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**COMMENTS BY
THE CANADIAN ENVIRONMENTAL LAW ASSOCIATION
TO THE MINISTER OF ENVIRONMENT
REGARDING PROPOSED 1998 MODEL SEWER USE BY-LAW**

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EBR Registry Number: PA8E0029
Ministry: Environment
Date Proposal Loaded: 1998/06/16
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PART I - INTRODUCTION

The Canadian Environmental Law Association (CELA) is a public interest group founded in 1970 to use and improve laws to protect the environment and conserve natural resources. Funded as a community legal clinic specializing in environmental law, CELA represents individuals and citizens' groups before trial and appellate courts and administrative tribunals on a wide variety of environmental issues. In addition to environmental litigation, CELA undertakes public education, community organization, and law reform activities.

The purpose of these submissions is to comment on the above noted proposal for Policy, the Proposed 1998 Model Sewer Use By-Law, posted on the Environmental Bill of Rights 1993 (EBR) electronic registry.

PART II - RECOMMENDATIONS

General Recommendations:

Recommendation #1: The proposed Model Use By-Law should be considered a first step in a regime to address dischargers to sewers. Pre-treatment standards similar to those in the U.S. should be developed in Ontario. This regime would include provincial standards or programs with local implementation.

Recommendation #2: Pending the development of pre-treatment standards, the proposed Model Use By-Law should be revised to include additional standards for more organic pollutants, and in particular, persistent organic pollutants, and more stringent standards for heavy metals. Sewer use agreements allowing for the discharge of pollutants over the prescribed limits based on certain fees should not be permitted for toxic substances.

Recommendation #3: The province should develop specific pollution prevention programs for indirect dischargers and these initiatives should have a regulatory base. Hence, the core of any provincial program to address discharges to sewers must be founded on the concept of pollution prevention.

Recommendation #4: Any provincial program pertaining to discharges to sewer use must have a strong enforcement component to it. The province should also now demonstrate its willingness to assist municipalities in enforcing the current and revised model sewer-use by-law, with for example, training, joint action, and special subsidies to enhance municipal enforcement capacity.

Specific Recommendations:

Recommendation #5: The definitions of “commercial waste chemical”, “hazardous industrial waste” should be retained, along with the prohibitions on discharge of these chemicals, wastes and materials to sanitary and combined sewers or to storm sewers. Waste oils and other vehicle fluids should be expressly prohibited from being discharged into sewers.

Recommendation #6: CELA supports the addition of ten organic compounds, but not as a substitute for the definitions and prohibitions on discharge of “severely toxic materials”, “acute hazardous waste chemicals” and “hazardous waste chemicals” and “hazardous industrial wastes” in the proposed by-law.

Recommendation #7: CELA supports the provision prohibiting dilution in order to achieve compliance with sanitary and combined sewer discharge limits. However, the prohibition on dilution to achieve compliance should be extended to include prohibition on dilution to achieve compliance with part 4, the storm sewer requirements.

Recommendation #8: The prohibition on sewage containing dyes or colouring materials which pass through a sewage works and discolour the sewage works effluent should be retained for both sanitary or combined sewers and for storm sewers.

Recommendation #9: Parameters proposed to be deleted from the 1998 sanitary and combined sewer by-law (chlorides, sulphates, aluminum, iron, bismuth, manganese, tin, titanium and vanadium) should all be retained in the model sewer by-law.

Recommendation #10: Discharge of very hot water should continue to be prohibited in the storm sewer sections.

Recommendation #11: The prohibition on excess concentrations of suspended solids should also be retained.

Recommendation #12: The prohibition on storm sewer discharges containing dyes or colouring material which discolour the water should be retained.

Recommendation #13: The prohibition on storm sewer discharges containing solvent extractable matter of animal or vegetable origin, or of mineral or synthetic origin, which causes a visible film sheen or discolouration of the water surface should be retained in the storm sewer prohibitions.

Recommendation #14: The restrictions on discharges of chromium, zinc, lead, nickel, copper, cadmium, mercury, and fecal coliform, should be retained in the storm sewer provisions. The general language of the proposed section 4.1 should be included, but supplementary to, rather than instead of the specific prohibitions.

