



Grand River Conservation Authority

Agenda - General Meeting

PUBLIC

Friday, November 24, 2017

9:30 a.m.

Auditorium

Grand River Conservation Authority

400 Clyde Road, Box 729

Cambridge, ON N1R 5W6

Pages

1. **Call to Order**
2. **Roll Call and Certification of Quorum – 13 Members constitute a quorum (1/2 of Members appointed by participating Municipalities)**
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**

THAT the minutes of the General Membership Meeting of October 27, 2017 be approved as circulated.
7. **Business Arising from Previous Minutes**
8. **Hearing of Delegations**
9. **Presentations**
10. **Correspondence**
 - a. Conservation Ontario - response letter to Chair re Bill 139
11. **1st and 2nd Reading of By-Laws**

10

12. Reports:

- a. GM-11-17-122 - Chief Administrative Officer's Report 11
THAT the report of the Chief Administrative Officer for November 24, 2017, be received as information.
- b. GM-11-17-116 - Cash and Investment Status 13
THAT Report Number GM-11-17-116 – Cash and Investments Status Report as of October 31, 2017 be received as information.
- c. GM-11-17-121 - Financial Summary for period ending October 31 15
THAT the Financial Summary for the period ending October 31, 2017 be approved.
- d. GM-11-17-118 - Environmental Assessments 20
THAT Report Number GM-11-17-118 Environmental Assessments be received as information.
- e. GM-11-17-117 - Dufferin Rural Water Quality Program Funding Agreement 22
THAT the Grand River Conservation Authority enter into an agreement with Dufferin County to deliver a Rural Water Quality Program on their behalf.
- f. GM-11-17-115 - Funding for the New Guelph Lake Nature Centre 25
THAT the Grand River Conservation Authority make a contribution of \$100,000 towards the construction of a new Guelph Lake Nature Centre.
AND THAT staff proceed with obtaining a detailed design plans, cost estimate and tender with the objective of completing the project by summer of 2020.
- g. GM-11-17-119 - Reserves 2017 28
See resolution in report.
- h. GM-11-17-120 - Current Watershed Conditions 40
THAT Report Number GM-11-17-120 – Current Watershed Conditions as of November 15, 2017 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. Declaration of Surplus Property
- c. Property Acquisition
- d. Property Disposition
- e. Property Disposition
- f. HR Reports (confidential reports copied separately for Board Members)

18. Next Meetings

19. Adjourn

THAT the General Membership Meeting be adjourned.

20. Grand River Source Protection Authority Meeting

Regrets only to:

Office of the Chief Administrative Officer, Phone: 519-621-2763 ext. 2200



November 16, 2017

Helen Jowett, Chair
Grand River Conservation Authority
400 Clyde Road
PO Box 729
Cambridge, Ontario
N1R 5W6

Re: Conservation Ontario's Submission on Bill 139

Dear Ms. Jowett:

Thank you for your inquiry regarding Conservation Ontario's submission on Bill 139.

As you can appreciate, Conservation Ontario had many competing priorities to address during the review, including the subject matter of board appointments.

As you are aware, many of the proposed changes in the Conserving our Futures document are enabling, including the ability of the Lieutenant Governor to govern the appointment of Board members. As reported at the June and September Council meetings, Conservation Ontario's positioning has consistently stated that "Should the Lieutenant Governor in Council move forward with a regulation to prescribe requirements for the appointment and qualifications of members of CAs then CO will be actively involved with influencing these details and will remain engaged with the Association of Municipalities of Ontario (AMO)." At this time, it's unknown how prescriptive the regulation might be...if one is created at all.

I trust this addresses your question. I'd be happy to talk with you in person should you have any further questions.

Respectfully,

Kim Gavine

Grand River Conservation Authority

Report number: GM-11-17-122
Date: November 24, 2017
To: Members of the Grand River Conservation Authority
Subject: Chief Administrative Officer's Report

Recommendation:

THAT the report of the Chief Administrative Officer for November 24, 2017, be received as information.

Report:

This report provides a brief overview of current activities. It covers programs and activities that are not included in monthly reports.

1. Building Better Communities and Conserving Watersheds Act, 2017, Bill 139: One of the changes to the Conservation Authorities Act included in Bill 139, is a new Section (19.1) regarding administrative by-laws. This section lists a number of new requirements that a conservation authority's by-law must include. It is expected that conservation authorities will have one year to comply. The development of Best Management Practices (BMP) to be used by conservation authorities in updating their administrative by-laws was also an identified action in the document, *Conserving our Future: A Modernized Conservation Authorities Act (CAA)*. It is consistent with one of five key priorities identified and promoted by Conservation Ontario (CO) and the CAs throughout the consultation stages of the CAA Review, that is: 'require Conservation Authorities to meet public sector best management practices and standards'.

In 2017 Conservation Ontario entered into a Transfer Payment agreement (TPA) with the Ministry of Natural Resources and Forestry to develop a BMP guideline and administrative by-law template that complies with Section 19.1. Conservation Ontario struck a working group consisting of senior staff from eight CA's and appointed a CO staff member to lead the project. Partway through the project, that CO staff member accepted a position elsewhere. In order to bring this to a conclusion within the timeframe required under the TPA, CO asked Grand River Conservation Authority to assume leadership of the project between October 2017 and early 2018. Keith Murch has agreed to take on this role during the transition period leading up to his retirement date. CO will provide funding (out of the TPA) to GRCA for any expenses incurred up to February 28, 2018, to a maximum of \$38,000.

This project will be beneficial to GRCA as well as CO and all CAs. GRCA would have had to carry out a detailed review and update of the administrative by-law and BMPs regardless, in order to comply with Section 19.1. There are a number of significant new requirements under Section 19.1, including a Code of Conduct for Board Members and a written Conflict of Interest Policy. It is expected that a draft of a BMP Guideline and Administrative By-law template will be approved at the December CO Council meeting. Following that, presentations will be made to all Boards, including the GRCA, prior to implementation.

Prepared by:

Joe Farwell, P.Eng.
Chief Administrative Officer

Grand River Conservation Authority

Report number: GM-11-17-116

Date: November 24, 2017

To: Members of the Grand River Conservation Authority

Subject: Cash and Investments Status Report as of October 31, 2017

Recommendation:

THAT Report Number GM-11-17-116 – Cash and Investments Status Report as of October 31, 2017 be received as information.

