



**Grand River Conservation Authority  
Agenda - General Meeting**

Friday, October 22, 2021

9:30 a.m.

GRCA Zoom Virtual Meeting  
Streamed live on GRCA Board Webcast

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**Pages**

1. **Call to Order**

2. **Certification of Quorum**

3. **Chair's Remarks**

4. **Review of Agenda**

THAT the agenda for the General Membership Meeting be approved as circulated.

5. **Declarations of Pecuniary Interest**

6. **Minutes of the Previous Meetings**

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THAT the minutes of the General Membership Meeting of September 24, 2021 be approved as circulated.

7. **Business Arising from Previous Minutes**

8. **Hearing of Delegations**

9. **Presentations**

10. **Correspondence**

11. **1st and 2nd Reading of By-Laws**

12. **Reports:**

a.	GM-10-21-75 - Conservation Authorities Act Amendments - Phase 1 Regulations and Timelines	10
	THAT Report Number GM-10-21-75 – Conservation Authorities Act Amendments – Phase 1 Regulations and Timelines be received as information.	
b.	GM-10-21-70 - 2022 Board Meeting Schedule	13
	THAT the Meeting Schedule for 2022 Grand River Conservation Authority General Membership meetings be approved.	
c.	GM-10-21-71 - Cash and Investment Status	15
	THAT Report Number GM-10-21-71 Cash and Investment Status – September 2021 be received as information.	
d.	GM-10-21-73 - Financial Summary	17
	THAT the Financial Summary for the period ending September 30, 2021 be approved.	
e.	GM-10-21-72 - Park Reservation System RFP Results	22
	THAT staff be authorized to negotiate an agreement with CAMIS Inc. to provide a conservation area reservation system for a term of three years with the option to extend the contract for up to three additional one year terms.	
f.	GM-10-21-69 - Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation	25
	THAT Report Number GM-10-21-69 – Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation be received as information.	
g.	GM-10-21-74 - September 22-23, 2021 Flood Event	27
	THAT Report Number GM-10-21-74 – September 22-23, 2021 Flood Event be received as information.	
h.	GM-10-21-76 - Current Watershed Conditions	32
	THAT Report Number GM-10-21-76 – Current Watershed Conditions as of October 13, 2021 be received as information.	

**13. Committee of the Whole**

**14. General Business**

**15. 3rd Reading of By-Laws**

**16. Other Business**

**17. Closed Meeting**

THAT the General Membership enter a closed meeting to discuss a confidential matter.

a. Minutes of the previous closed session

b. Security of Property

**18. Next Meetings**

**19. Adjourn**



## Grand River Conservation Authority Minutes - General Membership Meeting

Date: September 24, 2021  
Time: 9:30 am  
Location: GRCA Zoom Virtual Meeting  
Link to be distributed via email prior to meeting

Members Present Les Armstrong, Bruce Banbury, Robert Bell, Richard Carpenter, John Challinor II, Brian Coleman, Bernie Corbett, Jim Erb, Susan Foxton, Guy Gardhouse, Joan Gatward, Helen Jowett, Daniel Lawrence, Ian MacRae, Kathryn McGarry, Jane Mitchell, Joe Nowak, Jerry Smith, Warren Stauch, Bruce Whale, Chris White

Regrets Marcus Adili, Kevin Davis, Cathy Downer, Michael Harris, Geoff Lorentz

Staff Samantha Lawson, Karen Armstrong, Beth Brown, Krista Bunn, Nancy Davy, Brandon Heyer, Sonja Radoja, Lisa Stocco, Pam Walther-Mabee, Eowyn Spencer, Martin Keller, Mark Anderson, Gus Rungis,

Others John Kemp

**1. Call to Order**

The Meeting was called to order by the Chair at 9:33 a.m.

**2. Certification of Quorum**

The Secretary-Treasurer certified quorum with 18 Members present. A total of 21 Members attended the meeting.

K.McGarry joined the meeting at 9:34 a.m.

**3. Chair's Remarks**

None.

**4. Review of Agenda**

The Chair advised that a litigation or potential litigation item would be added to the closed meeting agenda.

21-131

**Moved By** John Challinor II

**Seconded By** Joan Gatward

THAT the agenda for the General Membership Meeting be approved as amended.

**Carried**

**5. Declarations of Pecuniary Interest**

There were no declarations of pecuniary interests made in relation to the matters to be dealt with.

**6. Minutes of the Previous Meetings**

- B.Whale identified an error in item 12.6, where the incorrect municipality was recorded. The correction which will change the County of Wellington to the Township of Mapleton will be made in the final published version of the Minutes

B.Coleman joined the meeting at 9:35 a.m.

21-132

**Moved By** Ian MacRae

**Seconded By** Bernie Corbett

THAT the minutes of the General Membership Meeting of August 27, 2021 be approved as amended.

**Carried**

**7. Business Arising from Previous Minutes**

There was no business arising from the minutes of the previous meeting.

**8. Hearing of Delegations**

**8.1 John Kemp - Giant Hogweed**

- John Kemp joined the meeting and provided a presentation to the Board regarding Giant Hogweed populations along the Grand River. The presentation highlighted the progressive invasion of the noxious weed in various locations along the Grand River. Mr. Kemp discussed the high seed transportation, challenges with removal of the weed, volunteer progress to remove the weeds in a safe manner, and the potential negative impact the spread of the weed will have on recreation and personal safety near the riverbanks and trail systems. Mr. Kemp further discussed challenges with removal, including private landowners, lack of public knowledge and education, ineffective legislation, and lack of funding for volunteer programs
- Board members thanked the delegation for the presentation, and asked questions related to available funding opportunities, public education or advisory initiatives, estimated financial requirements, and other possible partners such as local universities. Mr. Kemp responded to questions, and offered his contact information for Board members who may wish to request the presentation for their respective municipal councils

J.Mitchell joined the meeting at 9:50 a.m.

**9. Presentations**

There were no Presentations.

**10. Correspondence**

**10.1 Niagara Peninsula Conservation Authority - Pollinator Species Resolution  
21-133**

**Moved By** Kathryn McGarry

**Seconded By** Jerry Smith

THAT Correspondence from Niagara Peninsula Conservation Authority outlining their Board resolution regarding pollinator species be received as information.

**Carried**

**11. 1st and 2nd Reading of By-Laws**

None.

**12. Reports:**

**12.1 Minutes of the Ad-Hoc Conservation Authorities Act Committee -  
September 9, 2021**

C.White and S.Foxton declared a conflict of interest for this agenda item due to their current roles as Chair and Vice-Chair.

21-134

**Moved By** Bernie Corbett

**Seconded By** Les Armstrong

THAT Helen Jowett be appointed as Chair to preside over the portion of the meeting where the Chair and Vice-Chair have declared a conflict of interest.

**Carried**

C.White vacated the Chair and he and S.Foxton exited the meeting for the discussion period

- K.Armstrong advised that a meeting of the Ad-hoc committee was held on September 9, at which the committee reviewed and discussed the regulation under the CA Act that stipulates term limits and rotation requirements for Chair and Vice Chair positions
- At that meeting, the Committee agreed to recommend to the Board that an exception request be sent to MECP following their requirements to include a formal letter, a completed request form, Board resolution by recorded vote, and minutes of the meeting at which the motion was passed. The minutes will be marked as draft, as they will not yet be approved at the time the exception request is submitted

D.Lawrence left the meeting at approximately 10:10 a.m.

21-135

**Moved By** Richard Carpenter

**Seconded By** John Challinor II

THAT the Minutes of the Ad-hoc Conservation Authorities Act Committee meeting held on September 9, 2021 be received as information.

**Carried**

21-136

**Moved By** Richard Carpenter

**Seconded By** Bruce Whale

THAT the Grand River Conservation Authority submits a request to the Minister of Environment, Conservation and Parks for an exception as per s.17 (1.3)(a) of the Conservation Authorities Act to the two-year term limit for Chair and Vice-Chair of the GRCA Board of Directors to allow up to four one-year consecutive terms for the Chair and Vice-Chair.

	<b>In Favour (yes)</b>	<b>Opposed (no)</b>	<b>Other</b>
Marcus Adili			Absent
Les Armstrong	Yes		
Bruce Banbury	Yes		
Robert Bell	Yes		
Richard Carpenter	Yes		
John Challinor II	Yes		
Brian Coleman	Yes		
Bernie Corbett	Yes		
Kevin Davis			Absent
Cathy Downer			Absent
Jim Erb	Yes		
Susan Foxton			Declared conflict
Guy Gardhouse	Yes		
Joan Gatward	Yes		
Michael Harris			Absent
Helen Jowett	Yes		
Dan Lawrence			Absent
Geoff Lorentz			Absent
Ian MacRae	Yes		
Kathryn McGarry	Yes		
Jane Mitchell	Yes		
Joe Nowak	Yes		
Jerry Smith	Yes		
Warren Stauch	Yes		
Bruce Whale	Yes		
Chris White			Declared conflict
<b>TOTAL</b>	<b>18</b>	<b>0</b>	

Carried

21-137

**Moved By** John Challinor II

**Seconded By** Bruce Whale

THAT the Grand River Conservation Authority submits a request to the Minister of Environment, Conservation and Parks for an exception as per s.17 (1.3)(b) of the Conservation Authorities Act that the GRCA be exempt from the requirement to rotate the Chair and Vice-Chair amongst all participating municipalities.

	<b>In Favour (yes)</b>	<b>Opposed (no)</b>	<b>Other</b>
Marcus Adili			Absent
Les Armstrong	Yes		
Bruce Banbury	Yes		
Robert Bell	Yes		
Richard Carpenter	Yes		
John Challinor II	Yes		
Brian Coleman	Yes		
Bernie Corbett	Yes		
Kevin Davis			Absent
Cathy Downer			Absent
Jim Erb	Yes		
Susan Foxton			Declared conflict
Guy Gardhouse	Yes		
Joan Gatward	Yes		
Michael Harris			Absent
Helen Jowett	Yes		
Dan Lawrence			Absent
Geoff Lorentz			Absent
Ian MacRae	Yes		
Kathryn McGarry	Yes		
Jane Mitchell	Yes		
Joe Nowak	Yes		
Jerry Smith	Yes		
Warren Stauch	Yes		
Bruce Whale	Yes		
Chris White			Declared conflict
<b>TOTAL</b>	<b>18</b>	<b>0</b>	

Carried

C.White and S.Foxton rejoined the meeting, and C.White resumed the Chair.

**12.2 GM-09-21-64 - Budget 2022 Draft #1**



- S.Radoja provided a detailed overview of the estimated 2022 budget, including revenues and expenditures for operating and capital budgets, special projects and funding sources
- The draft budget includes an anticipated levy increase of 2.5%, which is in line with previous years' increases and represents an approximate 11 cent per capita increase based on watershed population
- Budget draft number two will be presented to the Board in January 2022, and forecast adjustments will be presented as needed
- Board members inquired about the use of reserves. S.Radoja noted that reserve funds are in a stable position, and that operating items will not rely on reserve funds
- R.Carpenter asked if capital costs are reflective of real costs as materials have significantly increased. S.Radoja responded that preliminary estimates were consistent with prior years

21-138

**Moved By** Bernie Corbett

**Seconded By** John Challinor II

THAT Report Number 09-21-64 - Budget 2022 - Draft #1 be received as information.

