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Proposed Wastewater Systems Effluent Regulations

**Frank Svistovski and Trish Auser
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Outline of Presentation

- Context – Wastewater in Canada
- CCME and *Canada-wide Strategy for the Management of Municipal Wastewater Effluent*
- Proposed *Wastewater Systems Effluent Regulations*
- Timelines and next steps



Wastewater in Canada

- **Over 4000 wastewater systems in Canada**
 - 3500 owned by municipal governments
 - 500 located on federal or Aboriginal land
- **Uneven levels of treatment across Canada**
 - Range from state-of-the-art to no treatment (mostly on coasts)
- **Canadian performance**
 - United States and Europe already at secondary treatment as a baseline



Regulating Wastewater Effluent in Canada

- **Municipal systems subject to multiple requirements**
 - Provincial or territorial/water board permits and federal *Fisheries Act*
 - Requirements may not be consistent
- **Systems on federal and Aboriginal lands subject to federal requirements**
 - *Fisheries Act* and federal guidelines
 - In some cases, in NWT and Nunavut, water board permits
- ***Fisheries Act* key provisions**
 - Prohibition of the release of deleterious substances to water frequented by fish (general prohibition, section 36.3) unless authorized by regulations that specify concentrations or quantities
- **Need for consistency and clarity a long standing issue**

Canadian Council of Ministers of the Environment (CCME)

- **CCME is a forum for the federal, provincial and territorial governments in Canada to develop strategies and guidelines**
- **CCME Canada-wide Strategy for the Management of Municipal Wastewater Effluent (CCME Strategy)**
 - Endorsed by Council of Ministers on 17 February 2009
 - Quebec, Newfoundland & Labrador and Nunavut did not endorse
 - National effluent quality standards with risk-based implementation over 10, 20, 30 years
 - Collaborative implementation of future federal regulations and provincial/other permits through administrative agreements between Canada and provinces/other regulators
 - Additional science and analysis to set standards for the North (5-year window)
- **Responsibility to implement the CCME Strategy rests with each jurisdiction**
- **Standards inform infrastructure investments**
 - \$10-13 billion in capital costs estimated over 20 to 30 years

Proposed *Wastewater Systems Effluent Regulations*

- The Federal government's principle instrument to implement the CCME strategy
- Published under the *Fisheries Act* in *Canada Gazette*, Part I on March 20th, 2010 for a 60-day comment period
- Would apply to any land-based wastewater system discharging to surface water including:
 - municipal wastewater systems
 - private wastewater systems
 - wastewater systems under federal government operation and on federal and aboriginal lands
 - wastewater systems in the North not included initially

Proposed Structure of the Regulations

- Definitions and Application
- Authorization to Deposit effluent containing deleterious substances
- Conditions on the authorization to deposit (identification of systems, effluent monitoring & reporting)
- Temporary and Transitional Authorizations to deposit
- Conditions to be met on the issuance of Temporary or Transitional Authorizations

Effluent Quality Standards

- Representative of secondary wastewater treatment

Carbonaceous biochemical oxygen demand (CBOD)	Total Suspended solids (TSS)	Total residual chlorine (TRC)	Un-ionized ammonia (NH ₃) (expressed as N at 15°C ± 1°C)
Average	Average	Average	Maximum
≤ 25 mg/L	≤ 25 mg/L	≤ 0.02 mg/L	< 1.25 mg/L

- Effluent must not be acutely lethal

Implementation timelines

- Existing wastewater systems already meeting the effluent quality standards would keep meeting standards
- New wastewater systems would meet the effluent quality standards upon commissioning
- Existing wastewater systems not meeting the effluent quality standards would need to upgrade their systems to meet these standards
 - 2020, 2030 or 2040 timeline depending on the risk associated with existing effluent quality/volume and the related risk to the receiving environment.

What we heard

- Provinces and Territories
 - private systems
 - seasonal discharges
 - toxicity testing
 - timelines
 - environmental effects monitoring
 - resources (infrastructure funding)
- Municipal
 - Supports the move to secondary treatment and need to better protect environment
 - Concerned about costs
 - Advocating for dedicated cost-sharing arrangement
- ENGOs
 - Support regulatory intervention with baseline standards
 - Advocating for shorter timelines to achieve baseline and for specific targets for overflows from combined sewers
- Combined sewer overflows (CSOs) an additional area of concern with all stakeholders

Regulatory Development Phases

Current phase



Regulatory
Strategy

Draft
Regulatory
Material

Proposed
Regulations
in *Canada
Gazette*,
Part I

**Finalize
Regulatory
Material**

Final
Regulations
in *Canada
Gazette*,
Part II

Consulting, Coordinating, Cooperating



Next steps

- Registration of the final Regulations (targeted for late 2011)
- Bilateral agreements between EC and provinces and Yukon
 - Define procedures for cooperation of federal and provincial regulators
 - Maximize effectiveness and efficiency of application of the federal regulations
 - One window

Deposit Out of the Normal Course of Events Notification Regulations came into force on March 25, 2011.

- The *Deposit Out of the Normal Course of Events Notification Regulations* came into force on March 25, 2011, pursuant to the Fisheries Act.
 - These DONCE Notification Regulations provide the name and telephone number of the 24-hour authorities operating for the respective province or territory to which notifications are to be made without delay.
 - In Alberta, all notifications should be directed to the Alberta Ministry of Environment at 780-422-4505 or 1-800-222-6514 (telephone number accessible only within Alberta).
- The following information will likely be requested at the time of reporting and should be readily available:
 - the name and address of the person notifying of the release and the telephone number at which this person can be contacted;
 - the name and address of the person who owned or had the charge, management, or control of the substance immediately before the release;
 - the location of the release (exact address or geographic coordinates);
 - What was released i.e. raw sewage
 - Cause of the release.
 - When the release will be stopped, if known.
 - Details of the actions taken or further actions contemplated (to contain, recover, clean up or dispose of the substance released)

Contact Information

James Arnott, Wastewater Section
Environment Canada
James.Arnott@ec.gc.ca

- **Additional information may be obtained at EC's website:**
 - www.ec.gc.ca/eu-ww



Thank you