Summary:

The cash position including Notes Receivable of the Grand River Conservation Authority as at October 31, 2017 was \$31,759,278 with outstanding cheques written in the amount of \$63,127.

Report:

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:

Keith Murch
Assistant CAO/Secretary Treasurer

Sonja Radoja
Manager of Corporate Services

**Grand River Conservation Authority
Cash and Investments Status Report
October 31, 2017**

Date Invested	Location	Type	Amount	Rate	Maturity	2017
	C.I.B.C.	Current Account	4,244,428	1.8%	Below Average Prime or 1.40%	
	Wood Gundy	Current Account	12,495	0.20%		
	C.I.B.C.	Property Account	370,312	1.8%	Below Average Prime or 1.40%	
	C.I.B.C.	SPP Account	1,219,412	1.8%	Below Average Prime or 1.40%	
	C.I.B.C.	U.S.	2,597			
	C.I.B.C.	PayPal Account	12,683	1.8%	Below Average Prime or 1.40%	
	C.I.B.C.	Call Centre	25,586	1.8%	Below Average Prime or 1.40%	
	Royal Bank	Conestogo	44,873			
	Royal Bank	Brant	74,208			
	Royal Bank	Luther	28,701			
			<u>6,035,295</u>			
September 9, 2009	CIBC Renaissance	Account	2,398,148	0.95%		7,615
October 1, 2014	CIBC Trust Savings	Account	2,205,913	0.95%		7,005
July 15, 2016	One Investment Savings	Account	4,052,876	1.62%		21,878
June 6, 2013	Royal Bank	Bond	1,000,000	2.26%	March 12, 2018	6,479
November 7, 2013	Bank of Montreal	Bond	1,746,000	2.24%	December 11, 2017	19,654
May 5, 2014	Royal Bank	Bond	987,000	2.26%	March 12, 2018	5,949
December 8, 2014	Laurentian Bank	Bond	1,578,000	2.81%	June 13, 2019	20,508
January 28, 2015	CIBC	Bond	726,046	1.80%	May 15, 2019	13,069
September 3, 2015	CIBC	Bond	2,000,000	2.25%	September 3, 2025	14,671
October 14, 2015	Laurentian Bank	Bond	1,996,000	2.50%	January 23, 2020	27,365
March 1, 2016	CIBC	Bond	1,300,000	1.70%	March 1, 2023	7,542
September 16, 2016	CIBC	Bond	1,184,000	1.30%	March 13, 2020	4,597
August 24, 2017	Royal Bank	Bond	1,000,000	2.82%	July 12, 2018	4,913
August 24, 2017	Bank of Montreal	Bond	1,550,000	1.61%	October 28, 2021	5,463
October 2, 2017	CIBC	Bond	2,000,000	1.70%	October 9, 2018	7,413
	Total G.R.C.A. Investments		<u>25,723,983</u>			<u>174,120</u>
	G.R.C.A. Funds		31,759,278			
	Outstanding Cheques		<u>63,127</u>			

Investment By Category and Institution

	<u>% of Total Portfolio</u>		<u>% of Total Portfolio</u>
Government	0%	Gov't of Canada	0%
		Province of Ontario	0%
Banks	84%	C.I.B.C.	46%
		Bank of Nova Scotia	0%
		Bank of Montreal	13%
		Royal Bank	12%
		Toronto Dominion	0%
		National	0%
		Laurentian	14%
Other	16%	One Investment Program	16%

Grand River Conservation Authority

Report number: GM-11-17-121

Date: November 24, 2017

To: Members of the Grand River Conservation Authority

Subject: Financial Summary for the Period Ending October 31, 2017

Recommendation:

THAT the Financial Summary for the period ending October 31, 2017 be approved.

Summary:

The Financial Summary includes the 2017 *actual* income and expenditures. The budget approved at the February 24, 2017 General Meeting is included in the *Budget* column. The *Current Forecast* column will indicate an estimate of income and expenditures for the whole year. Any changes between the *Current Forecast* and the *Previous Forecast* will be discussed during the meeting. At this time a surplus of \$160,500 at year-end is anticipated.

Report:

The Financial Summary is attached.

- A. Total Revenue decreased by \$170,000.
 - Schedule 3 – Water Control Structures Provincial Grants decreased by \$200,000 due to reduced spending on major repairs on dams.
 - Schedule 4 – Resource Planning Plan Review revenue increased by \$40,000 due to increased activity.
 - Schedule 6 - Conservation Services Provincial Funding decreased by \$10,000 due to reduced spending on Upper Grand Rural Water Quality Program.

- B. Total Expenditures decreased by \$320,000.
 - Operating Expenses decreased by \$30,000.
 - Schedule 4 – Resource Planning compensation and benefit expense reduced by \$30,000 due to staff vacancies.
 - Schedule 6 – Conservation Services Upper Grand grants to landowners decreased by \$30,000 due to less activity than budgeted.
 - Schedule 9 – Corporate Services compensation and benefit expenses increased by \$50,000. Provision for savings due to corporate staff vacancies budgeted here and now reallocated to areas where actual savings were realized. This increase to expenses was offset by \$50,000 decrease to spending on head office major repairs and maintenance.
 - Schedule 10 – Conservation Lands compensation and benefit expenses decreased by \$20,000 due to staff vacancy.
 - Schedule 11 – Property Rentals demolition expenses increased by \$50,000 due to clean up of contamination on a former residential

rental property. An old oil heating tank leaked and the contaminated soil is being removed. Expenses are considered eligible for funding from land sales proceeds reserve. This brings the total forecast adjustment for the year for this event to \$150,000.

- Capital Expenses decreased by \$400,000
 - Schedule 3 – Water Control Structures spending on major maintenance decreased by \$400,000 due to timing capital projects.
 - Special Project Expenses increased by \$60,000
 - Schedule 10-Conservation Lands expenses increased by \$60,000 due to \$33,000 in expenses related to preparing lands for sale and \$27,000 for land acquisition expenses. These expenses are funded by the land sale proceeds reserve.
- C. Net Funding from Reserves decreased by \$160,000.
- Funding to Water Control Structures reserve increased by \$200,000. Unspent Municipal capital levy related to major repairs on dams transferred to reserve.
 - Funding from Work in Progress reserve decreased by \$20,000. Given reduced spending on Upper Grand Rural Water Quality Program less funding needed from reserve.
 - Funding to Building reserve increased by \$50,000. Head Office major maintenance spending under budget and savings transferred to reserve.
 - Funding from Forestry reserve decreased by \$50,000. EAB spending which is fully funded from reserves is forecast to be \$350,000 compared to \$400,000 budgeted.
 - Funding from Conservation Area reserve increased by \$50,000. Dickson Trail and Boardwalk capital project expected to cost \$50,000 more than budgeted and therefore excess spending to be funded by reserve.
 - Funding from Land Sales Proceeds reserve increased by \$110,000. \$50,000 required for purposes of funding demolition costs and \$60,000 required to fund expenses related to land sales and purchases.