**Carried**

**12.3 GM-09-21-68 - Budget 2022 Draft #1 - General Municipal Levy Apportionment**

21-139

**Moved By** John Challinor II

**Seconded By** Ian MacRae

THAT Report GM-09-21-68 – Budget 2022 – Draft #1 – General Municipal Levy Apportionment be received as information.

**Carried**

**12.4 GM-09-21-63 - Cash and Investment Status**

21-140

**Moved By** Bruce Banbury

**Seconded By** Joe Nowak

THAT Report Number GM-09-21-63 – Cash and Investment Status – August 2021 be received as information.

**Carried**

**12.5 GM-09-21-65 - Financial Summary**

21-141

**Moved By** Jerry Smith

**Seconded By** Kathryn McGarry

THAT the Financial Summary for the period ending August 31, 2021 be approved.

**Carried**

**12.6 GM-09-21-67 - Foundation Member Appointment**

21-142

**Moved By** Brian Coleman

**Seconded By** Kathryn McGarry

THAT the following new Member be appointed to the Grand River Conservation Foundation for a term of three years:

- Carolyn Weatherson

**Carried**

**12.7 GM-09-21-66 - Current Watershed Conditions**

21-143

**Moved By** Warren Stauch

**Seconded By** Guy Gardhouse

THAT Report Number GM-09-21-66 – Current Watershed Conditions as of September 15, 2021 be received as information.

**Carried**

**13. Committee of the Whole**

Not required.

**14. General Business**

There was no General Business.

**15. 3rd Reading of By-Laws**

None.

**16. Other Business**

**17. Closed Meeting**

21-144

**Moved By** John Challinor II

**Seconded By** Les Armstrong

THAT the General Membership enter a closed meeting to discuss a confidential matter.

**Carried**

The General Membership convened in closed session and the live meeting stream was paused.

21-145

**Moved By** John Challinor II

**Seconded By** Bernie Corbett

THAT the General Membership return to open session.

**Carried**

The General Membership reconvened in open session and the live meeting stream was resumed.

**17.1 Minutes of the previous closed session**

21-146

**Moved By** Jim Erb

**Seconded By** John Challinor II

THAT the minutes of the previous closed session be received as information.

**Carried**

**17.2 GM-09-21-C10 - Land Disposition - Guelph/Eramosa Township**

21-147

**Moved By** Ian MacRae

**Seconded By** Warren Stauch

IN ORDER TO FURTHER THE OBJECTS OF the Grand River Conservation Authority by raising funds through the disposition of surplus lands,

THEREFORE IT BE RESOLVED THAT the Grand River Conservation Authority sell the lands described as Part Lot 6, Concession 9, Division C, Township of Guelph, Being Parts 1 and 2 on Plan 61R-21515; Township of Guelph-Eramosa City of Guelph, municipally known as 5537 Watson Road North, Guelph, comprised of 1.536 acres (0.62 hectares), to Alexandre Vincent Ciccone, at the offered price of \$1,362,000.00.

**Carried**

**17.3 GM-09-21-C11 - Update on Lands Declared Surplus - City of Guelph**

21-148

**Moved By** Bruce Banbury

**Seconded By** Les Armstrong

THAT Report Number GM-09-21-C11 - Update on Lands Declared Surplus - City of Guelph be received as information.

**Carried**

**18. Next Meeting - October 22, 2021 at 9:30 a.m.**

**19. Adjourn**

- Prior to adjournment, Board members asked if there will be follow up from staff regarding the delegation's Giant Hogweed presentation. S.Lawson advised the Board that the GRCA manages invasive plants, including Giant Hogweed, on GRCA properties. The Chair added that it is not within the GRCA's mandate to manage or maintain privately owned property. Following the meeting, S.Lawson shared the delegation's contact information, and a link to Giant Hogweed information available on the GRCA website with the Board

The meeting was adjourned at 11:05 a.m.

21-149

**Moved By** Jane Mitchell

**Seconded By** Bruce Whale

THAT the meeting of the General Membership be adjourned.

**Carried**

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Chair

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Secretary-Treasurer

# Grand River Conservation Authority

**Report number:** GM-10-21-75

**Date:** October 22, 2021

**To:** General Membership of the Grand River Conservation Authority

**Subject:** Conservation Authorities Act Amendments - Phase 1 Regulations and Timelines

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## **Recommendation:**

THAT Report Number GM-10-21-75 – Conservation Authorities Act Amendments – Phase 1 Regulations and Timelines be received as information.

## **Summary:**

N/A

## **Report:**

On October 4, 2021 the Ministry of Environment, Conservation and Parks (MECP) released the Phase 1 regulations to implement amendments to the *Conservation Authorities Act* made in 2019/2020. These regulations include:

**1. Ontario Regulation 686/21: Mandatory Programs and Services.**

This regulation prescribes the mandatory programs and services conservation authorities are required to provide; risk to natural hazards, conservation and management of land, elements of source water protection and core watershed-based resource management strategies.

**2. Ontario Regulation 687/21: Transition Plans and Agreements for Programs and Services under Section 21.1.2 of the Act.**

This regulation requires each authority to have a 'transition plan' that outlines the steps to be taken to develop an inventory of programs and services and to enter into agreements with participating municipalities to fund non-mandatory programs and services through a municipal levy, among other things. It also establishes the transition period to enter into those agreements.

**3. Ontario Regulation 688/21: Rules of Conduct in Conservation Areas.**

This regulation consolidates the current individual conservation authority 'Conservation Area' regulations made under Section 29 of the *Conservation Authorities Act* into one Minister's regulation that regulates the activities on authority owned land.

The MECP received 444 submissions from municipalities, conservation authorities, Indigenous communities and organizations, environmental non-government organizations, community groups, industry, agricultural sector, and individuals through its posting on the Environmental Registry of Ontario. The Ministry also held three webinars with ministry staff in which over 500 people attended. In January 2021, the Province established the Provincial Working Group (made up of several stakeholders within the province) that has met bi-weekly to provide continuous feedback to the Ministry on the first phase of regulations.

Based on the feedback received from the Phase 1 regulations public consultation, the following changes were made that are of significance to the Grand River Conservation Authority (GRCA):

- Removal of the requirement for conservation authorities to establish a community advisory board to provide advice to the Authority
- Extension of the timeline for conservations authorities to complete the transition period for the new levy funding framework to January 1, 2024 (2024 budget)
- Inclusion of low-maintenance passive recreation (trails, bird watching, etc.) as part of the mandatory programs and services under Conservation and Lands management
- Extension of timelines related to mandatory program and services deliverables to December 31, 2024. These deliverables includes; Watershed-based Resource Management Strategy, Conservation Area Strategy, Lands Inventory, Ice Management Plan, Operational Management Plan(s) and Asset Management Plan for Natural Hazard Management Infrastructure.

The provincial working group is currently meeting bi-weekly on the Phase 2 regulations which will focus on the municipal levy regulations and fee policy.

The Ministry of Northern Development, Mines, Natural Resources and Forestry (NDMNRF) will be updating and issuing a public consultation guide regarding proposed updates and changes to the Regulation under section 28 of the *Conservation Authorities Act*. At this time, it is not known when this consultation guide will be released for comment. A separate Environmental Registry posting will be uploaded and a report with proposed comments will be coming to the Board.

### **Next Steps**

Under Ontario Regulation 687/21: Transition Plans and Agreements for Programs and Services, the GRCA is required to develop and submit a transition plan to the MECP by December 31, 2021. This transition plan will outline the steps to be taken to develop an inventory of programs and services and to enter into agreements with participating municipalities to fund municipally driven programs and services through a municipal levy.

The GRCA is required to submit quarterly reports to the MECP during the transition period identifying components of the plan that have been achieved to date. The first quarterly report is due February 28, 2022 and this submission is to include the program and services inventory.

The programs and services inventory must include the following information:

- A list of current GRCA programs and services and, which of the three categories the program/service fits into:
  1. mandatory programs and services where municipal levy could be used without any agreement;
  2. programs and services at the request of a municipality with municipal funding through a MOU;
  3. other programs and services an Authority determines are advisable, and how they are funded (e.g., provincial, federal, municipal funding, municipal levy, and self-generated revenue)
- Costing information (e.g. average annual costs based on the last 5 years) to deliver each program and service in all three categories
- Details on the circulation process of the inventory with participating municipalities and any other municipalities the Authority intends to enter into agreements with
- A list of any new mandatory programs and services the Authority will need to provide to meet the requirements of the mandatory program and services regulation

The regulation does recognize that this is a dynamic process and there are opportunities to adjust and modify the plan and inventory as needed through the transition period. These adjustments and modifications must be identified in the quarterly reports along with justifications for the changes. There is also a clause in the regulation to request an extension to the transition period should it be required.

Staff will consult with the Ad-Hoc Conservation Authorities Act Committee on the development of the transition plan and programs and services inventory prior to requesting Board approval for the documents.

**Financial Implications:**

N/A

**Other Department Considerations:**

N/A

**Submitted by:**

Samantha Lawson  
Chief Administrative Officer

# Grand River Conservation Authority

**Report number:** GM-10-21-70

**Date:** October 22, 2021

**To:** Members of the Grand River Conservation Authority

**Subject:** 2022 Board Meeting Schedule

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## Recommendation:

THAT the Meeting Schedule for 2022 Grand River Conservation Authority General Membership meetings be approved.

## Summary:

Not applicable.

## Report:

The General Membership of the Grand River Conservation Authority meets on the fourth Friday of each month at 9:30 a.m. unless there is a conflict with a statutory holiday. The only conflict in 2022 is the December meeting, which has been moved to the third Friday.

Other significant events which have been taken into consideration are:

- ROMA Conference: January 23-25, 2022
- AMO Conference: August 14-17, 2022
- Latonnell Conservation Symposium: normally the third week of November

Additional events, such as a Special Budget Meeting, Source Protection Authority meetings, tours and special days, may be scheduled as needed during the year. The Audit Committee has regularly scheduled meetings on the Wednesday one week prior to the Annual General Meeting of the General Membership, and again immediately following the November meeting of the General Membership.

Since 2019, a meeting has not been scheduled in July. This has been incorporated into the meeting schedule again for 2022. The Chair may call a special meeting at any time with three days' notice, if required.

All meetings are typically held in the Auditorium at the Grand River Conservation Authority Administration Office, 400 Clyde Road, Cambridge, Ontario, however since April 2020, meetings have been held virtually in accordance with the GRCA Administrative By-law due to the COVID-19 pandemic. The format for future meetings, whether in-person or electronic, will be determined in advance.

