set out in the response form – as desired.

A summary report of comments and submissions received, including both printed and web-based responses, will be compiled and summarized without specific attribution by an independent contractor and posted on the ministry website. Comments received will be treated with confidentiality by ministry staff and contractors. However, comments that you provide and information that identifies you as the source of those comments may be publicly available if a Freedom of Information (FOI) request is made under the Freedom of Information and Protection of Privacy Act.

Following review of comments and submissions, the ministry will complete legal drafting of the proposed regulatory changes for legislative review.

If you have any questions or comments, check the website address above, or contact Cindy Bertram of C. Rankin & Associates who has been contracted to manage consultation comments, at:

Email: cindybertram@shaw.ca

Mail: PO Box 28159 Westshore RPO

Victoria B.C. V9B 6K8

Fax: (250) 598-9948

Completed response forms or submissions may be returned by any of the means listed above (email, fax or mail), or by directly submitting the web-based response form on the ministry website.

Thank you for your time and comments!

Discussion Areas and Questions – Municipal Sewage Regulation

The following discussion areas and questions are based on a policy intentions paper for consultation available from the Ministry of Environment website:

www.env.gov.bc.ca/epd/codes/msr/mun_sew_reg.htm.

1. Waste Management Plans and the Municipal Sewage Regulation

The Municipal Sewage Regulation presently does not include a provision that would prevent sewage facilities from registering a discharge independently of a local government's approved liquid waste management plan that prohibits discharges to that area's water body or bodies. The ministry is considering amending the Municipal Sewage Regulation to support discharge prohibitions in a local government's liquid waste management plan to specified water bodies within the local government's boundary (see intentions paper section 4.1).

- 1.1 Should the Municipal Sewage Regulation support prohibitions in liquid waste management plans? Why or why not?
- 1.2 Do you have any additional comments or suggestions for the ministry when considering supporting prohibitions in liquid waste management plans?

2. Information required for Section 3 – "registration under Section 2 for an exemption"

In order to ensure that all relevant information is submitted at the time of registration – providing ministry staff with sufficient time to review the registration package and request additional information related to protection of the environment for that specific site before the discharge commences – the ministry intends to add specific provisions for an environmental impact study, an operating plan and other items as "information required for registration" (see intentions paper section 4.2).

- 2.1 Do you have any comments regarding information that should be required for registration under Section 2 for an exemption?
- Are there any instances where providing the information listed in the intentions paper (e.g., design drawings, site plan, statement of a qualified professional, notification of local government, required authorizations) would not be possible at the time of registration? Do you have any suggestions to ensure that the ministry receives all required information in a timely manner?

3. Conditions for releasing discharges

3.1 Do you have any comments regarding the ministry's intention to add a new condition to the regulation that the director be notified two weeks prior to the commencement of discharge (see intentions paper section 4.3)?

3.2 Do you have any comments regarding the period of time required for notification (e.g., should it be two weeks or a month prior to commencement of the discharge)?

4. Definitions of Qualified Professionals and Certified Operators

- 4.1 Do you have any comments regarding the ministry's intention to harmonize and clarify the role of qualified professionals under terms of the regulation (see intentions paper section 4.4.A)?
- 4.2 Do you have any comments regarding the ministry's intention to affirm in the regulation that operators must be certified by the Environmental Operators Certification Program (removing allowance for alternate certifications from the regulation) (see intentions paper section 4.4.B)?

5. Timing for submitting information

The ministry is seeking comment on whether: 1) an operating plan and environmental impact study should be required 90 days before construction commences and at registration; or 2) the regulation should be silent on "before construction" requirements, allowing the developer/builder to decide if construction can proceed without registration and risk having to either reconstruct/redesign or stop construction because of a subsequent non-compliance issue (see intentions paper section 4.5).

5.1 Do you have any comments or suggestions for the ministry regarding whether the regulation should continue to require submission of an operating plan and environmental impact study "before construction" or eliminate this requirement?

6. Schedule 7 – design standards for sewage facilities

Do you have any comments regarding the ministry's intention to clarify that design standards for a sewage facility require "written approval of the director" (see intentions paper section 4.6)?