Financial implications:

The activity summarized will result in a \$160,500 surplus at December 31, 2017.

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:

Sonja Radoja
Manager Corporate Services

Approved by:

Keith Murch
Assistant CAO/Secretary-Treasurer

GRAND RIVER CONSERVATION AUTHORITY
FINANCIAL SUMMARY - FORECAST
 General Membership November 24, 2017

FORECAST - SEPTEMBER 30, 2017- NET RESULT

\$120,500

CHANGES - October 2017

Sch 3	Water Control Structures	\$400,000 Capital Projects Expenses decreased (WECI projects deferred to 2018) (\$200,000) Provincial Funding decreased (\$200,000) Funding to Water Control Structures Reserve increased	\$0
Sch 4	Resource Planning	\$40,000 Fee Revenue increased \$30,000 Compensation and Benefit Expenses decreased	\$70,000
Sch 6	Conservation Services	\$30,000 Upper Grand Grant Expenses decreased (\$10,000) Provincial funding decreased (\$20,000) Funding from Work in Progress Reserve decreased	\$0
Sch 9	Corporate Services	(\$50,000) Corporate Services Compensation and Benefits expenses increased \$50,000 Head Office Major Maintenance Expense decreased (\$50,000) Transfer to Building Reserve increased	(\$50,000) \$0
Sch 10	Conservation Lands	\$20,000 Operations Admin Compensation and Benefit Expenses decreased \$50,000 EAB Expenses decreased (\$50,000) Funding from Forestry Reserve decreased (\$50,000) Dickson Trail & Boardwalk Capital Expenses increased \$50,000 Funding from Conservation Area Reserve increased	\$20,000 \$0 \$0
Sch 11	Property Rentals	(\$50,000) Demolition Expenses increased \$50,000 Funding from Land Sale Proceeds Reserve increased	\$0
Sch 10	Conservation Lands	(\$27,000) Land Purchase Expenses increased (\$33,000) Land Sale Expenses increased \$60,000 Funding from Land Sale Reserve increased	\$0

FORECAST - OCTOBER 31, 2017- NET RESULT

\$160,500

**GRAND RIVER CONSERVATION AUTHORITY
STATEMENT OF OPERATIONS
FOR THE PERIOD ENDING October 31, 2017**

SCHEDULE		Actual 2016	Budget 2017	Actual YTD	Previous Forecast	Current Forecast	Forecast Change
REVENUE							
Municipal							
General Municipal Levy (Operating)	various	9,809,000	10,025,000	10,025,000	10,025,000	10,025,000	0
General Municipal Levy (Capital)	various	1,000,000	1,050,000	1,050,000	1,050,000	1,050,000	0
Special Municipal Levy	various	113,499	150,000	18,486	150,000	150,000	0
Other	various	977,680	800,000	1,561,862	855,000	855,000	0
		11,900,179	12,025,000	12,655,348	12,080,000	12,080,000	0
Government Grants							
MNRF Transfer Payments	various	871,073	871,073	871,073	871,073	871,073	0
Source Protection Program-Provincial	various	1,159,446	835,000	1,266,347	1,970,000	1,970,000	0
Other Provincial	various	955,572	1,147,500	1,003,519	1,172,500	962,500	(210,000)
Federal	various	187,159	289,500	351,682	349,500	349,500	0
		3,173,250	3,143,073	3,492,621	4,363,073	4,153,073	(210,000)
Self Generated							
User Fees and Sales							
<i>Enquiries and Permits</i>	4	511,202	428,500	473,413	428,500	468,500	40,000
<i>Plan Input and Review</i>	4	411,561	398,000	390,250	398,000	398,000	0
<i>Nursery and Woodlot Management</i>	5	502,611	515,000	402,744	465,000	465,000	0
<i>Consulting</i>	4	0	0	3,726	0	0	0
<i>Conservation Lands Income</i>	10	59,091	71,000	43,229	71,000	71,000	0
<i>Conservation Areas User Fees</i>	13	8,533,069	7,300,000	8,400,410	8,400,000	8,400,000	0
<i>Nature Centres and Camps</i>	8	876,797	876,500	774,901	901,500	901,500	0
<i>Merchandising and Sales</i>	8	3,647	0	1,055	0	0	0
Property Rentals	11	3,082,548	2,929,700	2,830,756	2,929,700	2,929,700	0
Hydro Generation	12	487,033	470,000	472,512	470,000	470,000	0
Land Sales	10	408,750	0	0	0	0	0
Grand River Conservation Foundation	various	676,104	559,500	481,406	579,500	579,500	0
Donations	various	126,728	244,000	304,103	244,000	244,000	0
Landowner Contributions	5	193,448	300,000	186,068	200,000	200,000	0
Investment Income	14	443,137	450,000	272,425	450,000	450,000	0
Miscellaneous Income	various	55,333	48,000	12,487	48,000	48,000	0
Total Self-Generated Revenue		16,371,059	14,590,200	15,049,485	15,585,200	15,625,200	40,000
TOTAL REVENUE		31,444,488	29,758,273	31,197,454	32,028,273	31,858,273	(170,000)

