The meeting commenced at 6:30 P.M.

1. **ROLL CALL**

   There were eleven (11) members present.
2. APPROVAL OF AGENDA

An addition to the agenda, National Disaster Mitigation Program, was presented under item 10.2 as a verbal update.

Moved by: Max Kaiser
Seconded by: Bert Herfst

THAT the agenda BE APPROVED, AS AMENDED.

CARRIED

3. DECLARATION OF CONFLICT OF INTEREST

There were none.

4. DELEGATION / PRESENTATION

Delegation:


- Presentation - Water Control Structures Condition Assessment, PR00001 (Attachment #1)

Resolution: 075-18
Moved by: Laura Turner
Seconded by: Max Kaiser

THAT the presentation from the David Green, P. Eng., D.M. Wills Associates Limited on Water Control Structures Condition Assessment, PR00001, BE RECEIVED.

CARRIED
Staff Presentations:

4.2. Krista Fazackerley, Supervisor, Communications and Education

- Presentation - #HikeCRCA (Attachment #2)

Resolution: 076-18
Moved by: Max Kaiser
Seconded by: Al Hanes

THAT the presentation from the Supervisor, Communications and Education on #HikeCRCA, BE RECEIVED.

CARRIED

4.3. Rob McRae, Manager, Corporate Services

- Presentation – Cataraqui Region Conservation Authority Administration By-law (Attachment #3)

Resolution: 077-18
Moved by: Bert Herfst
Seconded by: Laura Turner

THAT the presentation from the Manager, Corporate Services on Cataraqui Region Conservation Authority Administration By-Law, BE RECEIVED.

CARRIED

5. APPROVAL OF PREVIOUS MINUTES

5.1. Minutes of June 27, 2018

Moved by: Al Hanes
Seconded by: Jim Garrah

THAT the minutes of the June 27, 2018 meeting of Cataraqui Region Conservation Authority, BE APPROVED.

CARRIED
6. BUSINESS ARISING

There was none.

7. ITEMS FOR CONSIDERATION

7.1. Water Control Structure Condition Assessment (report IR-085-18)

Resolution: 078-18
Moved by: Max Kaiser
Seconded by: Bert Herfst

THAT report IR-085-18, Water Control Structure Condition Assessment Report, BE RECEIVED; and,

THAT staff BE AUTHORIZED to refer to the recommendations in the report for capital project forecasting.

CARRIED

7.2. Administration By-Law (report IR-086-18)

Rob McRae, Manager, Corporate Services, advised of an amendment to the Policy under the section on enforcement related to an Integrity Commissioner.

Resolution: 079-18
Moved by: Bert Herfst
Seconded by: Max Kaiser

THAT report IR-086-18, Administration By-law, BE RECEIVED; and,

THAT the Part ‘2’ Administration Procedure of the Cataraqui Region Conservation Authority, BE REPEALED; and

THAT Cataraqui Region Conservation Authority By-law No. 1 (Administration By-Law) and Schedules ‘A’, ‘B’, ‘G-1’ and ‘G-2’, BE ADOPTED, AS AMENDED.

CARRIED
7.3. Cataraqui Region Conservation Authority Sandbag Policy (report IR-083-18)

Resolution: 080-18
Moved by: Al Barton
Seconded by: Max Kaiser

THAT report IR-083-18, Cataraqui Region Conservation Authority Sandbag Policy, BE RECEIVED; and,

THAT the Cataraqui Region Conservation Authority Sandbag Policy BE REPEALED.

CARRIED

7.4. Gray Ratsnake Habitat Compensation – Gould Lake Conservation Area – Ministry of Transportation Request (report IR-087-18)

Resolution: 081-18
Moved by: Max Kaiser
Seconded by: Laura Turner

THAT report IR-087-18, Gray Ratsnake Habitat Compensation – Gould Lake Conservation Area – Ministry of Transportation Request, BE RECEIVED; and,

THAT staff BE DIRECTED to install gray ratsnake habitat compensation measures at the Gould Lake Conservation Area in cooperation with Ministry of Transportation staff.