The proposed 2022 meeting dates and times are as follows:

DATE	TIME	MEETING
Friday, January 28, 2022	9:30 a.m.	General Membership <i>(and elections of officers)</i>
Wednesday, February 16, 2022	9:30 a.m.	Audit Committee
Friday, February 25, 2022	9:30 a.m.	Annual General Meeting



<b>DATE</b>	<b>TIME</b>	<b>MEETING</b>
Friday, March 25, 2022	9:30 a.m.	General Membership
Friday, April 22, 2022	9:30 a.m.	General Membership
Friday, May 27, 2022	9:30 a.m.	General Membership
Friday, June 24, 2022	9:30 a.m.	General Membership
Friday, August 26, 2022	9:30 a.m.	General Membership
Friday, September 23, 2022	9:30 a.m.	General Membership
Friday, October 28, 2022	9:30 a.m.	General Membership
Friday, November 25, 2022	9:30 a.m.	General Membership
Friday, November 25, 2022	11:30 a.m.*	Audit Committee <i>*immediately following GM</i>
Friday, December 16, 2022*	9:30 a.m.	General Membership <i>*third Friday of Month</i>

**Financial Implications:**

Not applicable.

**Other Department Considerations:**

Not applicable

**Prepared by:**

Karen Armstrong  
Deputy CAO/ Secretary-Treasurer

**Approved by:**

Samantha Lawson  
Chief Administrative Officer

# Grand River Conservation Authority

**Report number:** GM-10-21-71

**Date:** October 22, 2021

**To:** Members of the Grand River Conservation Authority

**Subject:** Cash and Investment Status – September 2021

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## **Recommendation:**

THAT Report Number GM-10-21-71 Cash and Investment Status – September 2021 be received as information.

## **Summary:**

The cash position including Notes Receivable of the Grand River Conservation Authority as at September 30, 2021 was \$42,604,370 with outstanding cheques written in the amount of \$353,773.

## **Report:**

See attached.

## **Financial Implications:**

Interest rates, etc. are shown on the report.

## **Other Department Considerations:**

Not applicable.

## **Prepared by:**

Carol Anne Johnston  
Senior Accountant

## **Approved by:**

Karen Armstrong  
Deputy CAO/Secretary Treasurer

Sonja Radoja  
Manager of Corporate Services

**Grand River Conservation Authority  
Cash and Investments Status Report  
September 30, 2021**

<b>BANK ACCOUNTS</b>	<b>Location</b>	<b>Type</b>	<b>Amount</b>	<b>Interest Rate</b>
	CIBC	Current Account	20,374,564	0.65%
	RBC	Current Account	207,758	nil
	Wood Gundy	Current Account	677	nil
	CIBC - SPP Holding	Current Account	568,637	0.65%
	<b>TOTAL CASH - CURRENT ACCOUNT</b>		<b>21,151,636</b>	

<b>INVESTMENTS</b>	<b>Date Invested</b>	<b>Location</b>	<b>Type</b>	<b>Amount</b>	<b>Face Value Interest Rate</b>	<b>Yield Rate</b>	<b>Date of Maturity</b>	<b>2021 Total Interest Earned/ Accrued</b>
		CIBC Renaissance	High Interest Savings Account	293,017	0.55%	0.55%	not applicable	7,938
		One Investment Savings	High Interest Savings Account	4,319,707	0.715%	0.715%	not applicable	21,041
	August 24, 2017	Bank of Montreal	Bond	1,550,000	1.61%	2.01%	October 28, 2021	25,384
	May 17, 2019	Bank of Nova Scotia	Bond	800,000	1.90%	2.15%	December 2, 2021	15,674
	October 23, 2019	Cdn Western Bank	Bond	2,010,000	2.800%	2.78%	September 6, 2024	55,625
	December 23, 2019	Laurentian Bank	Bond	3,821,000	3.450%	2.57%	June 27, 2023	99,259
	January 16, 2020	Cdn Western Bank	Bond	3,000,000	2.597%	2.45%	September 6, 2024	73,383
	September 15, 2021	Cdn Western Bank	Bond	1,500,000	2.597%	1.21%	September 6, 2024	5,509
	September 23, 2021	Province of Ontario	Bond	2,159,010	1.230%	1.23%	December 2, 2026	7,366
	September 23, 2021	ManuLife Financial	Bond	2,000,000	2.237%	1.34%	May 12, 2030	10,124
		<b>TOTAL INVESTMENTS</b>		<b>21,452,734</b>				<b>\$321,302</b>
		<b>TOTAL CASH AND INVESTMENTS</b>		<b>\$42,604,370</b>				
		* Reserve Balance at December 31st, 2020		23,899,839				

**Investment By Institution**

	<u>% of Total Portfolio</u>
Bank of Montreal	7%
Bank of Nova Scotia	4%
C.I.B.C.	1%
Cdn Western Bank	30%
Laurentian	18%
ManuLife Financial Bank	9%
One Investment Program	20%
Province of Ontario	10%
	<u>100%</u>

\* Reserve balances are reviewed annually by the Board in November.

# Grand River Conservation Authority

**Report number:** GM-10-21-73

**Date:** October 22, 2021

**To:** Members of the Grand River Conservation Authority

**Subject:** Financial Summary for the Period Ending September 30, 2021

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## **Recommendation:**

THAT the Financial Summary for the period ending September 30, 2021 be approved.

## **Summary:**

The Financial Summary includes the 2021 *actual* year-to-date income and expenditures. The budget approved at the February 26, 2021 General Meeting is included in the *Budget* column. The *Current Forecast* column indicates an estimate of income and expenditures for the whole year. At this time a surplus of \$424,000 at year-end is forecast.

## **Report:**

- A. Government Funding decreased \$50,000.
  - Provincial funding decreased by \$95,000; due to a \$50,000 reduction related to timing of Water and Erosion Control Infrastructure (WECI) expenditures and a transfer of \$45,000 from Provincial to Federal funding for Bridgeport Dyke.
  - Federal funding increased by \$45,000 from the Disaster Mitigation and Adaptation Fund for the Bridgeport Dyke - Seepage, Stability and Capacity Improvements Design EA project.
- B. Self-Generated Revenue increased by \$177,000
  - Conservation Area revenue increased by \$400,000 due to revised projection of annual sales volume driven by demand for day use and membership sales.
  - Foundation revenue decreased by \$223,000 due to timing of the Guelph City Link Trail project.
- C. Operating Expenditures decreased by \$145,000.
  - Communications compensation and benefit expenses decreased by \$20,000 due to staff vacancy.
  - Cottage Lot program expenditures forecast a net decrease of \$155,000 driven by a decrease in cottage lot road expenditures offset by an increase in hazard tree management expenditures.
  - Hydro Production expenditures increased by \$30,000 due to repairs and maintenance on the Conestogo turbine (controller & actuator shaft).
- D. Capital Expenditures decreased by \$1,000,000.
  - Conservation Area Capital expenditures have been impacted by scheduling delays with higher dollar value projects. Priority projects not completed in 2021 are being carried forward into 2022. These projects include a new workshop at the Brant CA, water service upgrades at Shade's Mill CA, a bridge replacement and Harris Mill Masonry Repairs at Rockwood CA.

- WECl project expenditures decreased by \$100,000 due to timing of expected work completion.
- E. Special Project Expenses decreased by \$223,000.
- The Guelph City Link Trail project expenditures decreased by \$223,000 due to scoping and timing of work. An RFP has been reissued and work is expected to occur in 2022.
- F. Net Increase to Transfer to Reserves is \$1,475,000.
- Increase transfer to Water Control Structures Reserve by \$50,000 due to timing of spending on WECl projects.
  - Increase transfer to Cottage Lot Reserve by \$155,000 for savings related to deferral of road maintenance spending for the Cottage Lot Program.
  - Decrease transfer to General Capital Reserve by \$30,000 to fund repair and maintenance expenditures at the Conestogo turbine.
  - Transfer from Conservation Area Reserve decreased by \$100,000 as a result of the increased revenue projection.
  - Increase transfer to Conservation Area Reserve by \$1,200,000 as a result of the increased revenue projection and the deferral of Conservation Area capital projects.

The Financial Summary is attached.

### **Financial Implications:**

The financial summary outlines a forecast net surplus of \$424,000 at December 31, 2021.

### **Other Department Considerations:**

The management committee and appropriate supervisory staff receive monthly financial reports and advise the finance department of applicable forecast adjustments.

#### **Prepared by:**

Kayleigh Keighan  
Financial Controller

#### **Approved by:**

Karen Armstrong  
Secretary-Treasurer/Deputy CAO

Sonja Radoja  
Manager of Corporate Services

**GRAND RIVER CONSERVATION AUTHORITY  
FINANCIAL SUMMARY - FORECAST**

General Membership October 22, 2021

<b>FORECAST - AUGUST 31, 2021 - NET SURPLUS/(DEFICIT)</b>		<b>\$404,000</b>	
Sch 3	Water Control Structures	<b>\$100,000</b> Capital Expenses decreased (WECI) <b>(\$50,000)</b> Funding to Water Control Structures Reserve increased <b>\$45,000</b> Federal Grant increased (DMAF Project) <b>(\$95,000)</b> Provincial Grant decreased	<b>\$0</b>
Sch 7	Communications	<b>\$20,000</b> Compensation and Benefit Expenses decreased (vacancy)	<b>\$20,000</b>
Sch 10	Conservation Lands	<b>\$223,000</b> Special Project - Trails - Capital Maintenance Expenses decreased <b>(\$223,000)</b> Foundation Funding decreased	<b>\$0</b>
Sch 11	Property Rentals	<b>\$125,000</b> Cottage Lot Program road expenses decreased (Conestogo) <b>\$115,000</b> Cottage Lot Program road expenses decreased (Belwood) <b>(\$50,000)</b> Cottage Lot Program hazard tree expenses increased (Conestogo) <b>(\$35,000)</b> Cottage Lot Program hazard tree expenses increased (Belwood) <b>(\$155,000)</b> Funding to Cottage Lot Reserve increased	<b>\$0</b>
Sch 12	Hydro Production	<b>(\$30,000)</b> Other Operating expenses (Conestogo - R&M) increased <b>\$30,000</b> Transfer to General Capital Reserve decreased	<b>\$0</b>
Sch 13	Conservation Areas	<b>\$400,000</b> Conservation Area Revenue increased (from \$9M to \$9.4M) <b>(\$100,000)</b> Transfer from Conservation Area Reserve decreased <b>(\$300,000)</b> Transfer to Conservation Area Reserve increased  <b>\$900,000</b> Capital Expenses decreased <b>(\$900,000)</b> Transfer to Conservation Area Reserve increased	<b>\$0</b>
<b>FORECAST - September 30, 2021- NET SURPLUS/(DEFICIT)</b>		<b>\$424,000</b>	