**GRAND RIVER CONSERVATION AUTHORITY
STATEMENT OF OPERATIONS
FOR THE PERIOD ENDING October 31, 2017**

SCHEDULE	Actual 2016	Budget 2017	Actual YTD	Previous Forecast	Current Forecast	Forecast Change	
EXPENSES							
OPERATING							
Water Resources Planning & Environment	1	1,908,913	2,181,300	1,602,985	2,131,300	2,131,300	0
Flood Forecasting and Warning	2	692,104	780,300	624,120	780,300	780,300	0
Water Control Structures	3	1,570,819	1,678,900	1,319,402	1,678,900	1,678,900	0
Resource Planning	4	1,796,981	1,922,900	1,511,009	1,922,900	1,892,900	(30,000)
Forestry & Conservation Land Property Taxes	5	1,305,453	1,489,700	1,234,072	1,339,700	1,339,700	0
Conservation Services	6	758,769	837,500	637,842	837,500	807,500	(30,000)
Communications & Foundation	7	598,583	676,900	488,346	676,900	676,900	0
Environmental Education	8	1,224,383	1,245,800	1,114,144	1,268,300	1,268,300	0
Corporate Services	9	2,882,470	3,244,705	2,440,145	3,236,705	3,236,705	0
Conservation Lands	10	1,980,934	1,926,200	1,452,724	1,862,200	1,842,200	(20,000)
Property Rentals	11	1,766,373	1,797,900	1,516,859	1,946,900	1,996,900	50,000
Hydro Production	12	211,224	65,000	148,903	165,000	165,000	0
Conservation Areas	13	6,671,933	6,550,000	6,217,464	6,850,000	6,850,000	0
Miscellaneous	14	45,814	70,000	99,663	70,000	70,000	0
Information Systems	16	1,071,038	1,105,000	907,890	1,105,000	1,105,000	0
Motor Pool	16	802,874	888,400	647,194	881,900	881,900	0
Less: Internal Charges (IS & MP)	16	(1,873,912)	(1,993,400)	(1,555,084)	(1,993,400)	(1,993,400)	0
Total OPERATING Expenses		23,414,753	24,467,105	20,407,678	24,760,105	24,730,105	(30,000)
CAPITAL							
Water Resources Planning & Environment	1	52,167	110,000	72,874	110,000	110,000	0
Flood Forecasting and Warning	2	119,443	190,000	121,478	190,000	190,000	0
Water Control Structures	3	1,044,865	1,500,000	494,091	1,500,000	1,100,000	(400,000)
Nature Centres	8	0	0	0	0	0	0
Conservation Areas	13	771,510	683,000	675,671	985,000	985,000	0
Corporate Services	9	0	0	0	0	0	0
Information Systems	16	178,349	250,000	175,397	250,000	250,000	0
Motor Pool	16	348,660	300,000	246,240	300,000	300,000	0
Less: Internal Charges (IS & MP)	16	(478,902)	(369,600)	(764,855)	(369,600)	(369,600)	0
Total Capital Expenses		2,036,092	2,663,400	1,020,896	2,965,400	2,565,400	(400,000)
SPECIAL							
Water Resources Planning & Environment	1	301,587	203,000	206,607	298,000	298,000	0
Flood Forecasting and Warning	2	170,975	200,000	94,203	200,000	200,000	0
Forestry	5	80,614	200,000	128,176	200,000	200,000	0
Conservation Services	6	1,154,929	983,000	971,927	1,008,000	1,008,000	0
Communications	7	0	0	0	0	0	0
Environmental Education	8	262,426	220,000	257,566	240,000	240,000	0
Conservation Land Purchases	10	67,239	0	123,430	0	60,000	60,000
Conservation Lands	10	396,830	587,000	269,278	587,000	587,000	0
Property Development	11	0	50,000	0	50,000	50,000	0
Hydro Generation	12	0	200,000	66,539	200,000	200,000	0
Miscellaneous	14	29,824	35,000	28,890	35,000	35,000	0
Source Protection Program	15	1,159,446	835,000	1,266,347	1,970,000	1,970,000	0
Total SPECIAL PROJECTS Expenses		3,623,870	3,513,000	3,412,963	4,788,000	4,848,000	60,000
Total Expenses		29,074,715	30,643,505	24,841,537	32,513,505	32,143,505	(370,000)
Gross Surplus		2,369,773	(885,232)	6,355,917	(485,232)	(285,232)	200,000
Prior Year Surplus Carryforward		429,618	315,832	315,832	315,832	315,832	0
Net Funding FROM/(TO) Reserves		(2,483,559)	569,400	0	289,900	129,900	(160,000)
NET SURPLUS		315,832	0	6,671,749	120,500	160,500	40,000

Grand River Conservation Authority

Report number: GM- 11-17-118

Date: November 24, 2017

To: Members of the Grand River Conservation Authority

Subject: Environmental Assessments

Recommendation:

THAT Report Number GM-11-17-118 Environmental Assessments be received as information.

Summary:

To provide the General Membership of the Grand River Conservation Authority with information on Environmental Assessments being reviewed, a summary report is presented below. The report has been prepared as directed through Motion No. P44-99 (May 18/99) adopted through General Membership Res. No. 55-99 (May 28, 1999).

Report:

Report on Environmental Assessments for November 24, 2017.

A. New Environmental Assessments Received

New: Environmental Assessments received by the Grand River Conservation Authority and currently under review.

First Notice – New Waste Haulage Receiving Station Class Environmental Assessment Study, City of Hamilton

The City of Hamilton is undertaking a Class Environmental Assessment (EA) Study to identify a preferred location for a new waste haulage receiving station.

This study will evaluate numerous locations of which several are within the Grand River watershed and some contain features of interest to the GRCA. The study will assess the impacts of the proposed works, evaluate alternatives and identify measures to mitigate any adverse impacts. We have advised the City of Hamilton that we wish to be involved in this project.

B. Classification of Reviewed Environmental Assessments

Minor: Minimal potential resource impacts that can be mitigated using conventional construction methods.

Major: Significant impacts on identified resource features. Alternatives and proposed mitigation will be outlined in detail.

Minor Impacts:

Final Notice –Mapleton Bridge PB 024 Improvements, Township of Mapleton

The Township of Mapleton has completed a Schedule 'B' Class Environmental Assessment for Mapleton Bridge PB024 located on Sideroad 17, 1.5 km north of Wellington Road 45 to determine a strategy to address deficiencies of the existing structure with respect to load capacity, lane width, physical condition and barrier protection.

Mapleton Bridge PB024 is of interest to the GRCA due to the presence of an unnamed tributary of the Conestogo River, associated floodplain and the allowances associated with these features.

The preferred solution involves replacement of the bridge structure with a larger span, full two-lane bridge with potential for re-alignment of the stream to mitigate erosion.

The bridge, built in circa 1920, is listed in the Arch, Truss & Beam Inventory. A Heritage Impact Assessment was completed that recommended the replacement structure should replicate the historic design or be recognized with a plaque.