CARRIED

7.5. Hay Bay Boat Ramp – Emergency Dock Replacement (report IR-088-18)

Resolution: 082-18
Moved by: Max Kaiser
Seconded by: Bert Herfst

THAT report IR-088-18, Hay Bay Boat Ramp – Emergency Dock Replacement, BE RECEIVED; and,

THAT the amount of $894.60 to construct and replace the dock at the Hay Bay Boat Ramp, BE DRAWN, from the boat ramp reserve.

CARRIED
7.6. **Little Cataraqui Creek Conservation Area Rental House - Bathroom Repairs (report IR-089-18)**

Resolution: 083-18
Moved by: Max Kaiser
Seconded by: Jim Garrah

**THAT** report IR-089-18, Little Cataraqui Creek Rental House – Bathroom Repair, BE RECEIVED; and,

**THAT** $2,812.00 BE DRAWN from the Facilities Reserve to complete the necessary repairs.

CARRIED

8. **MINUTES**

8.1. **Cataraqui Trail Management Board Minutes**

Resolution: 084-18
Moved by: Laura Turner
Seconded by: Garry Hewett

**THAT** Cataraqui Trail Management Board Minutes of May 24, 2018, BE RECEIVED.

CARRIED
9. COMMITTEE REPORTS

9.1. Report from Administration Facility Committee (report IR-090-18)

Resolution: 085-18
Moved by: Max Kaiser
Seconded by: Al Hanes

THAT report IR-090-18, Administration Facility Committee Update – August 2018, BE RECEIVED; and,

THAT Cataraqui Region Conservation Authority DIRECT staff to spend up to one third of the cost to secure architectural services in collaboration with Frontenac County, and South Frontenac Township to assess costing of options for the Administration Facility Project, estimated to be $20,000 from PR-00069, Little Cataraqui Creek CA Admin Building – Feasibility Study.

CARRIED

10. ANNOUNCEMENTS OR INQUIRIES/INFORMATION

10.1. Report on Communications (Report IR-091-18)

Resolution: 086-18
Moved by: Max Kaiser
Seconded by: Laura Turner

THAT the Report on Communications (IR-091-18) BE RECEIVED.

CARRIED
10.2. National Disaster Mitigation Program Grant (addition to the agenda, verbal)

Katrina Furlanetto, Manager, Watershed Planning and Engineering, spoke to a time sensitive item related to a National Disaster Mitigation Program (NDMP) funding opportunity, a federal program that provides up to 50% funding for flood mitigation and risk assessment projects. She noted there was a need for Board resolution to proceed with the funding application for the September 14, 2018 deadline. The application is for a CRCA floodplain mapping strategy to assist with prioritizing watercourse mapping projects in the area as a proposed 2019 capital project.

Resolution: 087-18
Moved by: Jim Garrah
Seconded by: Max Kaiser

WHEREAS the National Disaster Mitigation Program provides funding for floodplain mapping projects; and,

WHEREAS staff of Watershed Planning and Engineering have identified a 2019 capital project to develop a floodplain mapping strategy for the Cataraqui Region Conservation Authority region;

THEREFORE, BE IT RESOLVED that the Full Authority Board of the Cataraqui Region Conservation Authority ENDORSE the submission of this project for grant funding.

CARRIED

11. MOTIONS / NOTICES OF MOTIONS

There were none.
12. IN CAMERA SESSION

Resolution: 088-18
Moved by: Max Kaiser
Seconded by: Bert Herfst

THAT the Full Authority MOVE IN CAMERA.

CARRIED

Resolution: 089-18
Moved by: Laura Turner
Seconded by: Ross Sutherland

THAT the Full Authority MOVE OUT of IN CAMERA and report.

