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Proposed Regulatory Framework for Wastewater

**Annual Technical Services
Conference & Tradeshow**

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Presentation Overview

- **Background**
- **Setting the Context**
- ***EC's Proposed Regulatory Framework for Wastewater***



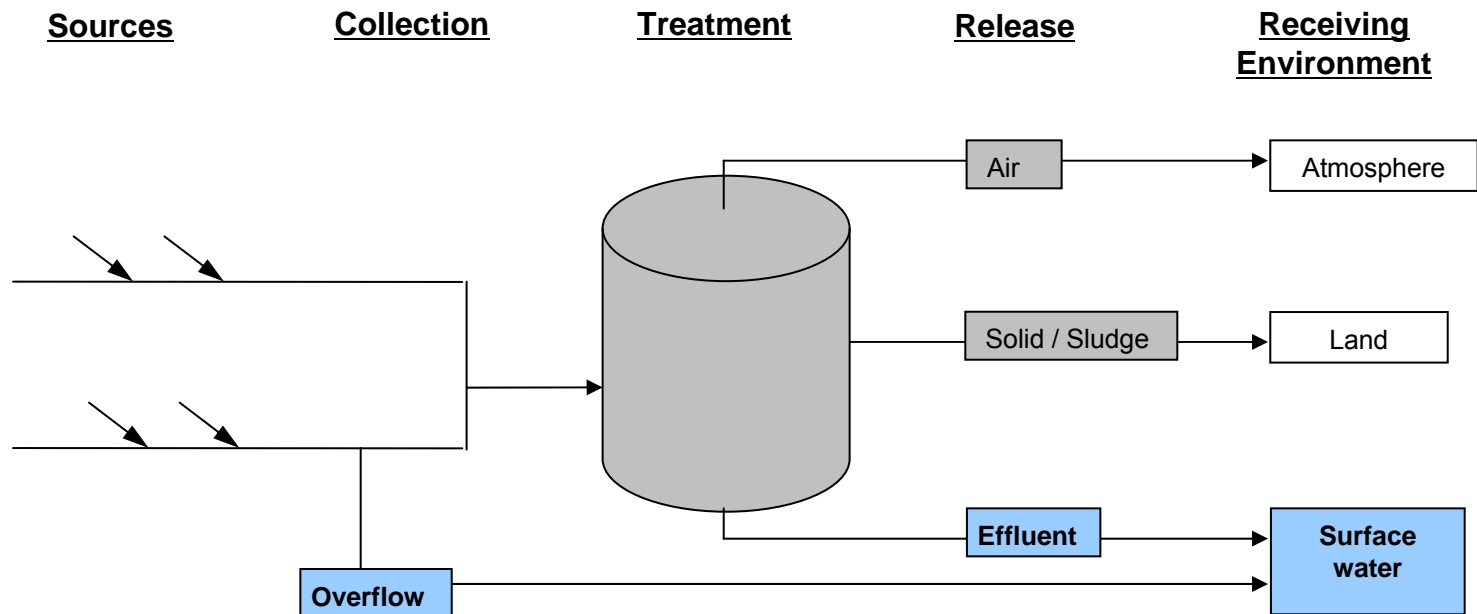
Background

- EC is consulting on proposals for updating wastewater management
 - CCME Canada-wide Strategy
 - EC's *Proposed Regulatory Framework for Wastewater*
- EC will consider all feedback to
 - Finalize the CCME Strategy with provincial and territorial governments, and
 - Proceed with development of new federal regulations

Why is wastewater a concern?

- Environmental and health impacts are clearly established for wastewater effluents
- “Toxic” substances in wastewater effluents
- Impacts include negative effects on fish and wildlife, oxygen depletion and restrictions on drinking water and recreational use

Wastewater system – conceptual representation of the steps



Context – Management Issues

- Management involves all jurisdictions in Canada
 - Wastewater systems are subject to federal legislation as well as applicable provincial, territorial or water board legislation, permits or licenses
 - Federal *Fisheries Act* allows for the establishment of regulations that would authorize the discharge of deleterious substances – no regulations exist for wastewater systems
- Existing regulatory structures need to be harmonized and in many cases updated

Context - CCME Canada-wide Strategy

- Over the past 4 years, a working group of federal, provincial and territorial officials has been developing a Canada-wide Strategy for the Management of Municipal Wastewater Effluent



Context - CCME Strategy's elements

- Managing effluents
 - National performance standards
 - Approach for site-specific standards
 - “One-window” for reporting, compliance promotion and enforcement
- Economic Implications
 - Preliminary cost to achieve proposals in Strategy estimated at \$10 – 13 billion nationally



