May 14, 2019

Otter Lake Residents, Landowners, and Stakeholders

Reference: Notice of Consultation / Invitation to Consult Otter Lake Outlet and Water Level Management Consultation Period: May – June 14, 2019

Jp2g has been contracted to assess the existing Otter Lake outlet and associated water level conditions, determine the full scope of stakeholder concerns and objectives, and develop a consensus on preferred solution. To that end, Jp2g has reviewed existing documentation of studies, discussion, and correspondence provided by the Township of Rideau Lake as this point regarding water level management on Otter Lake. The principal stakeholders and their resulting views (expressed within the initial documentation, but understood that the views are/will be more complex and are of a fluid nature) are summarized in the table below:

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Role</th>
<th>Concerns Understood at the Onset of the Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Otter Lake Landowners And Concerned Residents</td>
<td>• Represent the interests of lakeshore property owners&lt;br&gt;• Ensure continued health of the Otter Lake ecosystem&lt;br&gt;• Ensure continued recreational opportunities on Otter Lake</td>
<td>• Water levels during spring freshet are too high and pose risks to shoreline health and private property&lt;br&gt;• Raising of private roads may not address risks to shoreline due to elevated water levels&lt;br&gt;• The Otter Lake average water levels should be maintained as per existing condition</td>
</tr>
<tr>
<td>Stakeholder</td>
<td>Role</td>
<td>Concerns Understood at the Onset of the Project</td>
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<tr>
<td>Township of Rideau Lakes</td>
<td>• Protect public safety and property within Township jurisdiction</td>
<td>• The existing outlet, despite creating loss of head during high flow events, is in reasonable condition and may not require replacement or alteration for hydraulic or public safety reasons</td>
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<tr>
<td></td>
<td>• Ensure fair and equitable dispensation of public funds</td>
<td>• Any modification to existing outlet would open the Township to liability if any negative impact arises</td>
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<td></td>
<td>• Limit risk to Township liability</td>
<td>• Flooding of private roads is not within the Township’s jurisdiction; therefore, using public funding to address this issue would not be fair dispensation of funds</td>
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<tr>
<td></td>
<td></td>
<td>• All water management must be passive and resilient</td>
</tr>
<tr>
<td>Regulatory Authorities (RVCA, MNRF, MECP)</td>
<td>• Responsible for furthering the &quot;conservation, restoration, development and management of natural resources in the watershed.&quot;</td>
<td>• The physical condition and hydraulic performance of the outlet is in line with typical operating parameters</td>
</tr>
<tr>
<td></td>
<td>• Responsible for reducing risk to people and property from natural hazards like flooding and erosion.</td>
<td>• Any modification to the existing outlet must be studied and modeled appropriately to understand hydraulic and hydrologic impacts both upstream and downstream</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Encroachment on or impacts to wetlands in vicinity of Otter Lake are to be avoided or minimized as much as possible</td>
</tr>
</tbody>
</table>

As shown in the above table, there is a difference of opinion regarding appropriate water levels on Otter Lake, specifically during the spring freshet – some lakeshore residents would prefer to increase the outlet capacity and thus reduce flooding on their properties, while the regulatory authorities are wary of altering the designated floodplain and impacting downstream stakeholders. To reconcile this difference and develop consensus on the appropriate solution, Jp2g will be engaging in consultation with as many stakeholders as possible.
The estimated schedule for this process is outlined below:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultation</td>
<td>Solicit and compile stakeholder comments</td>
<td>May – June 14, 2019</td>
</tr>
<tr>
<td>Jp2g Site Investigation</td>
<td>Review site conditions during spring freshet</td>
<td>April 18, 2019</td>
</tr>
<tr>
<td>Public Presentation</td>
<td>Present summary of Jp2g investigation, consultant, and possible design solutions</td>
<td>Early June 2019</td>
</tr>
<tr>
<td>Conceptual Design</td>
<td>Perform hydrologic and hydraulic analysis for preferred solution</td>
<td>April – June 2019</td>
</tr>
</tbody>
</table>

Submit Conceptual Design Report – end of Phase 1 – June 2019

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<thead>
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<tbody>
<tr>
<td>Detailed Design</td>
<td>Create tender-ready design drawings and specifications for preferred option</td>
<td>TBD</td>
</tr>
<tr>
<td>Construction</td>
<td>Construction and commissioning of preferred solution</td>
<td>Spring - Summer 2020</td>
</tr>
</tbody>
</table>

This letter is an invitation to the above stakeholders to provide input on the process and ensure that each party’s concerns are heard and addressed as part of the conceptual evaluation/design. Interested parties are invited to complete the attached survey and register to receive project updates and advance notice of the public presentation of alternatives. Note that communication by email or printed material will be accommodated depending on the stakeholder’s preference.

