

**OPTIONS FOR A CANADA-WIDE STRATEGY FOR THE MANAGEMENT OF MUNICIPAL  
WASTEWATER EFFLUENT:  
SUBMISSION FROM CANADA'S MUNICIPAL GOVERNMENTS**

Comment [MSOffice1]: Contact Simon  
Awa?

*Submitted by:*

**The Federation of Canadian Municipalities**

*To:*

**Canadian Council of Ministers of the Environment**

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## Background

The Canadian Council of Ministers of the Environment (CCME) is developing a strategy to improve the management of municipal wastewater effluent in Canada. The strategy is intended to apply to all municipal and community wastewater facilities in Canada, and proposes specific measures to protect the environment and human health. The strategy aims to provide regulatory consistency and certainty, and to ensure improvements to wastewater management systems are fiscally and environmentally sustainable.

The CCME has developed a consultation document for discussion, *Options for a Canada-Wide Strategy for the Management of Municipal Wastewater Effluent*, which provides an overview of principal elements, including performance requirements; implementation and economic implications; and approaches to regulatory harmonization.

Because changes in regulatory and other requirements could have a significant impact on municipal operations, the Federation of Canadian Municipalities (FCM) felt it was important to assess and communicate the needs and concerns of Canada's municipal governments to the CCME. FCM conducted a brief survey of its members to facilitate the feedback process, drawing on the consultation template designed by CCME. FCM received over 40 responses, which have been integrated into this submission.

The Federation of Canadian Municipalities' membership includes over 1600 municipal governments, representing close to 90% of Canada's population. FCM has been the national voice of municipal government since 1901, and represents the interests of municipalities on policy and program matters that fall within federal jurisdiction. Members include Canada's largest cities, small urban and rural communities, and 18 provincial and territorial municipal associations.

## The Municipal Infrastructure Deficit in Canada

As a result of the pressures of urbanization and offloading, Canada's municipal governments are providing much more than their traditional responsibilities of basic services to property. These new municipal "responsibilities" include everything from immigrant-settlement programs, to affordable housing, to emergency preparedness and, in some jurisdictions, even day-care.

The increasingly complex composition and growing toxicity of municipal wastewater effluent has caused the costs of treatment to rise dramatically. It is no longer acceptable to release untreated or undertreated wastewater into our rivers, lakes and oceans, and it is municipal governments that will be required to meet the challenges of enhanced water and wastewater treatment standards.

However, municipal governments lack the resources and fiscal tools they need to meet these new responsibilities. They are largely dependent on the property tax, a regressive and unresponsive revenue source, and user fees. They are facing a fiscal squeeze, caught between a growing range of responsibilities and inadequate financial resources. This squeeze has caused the deferral of much-needed investments in infrastructure such as wastewater treatment, leading to a physical decay that harms cities' and communities' capacity to compete in the global economy and contribute to prosperity.

The numbers tell the story: currently, 50 cents of every tax dollar collected in Canada go to the federal government, while 42 cents go to provincial and territorial governments. Municipal

governments are left with just eight cents of every tax dollar. This fiscal imbalance affects not only urban centres, but also rural and northern communities that, with small and often shrinking populations, must try to make ends meet with limited economies of scale and rising service expectations.

The fiscal imbalance, the root cause of the many challenges faced by Canada's cities and communities, is illustrated clearly by the municipal infrastructure deficit, estimated to be \$60 billion and growing at \$2 billion a year. The consequences of this deficit are evident in every community: potholes and rusting bridges, water treatment and transit systems that cannot keep up with demand, gridlock, poor air quality and a lack of affordable housing.

The infrastructure deficit compromises Canada's competitiveness, lowers the community's quality of life, and hampers the efforts of Canada's cities and communities to attract and retain educated and skilled professionals. An equitable, rational and predictable distribution of responsibilities and funding among all orders of government is the only solution for dealing with our infrastructure challenges, and the only way we will be successful in meeting the objectives of the proposed strategy for the management of municipal wastewater effluent.

### **FCM Policy Expectations**

The Federation of Canadian Municipalities believes that the development and implementation of environmental policy should be guided by a core set of principles. These include:

- **Ecosystem management** – developing effective partnerships that look at natural boundaries, such as watersheds, as the unit of management
- **Pollution Prevention** – recognizing that environmental pollution is best prevented or reduced at the source
- **Full Cost Accounting** – making consumers aware of and responsible for external costs, including environmental impacts resulting from the consumption of goods and services
- **Polluter Pays Principle** – ensuring costs associated with environmental clean-up are borne by the parties responsible
- **Partnership** – ensuring municipal governments are fully engaged as partners in developing and implementing environmental policies and regulations, and in achieving national objectives

FCM expects the new national strategy for the management of municipal wastewater effluent to incorporate the above principles in both its design and implementation. At minimum, the strategy should provide regulatory certainty and clarity, should protect human health and the environment from the harmful effects of municipal wastewater effluent, and should ensure that municipal governments have the necessary human, technical and financial resources to fulfill their responsibilities. The Federation of Canadian Municipalities looks forward to and expects further engagement with the CCME as it continues to refine and strengthen the proposed approach.