**GRAND RIVER CONSERVATION AUTHORITY  
STATEMENT OF OPERATIONS  
FOR THE PERIOD ENDING September 30, 2021**

SCHEDULE		Actual 2020	Budget 2021	Actual YTD	Previous Forecast	Current Forecast	Forecast Change
<b>REVENUE</b>							
<b>Municipal</b>							
General Municipal Levy (Operating)	various	10,977,000	11,275,000	11,275,000	11,275,000	11,275,000	0
General Municipal Levy (Capital)	various	950,000	950,000	950,000	950,000	950,000	0
Special Municipal Levy	various	71,943	130,000	4,680	130,000	130,000	0
Other	various	639,589	800,000	1,165,783	800,000	800,000	0
		<b>12,638,532</b>	<b>13,155,000</b>	<b>13,395,463</b>	<b>13,155,000</b>	<b>13,155,000</b>	<b>0</b>
<b>Government Grants</b>							
MNRF Transfer Payments	various	449,688	449,688	449,688	449,688	449,688	0
Source Protection Program-Provincial	various	681,421	640,000	371,655	640,000	640,000	0
Other Provincial	various	863,182	1,267,500	881,253	1,467,500	1,372,500	(95,000)
Federal	various	352,880	215,000	378,085	530,500	575,500	45,000
		<b>2,347,171</b>	<b>2,572,188</b>	<b>2,080,681</b>	<b>3,087,688</b>	<b>3,037,688</b>	<b>(50,000)</b>
<b>Self Generated</b>							
User Fees and Sales							
<i>Enquiries and Permits</i>	4	565,822	494,000	568,733	619,000	619,000	0
<i>Plan Input and Review</i>	4	410,804	400,000	398,527	475,000	475,000	0
<i>Nursery and Woodlot Management</i>	5	174,627	365,000	377,530	395,000	395,000	0
<i>Conservation Lands Income</i>	10	78,542	71,000	41,801	71,000	71,000	0
<i>Conservation Areas User Fees</i>	13	6,124,125	7,200,000	9,133,362	9,000,000	9,400,000	400,000
<i>Nature Centres and Camps</i>	8	233,439	500,000	282,699	500,000	500,000	0
<i>Merchandising and Sales</i>	8	605	0	457	0	0	0
Property Rentals	11	3,041,678	2,898,000	2,276,010	2,898,000	2,898,000	0
Hydro Generation	12	799,841	530,000	409,412	530,000	530,000	0
Land Sales	10	3,419,145	0	10,000	10,000	10,000	0
Grand River Conservation Foundation	various	161,820	285,000	19,181	285,000	62,000	(223,000)
Donations	various	0	100,000	28,656	100,000	100,000	0
Landowner Contributions	5	47,289	200,000	161,037	200,000	200,000	0
Investment Income	14	488,691	565,000	277,425	565,000	565,000	0
Miscellaneous Income	various	295,185	8,000	1,336	8,000	8,000	0
<b>Total Self-Generated Revenue</b>		<b>15,841,613</b>	<b>13,616,000</b>	<b>13,989,892</b>	<b>15,656,000</b>	<b>15,833,000</b>	<b>177,000</b>
<b>TOTAL REVENUE</b>		<b>30,827,316</b>	<b>29,343,188</b>	<b>29,466,036</b>	<b>31,898,688</b>	<b>32,025,688</b>	<b>127,000</b>

**GRAND RIVER CONSERVATION AUTHORITY  
STATEMENT OF OPERATIONS  
FOR THE PERIOD ENDING September 30, 2021**

SCHEDULE	Actual 2020	Budget 2021	Actual YTD	Previous Forecast	Current Forecast	Forecast Change	
<b>EXPENSES</b>							
<b>OPERATING</b>							
Water Resources Planning & Environment	1	1,617,996	2,059,700	1,359,216	1,966,700	1,966,700	0
Flood Forecasting and Warning	2	658,712	828,800	615,860	803,800	803,800	0
Water Control Structures	3	1,590,655	1,785,700	1,198,369	1,785,700	1,785,700	0
Resource Planning	4	1,984,531	2,082,200	1,412,608	2,152,200	2,152,200	0
Forestry & Conservation Land Property Taxes	5	858,656	1,365,000	967,700	1,365,000	1,365,000	0
Conservation Services	6	685,337	635,200	344,131	570,200	570,200	0
Communications & Foundation	7	565,010	524,500	318,758	494,500	474,500	(20,000)
Environmental Education	8	602,324	840,600	455,763	790,600	790,600	0
Corporate Services	9	3,491,047	3,627,629	2,556,825	3,583,629	3,583,629	0
Conservation Lands	10	1,814,213	2,048,900	1,475,780	2,081,900	2,081,900	0
Property Rentals	11	1,218,702	1,478,200	1,031,681	1,542,200	1,387,200	(155,000)
Hydro Production	12	114,429	92,000	134,074	127,000	157,000	30,000
Conservation Areas	13	5,573,218	7,200,000	5,919,986	7,600,000	7,600,000	0
Miscellaneous	14	30,321	70,000	8,140	70,000	70,000	0
Information Systems	16	1,202,902	1,382,000	844,986	1,382,000	1,382,000	0
Motor Pool	16	714,759	936,000	591,867	936,000	936,000	0
Less: Internal Charges (IS & MP)	16	(1,917,661)	(2,318,000)	(1,436,853)	(2,318,000)	(2,318,000)	0
<b>Total OPERATING Expenses</b>		<b>20,805,151</b>	<b>24,638,429</b>	<b>17,798,891</b>	<b>24,933,429</b>	<b>24,788,429</b>	<b>(145,000)</b>
<b>CAPITAL</b>							
Water Resources Planning & Environment	1	5,932	110,000	44,318	110,000	110,000	0
Flood Forecasting and Warning	2	298,606	190,000	269,163	605,000	605,000	0
Water Control Structures	3	1,365,239	1,500,000	746,962	1,500,000	1,400,000	(100,000)
Nature Centres	8	0	0	0	0	0	0
Conservation Areas	13	795,020	1,500,000	327,457	1,500,000	600,000	(900,000)
Corporate Services	9	0	0	0	0	0	0
Information Systems	16	79,333	170,000	143,611	170,000	170,000	0
Motor Pool	16	476,828	450,000	111,966	450,000	450,000	0
Less: Internal Charges (IS & MP)	16	(645,826)	(163,000)	(1,005,001)	(163,000)	(163,000)	0
<b>Total Capital Expenses</b>		<b>2,375,132</b>	<b>3,757,000</b>	<b>638,476</b>	<b>4,172,000</b>	<b>3,172,000</b>	<b>(1,000,000)</b>
<b>SPECIAL</b>							
Water Resources Planning & Environment	1	241,858	220,000	110,330	220,000	220,000	0
Flood Forecasting and Warning	2	214,001	360,000	71,888	891,000	891,000	0
Forestry	5	25,635	100,000	59,537	100,000	100,000	0
Conservation Services	6	663,161	1,060,000	603,138	1,110,000	1,110,000	0
Environmental Education	8	54,753	0	28,993	0	0	0
Conservation Land Purchases/Land Sale Expenses	10	59,047	0	26,469	20,000	20,000	0
Conservation Lands	10	354,007	658,000	238,339	508,000	285,000	(223,000)
Miscellaneous	14	0	0	0	0	0	0
Source Protection Program	15	681,421	640,000	422,545	640,000	640,000	0
<b>Total SPECIAL PROJECTS Expenses</b>		<b>2,293,883</b>	<b>3,038,000</b>	<b>1,561,239</b>	<b>3,489,000</b>	<b>3,266,000</b>	<b>(223,000)</b>
<b>Total Expenses</b>		<b>25,474,166</b>	<b>31,433,429</b>	<b>19,998,606</b>	<b>32,594,429</b>	<b>31,226,429</b>	<b>(1,368,000)</b>
<b>Gross Surplus</b>		<b>5,353,150</b>	<b>(2,090,241)</b>	<b>9,467,430</b>	<b>(695,741)</b>	<b>799,259</b>	<b>1,495,000</b>
<b>Prior Year Surplus Carryforward</b>		<b>377,287</b>	<b>316,241</b>	<b>377,287</b>	<b>316,241</b>	<b>316,241</b>	<b>0</b>
<b>Net Funding FROM/(TO) Reserves</b>		<b>(5,414,196)</b>	<b>1,774,000</b>	<b>(750,564)</b>	<b>783,500</b>	<b>(691,500)</b>	<b>(1,475,000)</b>
<b>NET SURPLUS</b>		<b>316,241</b>	<b>0</b>	<b>9,094,153</b>	<b>404,000</b>	<b>424,000</b>	<b>20,000</b>



# Grand River Conservation Authority

**Report number:** GM-10-21-72

**Date:** October 22, 2021

**To:** Members of the Grand River Conservation Authority

**Subject:** Park Reservation System RFP Results

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## **Recommendation:**

THAT staff be authorized to negotiate an agreement with CAMIS Inc. to provide a conservation area reservation system for a term of three years with the option to extend the contract for up to three additional one year terms.

## **Summary:**

The Grand River Conservation Authority (GRCA) uses a third party reservation system to book campsites and to manage conservation area business. The contract with the current provider USeDirect expires in 2021. A Request for Proposals (RFP) was issued to procure the services of a new reservation system provider for a term of three years with the option that the term could be extended for up to three additional one year terms. GRCA received four proposals in response to the RFP. The evaluation of the proposals involved a thorough assessment of the proposal submissions and half day interviews/demonstrations with three of the four proponents. The evaluation process resulted in CAMIS Inc. being identified as the preferred vendor.

## **Report:**

The GRCA is one of the largest campsite providers within the Province of Ontario. The GRCA operates 11 Conservation Areas and the Luther Marsh Wildlife Management Area, providing a wide range of recreational opportunities such as camping, hiking, swimming, boating, fishing and picnicking. There are campgrounds at eight of these parks with approximately 2,200 campsites for overnight accommodation.

The GRCA uses a third party computerized reservation system to book campsites and to help manage conservation area business. The system allows customers to make campsite reservations by the following methods:

1. Internet - the online reservation system is available 24 hours per day); or
2. Conservation Area Staff - campsite reservations can be made by calling the conservation area directly during business hours.

For the past seven seasons the conservation area reservation system has been provided by USeDirect. GRCA's contract with USeDirect expires in 2021. GRCA has also had contracts with Mediamix (MMI) and CAMIS (prior to 2009) in the past.

GRCA issued a RFP on July 30, 2021 to procure a new conservation area reservation system. The RFP specified a contract term of three years with an option to extend the contract for three additional one year terms. The RFP was posted on the Biddingo electronic procurement website with a closing date of August 30th, 2021. Proposals were received by the closing date from four vendors:

- USeDirect
- CAMIS
- Megasys Hospitality Systems
- Campspot

Several other firms who provide reservation system services picked up the RFP package but did not submit a proposal.

Three of the vendors also participated in a half day interview/demonstration session where GRCA staff had an opportunity to review the full capabilities of the software solutions and to pose questions to the vendors. Subsequent to the interviews, an evaluation team scored each proposal on a set of pre-determined criteria.

The proposals were evaluated on the basis of the following criteria: Reservation System Solution (50%), Technical, Service and Project Management (10%), Company and Staffing Qualifications (10%), and Fee Proposal (30%).

Of strategic importance is the need for the system to integrate with GRCA's preferred retail sales solution as highlighted in the RFP as a key element. While none of the submissions had existing integrations with the preferred solution, vendors have committed to build a certified integration to satisfy GRCA requirements.

The fees proposed by each bidder are shown in the table below. Campspot had the lowest price but lacked some core functionality so it was eliminated from further consideration. CAMIS was the product with the next lowest price and their proposal and product demonstration session revealed that the product provided functionality, a strong project team and comparable/relevant experience, thus CAMIS received the highest evaluation score.