7. "Beneficial use" of reclaimed water

- 7.1 Do you have any comments or suggestions regarding inclusion of a requirement that use of reclaimed water should be "beneficial" and inclusion of a definition of "beneficial use" in the Municipal Sewage Regulation (reflecting information in the existing Code of Practice for Reclaimed Water) (see intentions paper 5.1)?
- 7.2 Do you have any suggestions for additional types of "beneficial use" of reclaimed water (not identified in the current Code of Practice for Reclaimed Water) that should be included in the regulation and/or code?

8. "Cross connection" and other building/plumbing code issues

With the objective of protecting human health and the environment from the harmful effect of contamination of potable water in dual distribution systems by preventing cross connections, the ministry intends to review the regulation and revise definitions to ensure consistency with other provincial legislation and building codes. For example, the requirement that certified cross connection control inspectors operate and manage any dual distribution system will be moved to the section of the regulation addressing reclaimed water (see intentions paper section 5.2).

- 8.1 Do you have any comments or suggestions for the ministry regarding provisions in the regulation intended to prevent cross connection and contamination of potable water (e.g., revisions to sections 10(5) and (6) and 22(1) of the regulation)?
- 8.2 Do you have any other comments or suggestions for the ministry related to consistency between the regulation and building/plumbing codes?

9. Irrigating food crops with reclaimed water

At present, Schedule 2 of the Municipal Sewage Regulation allows irrigation of food crops with reclaimed water. The ministry intends to continue active participation in applicable provincial and federal working groups (primarily through the Canadian Council of Ministers of the Environment) to monitor and assess emerging contaminants of concern for potential risks to human health and the environment (associated with irrigation of food crops with reclaimed water). At this time, no amendments to the Municipal Sewage Regulation or the Code of Practice for the Use of Reclaimed Water regarding the irrigation of food crops are seen by the ministry to be warranted (see intentions paper section 5.3).

- 9.1 Do you have any comments or suggestions for the ministry regarding monitoring and assessing emerging contaminants of concern related to the irrigation of food crops with reclaimed water?
- 9.2 Do you have any other comments or suggestions for the ministry regarding the irrigation of food crops with reclaimed water?

10. Multi-agency review and approval of reclaimed water uses

The ministry intends to consult with agencies having review and/or approval responsibilities under the regulation to develop a guideline or process document. If in agreement with the involved agencies, the ministry will amend the regulation to provide additional requirements for the registration process (see intentions paper section 5.4).

10.1 Do you have any comments or suggestions for the ministry regarding review and approval responsibilities of local health officers and/or provincial ministries other than the Ministry of Environment when using reclaimed water?

Do you have any comments regarding the suggestion that approval for reclaimed water use be similar to that for biosolid applications authorized by the Organic Matter Recycling Regulation (i.e., if applications are not responded to within a specified time period then the application would be considered to be approved)?

11. Reorganizing and consolidating regulatory requirements related to reclaimed water

Currently regulatory requirements related to reclaimed water are dispersed and difficult to find. The ministry intends to consolidate requirements related to reclaimed water under a single section of the regulation (see intentions paper section 5.5, subsections A-I).

A. Storage, alternate disposal and system reliability

- 11.1 Do you have any comments regarding the ministry's intentions to reduce redundancy related to storage requirements and to clarify applicable storage provisions in the regulation?
- 11.2 Do you have any comments or suggestions regarding the ministry's intention that the exemption from having to provide alternate disposal capacity should only apply to non-residential and non-institutional settings?

B. Requirements for effluent disinfection

11.3 Do you have any comments regarding the ministry's intentions to clarify that effluent disinfection is required for reclaimed water and consolidate related regulatory provisions?

C. Environmental impact study requirements

11.4 Do you have any comments regarding the ministry's intentions to clarify that provisions for an environmental impact study apply to reclaimed water uses and should also account for both water quantity and water quality?