A permit from the GRCA will be required.

Major Impacts:

None for this report.

Financial implications:

Not Applicable.

Other department considerations:

Not Applicable.

Prepared by:

Beth Brown
Supervisor of Resource Planning

Approved by:

Nancy Davy
Director of Resource Management

Grand River Conservation Authority

Report number: GM-11-17-117

Date: November 24, 2017

To: Members of the Grand River Conservation Authority

Subject: Dufferin Rural Water Quality Program

Recommendation:

THAT the Grand River Conservation Authority enter into an agreement with Dufferin County to deliver a Rural Water Quality Program on their behalf.

Summary:

Dufferin County has committed to annual support of a Dufferin Rural Water Quality Program. GRCA will administer the program on behalf of the County. Within the Grand River watershed, the Rural Water Quality Program has provided \$417,000 in cost share towards the implementation of 174 projects in Dufferin since 2002. The cost shares have come from a variety of programs with the GRCA Upper Grand Restoration Fund providing approximately \$120,000 since being established in 2007 and a one-time \$50,000 contribution to support a Dufferin Rural Water Quality Program in 2012.

Report:

The Rural Water Quality Program (RWQP) is supported by local municipalities and other funding agencies. Through the program the Grand River Conservation Authority provides technical and financial assistance to rural landowners in the watershed to undertake projects that improve and protect water quality.

The first Rural Water Quality Program in the watershed was initiated by the Region of Waterloo in 1998. GRCA currently delivers a Rural Water Quality Program on behalf of the Region of Waterloo, Wellington County, City of Brantford and County of Brant, and Haldimand County. GRCA also delivers a program in Oxford County which is administered by the Upper Thames Region Conservation Authority.

To date the RWQP has delivered over \$17 million of cost share to help landowners implement more than 5900 voluntary projects to improve and protect water quality across the watershed. In addition to the funding provided by municipalities and partner agencies, landowners contributed more than \$29 million towards the projects for a total investment of over \$47 million.

In addition to protecting groundwater, the RWQP plays a key role in supporting rural landowners' adoption of practices to reduce point and non-point sources of sediment and nutrients entering watercourses. Projects completed through the program are credited with retaining an estimated 100,000 kg of phosphorus on the landscape annually, benefiting river health and the river's impact on Lake Erie.

In Dufferin County there has been \$417,053 provided to Grand River watershed landowners since 2002 to implement 174 projects to improve and protect water quality. From 2002 to 2006 the grants for these projects came from outside funding partners

such as Trees Ontario and the Great Lakes Renewal Foundation. In 2007 the GRCA established the Upper Grand Restoration Fund to support a consistent Rural Water Quality Program in the Upper Grand. In 2012 Dufferin County provided a one-time \$50,000 contribution to the program as a result of a resolution from the Upper Grand Liaison Committee.

As with other municipal supported RWQP programs in the watershed, participation is voluntary, requiring applications, review committee approval and site visits upon completion. Cost share rates range from 50% to 75% and vary by project type and funding source. The landowner's contribution is a combination of money, materials and/or labour. Depending on the program, eligible projects may include stream fencing, erosion control structures, decommissioning private water wells, tree planting and others.

In total 207,340 trees have been planted on approximately 118 hectares (292 acres) and 18 kilometres of windbreaks have been planted in Dufferin County. Approximately 13 kilometers of stream buffer has also been created. The 11 fencing projects completed now restrict approximately 880 head of livestock from 6.5 kilometres of watercourse. The RWQP has also provided cost shared funding to properly decommission 30 unused water wells in the county.

On September 14, 2017 resulting from a resolution from the Upper Grand Liaison Committee, Dufferin County council passed a motion directing their staff to work with the Grand River Conservation Authority to establish a Rural Water Quality Program in Dufferin County commencing with a budget amount of \$20,000 for 2017 and continuing in future years; and that staff review the budget amount with the staff at the Grand River Conservation Authority.

The initial delivery agreement will be for a 5 year term. GRCA will administer the county wide program and contribute staff and delivery costs within the watershed. Outside the Grand River watershed the program will be delivered by the local Conservation Authority staff (Nottawasaga, Credit Valley or Toronto Region).

Complimentary to the RWQP, Dufferin County established a living snow fence program in 2013. Through this program landowners receive trees and funding to plant tree windbreaks along priority County roads to replace snow fences. Property owners who participate in the living snow fence program receive \$2750 over 4 years for each acre of farmland taken out of production by the tree planting. The cost of the trees and tree planting is covered by Dufferin County and the work is carried out by the GRCA or Nottawasaga Valley Conservation Authority. This initiative will improve road safety and provide environmental benefits by reducing the use of road salt, reducing wind erosion and provide tree cover. Since 2013 the project has supported the establishment of 15.3 kms of living snow fence along County Roads. The current delivery agreement to fund living snow fence projects extends through to the end of 2021.

Financial implications:

The financial forecast will include \$20,000 revenue for this program in 2017.

Other department considerations:

Not applicable

Prepared by:

Louise Heyming
Supervisor of Conservation Outreach

Approved by:

Tracey Ryan
Manager, Environmental Education &
Restoration

Grand River Conservation Authority

Report number: GM-11-17-115

Date: October 16 2017

To: Members of the Grand River Conservation Authority

Subject: Funding for the new Guelph Lake Nature Centre

Recommendation:

THAT the Grand River Conservation Authority make a contribution of \$100,000 towards the construction of a new Guelph Lake Nature Centre.

AND THAT staff proceed with obtaining a detailed design plans, cost estimate and tender with the objective of completing the project by summer of 2020.

Summary:

The current Guelph Lake Nature Centre program has been in operation for more than 35 years, providing outdoor education programs for more than 10,000 students and families each year. It is housed in a former residential dwelling, and a second-hand portable classroom. On January 28, 2011 the Grand River Conservation Authority Board approved report GM-01-11-03. This report adopted the construction of a new Guelph Lake Nature Centre and asked the Grand River Conservation Foundation launch a fundraising campaign for the project. The project was conditional that the capital funds be raised by the GRCF.

The current estimate for the project is \$2 million of which \$1.57 has been raised by the GRCF. There is \$150,000 allocated in the Guelph Lake Park five year forecast to support services such as roadways and infrastructure that will be beneficial to the Park.