Respectfully yours,

Stephen Arends, P.Eng.
Project Manager | Civil Engineer
Jp2g Consultants Inc.
613-828-7800 x 229
stephena@jp2g.com
Otter Lake Water Level Impact Survey. Feel free to select more than one option where applicable. You may complete as much or as little of the survey as you desire. Space is provided should you have further clarification or questions on a particular point.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Contact Information</td>
<td></td>
<td></td>
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<tr>
<td>2 Role</td>
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<tr>
<td></td>
<td>☐ Resident</td>
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<tr>
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<td>☐ OLLA Member</td>
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<td></td>
<td>☐ Regulatory Agency</td>
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<td></td>
<td>☐ General interest</td>
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<tr>
<td></td>
<td>☐ ___________________________</td>
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**Otter Lake Water Level Impact Survey.** Feel free to select more than one option where applicable. You may complete as much or as little of the survey as you desire. Space is provided should you have further clarification or questions on a particular point.

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<tr>
<th>Question</th>
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</tr>
</thead>
</table>
| 3 | How are you impacted by lake water levels? | □ Private road access  
 □ Public road access  
 □ Recreational use  
 □ Shoreline flooding or erosion  
 □ __________________________ |
| 4 | Have you experienced negative impacts from high water levels? | □ Private road flooding  
 □ Public road flooding  
 □ Water encroachment on private property  
 □ Shoreline erosion  
 □ __________________________ |
### Otter Lake Water Level Impact Survey

Feel free to select more than one option where applicable. You may complete as much or as little of the survey as you desire. Space is provided should you have further clarification or questions on a particular point.

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</thead>
<tbody>
<tr>
<td><strong>5</strong> Have you experienced negative impacts from low water levels?</td>
<td>□ Boating/swimming access and safety</td>
<td></td>
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<td></td>
<td>□ Water Intake Issues</td>
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<td></td>
<td>□ Weeds</td>
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<td></td>
<td>□ Dock Damage</td>
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<tr>
<td></td>
<td>□ _________________________________________________________________</td>
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</tr>
<tr>
<td><strong>6</strong> How do you feel about the <em>average</em> water level in Otter Lake?</td>
<td>□ Should be lower</td>
<td></td>
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<tr>
<td></td>
<td>□ Should be higher</td>
<td></td>
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<td></td>
<td>□ Should be maintained to match existing condition</td>
<td></td>
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<tr>
<td><strong>7</strong> How do you feel about the <em>seasonal high</em> water level in Otter Lake?</td>
<td>□ Should be lowered to protect private property</td>
<td></td>
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<tr>
<td></td>
<td>□ Should be lowered to protect private road access</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Should be lowered to protect public road access</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Should be lowered to prevent shoreline erosion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Should be maintained to match existing condition</td>
<td></td>
</tr>
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Please rank these methods for managing peak lake water levels and mitigating negative impacts such as flooding and shoreline erosion.

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<tr>
<td>8</td>
<td>Raising of private roads</td>
<td></td>
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<tr>
<td></td>
<td>Private shoreline management e.g. naturalization and revegetation efforts at the lot level</td>
<td></td>
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<tr>
<td></td>
<td>Public Shoreline management e.g. public awareness campaigns</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alteration to existing outlet culvert</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Install additional outlets</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alteration to downstream channels as necessary</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other:</td>
<td></td>
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| 9  | What would be a reasonable budget to improve the lake outlet (including engineering, construction, and permitting costs)? | □  Less than $100,000  
□  $100,000 – $300,000  
□  $300,000 – $600,000  
□  $600,000 – $1,000,000  
□  More than $1 Million |         |
| 10 | Please assign a relative weight to the following evaluation factors: *(assign a share of 100 points to each factor, with the most important factors assigned the largest share)* | □  Cost effective  
□  Assessment of risk to the Township and safety of public (including property)  
□  Significance of impacts to the existing ecosystem and natural conditions  
□  Addressing stakeholder concerns  
□  Timely |         |
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| 11 | When should final construction (if any) be complete? | □ No construction  
□ Fall 2019  
□ Spring 2020  
□ Summer 2020  
□ Fall 2020  
□ Further study required |
| 12 | Please rate, on a scale of 1-5 (1 being very concerned, 5 being not at all concerned), your comfort level with the following possible interventions:  
  □ Significant downstream channel alterations (e.g. rock blasting to increase flow capacity)  
  □ Public road reconstruction for culvert alterations (i.e. making bigger or smaller) or outlet augmentations (adding supplemental culverts) [temporary partial or full closing of Otter Lake Road during construction]  
  □ Consolidation of Private Roads O10, O9 and consolidation with O8 |
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<tr>
<td>12 (cont’d)</td>
<td>Please rate, on a scale of 1-5 (1 being very concerned, 5 being not at all concerned), your comfort level with the following possible interventions</td>
<td>* a protected wetland is designated by the Province and carries certain restrictions by law</td>
</tr>
<tr>
<td></td>
<td>Encroachment on protected* wetlands</td>
<td>** an unprotected wetland is not provincially designated, and while serving similar ecological function as a designated wetland, is not protected by the same regulation.</td>
</tr>
<tr>
<td></td>
<td>Encroachment on unprotected** wetlands</td>
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<td></td>
<td>Protection of private road access</td>
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<tr>
<td></td>
<td>Maintain a minimum water level elevation with a weir</td>
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<tr>
<td></td>
<td>Other:</td>
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<tbody>
<tr>
<td>13</td>
<td>Further question, comments, or concerns?</td>
<td></td>
</tr>
</tbody>
</table>