D. Operating plan requirements

- 11.5 Do you have any comments or suggestions regarding the ministry's intention to include *commissioning plan* requirements as part of the operating plan?
- 11.6 Do you have any comments regarding the ministry's intention to require inclusion of a *certified irrigation plan* (including metal and salt limits and reference to federal water quality standards) in the operating plan?
- 11.7 Do you have any comments regarding the ministry's intention to clarify requirements that a *contingency plan* be included in the operating plan?

E. Notification of malfunction

11.8 Do you have any comments regarding the ministry's intention to require that the local health officers be immediately notified of any system malfunctions or other condition which results or may result in a risk to public health?

F. Monitoring requirements

11.9 Do you have any comments or suggestions regarding the ministry's intended consolidation of and revisions to monitoring requirements for use of reclaimed water?

G. Annual reporting requirements

11.10 Do you have any comments or suggestions regarding the ministry's intentions for clarifying annual reporting requirements related to reclaimed water?

H. Appendix 3 of Schedule 7 - Health and Safety Criteria for Use of Reclaimed Water

- 11.11 Do you have any comments regarding the ministry's intention to move provisions of Schedule 7 of Appendix 3 from the regulation to the Code of Practice for Use of Reclaimed Water, with provisions requiring compliance with the health and safety criteria and annual reporting of monitoring remaining in the regulation?
- 11.12 Do you have any comments or suggestions regarding the ministry's intention to remove the 60 meter "food setback provision" presently contained in Appendix 3 of Schedule 7?
- 11.13 Do you have any suggestions regarding any other health and safety criteria requirements (including those that are presently in Appendix 3 of Schedule 7) that should remain in or be added to the regulation?

I. Schedule 7(6) "Reclaimed Water Application"

11.14 Do you have any comments regarding the ministry's intentions to consolidate provisions of Schedule 7(6) in a "reclaimed water" section of the regulation?

12. Types and standards related to use of reclaimed water

The intentions paper includes two tables outlining four proposed types of permitted uses for reclaimed water, and associated standards. Ministry intentions associated with the proposed types and standards are discussed in section 5.6 of the intentions paper (sub-sections A-F).

A. Types of reclaimed water use

- 12.1 Do you have any comments or suggestions regarding the four proposed "types" of permitted uses (see intentions paper tables 1 and 2) and their effectiveness in providing clear regulatory direction and flexibility? Are there any reclaimed water uses that you would move to another type and why?
- Do you have any comments or suggestions regarding the reclaimed water uses and standards associated with proposed *type 1* ("highest environmental risk") uses? Do you feel that the regulation should: 1) contain the standards in table 1 only; 2) contain the standards set out in table 1 as a baseline while also providing the director with the authority to set stricter standards based on site specific conditions; or 3) contain the standards set out in table 1 as a baseline while also providing the director with the authority to set both stricter or less strict standards based on the impact to the receiving environment?
- 12.3 Do you have any comments regarding inclusion of monitoring and reporting information in the same tables as the reclaimed water standards?
- 12.4 Do you have any comments regarding turbidity/total suspended solids (TSS) monitoring requirements for type 2 (highest exposure potential) water uses (e.g., whether TSS monitoring requirements should include an average like turbidity, or only a maximum value)?
- Do you have any comments or recommendations with respect to whether the fecal coliform standard for type 2 water uses should be 1 CFU/100mL or remain at the current median of 2.2 CFU/100 mL?
- 12.6 Do you have any comments or recommendations regarding worker contact standards for specified or all types of reclaimed water use (e.g., the existing requirement that worker contact with reclaimed water be minimized, the ministry's intention to require a higher level of disinfection to a maximum 14 CFU/100mL (or equivalent MPN) based on daily sampling where frequent worker contact is likely)?
- Do you have any comments regarding whether residual chlorine monitoring should be required for any or all types of uses (e.g., only type 2 uses, type 2 and 3 uses, all uses except type 1 and 4)?