Report:

The current Guelph Lake Nature Centre is approximately 3300 square feet and has two dedicated classrooms with space for two other groups in the basement and discovery room. It is located on Guelph Lake approximately 1 kilometer west of the Guelph Lake Park. The building is a renovated single family home that has operated as a Nature Centre since 1980.

The Nature Centre has about 525 classes attend programs each year as well as offering more than 500 day camp spaces and numerous evening and weekend programs. Annually approximately 10,000 people attend a program offered at Guelph Lake Nature Centre.

The current site has a number of barriers for accessibility. There are also a number of capital upgrades that need to be made including a new roof and washroom facilities.

Guelph Lake Nature Centre generates approximately \$300,000 of revenue per year and receives an average of \$80,000 of levy support. The Nature Centre programs do not generate surplus revenue and rely on the Grand River Conservation Foundation for most capital funding.

The new Guelph Lake Nature Centre will be located inside the park gates. This will provide a destination for park patrons as well as a space for park programs. Locating the nature centre inside the park will enhance both park and nature centre programming. New trails, ponds and pollinator gardens are features that have already been added to the park in anticipation of the new facility.

The new nature centre will have 4 teaching spaces as well as a visitor commons area that will provide a space to obtain information about the park and the natural features of the area. In addition to these spaces there will be offices, storage and a meeting room. The entire building will also be accessible.

The scope and scale of the Nature Centre has been reduced and a new budget for the building is \$2 million. The Grand River Conservation Foundation has secured \$1.57 million in funding to date. This includes the recently announced Rotary Club of Guelph Centennial Project at Guelph Lake that includes funding a trail expansion, an observatory in the park, a planetarium for the Nature Centre as well as \$200,000 towards the Nature Centre. The Rotary Club of Guelph celebrates their centennial in 2020.

The Centennial Project announcement should increase interest in the Guelph Lake project and renew fundraising efforts in the community. Although there is wide spread support for outdoor education and nature centre programs it has been difficult for the GRCA to create excitement for the construction of a new building.

The Guelph Lake Park five year forecast includes \$150,000 to support services such as roadways and infrastructure that will be beneficial and or shared with Park operations. The Environmental Education budget does not have capital funding to allocate to the project.

To move the project forward and facilitate timely completion of the project it is proposed that GRCA make additional funding available by reallocating \$100,000 from the building and mechanical equipment reserve into a Guelph Lake Nature Centre Capital Project Reserve and then use this reserve to help fund the project. This recommendation is being proposed within the Reserves 2017 report presented to the board on November 24th, 2017. Furthermore, to the extent that GRCA generates a year-end surplus over the next few years, staff will consider the ability to utilize up to \$100,000 in surplus to replenish the building and mechanical equipment reserve. This report is recommending that GRCA commit to contributing towards the construction cost of this project.

With an additional \$100,000 allocated to the project more than 80% of the funding required for the project will have been secured.

As approved in report GM-09-13-103, staff are asking to proceed with next phase of the project. This includes the creation of detailed designs of the building and site, the preparation of construction drawings and specifications and tendering for construction.

The Grand River Conservation Foundation will continue to fundraise for the project and are confident that they will reach their goal before the project is completed.

Financial implications:

The construction of the Guelph Nature Centre is estimated to be \$2 million. To date the Foundation has raised \$1.57 million. Staff are recommending that \$100,000 of reserves be utilized to assist with funding this project. This brings total funding available to over 80% of cost.

Other department considerations:

Staff from Environmental Education and Guelph Lake Conservation Area will be involved in the project design as well as future operation. Natural Heritage staff will provide direction on site restoration. Operations Division will manage the design and construction of the facility. The Grand River Conservation Foundation will continue to engage the community and raise funds for the project.

Prepared by:

Tracey Ryan
Manager of Environmental Education and
Restoration

Approved by:

Nancy Davy
Director of Resource Management

Grand River Conservation Authority

Report number: GM-11-17-119

Date: November 24, 2017

To: Members of the Grand River Conservation Authority

Subject: Reserves 2017

Recommendation:

THAT the *Property and Liability Insurance* Reserve be maintained at an amount equal to opening balance, less significant uninsured losses, and no interest to be allocated to this reserve for 2017;

AND THAT the *Building and Mechanical Equipment* Reserve be maintained at an amount equal to opening balance, less expenses or any unspent budgeted building maintenance and equipment amounts be transferred to this reserve for future expenditures, less \$100,000 transferred to Guelph Lake Nature Centre Capital Project reserve and no interest to be allocated to this reserve for 2017;

AND THAT the *Small Office Equipment* Reserve be maintained at an amount equal to opening balance, plus interest;

AND THAT the *Personnel* Reserve be maintained at an amount equal to opening balance, plus any NEER Rebate assessed by Worker's Safety Insurance Board (WSIB) less expenditures or accruals for sick leave, vacation, staff restructuring and/or termination of employees, and no interest be allocated to this reserve for 2017;

AND THAT the *Nature Centre* Reserves be maintained at amounts equal to opening balance, plus \$100,000 transferred from the building and mechanical equipment reserve for funding towards construction of a new nature centre at Guelph Lake less expenses related to major maintenance of the Nature Centre buildings, plus interest;

AND THAT the *Computer Replacement* Reserve be maintained at a level where interest income and charge-out rates equal total operating and capital costs over the long run;

AND THAT the *Cottage Lot Program* Reserve be maintained at an amount equal to the opening balance, plus unspent 2017 budgeted cottage lot expenses, less unbudgeted expenses related to EAB infestation, plus interest;

AND THAT the *Water Management Plan* Reserve be maintained at an amount equal to opening balance, less expenses related to updating the water management plan, plus interest;

AND THAT the *Planning Enforcement Reserve* be maintained at an amount equal to opening balance, plus any savings related to budgeted and unspent legal fees, less any unanticipated expenses related to enforcement of planning regulations, plus interest;

AND THAT the *Property Rental Reserve* be maintained at an amount equal to opening balance, less unbudgeted maintenance expenses related to rental properties, plus any unspent budgeted property repairs and maintenance expenses including demolition costs, plus interest;

AND THAT the *Forestry Management Reserve* be maintained at an amount equal to opening balance plus transfers to reserve of timber revenues, less expenses related to forest management expenses (including Emerald Ash Borer (EAB) expenses) as budgeted (or forecast), plus interest;