CAMIS is a reservation systems provider based out of Guelph, Ontario and provides similar reservation services to Ontario Provincial Parks and eight other Conservation Authorities..

Staff recommend that the GRCA enter into negotiations for a contract with CAMIS to provide a reservation system for the Conservation Areas.

	Estimated Transaction Volume	Fee per Transaction	Total
<b>CAMPSPOT</b>			
New Reservations	22,500	\$2.00	\$45,000
Reservation Changes	2,000	n/a	
Reservation Cancellations	1,000	n/a	
<b>Estimated Annual Fee</b>			<b>\$45,000</b>
<b>CAMIS</b>			
New Reservations	22,500	\$4.50	\$101,250
Reservation Changes	2,000	\$4.50	\$9,000
Reservation Cancellations	1,000	\$4.50	\$4,500
<b>Estimated Annual Fee</b>			<b>\$114,750</b>
<b>USEDirect</b>			
New Reservations	22,500	\$10.00	\$225,000
Reservation Changes	2,000	\$8.00	\$16,000
Reservation Cancellations	1,000	\$8.00	\$8,000
<b>Estimated Annual Fee</b>			<b>\$249,000</b>
<b>MEGASYS</b>			
New Reservations	22,500	\$12.00	\$270,000
Reservation Changes	2,000	\$2.00	\$4,000
Reservation Cancellations	1,000	\$3.00	\$3,000
<b>Estimated Annual Fee</b>			<b>\$277,000</b>

**Financial Implications:**

The transaction fees proposed by CAMIS are 50% lower than our current provider and it is anticipated that this will result in annual savings of over \$100,000.

**Other Department Considerations:**

The RFP process, including the evaluation of proposals, was a joint effort involving staff from Information Systems and Technology (IS&T), Finance and Operations.

**Prepared by:**

Sonja Radoja  
Manager of Corporate Services

**Approved by:**

Karen Armstrong  
Deputy CAO, Secretary-Treasurer

Pam Walther-Mabee  
Manager of Conservation Area Operations

# Grand River Conservation Authority

**Report number:** GM-10-21-69

**Date:** October 22, 2021

**To:** Members of the Grand River Conservation Authority

**Subject:** Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation

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## Recommendation:

THAT Report Number GM-10-21-69 – Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation be received as information.

## Summary:

To provide the General Membership of the Grand River Conservation Authority with a quarterly summary of permits approved and issued by staff which conform to current Grand River Conservation Authority policies for the Administration of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation Ontario Regulation 150/06.

## Report:

Permit Report July, August and September 2021

Municipality	Total
City of Brantford	6
City of Cambridge	13
City of Guelph	7
City of Hamilton	7
City of Kitchener	11
City of Waterloo	5
County of Brant	24
Haldimand County	22
Town of Erin	8
Town of Grand Valley	5
Town of Milton	4
Township of Amaranth	2
Township of Blandford-Blenheim	7
Township of Centre Wellington	8
Township of East Garafraxa	2

<b>Municipality</b>	<b>Total</b>
Township of Guelph/Eramosa	10
Township of Mapleton	10
Township of Melancthon	2
Township of North Dumfries	6
Township of Perth East	3
Township of Puslinch	19
Township of Southgate	2
Township of Wellesley	9
Township of Wellington North	1
Township of Wilmot	9
Township of Woolwich	17
<b>Total Permits</b>	<b>219</b>

**Financial Implications:**

Not Applicable.

**Other Department Considerations:**

Not Applicable.

**Prepared by:**

Melissa Larion  
Supervisor of Resource Planning

**Approved by:**

Nancy Davy  
Director of Resource Management

# Grand River Conservation Authority

**Report number:** GM-10-21-74

**Date:** October 22, 2021

**To:** Members of the Grand River Conservation Authority

**Subject:** September 22 – 23, 2021 Flood Event

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## **Recommendation:**

THAT Report Number GM-10-21-74 – September 22 – 23, 2021 Flood Event be received as information.

## **Summary:**

A rainfall event moved into the Grand River watershed during the late evening of Tuesday, September 21, 2021 and persisted into the late evening of Wednesday, September 22, 2021 before ceasing. The rainfall was widespread with totals ranging from 50 to 120 mm over a 24 hour period. A large portion of the rainfall occurred after the work day on September 22, with 40 to 50 mm of rainfall occurring in some areas between 4 p.m. and 8 p.m. The northwest portion of the watershed in the headwaters of the Nith and Conestogo watersheds received the highest totals.

Two flood messages were issued. The first was a flood warning message, which was issued late in the evening of Wednesday, September 22 and the second message was issued late in the afternoon of Friday, September 24, terminating the flood warning. The primary areas affected during this flood event included the communities of Drayton, Wellesley, New Hamburg, Ayr and trailer parks along the southern Grand River. Urban flooding was experienced along Schneider Creek in Kitchener in the Huron Road area near the Region of Waterloo Museum.

The large dams were operated to reduce flooding during this event. Regulation of flows by GRCA dams avoided flooding of West Montrose, Bingemans Park, Pioneer Sportsmen Club and Brant Conservation Area campgrounds, and avoided more severe flooding of campgrounds and the community of Cayuga along the southern Grand River. The flow response from this event resulted in the need to actively operate smaller dams including: Wellesley Dam, New Dundee Dam, Laurel Creek Dam and Rockwood Dam.

## **Report:**

A widespread rainfall event moved into the Grand River watershed during the late evening of Tuesday, September 21, 2021 and persisted into the late evening of Wednesday, September 22, 2021 before ceasing.

Weather forecasts preceding this event varied. The Provincial five-day precipitation forecast leading up to this event is summarized in Table 1. Watershed conditions were relatively dry heading into the event. The forecast indicated widespread rainfall across the watershed with the highest forecast rainfall in the northern and western portion of the watershed.

Forecasts on Tuesday morning indicated rainfall totals between 50 to 80 mm across the watershed. Forecasts Wednesday morning called for an additional 50 to 80 mm of rainfall, on top of the 30 to 50 mm of rainfall that had already occurred. The forecast event total in the worst impacted areas of the watershed varied between 100 to 130 mm.

**Table 1 Forecast Rainfall September 21-22, 2021 Rainfall Event**

Week Day	Date of Forecast	Watershed Average Forecast Rainfall (mm)	Range of Forecast Rainfall Across the Watershed (mm)
Monday	September 20 08:00	51	40 to 60
Tuesday	September 21 08:00	65	50 - 80
Wednesday	September 22 08:00	69	50 - 80

Observed rainfall totals for this event varied from 50 to 120 mm, with the highest values recorded in the headwaters of the Nith River watershed where some areas received 120 mm over a twenty-four hour span of time. Figure 1 presents a map of the rainfall across the Grand River watershed based on observed rainfall totals at rain gauges across the watershed.

While significant in total volume this event was also of relatively long duration, spanning a period of some 24 hours. Table 2 provides a summary of the rainfall observed at the Nithburg rain gauge station in the headwaters of the Nith River watershed. During the initial portion of the event, from the evening of September 21 to the afternoon of September 22, 72 mm of rainfall was recorded. By the afternoon of September 22, it appeared rainfall was tapering off. Then, from September 22 at 4 p.m. to 8 p.m., an additional 41 mm fell on saturated soil. The burst of rainfall at the end of this storm event on saturated ground caused a rapid flow response in the headwaters of the Nith and Conestogo River watersheds.

**Table 2 Observed Rainfall Totals Nithburg Rain Gauge September 21 to September 23**

Portion of Rainfall Event	Rainfall Total (mm)	Incremental Rainfall Total (mm)
September 21, 2021 9 p.m. to September 22, 2021 8 a.m.	58	58
September 22, 2021 8 a.m. to September 22, 2021 4 p.m.	72	14
September 22, 2021 4 p.m. to September 22, 2021 8 p.m.	113	41
September 22, 2021 8 p.m. to September 23, 2021 3 a.m.	117	4

The other notable characteristic of this event was the widespread nature of the rainfall, spanning a broad geographical region. The combination of the high volume, wide spread nature of this event, and the burst of rainfall at the end of the event on saturated ground, all contributed to a rapid flow response in the Nith River watershed, Conestogo River watershed and Schneider Creek in Kitchener.

The rapid flow response required operations at several of the smaller dams including Laurel Creek Dam, Wellesley Dam, New Dundee Dam and Rockwood Dam.

Staff were dispatched to Laurel Creek Dam early in the evening on September 22<sup>nd</sup> in response rising reservoir levels. Issues were encountered with the gate operating system at Laurel Creek dam; however, staff were able to operate the gates manually. An incident report was created and follow up investigations are being arranged to diagnose the issues staff encountered with the gate operating system.

Operation of Wellesley Dam was initiated late in the afternoon of September 22. The gate was opened to manage the incoming flow. Inflows to Wellesley Dam increased dramatically over the evening and staff were dispatched late in the evening of September 22<sup>nd</sup> to increase the gate opening and monitor the dam until inflows and levels stabilized. High ponding levels were

experienced, but no overtopping of the emergency spillway occurred. Seepage was noted from the downstream embankment. A post event inspection was completed to assess damage and safety of the dam. Internal protocols and operating thresholds at Wellesley dam have been revised to better manage future events. Work is underway to secure approvals and plan repairs to the Dam embankment for 2022.

Staff were dispatched to New Dundee dam late in the evening on September 22 and monitored the dam into the early morning hours of September 23. The automated gate system at New Dundee dam functioned as intended.

A flood warning message was issued at just prior to midnight on September 22. Zone 1 flood warnings were issued to the communities of Drayton, New Hamburg and Ayr. Flood coordinators in affected communities were contacted prior to the flood.

In the community of New Hamburg, Zone 1 flooding impacts the fairgrounds and portions of Jacob and Milton streets.

In the community of Drayton, Zone 1 flooding results in flooding of the fairgrounds area and portions of Elm Street.

In the community of Ayr, Zone 1 flooding results in flooding of the bowling green and portions of Tannery Street and properties along Tannery Street.

In all the above communities, observed flood levels peaked in Zone 1, though levels approached Zone 2 in Drayton and Ayr. Levels in the community of Ayr peaked later than forecast.

The low level bridge upstream of St. Jacobs was closed early in the afternoon of September 22.

Minor flooding was also experienced in a few trailer parks in the southern area of the watershed and at Byng Conservation Area.

The GRCA dams were operated to reduce downstream flooding. The operation of GRCA dams avoided flooding primarily in campgrounds located in the floodplains, reduced the flooding in campgrounds along the Grand River through the southern portion of the watershed and the community of Cayuga and Gilkinson Avenue through the City of Brantford.

Campgrounds where flooding was avoided include West Montrose campground, Bingemans Park, Pioneer Sportsmen Club, Everglade Trailer Park, Brant Conservation Area and trailer parks in the Caledonia area. Table 3 provides a summary of flow reductions downstream of GRCA reservoirs during the September 2021 event.