Recommendation #15: Automotive or machine oils and greases and hydraulic fluids/waste and or paints and organic solvents, severely toxic materials, acute hazardous waste chemicals, hazardous industrial wastes and hazardous waste chemicals should still all be retained in the by-law as specific prohibitions from discharge to storm sewers.

Recommendation #16: CELA supports the addition of the new 1998 section 4.1 (i) providing that the discharge must not contain contaminants from raw materials, intermediate or final products or wastewater from an industrial operation.

Recommendation #17: CELA strongly supports the inclusion of the power of unilateral termination of Compliance Agreements by Municipalities in Part 8.

Recommendation #18: There should be a general requirement in Part 10 that maintenance access points be installed at connection points as a matter of course, without waiting for the municipality to request that they be installed.

Part III - General Comments on the Proposed 1998 Model Sewer Use By-Law

Need for a Comprehensive Provincial Regime for Indirect Dischargers

Discharges to sewers represent a major environmental challenge in Ontario. There are well over 12,000 facilities that discharge into municipal sewer systems. Each year, over a million tonnes of hazardous waste are disposed of each year in Ontario. Of those wastes, over 380,000 tonnes are discharged to sewers.¹ While some of these discharges are treated at sewer treatment facilities, considerable quantities by-pass the treatment facilities and enter the province's rivers and lakes. In fact, it has been reported that Ontario municipal sewage treatment plants release 18 tonnes of organic pollutants and some 1,100

¹ As quoted in Canadian Institute for Environmental Law and Policy, Hazardous Waste Management in Ontario: A Report and Recommendations (February, 1998), Section IV, p. 10, 11, from Joint Board, Ontario Waste Management Corporation Application: Reasons for Decision and Decision (Toronto: November 1994), Table 1. See: Ministry of the Environment, Controlling Discharges to the Sewers, p. 1.

tonnes of heavy metals every year.² Moreover, some of the discharges contain toxic substances, especially metals, that kill the essential micro-organisms necessary for the secondary treatment systems. Further, it should be highlighted that many storm and sanitary sewers are not separated and hence carry all domestic, industrial wastes and stormwater to the sewage treatment plants. During a storm event or otherwise high water flow, the capacity of the sewage treatment plant may be exceeded, and thus, result in bypassing the extra volume of untreated sewage discharges into rivers and lakes.

Another environmental challenge is that sludges from sewage treatment plants may be contaminated with toxic substances potentially limiting the opportunity for the waste to be spread on agricultural land. Hence, sewage sludge may be dealt in other ways such as in landfills or incineration, which present additional issues of environmental contamination.³ It has been estimated that sewage sludge incinerators in the province have released more than 1 tonne of metals (including mercury and cadmium) each year.⁴

It is not surprising, therefore, that there has been considerable recognition for the need to involve the province in addressing discharges to sewers.⁵ Apart from model sewer use by-laws, provincial initiatives in this regard have been few. Perhaps the most ambitious effort was the proposal put forth in 1988 following the release of the Municipal Industrial Strategy for Abatement (MISA).⁶ The thrust of those initiatives related to the development of industrial pre-treatment standards for twenty-two sectors. For a variety of reasons, the program was never enacted. In the early 1990s, the provincial government also made a commitment to pollution prevention in the MISA program. However, this concept has yet to be translated into initiatives pertaining to indirect discharges. Although the Ministry of the Environment has undertaken discussions pertaining to indirect discharges, such discussion have focused on voluntary actions. The province has not taken

² Canadian Institute for Environmental Law and Policy, Hazardous Waste Management in Ontario: A Report and Recommendations (February, 1998), Section 4, p. 10.

³ See: For further discussion, see: Canadian Institute for Environmental and Policy and Pollution Probe, Still Going To B.A.T. for Water Quality? A Four Year Review of the Municipal/Industrial Strategy for Abatement (MISA) (August 1990). pp. 47-49 (Hereinafter referred to as "Still Going To B.A.T.? Report).

