Experience on System-wide ECAs for Wastewater Collection by Ontario Municipalities

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WEAO – Government Affairs Committee

In partnership with:
The Region of Peel, the City of Greater Sudbury, Region of Halton, and the City of Barrie

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Basic message

• The System Wide ECA for municipal sanitary and stormwater collection systems are seen as very positive rule instrument that brings significant benefits to municipalities:
  – Brings unapproved infrastructure into compliance
  – Supports a risk-based approach for low risk sewage works
  – Municipal incentives for system performance assessment
  – Provides a level playing field w/drinking water permit approach
  – Compatible with new municipal’s computarized maintenance management systems (CMMS) and GIS platforms
  – Shorter timelines for construction (LOF)
  – Reduces municipal costs for compliance & project development
  – Allows for multi-media approvals for the entire system
The issues

- Regular ECAs are based on a **piecemeal approach** (i.e. by municipal project), resulting in 1,000s ECA
- Long waiting periods for ECA review-issuance, **even for low risk activities**
- The removal of the **grandfathering provision** from s. 53 OWRA (2011), left many municipalities into **non-compliance** (no consultation)
- **Municipalities manage both** water distribution & wastewater collection systems w/ 2 regulatory frameworks
The issues... cont.

• TOR program (1970’s), provides relief to large cities, but it is based on the same **piecemeal approach and lacks a coordinated approach for**:
  – Treatment and linear systems
  – Timelines for approval for same project (2 submissions)

• MOECC’s2 models for **low risk activities**:
  – For drinking water:
    • Tech. rev. (Form 1 & 2), by cities & consultants - *(No application!)*
  – For wastewater:
    • Technical review either through regular submission or TOR, or
    • **LOF (No application!)** – Stamped by P. Eng., approved by city

• **TOR is good!**, but seen as an “oil lamp”... why upgrade an oil lamp, if we have electricity (System-wide/ EASR/ LOF)?
Chronology of System-wide ECAs

MOECC has been creating **pilot System-wide ECAs** for WW & SWM – risk based approach

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; WW ECA w/ LOF conditions <em>(Durham – Harmony Creek)</em></td>
</tr>
<tr>
<td>2012</td>
<td>WW ECAs with LOF conditions – <strong>ongoing for private/municipal</strong></td>
</tr>
<tr>
<td>2013</td>
<td><strong>City of Toronto</strong> appeal, Environmental Review Tribunal (ERT) (resulted in improved LOF conditions)</td>
</tr>
<tr>
<td>2013</td>
<td>System-wide ECA for <strong>Halton Region</strong></td>
</tr>
<tr>
<td>2014</td>
<td>System-wide ECA for <strong>Sudbury</strong></td>
</tr>
<tr>
<td>2016</td>
<td>System-wide ECA for <strong>Barrie – Sanitary and 1&lt;sup&gt;st&lt;/sup&gt; for SWM</strong></td>
</tr>
<tr>
<td>2017</td>
<td>System-wide ECA for <strong>Peel Region</strong></td>
</tr>
</tbody>
</table>
Risk-based Approaches

• There is a movement towards the adoption of **risk-based approaches** in the regulation of Ontario’s municipal water, wastewater, and stormwater sectors.

• Pre-approval – *Safe Drinking Water Act* (2002) distribution system modification & expansion

• Pre-approval – *Open for Business Act* (2011)

• EASR Regs (2012-17) – emphasis on industry, and A&N

• Self-Inspections (2016)
Analysis

• Two (2) surveys
  – (A) 4 municipalities that have System-wide ECAs
  – (B) MWWRC – All system owners/operators & WEAO-MOECC WW Practitioners Group

• Data gathered
  – Quantitative
  – Qualitative

• Survey involved professionals across diff. groups
  – Semi-structured questions
  – Open and closed-ended questions
## Survey A – 4 municipalities