Internal debriefing sessions have been held with staff to review what was learned from the recent flood and information, protocols and processes that can be improved to better manage future floods. Thresholds and protocols for response to events at Wellesley Dam have been revised and implemented. Investigating the gate issue encountered at Laurel Creek dam will be completed over the fall after reservoir levels have been drawn down to the winter holding level, allowing access to inspect the gates at that dam. Criteria for issuance of flood messages is also being reviewed based on experience during this event.

This recent flood event also highlighted the continued need to identify the primary means of communicating during emergencies. Phone voice communication is the primary and most reliable means for ensuring communications during an emergency. The GRCA maintains and publishes emergency contact information for agency staff involved in the Grand River Flood Warning system annually and maintains an updated digital copy throughout the year to ensure phone contact information is up to date. Other means of communications during an emergency can be missed or not delivered in a timely manner, phone text messaging is a good example, the telecom companies do not grantee the delivery or timely delivery of a text message. This



highlights the importance of using phone voice communication as a primary means of communicating during an emergency.

**Table 3 Flood Reduction by GRCA Reservoirs September 21 to September 23 Flood**

<b>Location</b>	<b>River</b>	<b>Flow With Reservoirs m3/s</b>	<b>Flow Without Reservoirs m3/s</b>	<b>Percentage Reduction %</b>
Fergus-Elora	Grand River	14.9	88.4	83%
West Montrose	Grand River	58.4	128	54%
Kitchener Bridgeport	Grand River	82	418	80%
Kitchener Doon	Grand River	85	419	80%
Cambridge Galt	Grand River	216	461	53%
Brantford	Grand River	361	604	40%
York	Grand River	403	646	38%
Dunnville	Grand River	433	637	32%
St. Jacobs	Conestogo River	121	205	41%
City of Guelph	Speed River	14.7	28	48%
Cambridge Preston	Speed River	33.3	36	8%

**Financial Implications:**

Not applicable. Requests that have budget implications result from the recent flood will be dealt with as budget forecast adjustments or as separate board reports brought back to the board.

**Other Department Considerations:**

Not applicable.

**Prepared by:**

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Vahid Taleban, P. Eng.  
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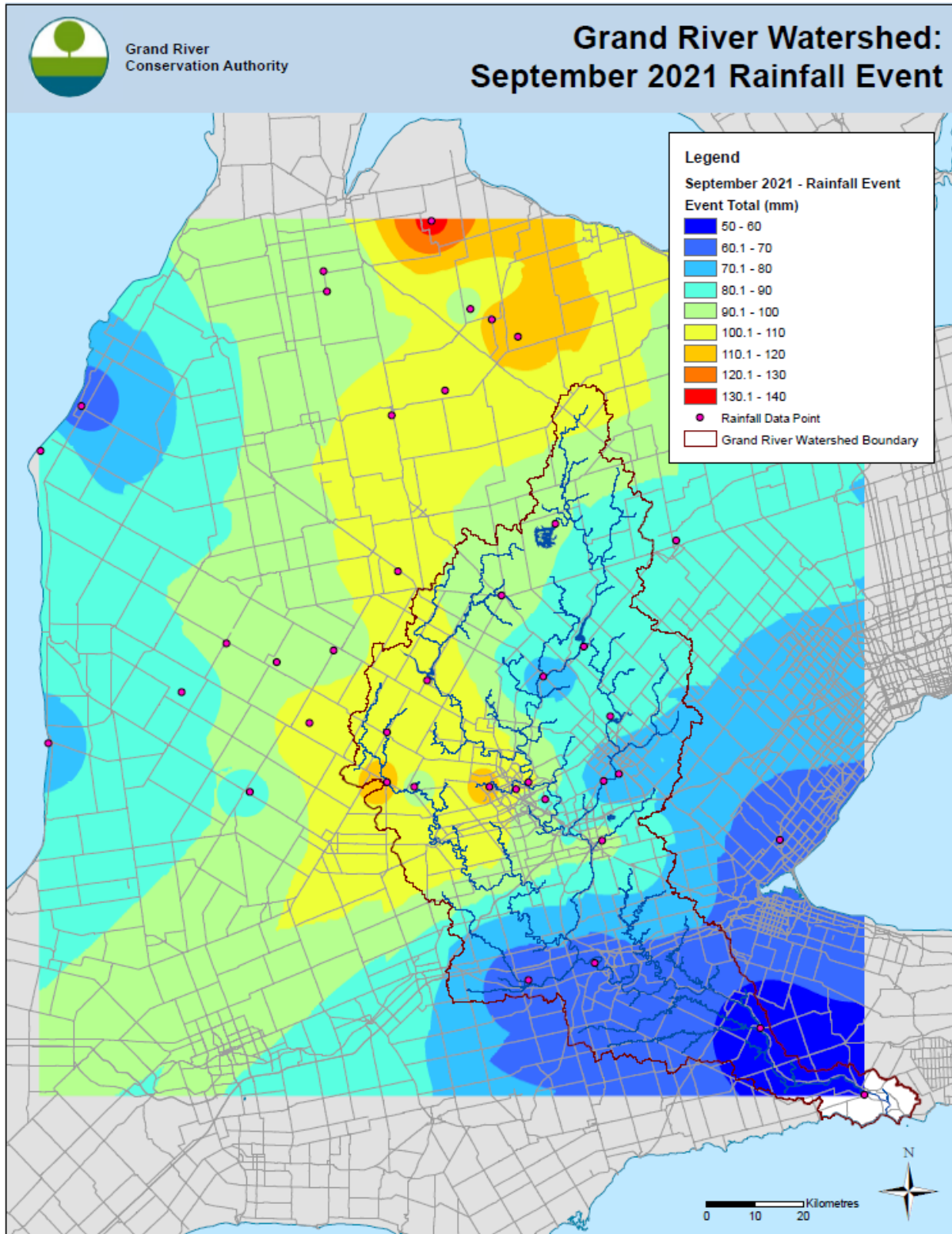
Scott Robertson, P. Eng.  
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Figure 1 Watershed Rainfall Map September 21 to September 22, 2021 Event



# Grand River Conservation Authority

**Report number:** GM-10-21-76

**Date:** October 22, 2021

**To:** Members of the Grand River Conservation Authority

**Subject:** Current Watershed Conditions as of October 13, 2021

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## **Recommendation:**

THAT Report Number GM-10-21-76 – Current Watershed Conditions as of October 13, 2021 be received as information.

## **Summary:**

September was a wet month across the watershed with many climate stations recording over twice the normal rainfall for the month. A month's worth of rainfall was recorded during a three day period resulting in flooding and active reservoir operations. Rainfall continued into the first half of October, but the amount of rain so far in October is closer to the long term average. September temperatures were near average, but October has been hot with the average temperature over the first two weeks about 6 degrees above the long term average and many days with temperatures above 20 degrees.

Reservoir levels are generally within the normal operating range and augmentation needs have been reduced due to high runoff and lower seasonal flow targets. Groundwater levels in the monitoring well near Burford continue to be low and may signal that longer term recovery from the dry winter and spring is still needed. The Low Water Response Team removed the Level 1 declaration at the end of September.

Forecasts for the later fall and early winter have not changed since the last report. Temperatures and precipitation are forecast to stay higher than normal through to the end of the year.

## **Report:**

### **Precipitation**

September was a wet month across the watershed. Many of the rain gauges throughout the watershed recorded nearly a month's worth of precipitation in the first three weeks of the month. Then a large, multi-day storm event occurred on September 21 and 22<sup>nd</sup>, which delivered another month's worth of rain to many parts of the watershed over a three day period. Precipitation was highest in the western and northern parts of the watershed with the highest amount recorded at the Laurel Dam climate station in Waterloo with a three day total of 116.8mm. The southern watershed did not receive as much rain during the event with the Brantford Airport rain gauge recording only 67mm of rain.

Precipitation up to October 13<sup>th</sup> has been variable across the watershed, as shown in Table 1. Shand and Laurel climate stations have recorded near normal precipitation, while the Contestogo, Luther and Woolwich climate stations have only recorded about half of normal and the Guelph, Shades and Brantford station are well above normal. Much of the October rainfall occurred early in the month (October 3 and 4), but there has also been more overcast days with small amounts of rainfall recorded later in the month.

Table 1: Current monthly precipitation for climate stations across the watershed up to October 13, 2021 including the long term average precipitation for half of October.

Climate Station	Current Month Precipitation (mm)	Long Term Average Precipitation (mm)	Percentage of Long Term Average (%)
Shand	40.4	42.1	96%
Conestogo	25.1	46.5	54%
Guelph	49.8	39.0	128%
Luther	20.7	44.6	46%
Woolwich	19.2	34.1	56%
Laurel	39.6	42.6	93%
Shades	46.7	40.0	117%
Brantford	55.8	34.8	160%

Very high rainfall in September has affected the long term precipitation trends given in Table 2. Last month, many of the climate station showing below normal precipitation over the past six months, now most are showing above normal precipitation across all of the time periods. The Woolwich climate station has the lowest overall precipitation trends, while the Conestogo climate station has really high short term trends and fairly low long term trends. Both of these climate stations were especially dry during the spring. A visual representation of these trends for the Shand climate station is also given in Figure 1.

Table 2: Precipitation trends as a percentage of the long term average over the last 18 months

Climate Station	Last Month	Last 3 Months	Last 6 Months	Last 12 Months	Last 18 Months
Shand	189%	119%	97%	102%	103%
Conestogo	234%	134%	111%	98%	97%
Guelph	210%	138%	121%	113%	111%
Luther	178%	134%	106%	112%	108%
Woolwich	156%	113%	90%	92%	96%
Laurel	228%	160%	127%	103%	104%
Shades	257%	155%	134%	105%	110%
Brantford	209%	121%	109%	102%	107%

### Air Temperatures

Temperature trends have not been consistent this year. Warm periods have been intersected with cool months. September was a near average month with most of the watershed climate stations reporting a monthly average temperature within a half degree of the long term value. The variability of monthly temperatures can be seen in Figure 2 for the Shand climate station.

The first half of October has been hot throughout the watershed with the average temperature 6 degrees above the long term average for the first half of the month. October is a month that normally sees more fall weather than September, although so far the average temperature in October was higher than the average monthly temperature in September. Approximately half of the daytime high temperatures to date this month were above 20 degrees.

## **Groundwater**

Groundwater levels over the past four years and the lowest year on record are presented in Figure 3 for the monitoring well near Burford. This well shows groundwater levels in the shallow sand aquifer in an area with high water use for agricultural irrigation and has many watercourses that have groundwater fed baseflows.

Water levels in this monitoring well normally follow a seasonal pattern with the highest levels in late spring as a result of recharge during the winter and spring period. In 2021, water levels did not follow the normal seasonal pattern with no increase to levels over the winter and spring period. Levels have stayed fairly steady throughout the year with a slight decline over time and are now close to the lowest levels recorded in this well in 2003. There has been no increase in water levels due to higher precipitation in September which may signal that longer term recovery from the dry winter and spring is still needed.

## **Lake Erie Water Levels**

During September, the average lake level was approximately 0.50m above the long-term average, which was approximately 0.15m below the same month in 2020. In the first half of October, the average lake level was approximately 174.61m which is about 0.54m above the long-term average.