- 12.8 Do you support the suggestion that the ministry allow for testing during the weekdays by reducing the time in note 11 in Appendix 1 of Schedule 2 for the median value from "the last 7 days" to "the last 5 days"?
- 12.9 Do you agree with the suggestion that note 16 in Appendix 1 of Schedule 2 be amended to allow for two consecutive daily presence tests to give the operator time to determine if the first positive result is a false positive or is in fact an indication the system is failing (giving the operator time to correct the problem)?
- 12.10 Do you have any additional comments or suggestions related to the ministry's intentions to reorganize Schedule 2 of the regulation?

B. Toxicity standards by type

12.11 Do you have any comments regarding the ministry's intention to require toxicity testing for reclaimed water uses that impact aquatic environments and/or suggestions for the ministry in establishing effective and practical testing standards (e.g., provisions for site-specific sensitive species and sensitive life stage toxicity testing)?

C. Standards and requirements for fecal coliform (versus E.coli) monitoring by type

12.12 Do you have any comments or recommendations regarding standards and monitoring requirements for fecal coliform and/or *E.coli* in the regulation? For example, would you recommend that the regulation set fecal coliform standards and require an additional *E. coli* standard for specific applications such as spray irrigation of reclaimed water for food crops?

D. Stream augmentation

12.13 Do you have any comments regarding the ministry's intention to establish standard requirements and the ability of the director to set site-specific requirements for uses of reclaimed water (such as stream augmentation) that would better protect aquatic life, ground water or other water resources?

E. Irrigation and varying treatment reliability

12.14 Do you have any comments regarding the ministry's intention to differentiate irrigation applications on the basis of potential for (public and worker) exposure and categorize them accordingly (see intentions paper table 2)?

Do you have any comments regarding the ministry's intention to continue to require "category 1" system reliability (Schedule 7, 2(1)(6)(a)) for reclaimed water uses (such as for irrigation of golf courses)?

F. Shallow sub-surface irrigation

- 12.16 Do you have any comments or suggestions for the ministry regarding appropriate and effective regulatory requirements for sub-surface irrigation use of reclaimed water?
- 12.17 Should sub-surface irrigation requirements be included in Schedule 4 and not in the reclaimed water section as it could be considered disposal to ground?

13.	Protection of human health and the environment
13.1	Are there any aspects of municipal sewage management and the use of reclaimed water that could significantly affect human health or the environment that are not, in your view, sufficiently addressed in the ministry's intentions and proposed amendments to the Municipal Sewage Regulation?
	☐ Yes ☐ No
	What, if any, are they? What suggestions do you have for the ministry to improve the manner in which these concerns are addressed?
13.2	Do you have any other comments or suggestions for the ministry regarding the regulation of municipal sewage?

Thank you for your time and comments!

Please remember to return this response form to the ministry on or before January 29, 2010.

If you wish, you may also provide contact information on the following page. This information will be compiled separate from responses and used to inform respondents of posting of the summary of comments and subsequent ministry actions to develop and implement the regulatory changes.

(Optional) Contact Information

If you wish to have your name placed on the ministry listserve to receive further information concerning regulatory changes related to municipal sewage, please provide your contact information – **including an e-mail address** – below. Note that all submissions will be treated with confidentiality by ministry staff and contractors however information that identifies you as the source of those comments may be publicly available if a Freedom of Information request is made under the *Freedom of Information and Protection of Privacy Act*.

	Contact Name:			
	Busine	Business or Organization Name (if appropriate):		
	E-mail:			
	Mailing	address:		
	Teleph	one: Fax:		
Ва	ackgro	ound and Area of Interest		
	Please	mark an "x" in the appropriate boxes if your primary interest in the ministry's intentions relates to your:		
		Work in the private sector: Please describe (e.g., sewage plant operator, consulting engineer):		
		Work for a government regulatory agency: Please describe (e.g., federal, provincial, municipal):		
		Work for a public sector organization: Please describe (e.g., health authority, education institution, Crown corporation):		
		First Nation Please describe:		
		Involvement or work for an environmental or community interest group		
		Other interest: Please describe:		
		Thank you once more for your time and interest in these regulatory changes.		
	If you	have any further questions, please contact Cindy Bertram at: cindybertram@shaw.ca		