CCME Canada-wide Strategy for the management of municipal wastewater effluents

Environment Canada's proposed implementation

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December 14, 2006

Presentation Overview

- Context
  - Existing federal instruments and activities
  - CCME Canada-wide Strategy
- Environment Canada's proposed implementation
  - Overview
  - Proposed Elements

- Your feedback will inform EC:
  - completing the negotiation with provinces and territories on the CCME Canada-wide Strategy
  - EC's proposal for implementation

Existing Federal Instruments and Activities

- Instruments
  - *Canadian Environmental Protection Act, 1999*
    - Effluent
      - chlorine, ammonia
    - Sources
      - effluents from textile mills, surfactants (NP/NPEs), phosphorus in laundry detergents
    - Release reporting
      - Release of pollutants, i.e. *National Pollutant Release Inventory*
  - *Fisheries Act*
    - Effluent - general prohibition, subsection 36(3)
  - Federal wastewater system guideline for wastewater treatment and effluent quality

- Activities
  - Infrastructure funding
  - Science and technology research

CCME Canada-wide Strategy

- ***Options for a Canada-wide Strategy for managing municipal wastewater effluent: Consultation Document***
  - CCME consultation materials available for review and comment: www.ccme.ca

Overview of EC's Proposed Implementation of the Canada-wide Strategy

- EC's primary instrument would be regulations applicable to effluents discharged from wastewater systems
- EC is considering additional preventive, control and management instruments for:
  - other aspects of managing wastewater systems on federal lands and Aboriginal lands
  - sources, e.g. pollutants in discharges to wastewater collection systems

Overview of EC's Proposed Regulations Applicable to Wastewater Effluents

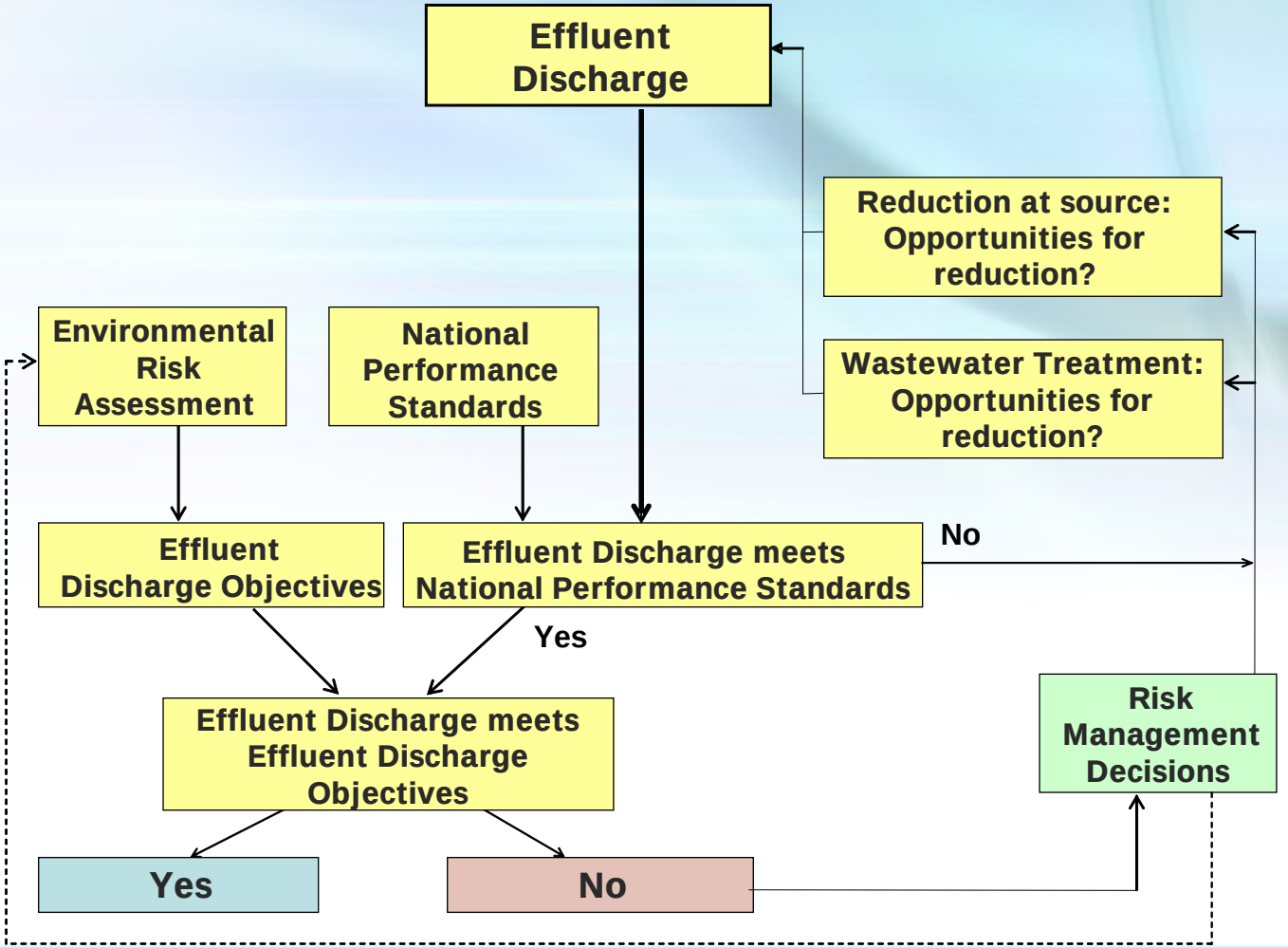
- Existing authorities of *Fisheries Act* and *Canadian Environmental Protection Act, 1999*
- Application to effluents from all wastewater systems, including those in First Nations, Inuit and Métis communities and those on federal lands.
- "End of pipe" standards for wastewater effluents
  - 2nd treatment as baseline: standards for biochemical oxygen demand and suspended solids
  - Standard for residual chlorine
  - Standard for non-acutely lethal effluent release
  - Monitoring and reporting requirements
- Federal regulatory instruments would be complementary to provincial, territorial and other regulatory regimes – formal bilateral agreements