CARRIED

Resolution: 090-18
Moved by: Jim Garrah
Seconded by: Laura Turner

THAT Cataraqui Region Conservation Authority AUTHORIZE staff to pursue items of action as discussed at the IN CAMER A session on August 29, 2018.

CARRIED

13. ADJOURNMENT

The meeting adjourned at 7:50 P.M. on a motion by Laura Turner, seconded by Max Kaiser.

Geoff Rae, MBA, P.Eng.  Alan Revill
General Manager  Chair
CRCA Board of Directors Presentation

Water Control Structure Condition Assessments
Dam Inspections and 10-Year Capital Maintenance Plan

August 29, 2018

David Green, P.Eng.
Assistant Manager, Water Resources Engineering
D.M. Wills Associates Limited
Presentation Overview

• Introduction
• Purpose of Study
• Study Methodology
• Structure Assessment Example
• 10-Year Capital Maintenance Plan
• Purpose and Importance of Studies
• Future Capital Maintenance Strategy
• Potential Funding Sources
• Summary/Closing
Purpose of Study

• Understand Current Condition of WCS Assets
  – Identify Urgent Deficiencies (Public, Operator & Dam Safety)
  – Identify, Cost and Prioritize Capital Projects

• 10-Year Capital Maintenance Plan
  – Develop Schedule to Implement Capital Projects
  – Identify Potential Funding Sources for WCS Assets
Study Methodology

• Background Review
  – Existing Reports and Operator Questionnaires

• Inspections
  – Detailed Inspection at Each Site

• Recommendations and Cost Estimates
  – Recommendations Based on Background Information
  – Recommendations Based on WCS Condition
  – Cost Estimates for Each Recommendation
Study Methodology

• Urgency and Timeframe for Implementation

<table>
<thead>
<tr>
<th>Urgency</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>0 - 2 Years</td>
</tr>
<tr>
<td>Moderate</td>
<td>3 - 5 Years</td>
</tr>
<tr>
<td>Low</td>
<td>6 - 10 Years</td>
</tr>
</tbody>
</table>

• 10-Year Capital Maintenance Plan
  – Recommend a Proposed Capital Program
  – Implementation by CRCA Staff Based on Urgency and Available Resources

• Investigate Potential Funding Sources
  – Local, Provincial, Federal Governments
Study Methodology
Study Methodology

Figure 2 - Dam Locations
Kingston Area

Legend
- Dam Locations
- Highway
- Arterial
- CRCA Watershed
- Lake

Scale (1:200,000)

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450 Jameson Drive
PETERBOROUGH, ONTARIO
K9J 0B9
Tel: 705.749.2297
Fax: 705.741.3559
E. wills@dmwills.com
Structure Assessment Example

• Temperance Lake Dam
  – Rock/Earth Fill Embankment in Good Condition with Some Erosion on D/S Left Side
  – Public Safety Hazards Identified
  – Concrete in Fair Condition with 2 Areas of Severe Spalling
  – Top Stoplog is Cracked
  – Significant Overgrown Vegetation on Both Abutments and Downstream of Dam
Recommendation 3

“Replace existing railings that are not to code or clean/coat and retrofit the existing railings to meet current code requirements.”

- Estimated Cost: $25,900
- Priority: High
- Timeframe: 0-2 Years
• **Recommendation 5**
  
  - “Repair spalling concrete and exposed steel reinforcing in the left side of the control structure and around the right stop log gain.”
  