CCME Strategy's implementation

- The responsibility for implementing the CCME Strategy rests with each jurisdiction and their elected governments
- Environment Canada's *Proposed Regulatory Framework for Wastewater* outlines the federal government's approach to implement the CCME Strategy

EC's Proposed Regulatory Framework for Wastewater

- A. Develop wastewater effluent regulations and administrative mechanisms under the authority of the *Fisheries Act*
- B. Develop additional risk management actions for wastewater systems under federal authority, or on federal land or on aboriginal land
- C. Develop risk management actions for sources of pollution in wastewater

A. Wastewater effluent regulations under the *Fisheries Act*

- Deleterious Substances and Effluent Discharge Levels
 - **Biochemical oxygen demanding matter:** 25 mg/L (CBOD)
 - **Suspended solids:** 25 mg/L (TSS)
 - **Residual chlorine:** 0.02 mg/L (TRC)
 - **Acutely toxic effluent:** non-acutely toxic effluent
 - **Ammonia:** specific requirements if acute toxicity test failure is due to ammonia

A. Wastewater effluent regulations under the *Fisheries Act*

- Wastewater system size category

Size	Flow (m ³ /day)	Estimated Population
Very Small ²	≤ 500 ¹	≤ 1,000
Small ²	> 500 – 2,500	> 1,000 – 5,000
Medium	> 2,500 – 17,500	> 5,000 – 35,000
Large	> 17,500 – 50,000	> 35,000 – 100,000
Very Large	> 50,000	> 100,000

¹ EC considering a minimum flow of 10 m³ for very small category

² Very Small and Small wastewater systems with “industrial” input would be deemed “medium”

A. Wastewater effluent regulations under the *Fisheries Act*

- **Based on wastewater system size categories the regulations would include requirements for:**
 - Effluent Monitoring
 - Reporting
 - Timelines to achieve Effluent Discharge Limits

A. Wastewater effluent regulations under the *Fisheries Act*

- Acute Toxicity Requirements
 - Non-acutely toxic discharge limit and acute toxicity monitoring requirements would apply to medium, large and very large wastewater systems
 - Additional requirements for acute toxicity test failures
 - Submission of an “Action Plan” within 60 days
 - Specified timelines to identify (within 1 year) and implement corrective actions (within 2 years)
- Acute Toxicity and Ammonia
 - If ammonia is the only cause of acute toxicity test failure, then receiving environment considerations would determine if reduction of ammonia in the effluent would be required

A. Wastewater effluent regulations under the *Fisheries Act*

- **Regulations would require site-specific activities for wastewater systems under federal authority or on federal land or on aboriginal land**
 - Establish a list of substances of potential concern
 - Prepare and execute an initial effluent characterization program
 - Establish effluent discharge objectives
 - Monitor effluent and submit reports

Note:

- *Federal regulations would not include the above requirements for wastewater systems under provincial or territorial jurisdiction*

A. Wastewater effluent regulations under the *Fisheries Act*

- **Interdepartmental and Intergovernmental Co-operation**
 - Agreements would be negotiated between the federal government and
 - provincial governments
 - Yukon
 - Northwest Territories
 - Nunavut
 - Agreements address one-window reporting, compliance promotion and enforcement elements and a co-ordination mechanism for the site-specific effluent discharge requirements
 - EC would directly administer regulations for federal entities

Next steps

- **November 2007 - January 2008**
 - First Nations Consultation Session, Edmonton – November 22, 2007
- **January 31, 2008**
 - Environment Canada welcomes feedback on the *Proposed Regulatory Framework for Wastewater* and the CCME Canada-wide Strategy
- **Spring 2008**
 - CCME Canada-wide Strategy finalized
- **December 2008**
 - Proposed wastewater effluent regulations under the *Fisheries Act* published in *Canada Gazette*, Part I.



Providing Feedback

- Interested parties can provide feedback in writing to:
 - Claude Fortin
Environment Canada
351 St. Joseph Blvd, Gatineau, Québec, K1A 0H3
- Feedback can also be provided through email or by facsimile:
 - E-mail: wastewater@ec.gc.ca
Fax number: (819) 953-7253
- All interested parties are encouraged to review the documentation for the CCME *Canada-wide Strategy for the Management of Municipal Wastewater Effluent*. Further information about the CCME Strategy can be obtained at the CCME's website: <http://www.ccme.ca/ourwork/water.html>.



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Thank you