### **Role of Municipal Government in Meeting New Wastewater Management Requirements**

Canada's municipalities recognize that municipal wastewater effluent has the potential to harm human health and the environment. And, while most municipal governments are meeting current requirements set forth in provincial/territorial regulations, our improved understanding of

the potentially harmful effects of municipal wastewater has led to a recognition that more needs to be done to safeguard human health and the environment.

The proposed strategy would require municipal governments to conduct an environmental risk assessment of wastewater effluent, and if necessary to enhance their existing treatment processes. These requirements will apply to all municipal governments, including those in Canada's rural, remote and northern communities.

The CCME consultation document asked stakeholders to describe how other orders of government could better assist municipalities in improving their wastewater services. The respondents in the FCM survey overwhelmingly recommended the establishment of a dedicated infrastructure fund to ensure municipalities can meet the new requirements. In addition to providing support for capital infrastructure investments, it was also recommended that the strategy establish clear, consistent and enforceable standards, and introduce a program to build capacity within municipal governments.

Actions by other orders of government will have a significant impact on the ability of municipal governments to implement the core elements of the strategy. A long-term intergovernmental partnership is the only way to meet the challenges associated with the management of municipal wastewater effluent – and the final strategy should include mechanisms that will ensure this partnership among the three orders of government is developed.

#### ***Specific Considerations for Rural and Northern Communities***

There are several unique considerations that must be taken into account when setting environmental standards in Canada's rural and northern communities, including:

- (a) the cost of acquiring trained operators or consultants to undertake the required tests and monitoring procedures;
- (b) the location of the treatment facility relative to the location of the accredited laboratory services (this is particularly important for testing procedures that require immediate processing and analysis);
- (c) the community's ability to access funding required to meet new standards;
- (d) the availability of trained personnel to operate new systems;
- (e) the effectiveness of certain treatment processes under extreme climate conditions (i.e. cold weather conditions in Canada's northern regions);
- (f) the capacity of rural and northern communities to adopt and enforce municipal sewer use bylaws; and
- (g) the costs associated with continuous monitoring requirements.

The options that are recommended for very small and small wastewater facilities and northern communities in the strategy were felt to be appropriate by the majority of respondents in the FCM survey. However, it was noted that there is a need to consider the cost implications of the new standards on small communities that may not have the tax base to pay for the additional capital costs. Support was voiced for more involvement by northern communities in the development of their standards.

In addition, one respondent felt that there should be a minimum standard regardless of municipality size or remote location. While it will be difficult to meet the same criteria for environmental protection in these regions, it should not prevent these communities from seeking funds to achieve standards of treatment that exceed requirements. All Canadians should have

access to clean, safe and reliable sources of water – and this includes those living in rural, remote and northern regions.

### **Economic Implications**

Little comprehensive national data exist to detail the cost to municipal government of meeting federal, provincial and territorial environmental regulations. This issue points to a need for all orders of government to analyze and publicly share the cost implications of new regulations on municipal government. Providing this analysis would strengthen public policy decision-making, and doing so would improve cooperation and coordination across all three orders of government.

The municipal sector hopes that this process will recognize the need for an updated fiscal policy that provides better horizontal coordination and improved vertical alignment of fiscal policies and programs to support environmental objectives.

**Comment [MSOffice2]:** Need to define horizontal and vertical meanings

FCM believes that the economic implications of implementing the Strategy will be much greater than the estimated \$8-13 billion. As an example, one mid-sized municipality alone has estimated that it will cost approximately \$65 million to meet the strategy's requirements. While over half of respondents in the FCM survey indicated they already use an equivalent of secondary treatment, close to 40% used no, primary or 'other' (e.g. lagoons, wetlands, chemically aided primary treatment) forms of treatment.

### **Full Cost Accounting**

The survey of FCM members revealed that most municipalities would apply for funding from other orders of government *and* increase user fees and charges to acquire the resources needed to respond to the proposed strategy. However, while FCM believes that user fees and charges for municipal water and wastewater services should be based on full cost accounting principles, it must also be recognized that smaller communities will have difficulties generating sufficient revenue to cover the full cost of services. In these cases in particular, there is a clear need for additional resources and support from other orders of government.

Despite the potential for revenue generation through user fees and charges, most environmental services provided by municipal government are funded through the property tax. In the case of wastewater treatment, only 43.5% of the total cost is currently covered by user fees, with the remainder being supported by the general tax base (25.8%), reserves and/or debt financing (23.5%), and provincial / territorial contributions (4.5%).<sup>1</sup>

### **National Performance Standards**

Eighty-three percent of the respondents stated that the proposed National Performance Standards for carbonaceous biochemical oxygen demand, total suspended solids and total residual chlorine were reasonable.