  - Estimated Cost: $32,200
  
  - Priority: Moderate
  
  - Timeframe: 3-5 Years
10-Year Capital Maintenance Plan

• Microsoft Excel Spreadsheet Incorporating:
  – Capital Cost Estimates
  – Urgency and Implementation Timeframe

• Timeframe Recommended by Wills but Subject to CRCA Staff Availability and Budgets

• Review Plan on a 5-Year Cycle and add Capital Projects as Identified by Staff or Through Studies
### 10-Year Capital Maintenance Plan

#### Summary of Annual Costs

<table>
<thead>
<tr>
<th>Year</th>
<th>Brockville Area</th>
<th>Kingston Area</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>2019</td>
<td>Year 1</td>
<td>$418,660</td>
<td>$143,430</td>
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<td>2020</td>
<td>Year 2</td>
<td>$374,500</td>
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<td>2021</td>
<td>Year 3</td>
<td>$30,470</td>
<td>$303,130</td>
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<tr>
<td>2022</td>
<td>Year 4</td>
<td>$674,150</td>
<td>$23,330</td>
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<td>2023</td>
<td>Year 5</td>
<td>$592,150</td>
<td>$94,060</td>
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<td>2024</td>
<td>Year 6</td>
<td>$25,900</td>
<td>$0</td>
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<td>2025</td>
<td>Year 7</td>
<td>$0</td>
<td>$152,400</td>
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<td>2026</td>
<td>Year 8</td>
<td>$69,000</td>
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<td>2027</td>
<td>Year 9</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>2028</td>
<td>Year 10</td>
<td>$0</td>
<td>$0</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$2,184,830</strong></td>
<td><strong>$864,650</strong></td>
</tr>
</tbody>
</table>
10-Year Capital Maintenance Plan

- **Major Cost Items**
  - Studies (OMSS Manuals, DSRs, PSRAs, etc.)
    - $840,800
  - Operator and Public Safety
    - $461,540
  - General Repairs and Maintenance
    - $548,980
  - Buells Creek Detention Basin (Major Works Only)
    - $1,179,300
  - Other Works (Operating Agreements, Public Education, etc.)
    - $18,860
Purpose and Importance of Studies

• Operating Agreements for Unowned Structures
  – Documents agreement between CRCA and Owner.
  – Important to understand the roles and responsibilities of both parties with respect to operation, maintenance and costs.

• OMSS Manuals
  – Documents the operation, maintenance, safety and monitoring requirements and practices.
  – Important to understand actions to be taken during extreme or emergency events.
Purpose and Importance of Studies

• Dam Safety Reviews
  – Holistic review of a dam and all of its components including an assessment of dam failure consequences.
  – Important to understand risk associated with dam failure.

• Public Safety Risk Assessments
  – Detailed analysis of the public safety risk at a dam site.
  – Important to understand liabilities and manage risk.

• Emergency Preparedness and Response Plan
  – Plan that documents actions to be taken before, during and after a flood or dam failure emergency.
  – Important to involve local emergency management officials so that Police, Fire and EMS know what to do.
• Preservation Management Strategy
  – More Economical to Manage Water Control Structure Assets than to Simply Maintain them
  – Key is the Timing and Type of Maintenance and Rehabilitation Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Age (Years)</th>
<th>Service Life Extension (Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Repairs</td>
<td>10-20</td>
<td>2-5</td>
</tr>
<tr>
<td>Minor Rehabilitation</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>Major Rehabilitation</td>
<td>50-60</td>
<td>40</td>
</tr>
<tr>
<td>Replacement</td>
<td>75</td>
<td>75</td>
</tr>
</tbody>
</table>
Future Capital Maintenance Strategy

- Best Management Practices
  - Implement Annual Minor Repair Program
  - Sweep and Clean Dam Decks and Drains each Spring
  - Replace Construction Joint Seals as soon as Damaged
  - Undertake Annual Dam Inspections to Identify Deficiencies
  - Test Water Control Equipment and Repair as Necessary
  - Continuously Review Public Safety Measures and make Repairs or Improvements as Required
  - Paint Steel and Metal Components to Protect from Corrosion
  - Stabilize Embankments to Prevent Erosion, Seepage and Piping through Earth Embankments
Potential Funding Sources