⁴ See: World Wildlife Fund Canada, Toxics In/Toxics Out: Toxics from Sewage Treatment Plants in the Great Lakes & St. Lawrence River (Toronto: Undated).

⁵ Indeed, environmental organizations for the past decade and one-half has been arguing for a more coordinated, comprehensive and stringent regime to deal with these discharges.

⁶ See: Ministry of the Environment, A Policy and Program Statement of the Government of Ontario on Controlling Municipal and Industrial Discharges into Surface Waters (1986); Ministry of the Environment, Controlling Industrial Discharges to Sewers (1988).

any regulatory action in this regard since 1995.⁷

The rationale for the development of provincial initiatives to address indirect dischargers is as important today as it was a decade ago, and perhaps even more urgent. The environmental need, the inability of municipalities to act uniformly, the gradual privatization of municipal services, and the efficiency of a coherent provincial regime all call for urgent provincial action.

Recommendation #1: The proposed Model Use By-Law should be considered a first step in a regime to address dischargers to sewers. Pre-treatment standards similar to those in the U.S. should be developed in Ontario. This regime would include provincial standards or programs with local implementation.

It is recognized that it may be some time before the pre-treatment standards recommended above may take some time to develop. In the interim, the proposed model by-law should include a comprehensive set of standards for organic pollutants, including persistent organic pollutants and heavy metals. The current practice of sewer use surcharge agreements where facilities are permitted to discharge to sewers over the prescribed limits based on certain fees should be prohibited for the discharges of toxic substances.

Recommendation #2: Pending the development of pre-treatment standards, the proposed Model Use By-Law should be revised to include additional standards for more organic pollutants, and in particular, persistent organic pollutants, and more stringent standards for heavy metals. Sewer use agreements allowing for the discharge of pollutants over the prescribed limits based on certain fees should not be permitted for toxic substances.

Pollution Prevention

Although there is need to further reflect on the design and implementation features of a provincial program, it is essential that one of the key components to the program pertain to pollution prevention. Pollution prevention must be distinguished from pollution control in that pollution prevention is aimed at ensuring that pollutants are not used or generated in the production process itself, rather than attempting to control the releases at the end-of-the-pipe.

The province of Ontario has already committed to the concept of pollution prevention. This concept should be incorporated into all programs and policies pertaining to indirect

⁷ Canadian Institute for Environmental Law and Policy Hazardous Waste Management in Ontario: A Report and Recommendations (February, 1998), Section 3, p. 11.

discharges. Although the province is engaging in some pollution prevention initiatives, the province should focus some of these initiatives on indirect discharges and develop a regulatory base for them rather than relying on a solely voluntary approach.

Recommendation #3: The province should develop specific pollution prevention programs for indirect dischargers and these initiatives should have a regulatory base. Hence, the core of any provincial program to address discharges to sewers must be founded on the concept of pollution prevention.

Enforcement

Another fundamental component of a provincial programs is enforcement. Any provincial program to be developed pertaining to sewer use must have a comprehensive enforcement policy. Moreover, the province must develop mechanisms to assist municipalities in enforcing current and revised sewer use by-laws.

There are a number of mechanisms that can be used in this regard, including training, liaison with provincial enforcement officers, cooperative prosecutions (municipal / provincial), and subsidies to municipalities to enhance enforcement capacity.

Recommendation #4: Any provincial program pertaining to discharges to sewer use must have a strong enforcement component to it. The province should also now demonstrate its willingness to assist municipalities in enforcing the current and revised model sewer-use by-law, with for example, training, joint action, and special subsidies to enhance municipal enforcement capacity.

PART IV - SPECIFIC COMMENTS ON THE PROPOSED 1998 MODEL SEWER USE BY-LAW

Definitions:

CELA supports the new definitions for "combustible liquid", "plant", "spill", along with the accompanying prohibitions and provisions.

The definitions of "acute hazardous waste chemical", "commercial waste chemical", "hazardous industrial waste" and "severely toxic material" have been deleted. There are no longer general prohibitions on discharges of acute hazardous waste chemicals, commercial waste chemicals, hazardous industrial wastes and severely toxic material to sanitary and combined sewers or to storm sewers. In particular, the proposed model by-law should be amended to explicitly prohibit the disposal of waste oils and other vehicle fluids.

