

Attachment 9: TRCA Submission on ERO_019-4967

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BY E-MAIL ONLY (mirek.tybinkowski@ontario.ca)

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Re: Municipal Wastewater and Stormwater Management in Ontario Discussion Paper (ERO #019-4967)

Thank you for the opportunity to comment on the Municipal Wastewater and Stormwater Management in Ontario Discussion Paper (herein referred to as the “Discussion Paper”) posted to the Environmental Registry of Ontario by the Ministry of Environment, Conservation and Parks (MECP).

Toronto and Region Conservation Authority (TRCA) conducts itself in accordance with the objects, powers, roles, and responsibilities set out for conservation authorities (CA) under the *Conservation Authorities Act* (CA Act) and the Ministry of Natural Resources and Forestry’s Procedural Manual chapter on CA policies and procedures for plan review and permitting activities. TRCA is:

- A public body under the *Planning Act* and *Environmental Assessment Act*;
- An agency delegated the responsibility to represent the provincial interest on natural hazards under Section 3.1 of the Provincial Policy Statement (PPS);
- A regulatory authority under Section 28 of the CA Act;
- A service provider to municipal partners and other public agencies;
- A Source Protection Authority under the *Clean Water Act*;
- A resource management agency; and
- A major landowner in the Greater Toronto Area.

In these roles, and as stated in MECP’s “A Made-In-Ontario Environment Plan,” CAs work in collaboration with municipalities and stakeholders to protect people and property from flooding and other natural hazards, to conserve natural resources.

Government Proposal

We understand that MECP is seeking input on new opportunities and approaches to improve municipal wastewater and stormwater management and water conservation in Ontario, including through updates to current practices, including climate change adaptation. We further understand that the Discussion Paper does not include any specific policy, regulatory or legislative proposals and that initial input is being sought to inform potential future policy proposals.

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General Comments

TRCA appreciates the intent of the Discussion Paper to start a dialogue on best practices in wastewater and stormwater management in light of a changing climate. TRCA's own policy document, The Living City Policies, contains policies for stormwater management (SWM) review and regulation that align with provincial and municipal policies for SWM, including meeting provincial criteria for flooding, water quality, erosion, and water balance. Meeting these criteria for the development and infrastructure in TRCA's jurisdiction is critical in assisting our provincial and municipal partners in preparing for the impacts of a changing climate.

In Chapter 3 of the Discussion Paper, master planning informed by watershed planning is mentioned as a broad infrastructure planning approach. However, this is provided without much context as to what is meant by this. We recommend further clarifying the role of watershed planning in informing water and wastewater planning to enhance implementation guidance of provincial policy.

Please see the following as our responses to some of the questions raised in the Discussion Paper.

Chapter 2 – Reducing Sewage Overflows and Bypasses, and Public Reporting

1. **Question:** *Should municipalities be required (e.g., through a regulation) to provide near real-time monitoring/modelling and public reporting of sewage overflows and bypasses, or should the decision be left to individual municipalities based on guidance material that would be developed by Ontario?*

Answer: TRCA supports greater transparency in reporting especially if it would lead to the reduction in sewage overflows and bypasses. We understand that this requirement could be financially onerous for smaller or lower-growth municipalities, particularly if applied province-wide. Any such regulation should include financial incentives to assist with municipal implementation and ensure effective data collection and modelling/monitoring. TRCA is currently working with the City of Toronto on water quality monitoring program and would be happy to provide further details on this program. The Toronto Wet Weather Tributary Monitoring Program monitors 28 locations throughout Toronto, targeting sites where watercourses flow into the jurisdiction and where they outlet into Lake Ontario. This will allow TRCA to determine how water quality changes as it moves through the City and will represent one of the most comprehensive urban water quality monitoring programs in North America. Using flow and water quality results, contaminant loadings can be calculated to quantify the City of Toronto's efforts to improve and modernize stormwater treatment and controls. A broad spectrum of parameters will be analyzed with some tracked, where possible, in real-time.

2. **Question:** *If it is to be a requirement, should it be province-wide or focused on problem areas (i.e., those areas with many sewage overflow and bypass events or high discharge volumes)?*

Answer: TRCA supports the regulation. The regulation should focus on problem areas but with detailed direction from the Province on how to define "problem areas."