- **Potential Local Funding Sources**
  - General and Benefitting Levies from Member Municipalities
  - Community Fundraising
- **Potential Provincial Funding Sources**
  - Water and Erosion Control Infrastructure (WECI) Funding
  - Ontario Community Infrastructure Fund (OCIF)
- **Potential Federal Funding Sources**
  - National Disaster Mitigation Program (NDMP)
• Water Control Structure Inspections Completed
• Recommended 10-Year Capital Maintenance Plan
• Recommended Future Capital Maintenance Strategy
• Multiple Funding Sources Available to Assist with Implementation of Capital Projects
CRCA Board of Directors Presentation

Water Control Structure Condition Assessments
Dam Inspections and 10-Year Capital Maintenance Plan

August 29, 2018

David Green, P.Eng.
Assistant Manager, Water Resources Engineering
D.M. Wills Associates Limited
• Inspection Results
  – Diversion Structure (Bedrock Spillway) Functioning Adequately
  – Main Channel in Good Condition
  – Masonry Walls in Fair-Poor Condition
  – Sediment and Vegetation Accumulation in Channel
  – Limited Public Safety Signage
  – Upstream Culverts in Fair-Poor Condition
Booths Falls Diversion

• **Key Recommendations**
  – Review Upstream Culverts with City of Brockville
  – Add Public Safety Signage
  – Prepare Operating Agreement
  – Repair Masonry Walls
  – Create Low-Flow Channel Through Diversion
  – Remove Sediment and Vegetation from Channel
Booths Falls Diversion

• **Summary of Costs**

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studies</td>
<td>$5,500</td>
</tr>
<tr>
<td>Operator and Public Safety</td>
<td>$8,800</td>
</tr>
<tr>
<td>Repairs and Maintenance</td>
<td>$92,000</td>
</tr>
<tr>
<td>Other Works</td>
<td>$6,560</td>
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<tr>
<td><strong>Total</strong></td>
<td>$112,860</td>
</tr>
</tbody>
</table>

D.M. Wills Associates Limited

August 29, 2018
• Inspection Results
  – Municipal Road Downstream of Dam
  – Concrete in Good Condition
  – Corrosion of Metal Components
  – Railings Not to Code
  – Low Flow Valve is Not Operational
  – Safety Buoy Upstream, No Boom
  – Exposed Height Hazard at Outlet Headwall and Wingwalls
  – Overgrown Vegetation
• Key Recommendations
  – Replace Control Structure Railings
  – Install Outlet Headwall Railing
  – Prepare OMSS Manual
  – Update Dam Safety Review and Prepare Public Safety Risk Assessment
  – Repair Concrete Joints at Downstream Culvert Wingwalls
  – Clean and Coat All Steel Components and Grease Winches
  – Remove Sand/Grit from Dam Deck
  – Remove Overgrown Vegetation
### Broome-Runciman Dam

- **Summary of Costs**

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studies</td>
<td>$65,500</td>
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<tr>
<td>Operator and Public Safety</td>
<td>$42,600</td>
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<tr>
<td>Repairs and Maintenance</td>
<td>$25,670</td>
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<tr>
<td>Other Works</td>
<td>$0</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$133,770</strong></td>
</tr>
</tbody>
</table>
Buell’s Creek Detention Basin

• Inspection Results
  – Significant Vegetation Growth and Sediment Accumulation within the Basin and Connecting Channels
  – West Outlet Plugged
  – East Outlet Pipes are Corroded
  – Emergency Spill Not Well Defined
  – Public Safety Hazards Identified
  – Gabion Baskets are Corroded
  – Wooden Debris Boom at East Outlet in Good Condition
• **Key Recommendations**
  - Undertake Study to Assess Function
  - Prepare OMSS Manual
  - Prepare Operating Agreement
  - Address Public Safety Issues
  - Repair or Replace East Outlet Structure Pipes and Grates
  - Update Dam Safety Review and Prepare Public Safety Risk Assessment
  - Clear Vegetation and Sediment from Basin
  - Repair Broken Gabion Baskets
### Summary of Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studies</td>
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<tr>
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<td>$75,340</td>
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<tr>
<td>Repairs and Maintenance</td>
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<tr>
<td>Buells Creek Major Works</td>
<td>$1,179,300</td>
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<tr>
<td>Other Works</td>
<td>$4,100</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$1,330,540</strong></td>
</tr>
</tbody>
</table>
Fred Grant Dam