The long range forecast for Lake Erie, Figure 4, is for the lake level to decrease through to the end of the year. Lake levels are expected to stay below levels over the same period last year but well above the long term average. A High Lake Level Conditions Statements remains in effect.

## **Reservoir Conditions**

With the exception of Luther, the large reservoirs are within their normal operating levels for this time of the year. The Luther reservoir is above its normal fall operating level, but well within an acceptable range for this reservoir.

Dry conditions this past spring coupled with high augmentation demands resulted in many of the reservoirs below their normal operating levels throughout the summer. Very wet conditions in September increased inflows to the reservoirs and resulted in a return to normal reservoir levels following the flood event. Augmentation needs are reduced due to additional runoff from rain and the annual lowering of low flow targets due to cooler temperatures.

The reservoirs will continue to be operated throughout the fall to meet low flow targets and stabilize water levels before winter freeze up. Year to date reservoir levels and operating rule curves are shown in Figures 5 and 6 for the four largest reservoirs.

## **Low Water Response**

The Grand River Low Water Response Team removed the Level 1 low water condition at the end of September based on high precipitation, higher stream flows and an end to high seasonal water use.

The Grand River Low Water Response Team is comprised of representatives from municipalities, agriculture, golf course operators, aggregate operations, water bottlers, and provincial ministries. It meets as needed to carry out the Ontario Low Water Response Program in the Grand River Watershed.

## **Long Range Forecast**

There was only one long range forecast that was updated since last month. Environment Canada is forecasting above normal temperatures and precipitation for the October to December period.

## **Flood Preparedness**

Conditions are being monitored closely. Staff continue to hold weekly meetings as part of overall succession planning initiatives, dam operations and flood emergency preparedness.

The provincial flood forecasting and warning committee has organized a webinars on September 22nd, October 6th, October 20th and November 17th. Each webinar is two hours in length, content delivered in the webinars covers a range of topics related to flood forecasting and warning. The webinar series replaces the two day in-person annual flood forecasting and warning workshop held annually prior to the Covid-19 pandemic. Staff from GRCA help organize the webinar series along with other members on the provincial committee.

A meeting is being organized for Thursday December 2nd with municipal flood coordinators, police and agency staff to update contact information and introduce new municipal flood coordinators, agency staff and GRCA staff to the GRCA flood warning system. A guest speaker Jenifier Boyer, the emergency management manager for Midland County Michigan, has agreed to deliver a presentation about the dam break emergencies in that county in May 2020 and their success of emergency management plans.

Staff are receiving invitations to participate in emergency planning exercises over the fall. Participation in these sort of exercises is an important opportunity to explain the flood warning system to emergency response staff and improve overall preparedness for flood emergencies.

So far staff have participated in emergency preparedness exercises with the City of Guelph and Haldimand County. Lanxess a chemical manufacturer in Elmira is organizing an emergency planning exercise and will be inviting GRCA staff to participate.

## **Financial Implications:**

Not applicable

## **Other Department Considerations:**

Not applicable

## **Prepared by:**

Stephanie Shifflett, P. Eng.  
Water Resources Engineer

## **Approved by:**

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Director of Engineering

**Figures:**

Figure 1: Shand Dam Monthly Precipitation 2017 to October 13, 2021

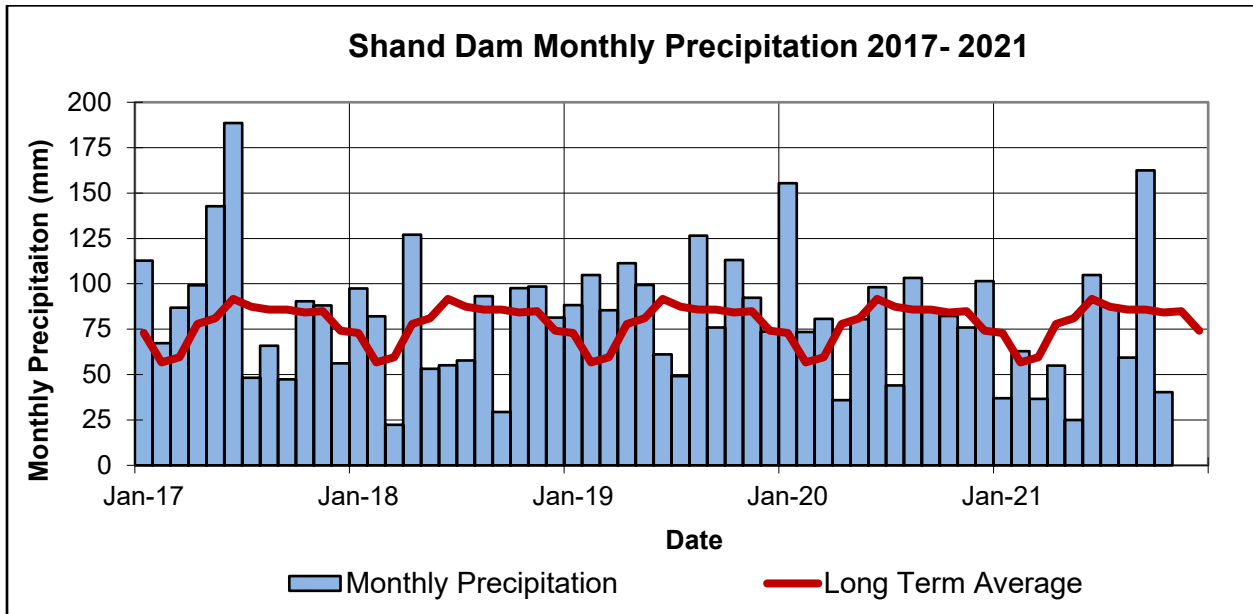


Figure 2: Monthly Average Air Temperatures at Shand Dam from 2017 to October 13, 2021