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Syst-wide ECA</th>
<th>Pre-ECA Un-approved works</th>
<th>ECAs revoked (SPS + other)</th>
<th>ECAs revoked (sewer pipes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Halton Region (Burlington system)</td>
<td>2013</td>
<td>-</td>
<td>17</td>
<td>500+</td>
</tr>
<tr>
<td>Sudbury</td>
<td>2014</td>
<td>-</td>
<td>28</td>
<td>500+</td>
</tr>
<tr>
<td>Barrie (Sanitary)</td>
<td>2016</td>
<td>1%</td>
<td>11</td>
<td>500+</td>
</tr>
<tr>
<td>Barrie (Stormwater)</td>
<td>2016</td>
<td>0%</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Peel</td>
<td>2017</td>
<td>10%</td>
<td>37</td>
<td>1,000+</td>
</tr>
</tbody>
</table>
Survey A... cont.

Notice of Modifications to date & expected over 3 years

Totals:
- 56 to date
- 151 in 3 yr
- 207 TOTAL

@ $5k per application ≈ $1 million
### Survey A... cont.

How these municipalities perceive the System-wide ECA?

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Negative</th>
<th>Neutral</th>
<th>Positive</th>
<th>Very positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Clear roles &amp; responsibilities for municipal staff, developers, and contractors</td>
<td></td>
<td></td>
<td>XXX</td>
<td>X</td>
</tr>
<tr>
<td>2  Shortened timelines for approval</td>
<td></td>
<td>X</td>
<td>XXX</td>
<td></td>
</tr>
<tr>
<td>3  Shortened timelines for project implementation</td>
<td>X</td>
<td>X</td>
<td>XX</td>
<td></td>
</tr>
<tr>
<td>4  It helps municipalities to be in compliance for the entire wastewater collection system</td>
<td>X</td>
<td>X</td>
<td>XX</td>
<td></td>
</tr>
<tr>
<td>5  Promotes consistency w/ drinking water pre-approval</td>
<td>X</td>
<td>XX</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>6  Doc. control for ECA and compliance information</td>
<td></td>
<td></td>
<td>XXXX</td>
<td></td>
</tr>
<tr>
<td>7  Consistent with Asset Management and GIS mapping</td>
<td>X</td>
<td>X</td>
<td>XX</td>
<td></td>
</tr>
<tr>
<td>8  Management for development applications</td>
<td>X</td>
<td>X</td>
<td>XX</td>
<td></td>
</tr>
<tr>
<td>9  Asist to align consistency with DWQMS</td>
<td></td>
<td></td>
<td>XX</td>
<td>XX</td>
</tr>
<tr>
<td>10 Facilitates for multi-media approval</td>
<td></td>
<td></td>
<td>XX</td>
<td>XX</td>
</tr>
</tbody>
</table>
• Specific comments:
  – For timelines for approval & development applications:
    • “extending LOF to the collection system: invaluable”
    • “very helpful in cutting back bureaucracy”
    • “better than transfer of review”
    • “more guidance needed to assist cities/developers in transition to ECA”
  – For helping to be in compliance:
    • “more complex conditions than previous approvals”
    • “increased abilities for O&M activities”
    • “very simple to track and demonstrate compliance during inspections”
    • “creates streamlined approach and ability for QMS”
    • “having sewage works and air approvals in one document allows for better coordination of requirements and inventory of compliance”
Survey A – Cost/Benefit review

• Did you have additional costs, or savings with System Wide ECA vs. multiple ECAs?

  “The system wide ECA... saves time and money on getting the projects on the ground on time” Sudbury

  “[we] previously had TOR, so the main benefits are simplified application and shorter timelines” Halton

  “Probably savings due to labour hours saved on staff/contractor drafting individual applications, reviewing draft approvals, and compliance staff getting to know the ECAs. Cannot quantify savings - we don’t track the hours” Peel
“Increased costs have been incurred to meet conditions for monitoring and reporting. Amendments to System Wide ECA’s have resulted in increased cost of administration and re-organization of internal plans and programs. These additional costs have been offset somewhat with consistency of requirements, alignment of processes for stormwater and wastewater and ease of management as compared to multiple ECA’s. The stormwater ECA provides a foundation for support of stormwater priorities to assist with securing O&M funding” Barrie
Survey B – MWWRC & WWPG

• **10 questions** to 310 & 90 members respectively
• Prior to the survey, all questions were reviewed by the 4 municipalities and WEAO GAC members
• **MWWRC members** often include 1 to 12 of same municipality and operators of multiple systems (e.g. OCWA, Veolia, etc.)
• **67 responses** received between April 13 to 30
• Identity of respondents **confidential**
• Survey administered by Peel through an independent administrator for QAQC purposes
Survey B – MWWRC... cont.