<sup>1</sup> Infrastructure Canada, 2003. *The State Of Infrastructure In Canada: Implications for Infrastructure Planning and Policy (March 2003)*; Prepared by M. Saeed Mirza and Murtaza Haider. Available online at: [http://www.infrastructure.gc.ca/research-recherche/result/studies-rapports/rs02\\_e.shtml](http://www.infrastructure.gc.ca/research-recherche/result/studies-rapports/rs02_e.shtml)

Over half of the respondents stated that no other parameters should be considered, while the remainder noted that phosphorous, nitrogen, fecal bacteria, nutrient removal and ammonia should also be included in the National Performance Standards. Furthermore, one respondent commented that standard sewage treatment parameters are not designed to treat all contaminants, and that the municipality should not be responsible for parameters that cannot be treated in wastewater treatment facilities.

### **Source Reduction**

FCM believes that the best way to reduce risks to human health and the environment is to eliminate production of harmful substances, or to reduce the release of these substances at the source. It is federal and provincial/territorial governments that are best positioned to conduct the research necessary to determine appropriate threshold levels for toxic substances, and to ensure that these threshold levels are not exceeded. Municipal governments cannot be held accountable for the discharge of substances that cannot be treated within their facilities.

### **Liability**

In keeping with the polluter pays principle, municipal governments that knowingly discharge substances into receiving waters at levels that exceed agreed-upon standards should be held responsible for their actions. However, municipal governments should not be held responsible for impacts on fish and/or fish habitat resulting from the discharge of untreatable substances, or if they have not received adequate funding to make required treatment upgrades. If municipal wastewater treatment systems are not required - or are not designed for treating certain substances – they should not be held liable under the proposed provisions in the *Fisheries Act*. Furthermore, municipal governments should not be held liable for exceedences resulting from technological failure, unless the municipality has been negligent in its efforts to prevent the accidental release.

### **Implementation**

Most respondents in the FCM survey indicated that implementation timelines should be based on environmental risk assessments of effluent from all wastewater facilities. However, it was also noted that timelines for implementation should not be established until funding options have been defined. The suggestion that discharge requirements should continue to apply until the end of life of existing equipments was not seen as a desirable option.

A necessary precondition to establishing implementation timelines is an assessment of the costs associated with meeting the strategy's requirements. In response to this assessment, and based on the results of a preliminary risk assessment process, it is recommended that the Government of Canada establish a targeted fund for municipal wastewater infrastructure. The fund would help municipal governments improve the management of wastewater effluent, and would be part of the Government of Canada's long-term, strategic investment strategy for municipal infrastructure.

The creation of a dedicated fund would be a first step towards better protection of Canada's water resources. However, to be successful, it must be accompanied by strengthened policies and regulations that will reduce the production of harmful effluents at the source.

### **Model Sewer Use Bylaw**

Most respondents in the FCM survey (74%) agreed that a model sewer use bylaw is necessary in the context of enhanced wastewater treatment requirements. However, it was also recommended that federal and provincial/territorial authorities take the lead in ensuring pollutants are reduced at their source.

In general, it is strongly recommended that the CCME consult with FCM and provincial/territorial municipal associations prior to finalizing the model sewer use bylaw.

## Summary

A long-term intergovernmental partnership is the only way to meet the challenges associated with the management of municipal wastewater effluent – and the final strategy should include mechanisms that will ensure this partnership among the three orders of government is developed.

An equitable, rational and predictable distribution of responsibilities and funding among all orders of government is the only solution for dealing with our infrastructure challenges, and the only way we will be successful in meeting the objectives of the proposed strategy for the management of municipal wastewater effluent.

At minimum, the strategy should provide regulatory certainty and clarity, should protect human health and the environment from the harmful effects of municipal wastewater effluent, and should ensure that municipal governments have the necessary human, technical and financial resources to fulfill their responsibilities.

The Federation of Canadian Municipalities expects further engagement with the CCME as it continues to refine and strengthen the proposed approach. Municipal governments want to do their part - what they need is a partnership with all orders of government to make it happen.

## Summary of Key Recommendations:

- **Source Reduction:** FCM believes that the best way to reduce risks to human health and the environment is to reduce the release of these substances at the source.
- **Cost Implications:** It is highly probable that the economic implications of implementing the proposed strategy will be much greater than the estimated \$8-13 billion.
- **Funding:** It is recommended that the Government of Canada establish a targeted fund for municipal wastewater infrastructure. The fund will help municipal governments improve the management of wastewater effluent, and would be part of the Government of Canada's long-term, strategic investment strategy for municipal infrastructure.
- **Full Cost Accounting:** User fees and charges for municipal water and wastewater services should be based on full cost accounting principles, but it must also be recognized that smaller communities will have difficulties generating sufficient revenue to cover the full cost of services.
- **Rural, Remote and Northern Communities:** There is a need to consider the cost implications of the new standards on small communities that may not have the tax base

to pay for the additional capital costs. The unique social, economic, environmental and cultural conditions in Canada's north must be taken into account when establishing standards for these communities.

- **Liability:** If municipal wastewater treatment systems are not required or designed for treating certain substances, they should not be held liable under the proposed provisions in the *Fisheries Act*.
- **Implementation:** Timelines for implementation should not be established until funding options have been defined.
- **Sewer Use Bylaw:** It is strongly recommended that the CCME consult with FCM and provincial/territorial municipal associations prior to finalizing the model sewer use bylaw.