3. **Question:** *What information should be reported to the public by municipalities when a sewage overflow or bypass occurs, how quickly would you want to know, and how should this information be made publicly available?*

Answer: TRCA staff appreciate the importance of improving transparency, particularly as it relates to public safety. The location, risk to public, risk to infrastructure and timing should be reported. The more informed the public is the more likely they will be safe and support the need for necessary mitigation. The sooner this information can be reported, the better. TRCA supports near real time reporting and recommends using a dashboard for reporting for larger municipalities. These systems are much less expensive than they once were and are regularly used by larger municipalities for

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infrastructure management and reporting. Real time dashboards can also save time by not having to constantly download and report on data. But for smaller municipalities, options should be made available to reduce overall costs.

Chapter 3 – Changing the Way Stormwater is Managed in Urban Areas

1. **Question:** *How can greater municipal adoption of green stormwater infrastructure/low impact development practices on public, private and commercial/industrial property be encouraged?*

Answer: The current proposed MECP LID Guidance and Criteria (ERO posting 019-4971) will go a long way to increasing adoption (please see TRCA comments on that ERO posting). The development of municipal standards and programs to encourage LID on private and public lands, guided by provincial standards is key. While standards and guidelines exist for how to implement LID, the problem is the lack of municipal programs and sustainable funding to monitor, maintain and enforce. TRCA supports SWM Fee and Credit systems that many municipalities are beginning to adopt.

Additionally, we suggest that clear and concise minimum standards and timelines for implementation could also assist with uptake. Alongside minimum standards, clear guidelines outlining best practices could also be provided.

2. **Question:** *Should there be a comprehensive and province-wide environmental protection policy or guidance document to provide clear direction on stormwater management to municipalities, developers, planning authorities and others? What should be included?*

Answer: We suggest a hybrid model where minimum standards are established through regulation with accompanying guidelines for BMPs. Minimum standards should include, but not be limited to, water quality criteria for discharges and minimum reuse percentages by industry, possibly based on annual consumptive water use, and timelines to clarify roles (who and when). Further, guidance should be provided with respect to implementation of all relevant water management policy direction in the PPS (i.e., Section 2.2.1). Additionally, guidance should include:

- A rationale outlining why implementation is important;
- BMPs by industry/annual consumptive water use/annual discharge volume to inform what practices and parameters are important; and,
- Technology options explaining how to achieve expected outcomes.

3. **Question:** *Should there be mandatory stormwater management design or technology requirements in Ontario? If so, how can that be phased in for new development and existing development areas?*

Answer: Guidelines for BMPs would advance adoption of new technologies, but it would be beneficial if the Province included mandatory minimum standards. Requiring a minimum stormwater retention rate for new development would help off-set climate change impacts, reduce the burden on municipal drainage systems and promote water conservation. Stormwater quality could be managed through requirements to monitor and meet effluent testing standards and address urban drainage systems beyond water quality standards. To this effect, we recommend the Province leverage existing guidelines put forward by CAs. For instance, in collaboration with CVC, TRCA maintains a Sustainable Technologies Evaluation Program (STEP) [wiki page](#) where we provide information on sustainable design, including our [LID SWM Planning and Design Guide](#).

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Chapter 4 – Updating Policies Related to the Management of Wastewater and the Quality of Ontario's Water Resources

1. **Question:** *What feedback do you have for the potential policy updates and new policies identified above?*

Answer: We support the proposed policy directions in principle, although we note that Lake Erie is not the only Great Lake experiencing algal blooms. As such, wider limits of phosphorous loading may be required.

2. **Question:** *What additional issues should be addressed in the updated or new policies?*

Answer: While the potential policy updates and additions appear reasonable and comprehensive, a possible complement (or alternative) to a regulation would be BMP guidelines, which would help drive additional benefits without causing undue financial hardship for certain municipalities without the means to appropriately implement regulatory requirements.

3. **Question:** *Considering the wide range and complexity of the potential policy updates and additions, this work will have to be undertaken in stages. Which policies should be updated/developed first?*

Answer: First, we suggest focusing on policies regarding nutrient loading onto the Great Lakes. Second, we suggest implementing policies to eliminate chlorine from municipal wastewater effluent. Finally, we suggest considering policies to provide consistency and clarity of expectations respecting proposals for new and managing existing systems for sub-surface disposal of wastewater effluent (i.e., large and multiple septic systems) and reuse of stormwater and wastewater effluent.