- Q1 – Do you have a municipal treatment plant or SPS ECA with LOF conditions?

No: 54% (34)
Yes: 46% (29)
Survey B – MWWRC... cont.

• Q2 – Approximately, how many Notice of Modifications have you filed over the past 3-years using LOF?

≈ 78 applications avoided!
Survey B – MWWRC... cont.

- Q3 – Approx. how many infrastructure upgrades and/or improvement projects are you planning to do on the sanitary collection system and SPS over the next 3-yrs?

≈ 310 future applications (survey participants)
≈ 1,500 if extrapolating to all ON (≈ 7 million)
Survey B – MWWRC... cont.

- Q4 – Approx. what % of your municipality underground infrastructure (which is still in operation) was built prior to the OWRA (1950s)?

  - Range of 0% to 85% of piped infrastructure likely with no approval
  - Ave 30% - of municipal piped infrastructure with no approval

≈ ??? future applications
Survey B – MWWRC... cont.

- Q5 – Would it be beneficial to have one single ECA that covers all the existing sanitary collection system, including all SPS (similar to the DWP)?
Survey B – MWWRC... cont.

- Q6 – Would you support the MOECC having a more proactive approach to System-wide ECAs for your sanitary and stormwater collection systems?
Conclusions

From Survey A

• System-wide ECA is seen positive to very positive
• 56 Notices filed to date  est. savings of $1M (4 municipalities)
• 151 est. for next 3-years
• **Notice of Modifications** (replacing applications through TOR or reg. submission) will have an incremental **cost saving effect** to municipalities and MOECC
• System-wide ECA for SWM **assists in securing O&M funding** for initiatives and programs – improves performance for non-point sources of contaminants
Conclusions... cont.

• Info and guidance would be needed to assist developers transition to this ECA

• The increase in reporting costs is significantly **offset with savings on administering** compliance programs, and “in getting the projects on the ground on time”

From Survey B (67 responses)

• 96% interest to apply

• 92% interest in MOECC more proactive approach

• 56 LOF Notices filed, which **did not require TOR** or MOECC review (STP & SPS only!)
Conclusions... cont.

• Survey B – **310 Low Risk future** applications represents est. **$1.6 million** in direct savings; and allows MOECC to focus on higher risk projects.

• Survey reveals an ave. 30% of existing municipal underground infrastr. is likely under **non-compliance** (s.53 OWRA) for operating infrastructure considered “grandfathered”.
Recommendations

• Do keep the System-wide ECA for collection systems and SPS only – no need to add the STP, if the STP has LOF

• By increasing the number of System-wide ECAs for collection systems, this will have a significant incremental effect on cost savings to municipalities and MOECC

• MOECC should work with municipalities/WEAO to develop information sheets to assist municipalities and developers with transition
Recommendations... cont.

• Do extend **LOF to the collection system**.
• Develop more **SWM** System-wide ECAs, it can have pre-approval for LIDs!
• The **Notice of Assumption**... good mechanism to bring private projects into the System-wide ECA approach (Notice filing, avoid submission)
• System wide ECA may assist municipalities to address basic collection system performance metrics
Basic message

- The System Wide ECA for municipal sanitary and stormwater collection systems is seen as very positive rule instrument that brings significant benefits to municipalities:
  - Brings unapproved infrastructure into compliance
  - Supports a risk-based approach for low risk sewage works
  - It provides incentives for system performance assessment
  - Provides a level playing field w/drinking water permit approach
  - It uses GIS mapping as a regulatory tool (update @ 5 years)
  - Shorter timelines for construction (LOF)
  - Reduces municipal costs for compliance & project development
Thanks!

Questions?

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