AND THAT the *Cambridge Desiltation Pond Reserve* be maintained at an amount that reflects the funds advanced to the Authority by the City of Cambridge, less actual cost to maintain the pond, plus interest;

AND THAT the *Completion of Capital Projects Reserve* be maintained at an amount that reflects obligations under outstanding capital contracts, less payments;

AND THAT the *Gravel Reserve* be maintained at an amount that includes all gravel income to date, less eligible expenditures, consistent with the original or subsequent agreements with the Ministry of Natural Resources, plus interest;

AND THAT the *Land Sale Reserves* be maintained at amounts that include the proceeds of land sales, less costs (including interest charges) incurred to prepare lands for sale, less net expenditures and/or borrowing authorized by the Ministry of Natural Resources, less unbudgeted hydro capital maintenance expenses, plus any repayment of the hydro loan, plus interest;

AND THAT the *General Capital Reserve* be maintained at an amount which reflects the surplus transferred in from the former Dunnville Lock reserve, less expenditures for any Water Management Capital projects approved by the General Membership, plus interest;

AND THAT the *Conservation Areas Capital/Stabilization Reserve* be increased by \$150,000 representing an amount to be set aside for future capital projects, increased by any surplus generated by the Conservation Areas in 2017, less spending for EAB infestation, and less spending for trail development at Dickson Wildlife area, plus interest;

AND THAT the *Gauge Reserve* be maintained at an amount equal to opening balance less expenses related to gauge equipment and floodplain mapping projects as identified in the budget (or forecast) as applicable, plus interest;

AND THAT the *Watershed Restoration Reserve* be maintained at an amount equal to opening balance, plus special project funding, less expenditures for wetland acquisitions or enhancements in the watershed, less expenditures for

natural heritage restoration projects and conservation services watershed restoration projects as outlined in the budget (or forecast), plus interest;

AND THAT the *Water Control Structures Reserve* be maintained at an amount equal to the opening balance, plus any unspent major maintenance budget amount, plus any unspent operating budget amount that was to be funded from general levy, plus interest;

AND THAT the *Motor Pool Equipment Replacement Reserve* be maintained at a target level of approximately 25% of replacement cost of the Motor Pool fleet, plus interest;

AND THAT the *Motor Pool Insurance Reserve* be maintained at an amount equal to the opening balance, plus interest, less significant uninsured losses.

Summary:

The Grand River Conservation Authority’s reserves are established by Resolutions of the General Membership and are presented in the audited financial statement as a part of the “Accumulated Surplus”, in accordance with Generally Accepted Accounting Principles (GAAP). Details of reserve amounts are also provided in the notes to the audited financial statements. This report outlines the nature of movements to and from reserves and provides estimates of reserve balances for 2017.

By year-end 2017 reserves are forecast to be \$21.7 million which represents a decrease of \$100,000.

Significant reserve movements (approximate amounts) include:

Increases to Reserves:

- Conservation Area Surplus allocation & capital allocation \$ 650,000
- Interest Income Earned \$ 325,000
- Building Reserve (unspent HO budget) \$ 50,000
- Water Control Structures (deferred capital spending) \$ 200,000
- Gauges (deferred capital spending) \$ 60,000

Decreases to Reserves:

- Emerald Ash Borer Expenses \$ 350,000
- Demolition Costs \$ 380,000
- Parkhill Hydro Project Expenses \$ 200,000
- Land Sale/Purchase expenses \$ 110,000
- Computer Reserve \$ 125,000
- Septic/Well Expenses \$ 50,000
- Dickson Trail Expenses \$ 50,000

Report:

Reserves are established and confirmed annually by Resolution of the Board. Some Reserves are required by provincial policies (Gravel and Land Sales) or agreements with other agencies (Nature Centre Capital) and some are discretionary and used to avoid constantly changing or special levies (Computer Replacement, Motor Pool Replacement, General Capital Reserve). Conservation Authorities are not allowed to directly debenture for expenditures, so it is important to anticipate needs and set aside funds for future projects in reserves. Interest is accrued to reserves where required by provincial policies and/or board direction.

A description of reserve activity during year 2017 is presented in the following two formats:

1. Breakdown by Operating, Capital, Motor Pool
2. Breakdown by “GRCA-controlled” reserves and reserves with “Outside Control”

Reserves that have a provincial interest may be used for the following types of expenditures:

1. Acquisition of environmentally sensitive lands and ecologically significant lands.
2. Major maintenance of flood control structures.
3. Hazard land mapping in support of plan input or regulation programs.
4. Flood and erosion capital projects and related studies.
5. Watershed/Subwatershed management plans, which are inter-municipal in scope.
6. Other Capital Projects of provincial interest, with prior approval.

The Ministry of Natural Resources (as per policy statement 6.3 dated June 13, 1997) retains the right to either deny use of reserves that have a provincial interest or to otherwise direct the use of such reserves.

Attached Schedules:

Schedule 1	Reserve Activity Detail – Forecast 2017 (by GRCA controlled and Outside Control)
Schedule 2	Reserve Activity Detail – Forecast 2017 (by Operating, Capital, Motor Pool)
Schedule 3	Graph of Reserves – 2008 to 2017
Schedule 4	Purpose of Reserve and Guidelines for calculating amounts

Recommended Forecast Changes:

1) Increase Building and Mechanical reserve by \$50,000

Forecast spending on head office repairs and maintenance (including capital projects) is \$200,000 compared to \$250,000 budgeted. The

\$250,000 represents a standard budgeted amount and to the extent that expenditures in a given year are less than budgeted (due to timing of projects) the saving is placed into the building reserve.

2) Decrease the Conservation Area Reserve by \$50,000

The GRCA has undertaken to improve the trail and boardwalk at the Dickson Wildlife area. The budget for the project was set at \$187,000 with \$93,500 funding coming from a Canada150 grant and matched with funding from the Foundation. The project cost has increased by \$50,000. The Foundation will continue to seek donations, but in the event donation funding is not achieved staff are recommending that this cost be funded from the Conservation Area reserve.