• Inspection Results
  - Main Embankment, U/S Side in Good Condition; D/S Side, Dry Stacked Stone Wall is Deteriorating, Vegetation Growth
  - Saddle Dam has Vegetation Growth and Potential Seepage
  - Public Safety Hazards Identified
  - Seepage Between Concrete and Rock Interface, Right Bay
  - Bypass Valve Not Operated
  - Minor Erosion Upstream
Fred Grant Dam

• Key Recommendations
  – Update Dam Safety Review and Public Safety Risk Assessment
  – Verify Stability of Stone Wall
  – Prepare OMSS Manual
  – Address Public Safety Issues
  – Repair Access Road
  – Remove Vegetation from Embankments
  – Replace Grating on Dam Deck
### Summary of Costs

<table>
<thead>
<tr>
<th>Item</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Studies</td>
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<td>Other Works</td>
<td>$0</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$232,400</strong></td>
</tr>
</tbody>
</table>
• *Inspection Results*

  – Earth Embankment Generally in Good Condition with Minor Erosion and Exposed Soils
  – Vegetation Growth on Embankment and Around Concrete Structures
  – Concrete in Good Condition
  – Public Safety Hazards Identified
  – Low Flow Valve Not Operated
Marsh Bridge Dam

• Key Recommendations
  – Prepare Dam Safety Review and Public Safety Risk Assessment
  – Update OMSS Manual
  – Address Public Safety Issues
  – Repair Erosion and Establish Vegetation
  – Remove Problem Vegetation (Large Trees)
• **Summary of Costs**

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>Studies</td>
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<tr>
<td>Operator and Public Safety</td>
<td>$37,000</td>
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<td>Repairs and Maintenance</td>
<td>$27,700</td>
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<td>Other Works</td>
<td>$0</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$180,200</strong></td>
</tr>
</tbody>
</table>
• Inspection Results
  – Rock/Earth Fill Embankment in Good Condition with Some Erosion on D/S Left Side
  – Concrete in Fair Condition with 2 Areas of Severe Spalling
  – Public Safety Hazards Identified
  – Top Stoplog is Cracked
  – Significant Overgrown Vegetation on Both Abutments and Downstream of Dam
• **Key Recommendations**
  - Prepare Dam Safety Review and Public Safety Risk Assessment
  - Update OMSS Manual
  - Address Public Safety Issues
  - Remove Problem Vegetation
  - Repair Spalling Concrete
  - Inspect Upstream Face of Dam During Low Water or with a Diver
## Summary of Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studies</td>
<td>$121,300</td>
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<tr>
<td>Operator and Public Safety</td>
<td>$27,540</td>
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<tr>
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<tr>
<td>Other Works</td>
<td>$0</td>
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<tr>
<td>Total</td>
<td>$195,060</td>
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</tbody>
</table>

Temperance Lake Dam
Inspection Results

- Concrete Generally in Good Condition with Minor Cracking, Spalling and Erosion
- Broken Construction Joint Seals
- Multiple Backwater Valves
- No Signage Around Structure
- Overgrown Vegetation in and Around Structure
- Sediment Accumulation within Channel
Key Recommendations

- Install Public Safety Signage
- Prepare OMSS Manual
- Prepare Operating Agreement
- Remove Vegetation Around Top of Concrete Walls (within 1 m)
- Repair concrete
- Remove Vegetation and Sediment from Channel
Highgate Creek Channelization