EC's Perspective

- CCME Canada-wide Strategy
  - Agreement between federal/provincial/territorial governments on the management of municipal wastewater effluents
    - Performance
      - » Environmental Risk Management
      - » Define a new collectively agreed-to regulatory baseline including national standards
    - Governance
      - » Harmonized Regulatory Framework
      - » "One-window"

CCME Canada-wide Strategy

Environmental Risk-Based Approach - Effluent



National Performance Standards

- National Performance Standards developed through the CCME Canada-wide Strategy in the federal wastewater effluent regulations

- The National Performance Standards for CBOD and TSS
  - national minimum baseline of secondary treatment or equivalent effluent quality
    - CBOD - 25 mg/L
    - TSS - 25 mg/L

- The National Performance Standard for TRC
  - national baseline for residual chlorine in wastewater effluents
    - TRC - 0.02 mg/L

Additional Performance Standards

- Consideration for including regulatory requirement for the release of a non-acutely lethal effluent
  - toxicity identification and reduction
  - ammonia toxicity addressed whereby ammonia reduction standards established based solely on the assimilative capacity of the site-specific receiving environment, not end-of-pipe concentrations

Application

- Consideration for all wastewater systems in Canada that discharge effluent to surface water, regardless of ownership
- Consideration to limiting the regulatory application to a minimum level of flow
  - 5 cubic metres per day
- CCME size categories for wastewater systems being considered to tier monitoring and reporting requirements

Site-specific Standards

- CCME Strategy
  - site-specific environmental risk assessments lead to the establishment of effluent discharge objectives.
  - more stringent standards for national performance standards where needed for certain effluent releases to achieve acceptable risks
  - additional standards for other pollutants would be needed for certain effluent releases to achieve acceptable risks
- Environment Canada is considering the need to incorporate these actions and activities in the federal wastewater effluent regulations
  - CCME Guideline for environmental risk assessments and effluent discharge objectives