Recommendation #5: The definitions of “commercial waste chemical”, “hazardous industrial waste” should be retained, along with the prohibitions on discharge of these chemicals, wastes and materials to sanitary and combined sewers or to storm sewers. Waste oils and other vehicle fluids should be expressly prohibited from being discharged into sewers.

To the prohibitions on sewage containing concentrations in excess of any of the limits in Table 1 have been added the following organic compounds: Chloroform, 1,4 Dichlorobenzene, Methylene chloride, 1,1,2,2 tetrachloroethane, Tetrachloroethylene, Trichloroethylene, Benzene, Ethylbenzene, Toluene, and o_Xylene.

Recommendation #6: CELA supports the addition of these ten organic compounds, but not as a substitute for the definitions and prohibitions on discharge of “severely toxic materials”, “acute hazardous waste chemicals” and “hazardous waste chemicals” and “hazardous industrial wastes” in the proposed by-law.

Part 3 of the proposed by-law prohibits the addition of water or any other material from any source to be added to sewage for the purposes of dilution to achieve compliance with Part 2 of the by-law, i.e. the sanitary and combined sewer discharges.

Recommendation #7: CELA supports this provision; however, the prohibition on dilution to achieve compliance should be extended to prohibition on dilution to achieve compliance with part 4, the storm sewer requirements.

The 1988 model by-law at section 2(1)2(o) prohibited sewage containing dyes or colouring materials which pass through a sewage works and discolour the sewage works effluent. The 1998 proposed model by-law contains no equivalent to this provision.

Recommendation #8: The prohibition on sewage containing dyes or colouring materials which pass through a sewage works and discolour the sewage works effluent should be retained.

Prohibitions in the 1988 model sewer use by-law at section 2(1)2(p) for discharges to sanitary and combined sewers of Chlorides in excess of 1500 mg/l, Sulphates in excess of 1500 mg/l, Aluminum in excess of 50 mg/l, Iron in excess of 50 mg/l, , Bismuth in excess of 5 mg/l, Manganese in excess of 5 mg/l, Tin in excess of 5 mg/l, Titanium in excess of 5 mg/l, and Vanadium in excess of 5 mg/l have been deleted from the proposed 1998 by-law.

Recommendation #9: Parameters proposed to be deleted from the 1998 sewer

by-law (chlorides, sulphates, aluminum, iron, bismuth, manganese, tin, titanium and vanadium) should all be retained in the model sewer by-law. Even if some of them are not frequently discharged, the health, environmental and aesthetic concerns from their discharge remain.

Storm Sewers

The 1988 by-law at section 3(1)2(a) prohibited discharges at temperatures exceeding 40 degrees Celsius unless a Certificate of Approval and express agreement with municipality permitted same. The 1998 proposed by-law contains no equivalent provision.

Recommendation #10: Discharge of very hot water should still be prohibited in the storm sewer sections.

Section 3(1)2(c) of the 1988 by-law prohibits discharge water with more than 15 mg/l suspended solids unless a Certificate of Approval and express agreement with municipality so permit. The 1998 by-law deleted this provision.

Recommendation #11: The prohibition on excess concentrations of suspended solids should also be retained.

Section 3(1)2(d) of the 1988 by-law prohibits water containing dyes or colouring material which discolour the water except in the case of a Certificate of Approval and express agreement with the municipality. This provision has been deleted for storm sewers.

Recommendation #12: The prohibition on storm sewer discharges containing dyes or colouring material which discolour the water should be retained.

Section 3(1)2(e) of the 1988 by-law prohibits discharges containing solvent extractable matter of animal or vegetable origin or of mineral or synthetic origin which causes a visible film, sheen or discolouration on the water surface.

Recommendation #13: The prohibition on storm sewer discharges containing solvent extractable matter of animal or vegetable origin, or of mineral or synthetic origin, which causes a visible film sheen or discolouration of the water surface should be retained in the 1998 storm sewer prohibitions.