Chapter 5 – Promoting Water Reuse in Ontario

1. **Question:** How can the Province encourage water reuse and other water conservation measures in Ontario?

Answer: An encouraging regulatory framework and accompanying guidelines providing clear direction on minimal standards and BMPs would encourage water reuse and conservation. However, financial incentives should be provided to entice early adopters who would pay more due to economies of scale and the cost of research and development. Education and outreach programs highlighting the benefits of early adoption would be central to initial implementation and long-term uptake.

2. **Question:** What are the obstacles that prevent your business from using water reuse technology in your operations?

Answer: No comment.

3. **Question:** *Are there specific operations, facilities or sectors which may benefit from water conservation / water reuse?*

Answer: The benefits would likely be recognized across most, if not all, operations, facilities, and sectors. However, those that consumptively use the most water or produce the most effluent should be prioritized.

4. **Question:** *Should Ontario develop a regulatory framework or guidelines for water reuse?*

Answer: We suggest a hybrid model where minimum standards are established through regulation with accompanying guidelines for BMPs.

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Chapter 6 – Recovering Resources from Wastewater

1. **Question:** *Should the Province apply a reduce, reuse, and recycle model to wastewater management?*

Answer: This would be a good starting point. As an example of how to implement such a model, please refer to [York Region's One Water](#) approach, an integrated planning and implementation approach that considers the urban water cycle as a single integrated system.

2. **Question:** *How could the Province encourage resource recovery at a centralized system such as a wastewater treatment plant, or at the source?*

Answer: Funding of pilot projects with willing partners would help incentivize development and implementation of newer technologies and innovative methodologies.

3. **Question:** *Do you see challenges to recovering resources from wastewater, and are there potential solutions?*

Answer: A potential challenge would be adoption by key stakeholders that rely on tried and tested technologies at lower cost. In the current scenario, there is no incentive to develop designs for emerging technologies. We suggest adoption of a hybrid model where a regulation is enacted with minimum thresholds accompanied by a set of guidelines with BMPs.

4. **Question:** *What do you think could be done to help increase uptake of innovative technologies and practices for resource recovery?*

Answer: First, we suggest making modifications to appropriate Codes (e.g., Building Code) to include specific mention and requirements to technologies. Second, we suggest engaging municipal staff, developers and key stakeholders through education and outreach (e.g., online working groups). Finally, the Province should consider financial incentives to early adopters as new technologies come with risks and uncertainties which can lead to higher costs.

Chapter 7 – Improving the Management of Hauled Sewage from Private Septic System

1. **Question:** *What are the potential benefits and/or challenges, including cost and environmental considerations, of the options identified in this section?*

Answer: A province-wide phase-out of land application could lead to a localized improvement near formal disposal sites. For improvements to be significant, a decommissioning plan followed by site restoration would help ensure longer-term gains are maintained. However, this could lead to an increase in illegal dumping with hard-to-quantify socio-economic and environmental impacts. Given the lack of receiving facilities in some locations, this option may be impractical and could lead to significant impacts for rural Ontarians reliant on septic systems.

Geographically-based bans based on local municipal wastewater treatment capacity could lead to localized improvement near former disposal sites. As noted above, it could also lead to illegal dumping elsewhere with difficult to predict impacts. However, this option would be more practical and feasible with moderate to significant impacts anticipated for rural Ontarians reliant on septic systems.

Ultimately, the third option to implement new guidelines for treatment, land application and trench disposal would be the most practical option with the fewest anticipated economic and environmental impacts (i.e., through reduced future illegal dumping), many of which could be mitigated via implementation of BMPs. A simple shutdown of such sites without proper decommissioning would not necessarily lead to environmental improvements.

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Thank you once again for the opportunity to provide comments on this proposal. Should you have any questions, require clarification on any of the above, or wish to meet to discuss our remarks, please contact the undersigned at 416.667.6920 or at john.mackenzie@trca.ca.

Sincerely,

<Original signed by>

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Chief Executive Officer

BY E-MAIL

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