Effluent Monitoring

- Environment Canada is considering including in the federal wastewater effluent regulations, effluent monitoring requirements comparable to those articulated in the CCME Strategy
- Effluent monitoring requirements would commence under the federal wastewater effluent regulations when the regulations come into effect
  - Existing effluent release reporting requirements under the *Canadian Environmental Protection Act, 1999 (e.g. NPRI)* would be adjusted accordingly

Receiving Environment Monitoring

- Environment Canada is considering including environmental monitoring requirements in the federal wastewater effluent regulations
  - Objective would be to identify any potential effects of the effluent on fish populations, on fish tissue and on the benthic invertebrate community
  - Scope of the environmental monitoring requirements still need to be determined
    - compatible with risk elements outlined in proposed CCME Strategy for receiving environment monitoring

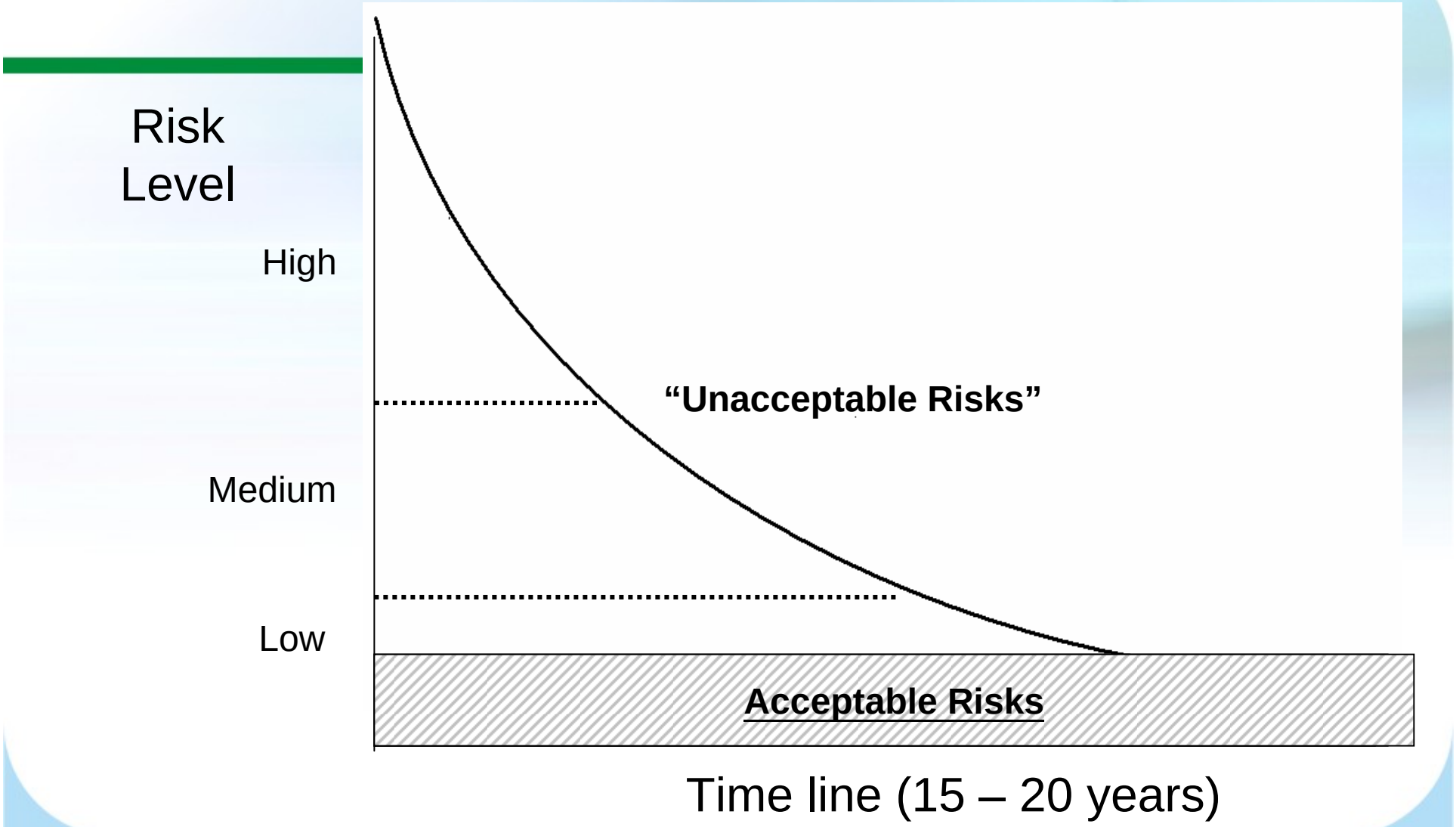
Overflows and Spills

- Overflows
  - The proposed CCME Strategy includes an approach to address combined sewer overflows and sanitary sewer overflows
  - Environment Canada is considering the scope of requirements for overflows that could be reasonable to include in the federal wastewater effluent regulations

- Spills
  - Environment Canada would include in the wastewater effluent regulations a requirement for notification within a short time period
  - Reporting mechanisms for unplanned releases and spills are already coordinated with some provinces and this would be retained and expanded

Implementation

- Environment Canada is considering the implementation elements of the CCME Strategy for the purposes of the federal wastewater effluent regulations
  - establish high, medium and low priorities for implementation timelines in the regulations


Risk Level
High
Medium
Low
"Unacceptable Risks"
Acceptable Risks
Time line (15 – 20 years)

Exceptions

- CCME Strategy proposes a number of options to address a certain subset of smaller wastewater systems depending on remoteness, arctic climate and sensitivity of the receiving environment
  - Environment Canada's current thinking is that a risk-based approach to implementation will address the proposed exceptions

Reporting

- Environment Canada proposes that all effluent and receiving environment monitoring results would be reported to regulators