The 1988 by-law at section 3(1)2(f) prohibits discharge to storm sewer of water containing any of a list of substances in expressed concentrations. The following substances have been deleted from the proposed 1998 by-law: chromium above 200 mg/l, zinc above 50 ug/l, lead above 50 ug/l, nickel above 50 ug/l, copper above 10 ug/l, cadmium above 1 ug /l, mercury above 1 microgram/l, and fecal coliform above 200 per 100 ml.

The restrictions on discharges of chromium, zinc, lead, nickel, copper, cadmium, mercury, and fecal coliform, should be retained. In response to the approach in the proposed by-law that deleted all of the specific parameters from the by-law, relying instead on the general protection language in section 4.1, we would suggest that the specific parameters are much easier for dischargers to understand and comply with; and are much easier for by-law enforcement officers to deal with. Furthermore, they can be dealt with at the discharge point; whereas the approach that relies on the general language might place the enforcement officer in the impossible position of trying to prove (a) that a particular discharge caused an exceedance of Provincial Water Quality Objectives at some point a distance downstream from the discharge point, and (b) that the exceedance was caused by that discharger and not by someone else along the stream. The general language should be included, but supplementary to, rather than instead of the specific prohibitions.

Recommendation #14: The restrictions on discharges of chromium, zinc, lead, nickel, copper, cadmium, mercury, and fecal coliform, should be retained in the storm sewer provisions. The general language of the proposed section 4.1 should be included, but supplementary to, rather than instead of the specific prohibitions.

CELA supports the addition in the 1998 by-law, section 4.1(g)(i) 2 of a prohibition on discharge to storm sewer of water containing two or more separate layers.

In the 1998 bylaw, section 4.1(h), the by-law prohibits discharges containing any substance on the list there provided. However, the following parameters do not appear on that list:

- automotive or machine oils and greases
- paints and organic solvents
- "severely toxic materials"
- "acute hazardous waste chemicals"
- "hazardous industrial wastes"
- "hazardous waste chemicals".

Recommendation #15: Automotive or machine oils and greases, paints and organic solvents, severely toxic materials, acute hazardous waste chemicals, hazardous industrial wastes and hazardous waste chemicals should still all be retained in the by-law as specific prohibitions from discharge to storm sewers. The by-law must be broad enough to cover any dischargers of concern. Dischargers should be able to clearly understand their obligations. Furthermore, are the issues of enforcement mentioned above.

Recommendation #16: CELA supports the addition of the new 1998 section 4.1 (i) providing that the discharge must not contain contaminants from raw materials, intermediate or final products or wastewater from an industrial operation.

In the 1998 By-Law, at Part 8, regarding Compliance Agreements, a new section adds a provision that the Municipality may terminate a compliance agreement without notice at any time where in the opinion of the municipality there is an immediate threat or danger to any person, animal, property, vegetation, or any hazard or other adverse impact to a sanitary sewer, a combined sewer or a sewage works. In the event of such termination, the discharger is immediately then required to comply with part 2 of the by-law.

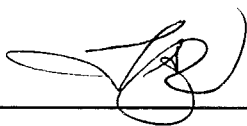
Recommendation #17: CELA strongly supports the inclusion of the power of unilateral termination of Compliance Agreements by Municipalities in Part 8.

At Part 10 of the 1998 by-law, regarding Maintenance Access Points, the previous 1988 Section 9(1) requiring the owner to install in each connection a suitable manhole has been deleted. A provision that the municipality may require installation of access points, is useful. However, there should nevertheless be a general requirement that maintenance access points be installed at connection points as a matter of course, without waiting for the municipality to request that they be installed.

Recommendation #18: There should be a general requirement in Part 10 that maintenance access points be installed at connection points as a matter of course, without waiting for the municipality to request that they be installed.

Submitted this 18th day of August, 1998

CANADIAN ENVIRONMENTAL LAW ASSOCIATION



per
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Counsel



per
Paul Muldoon
Executive Director

cc Eva Ligeti, Environmental Commissioner of Ontario