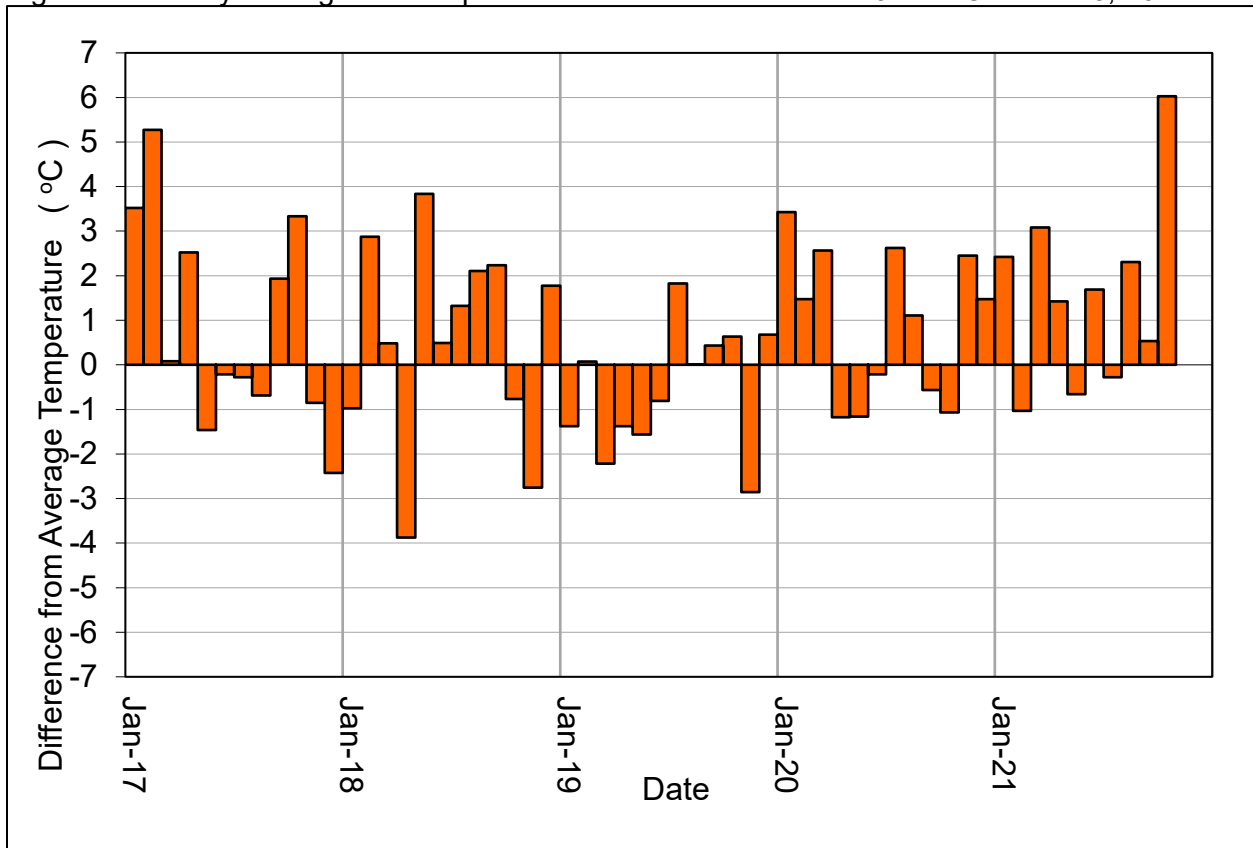


Figure 3: Groundwater conditions at Burford Monitoring Well W065-4

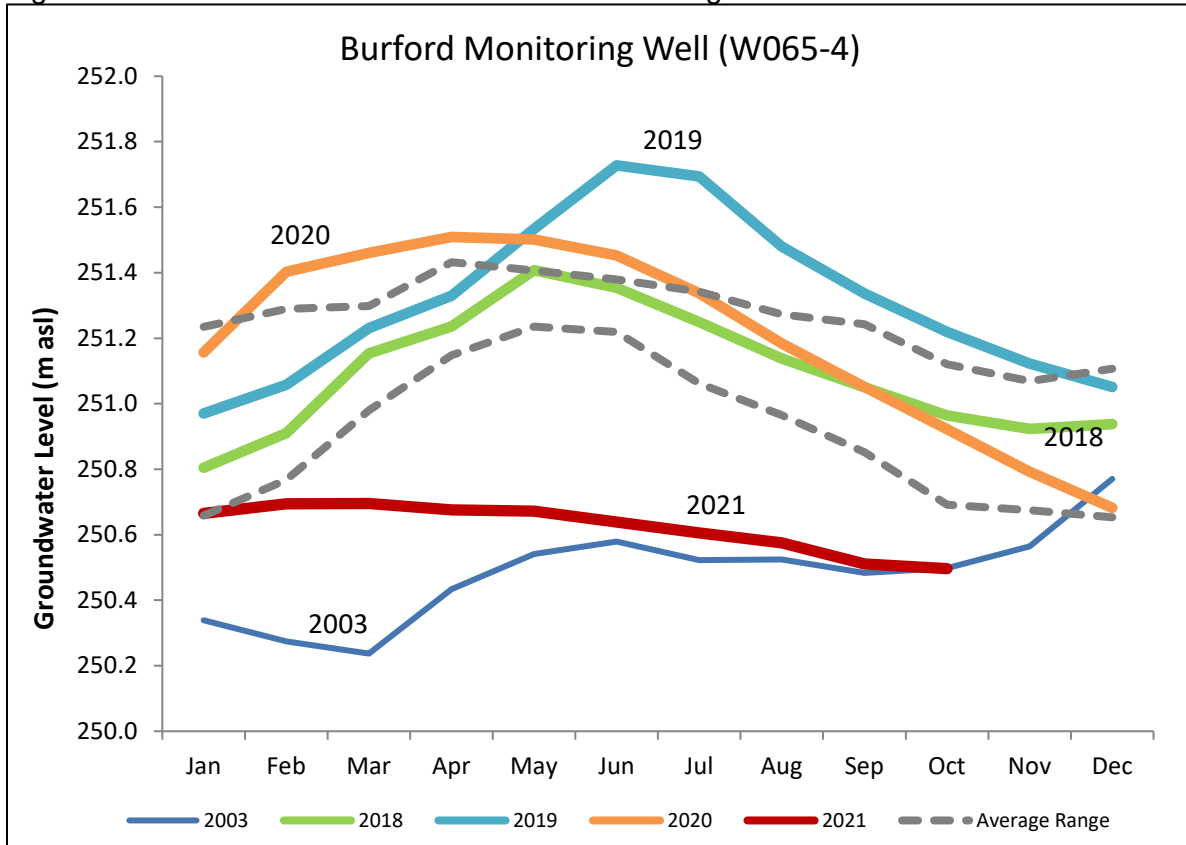


Figure 4: Water levels for Lake Erie at Port Colborne

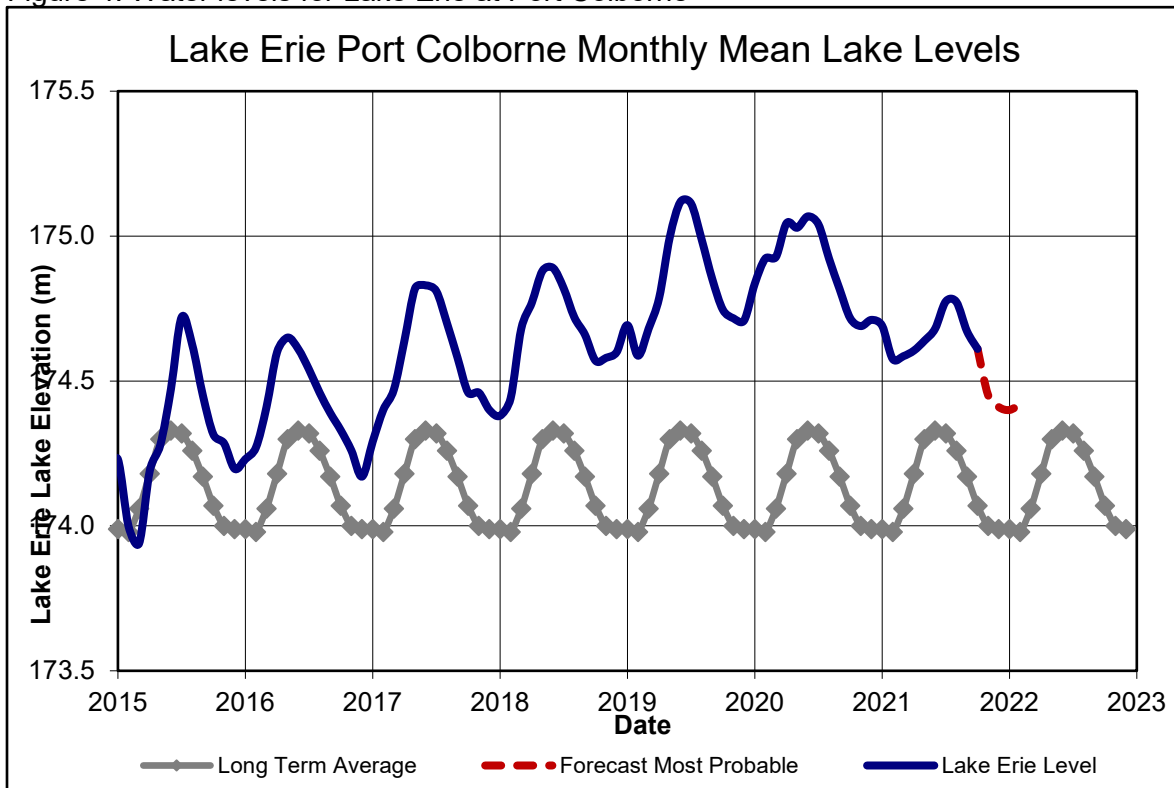




Figure 5: Shand and Conestogo Reservoir Elevation Plots for 2021

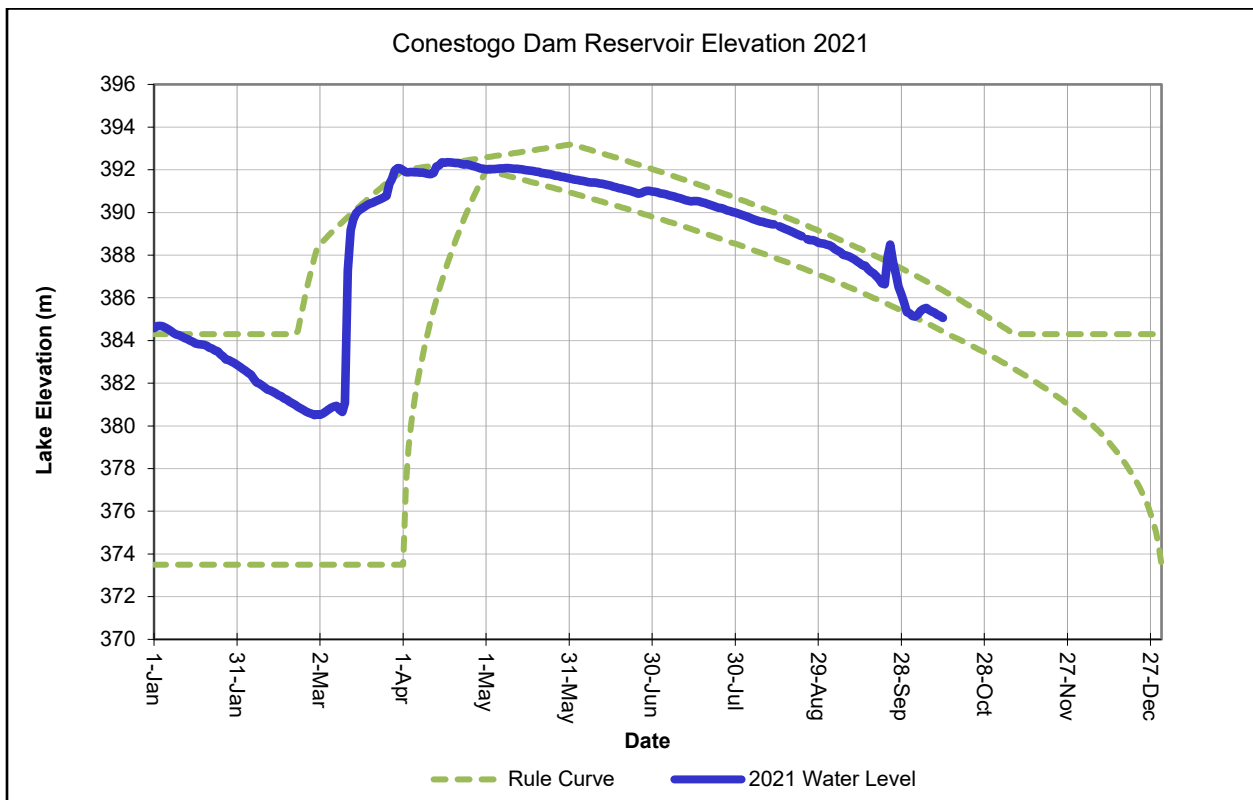
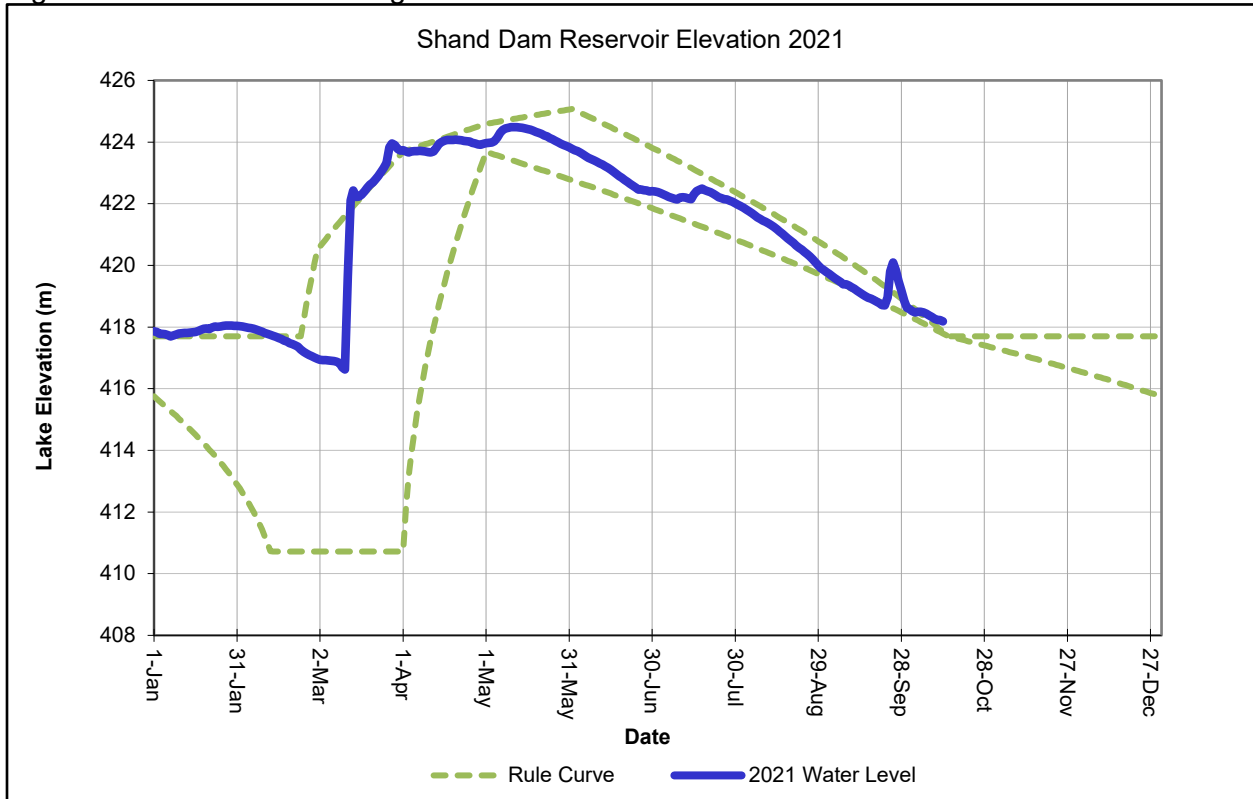


Figure 6: Guelph and Luther Reservoir Elevation Charts for 2021