• Summary of Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studies</td>
<td>$5,500</td>
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<tr>
<td>Operator and Public Safety</td>
<td>$9,300</td>
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<tr>
<td>Repairs and Maintenance</td>
<td>$227,500</td>
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<td>Other Works</td>
<td>$8,200</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$250,500</strong></td>
</tr>
</tbody>
</table>
• Inspection Results
  – Embankment in Good Condition with Seepage Through Relief Wells
  – Overflow Weir in Good Condition
  – Railings not to Code, Rusted
  – One Sign Post is Broken and some Signs are Dirty
  – Overgrown Vegetation
Key Recommendations

- Update OMSS Manual
- Prepare Dam Safety Review and Public Safety Risk Assessment
- Replace or Modify Railings
- Continue to Monitor Seepage
- Repair Signs and Sign Posts
- Clean and Paint Steel Grating
- Remove Problem Vegetation
## Summary of Costs

<table>
<thead>
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<th>Item</th>
<th>Cost</th>
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<td>Studies</td>
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<tr>
<td>Operator and Public Safety</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$155,890</strong></td>
</tr>
</tbody>
</table>
• **Inspection Results**
  
  - Some Settlement Along D/S Retaining Walls
  - Concrete Dam in Good Condition but Curbs, Sidewalks and Former Generating Station Walls in Poor Condition
  - Winch Box Cover Hinge Broken
  - Railings not to Code
  - Steel Components are Rusting
  - Low Flow Valve Not Operational
• **Key Recommendations**
  - Update OMSS Manual
  - Monitor Condition of Concrete Retaining Walls (Generating Station)
  - Replace Railings
  - Update Dam Safety Review and Public Safety Risk Assessment
  - Clean and Paint Metal Components
  - Grease Winches and Repair Hinges
  - Remove Vegetation from Around Concrete and on the Embankment
### Summary of Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studies</td>
<td>$125,500</td>
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<tr>
<td>Operator and Public Safety</td>
<td>$69,000</td>
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<td>Repairs and Maintenance</td>
<td>$12,520</td>
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<tr>
<td>Other Works</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$207,020</strong></td>
</tr>
</tbody>
</table>
Wilton Road Dam

• Inspection Results
  – Roadway Immediately Downstream forms Part of Earth Embankment
  – Some Delamination and Deterioration of Concrete
  – Steel Structures Rusting
  – Gate Valve Functional
  – Operator and Public Safety Issues Identified
Wilton Road Dam

- Key Recommendations
  - Update OMSS Manual
  - Address Public and Operator Safety Issues
  - Update Dam Safety Review and Public Safety Risk Assessment
  - Clean and Paint Steel Components
  - Grease Winches
  - Modify Gain Covers
  - Repair Concrete
Wilton Road Dam

- Summary of Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studies</td>
<td>$115,500</td>
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<tr>
<td>Operator and Public Safety</td>
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<td>Repairs and Maintenance</td>
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<tr>
<td>Other Works</td>
<td>$0</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$251,240</strong></td>
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</table>
SEPT. 1 TO OCT. 31
HIKE CRCA CHALLENGE
#HikeCRCA Challenge Rules

**Challenge Rules:**

1. **HIKE CRCA TRAILS**
   Hike the designated "challenge trail" at each of our Conservation Areas and one "designated section" of the Cataraqui Trail and find the special challenge sign with the #HikeCRCA logo.

2. **POST A PHOTO ONLINE**
   Take a selfie with each of our challenge signs and post it to social media – Facebook, Twitter or Instagram. Your post must include the hashtag #HikeCRCA and your location – the Conservation Area you are in.

3. **ENTER TO WIN**
   Hike the eight locations at our Conservation Areas and at least one location on the Cataraqui Trail or four locations for the Family Challenge and then fill out the challenge form to enter to win some great prizes!

[Challenge Entry Form]

CATARAQUI REGION CONSERVATION AUTHORITY
Challenge Signs - Turtles

**DID YOU KNOW?** Unlike a number of other species that inhabit Ontario's wetlands, waterways and water bodies, the Blanding's Turtle is at home on land as it is in the water. They are also rare in that they will feed both in the water and on land.