- Environment Canada is considering elements of CCME Strategy in terms of public reporting

Governance

- "Structures" include:
  - Municipal: federal-provincial and municipal continuum
  - Territories
  - First Nations (reserves)
  - Inuit
  - Métis
  - Federal Lands

Governance

- CCME standards
  - Reflected in federal wastewater effluent regulations
- "One-window approach" ensured through formal agreements between federal government and other regulators

Outcome: One set of standards applied in a fair, consistent and predictable manner

Sources

- CCME Strategy proposes a number of different performance instruments
  - Sewer use bylaws (CCME Model)
  - Instruments under federal authority e.g. CEPA 1999
  - Water management instruments

- Environment Canada is considering the need to develop and harmonize preventive or control instruments under the CEPA, 1999 for pollutants or issues of national concern.

Management and Oversight of Federal Wastewater Systems

- Environment Canada is currently analysing options to address the need to develop management and oversight instruments under federal legislation including CEPA, 1999.

Consultation Mechanisms – Events

- Jurisdiction sessions
- First Nations, Inuit and Métis consultations
- National workshop (Jan. 30/31 2007)
- Science and technology research focused session (Feb. 2007)

- CWWA national wastewater management conference and policy forum (Feb. 2007)
- Other sessions with specific groups

EC's Consultation

- Consultation feedback will inform EC:
  - completing the negotiation with provinces and territories on the CCME Canada-wide Strategy
  - EC's proposal for implementation especially related to federal wastewater effluent regulations

- Consultation process with interested parties
  - Current phase: Fall 2006 to March 2007 and Spring 2007
    - elements of the Canada-wide Strategy that the federal government intends to include in wastewater effluent regulations
  - Next phase: Fall 2007
    - draft federal wastewater effluent regulations, i.e. non-legal text
  - Final phase
    - Winter 2007-08: formal 60 day comment period on the draft wastewater effluent regulations
    - Winter 2008-09: publication of final wastewater effluent regulations.

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Thank you!

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