DATE: MAY 23, 2018
TO: FULL AUTHORITY BOARD
FROM: SHAWN FAIRBANK, C.TECH

1.0 TYPE OF REPORT
CONSENT ITEM [ ]
ITEM FOR BOARD CONSIDERATION [x]

2.0 TOPIC
WATER CONTROL STRUCTURES CONDITION ASSESSMENT

3.0 RECOMMENDATION
THAT Report IR-065-18, Water Control Structures Condition Assessment, BE RECEIVED; and,

THAT an additional $5,000 be drawn from Water Control Structure reserves to fund PR00001 Water Control Structures Condition Assessment, per Table 2 of this report.

4.0 PURPOSE
To update the Full Authority Board regarding recent submissions to undertake PR00001 Water Control Structures Condition Assessment and regarding the Provincial funding approved for the project.
5.0 BACKGROUND

CRCA owns and/or operates 10 water control structures in partnership with its member municipalities (Attachment # 1). The structures are operated to help mitigate flooding and drought (low water) conditions, as well as to provide fish and wildlife habitat and outdoor recreation opportunities.

The CRCA member municipalities that benefit from the structures pay special “operating” and “capital” levies to the Conservation Authority each year. CRCA maintains a capital reserve for each structure in this asset class. The reserves are funded by the special capital levies and are used to pay for capital projects such as technical studies, major repairs and improvements to access roads, signs, weirs, outlet structures and other infrastructure. Staff seek Federal and Provincial grants to support these projects where appropriate.

A total of $50,000 was approved in the Cataraqui Region Conservation Authority (CRCA) 2018 Budget & Forecast for Project PR00001 Water Control Structures Condition Assessment funded from reserves as well as Provincial funding. Staff seek direction from the Full Authority Board to utilize additional reserve funds for this project. The need for additional funds is due to Provincial grant funding being lower than anticipated.

6.0 STRATEGIC PLAN

This report supports Goal ‘B’ in the Strategic Plan, Cataraqui 2020:

To implement policies that will protect life and property from natural hazards such as flooding and erosion.

Implement preventive policies for lands which may be subject to natural hazards.

7.0 INPUT FROM OTHER SOURCES

N/A
8.0 ANALYSIS

Project PR00001 Water Control Structures Condition Assessment will be funded by a Provincial grant (discussed below) and the capital reserve funds. A consulting engineer will provide CRCA and its member municipalities with a clear understanding of the physical condition of each structure, associated challenges and opportunities, and a prioritized list of deficiencies that can inform projects in the CRCA 10-Year Capital Forecast for 2019 to 2028.

Staff issued a request for proposals (RFP) for this work on April 30th. The RFP indicates that the following criteria will be referenced in the review of proposals:

- Quality and content of written proposal and work plan;
- Understanding of the assignment;
- Demonstrated expertise on similar projects;
- Expertise of project lead and other staff to be involved;
- Satisfactory references related to the involvement of the consulting firm(s)/assigned staff in similar types of projects; and,
- Cost.

The RFP also indicates that the contract will not necessarily be awarded to the lowest bidder.

CRCA received three bids in advance of the May 15th due date. The price for each proposal is outlined in Table 1.

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Proposal Amount (including non-refunded HST)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D.M. Wills Associates Ltd.</td>
<td>$42,322</td>
</tr>
<tr>
<td>WSP Global Inc.</td>
<td>$57,187</td>
</tr>
<tr>
<td>exp Services Inc.</td>
<td>$68,408</td>
</tr>
</tbody>
</table>
Based on the staff review of the proposals, it is recommended to award the contract to D.M. Wills Associates Ltd. Staff also propose to include a 15% contingency allowance for unforeseen change orders.

The results of the Condition Assessment are anticipated by mid-summer 2018. This information is vital to the proper management of these assets, and is important for budgeting purposes.

9.0 FINANCIAL IMPLICATIONS

The Ontario Ministry of Natural Resources & Forestry will provide $20,000 in Water and Erosion Control Infrastructure (WECI) funds for this project. This amount is less than the anticipated $25,000 value estimated in the CRCA 2018 Budget & Forecast, which highlights the limited availability of Provincial funds.

To maintain an overall project budget of $50,000, the balance of the funding will need to be drawn from CRCA capital reserve funds for water control structures, as outlined in Table 2.
<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Original Approved Budget</th>
<th>Change in Budget</th>
<th>Proposed New Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Provincial WECI Grant</strong></td>
<td>$25,000</td>
<td>($5,000)</td>
<td>$20,000</td>
</tr>
<tr>
<td><strong>SUBTOTAL - Grants</strong></td>
<td>$25,000</td>
<td>($5,000)</td>
<td>$20,000</td>
</tr>
<tr>
<td>Sydenham Lake Dam</td>
<td>$2,500</td>
<td>$500</td>
<td>$3,000</td>
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<tr>
<td>Wilton Road Dam</td>
<td>$2,500</td>
<td>$500</td>
<td>$3,000</td>
</tr>
<tr>
<td>Highgate Creek Channelization</td>
<td>$2,500</td>
<td>$500</td>
<td>$3,000</td>
</tr>
<tr>
<td>Little Cataraqui Creek Dam</td>
<td>$2,500</td>
<td>$500</td>
<td>$3,000</td>
</tr>
<tr>
<td>Temperance Lake Dam</td>
<td>$2,500</td>
<td>$500</td>
<td>$3,000</td>
</tr>
<tr>
<td>Marsh Bridge Dam</td>
<td>$2,500</td>
<td>$500</td>
<td>$3,000</td>
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<tr>
<td>Fred Grant Dam</td>
<td>$2,500</td>
<td>$500</td>
<td>$3,000</td>
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<tr>
<td>Broome-Runciman Dam</td>
<td>$2,500</td>
<td>$500</td>
<td>$3,000</td>
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<tr>
<td>Buell’s Creek Detention Basin</td>
<td>$2,500</td>
<td>$500</td>
<td>$3,000</td>
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<tr>
<td>Booth’s Falls Diversion</td>
<td>$2,500</td>
<td>$500</td>
<td>$3,000</td>
</tr>
<tr>
<td><strong>SUBTOTAL – Capital Reserves</strong></td>
<td>$25,000</td>
<td>$5,000</td>
<td>$30,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>$50,000</td>
<td>$0</td>
<td>$50,000</td>
</tr>
</tbody>
</table>
10.0 CONCLUSION

The ten water control structures that are owned and/or operated by CRCA will be subject to a Condition Assessment by a qualified engineering consultant in 2018. Staff recommend that an additional $5,000 be drawn from existing CRCA Water Control Structure capital reserves to supplement the $20,000 Provincial grant and maintain an overall project budget of $50,000.

Staff will report the findings of the Condition Assessment to the Full Authority Board at a future meeting.

Respectfully submitted,

(Original signed by)

Shawn Fairbank, C. Tech.
Technologist, Water Resources

Approved for circulation,

(Original signed by)

Geoff Rae, MBA, P. Eng.
General Manager

Attachment # 1: Map of CRCA Water Control Structures