The Blanding's Turtle is the most traveled of the province's turtle species, traversing sometimes several kilometres between their summer homes, nesting sites and winter homes. This means that in areas with human activity and development, they are particularly vulnerable to being struck by vehicles.

**DID YOU KNOW?** Ferocious-looking and a little scary to behold, the Snapping Turtle is the largest freshwater turtle in Canada. Its name comes from the fact that as a protective measure, it's powerful jaws 'snap' together repeatedly to scare off or attempt to injure predators. This adaptation came about because the Snapping Turtle can't pull its head and legs into its shell for protection.

The Snapping Turtle is listed as a Species of Concern by the Ontario Government and Government of Canada.

**DID YOU KNOW?** The Northern Map Turtle earned its name because of the unique yellow line markings on its upper shell that look like lines on a topographical map. They also have distinctive yellow stripes on their head and legs and a yellow spot behind each eye.

These turtles like to bask in the sun when not in the water, preferring to live in rivers and lakes that have slow moving water, where they can capture their primary food source, mollusks and crustaceans such as crayfish.

JOIN THE CHALLENGE WWW.CRCA.CA
Prizes & Sponsors

Full Challenge  
Family Challenge  
Annual Pass Draw

ATMOSPHERE  
FRONTENAC  
Go Green Baby

county of  
Lennox & Addington  
TRAILHEAD

Simply Natural
Jenny Lee Northey @jnortney · 16h
Getting out into nature where all worries fade #HikeCRCA — at Parrott’s Bay Conservation Area

Allie Wood added 2 new photos — at Gould Lake.
September 4 at 11:50am ·
Gorgeous day for a hike at Gould Lake. First of 9 hikes for the Hike CRCA Challenge 😊
#HikeCRCA, #HealthyHikes Trailhead Kingston Atmosphere

11
1 Comment 1 Share

Like Comment Share
Megan Laan
September 10 at 6:50pm

Started our CRCA hiking challenge today at Parrot's Bay Conservation Area! #HikeCRCA #HealthyHikes

---

Megan Laan is with Nicholas Laan.
19 hrs

Second #HikeCRCA challenge hike today at Gould Lake Conservation Area! Warm enough for a refreshing swim off Point Spur midway through the hike and someone got a nap on the way back! Grandpa Don Clinton and Uncle Steve also joined in for this one! #HealthyHikes
Board Member & Staff Challenge
Administration By-law

- Board governance, delegation, meetings
- *Conservation Authorities Act* amendments
  - Conservation authorities may adopt by-laws
  - Administration by-law required by December 12, 2018
- Opportunity for a clear, comprehensive and transparent administrative framework
- Conservation Ontario model by-law
Draft items for consideration (August 2018)

By-law:

• Definitions
• Governance
• Meeting Procedures

Schedules:

A. Member Code of Conduct
B. Member Conflict of Interest Policy
G-1. Terms of Reference: Budget Review Committee
G-2. Terms of Reference: Personnel Committee
Any breach, or alleged breach, of a by-law or policy shall be referred by the General Manager to CRCA’s Integrity Commissioner. **CRCA and the Integrity Commissioner shall undertake related investigations in a manner that is consistent with Section 223 of the *Municipal Act*.** The Integrity Commissioner shall report their findings to the Board, **in writing**, including the results of their investigation (if warranted) and recommended sanctions (if any).
Thank you!

- Bert Herfst, CRCA Member for Loyalist Township
- Conservation Ontario
- Tony Fleming, Cunningham, Swan, Carty, Little & Bonham LLP
THAT Report IR-086-18, Administration By-law, BE RECEIVED; and,

THAT the Part ‘2’ Administration Procedure of the Cataraqui Region Conservation Authority, BE REPEALED; and,

THAT Cataraqui Region Conservation Authority By-law No. 1 (Administration By-law) and Schedules ‘A’, ‘B’, ‘G-1’ and ‘G-2’, BE ADOPTED, AS AMENDED.