3) Reallocate \$100,000 from the Building and Mechanical reserve to the Guelph Lake Nature Centre Capital Project reserve

GRCA is planning to construct a new nature centre at Guelph Lake. To move the project forward and facilitate timely completion of the project staff are recommending that GRCA make additional funding available by reallocating \$100,000 from the building and mechanical equipment reserve into a Guelph Lake Nature Capital Project Reserve and then use this reserve to help fund the project. Furthermore, to the extent that GRCA generates a year-end surplus over the next few years, staff will consider the ability to utilize up to \$100,000 in surplus to replenish the building and mechanical equipment reserve. The construction of the Guelph Nature Centre is estimated to be \$2 million. To date the Foundation has raised \$1.57 million. With an additional \$100,000 allocated to the project more than 80% of the funding required for the project will have been secured. See board report 'Funding for the New Guelph Lake Nature Centre' dated November 24th, 2017 for details regarding this project.

Financial implications:

In 2017 it is forecast that reserves will decrease by \$ 101,000 to \$21,673,000. Reserves were budgeted to decrease \$570,000 in 2017. Significant differences between budget and forecast are:

	Impact on Reserves <u>Positive/(Negative)</u>
• Conservation Area Surplus to reserves	\$ 450,000
• Water Control capital spending deferred	\$ 200,000
• Gauge capital spending deferred	\$ 60,000
• Emerald Ash Borer spending deferred	\$ 50,000
• Unspent Head Office Capital budget to reserve	\$ 50,000
• Upper Grand RWQP grants to landowners under budget	\$ 20,000
• Reduced amount of Hydro surplus revenue	(\$ 100,000)

- Unbudgeted demolition expenses incurred (\$ 180,000)
- Land Sale/Acquisition expenses over budget (\$ 60,000)
- Forecast Interest Income under budget (\$ 25,000)

Other department considerations: None.

Prepared by:

Sonja Radoja
Manager Corporate Services

Approved by:

Keith Murch
Assistant CAO/Secretary Treasurer

SUMMARY RESERVE REPORT - FORECAST 2017

General Meeting - November 24, 2017

	ACTUAL 2016	"NET CHANGE" INCREASE/(DECREASE) 2016 VS 2017	DETAILS OF "NET CHANGE" FORECAST 2017			FORECAST 2017
			Transfer In (Interest Income)	Transfer In	Transfer Out Description of Transfer	
Type A: GRCA Controlled						
Operating Reserves (designated)						
Property & Liability Insurance	270,383	0	0			270,383
Building & Mechanical Equipment	1,341,833	(50,000)	0	50,000	(100,000) IN-Unspent Head Office Major Maintenance budget; OUT - Transfer to Guelph Lake NC Capital Project	1,291,833
Small Office Equipment	7,134	124	124			7,258
Personnel	1,022,112	(15,000)	0		(15,000) OUT-Sick Leave, Vacation Accrual	1,007,112
Forestry	579,341	(86,857)	9,963	2,219	(99,039) IN-Timber Sales; OUT-EAB \$99K	492,484
Computer Replacement	1,248,196	(125,297)	20,703	1,209,000	(1,355,000) IN-Chargebacks; OUT-Operating/Capital costs	1,122,899
Cottage Operations	391,529	6,777	6,777			398,306
Grand River Watershed Management Plan	101,435	1,756	1,756			103,191
Planning Enforcement	410,049	7,099	7,099			417,148
Property Rental Expenses	212,154	3,672	3,672			215,826
Watershed Restoration	101,791	1,763	1,763			103,554
Motor Pool Equipment	1,714,604	22,953	30,853	1,174,000	(1,181,900) IN-Chargebacks; OUT-Operating/Capital costs	1,737,557
Motor Pool Insurance	79,872	1,383	1,383			81,255
Capital Reserves (designated)						
Water Control Structures	2,468,059	242,724	42,724	200,000	IN-Unspent Dam Major Maintenance Budget	2,710,783
Cambridge Desiltation Pond	8,623	(849)	143		(992) OUT-Cambridge Desiltation Pond costs	7,774
Completion of Capital Projects	147,000	(10,000)	0		(10,000) OUT-Upper Grand Restoration costs	137,000
Conservation Areas-Stabilization/Capital Gauges	3,693,335	411,653	64,739	648,000	(301,086) IN-Reserve for Capital Projects \$150K, Surplus \$498K; OUT-EAB \$251K, Dickson Trail \$50K	4,104,988
	468,751	8,115	8,115			476,866
Capital Reserves (undesignated)						
General Capital Reserve	542,716	9,395	9,395			552,111
Total Type A: GRCA Controlled	14,808,917	429,411	209,209	3,283,219	(3,063,017)	15,238,328
Type B: Reserves with Outside Control						
With MNR Interest (Capital Reserves)						
Gravel	231,219	4,002	4,002			235,221
Woolner	1,904,529	28,355	32,960		(4,605) OUT-Land Sale Expenses	1,932,884
Contaminated Sites	(713,595)	(12,353)	(12,353)			(725,948)
Residential Property Sales	275,874	(48,231)	3,688		(51,919) OUT-Well/Septic Expenses	227,643
Valley Lands - Horst	457,296	7,916	7,916			465,212
Valley Lands - KW	1,481,441	(1,367)	25,633		(27,000) OUT-Grand River Watershed Management Plan Expenses	1,480,074
Valley Lands - KW (Pioneer Towers)	1,964,916	(158,356)	33,463	35,000	(226,819) IN-Hydro Turbine Revenue \$35K, OUT-Parkhill Turbine \$200K, Land Acquisition expenses \$27K	1,806,560
Valley Lands - Guelph	523,161	(403,951)	6,971		(410,922) OUT-Demolition Expenses \$381K, Land Sale Expenses \$30K	119,210
Laurel Creek Land	517,994	8,967	8,967			526,961
Puslinch Land	170,793	(11,257)	2,860		(14,117) OUT-Land Sale Expenses	159,536
Woolwich Land	19,747	341	341			20,088
Elora	(29,216)	(47,429)	(596)		(46,833) OUT-Land Sale Expenses	(76,645)
With School Board Interest (Operating Reserves)						
App's Nature Centre	23,000	399	399			23,399
Laurel Creek Nature Centre	67,350	1,165	1,165			68,515
Guelph Lake Nature Centre	34,044	589	589			34,633
Guelph Lake Capital Project				100,000	IN: Transfer from Building Reserve \$100K for New Nature Centre Construction	100,000
Taquanyah Nature Centre	10,240	177	177			10,417
Shade's Mills Nature Centre	26,862	465	465			27,327
Total Type B: Outside Control	6,965,655	(630,568)	116,647	135,000	(782,215)	6,435,087
TOTAL	\$21,774,572	(101,158)	\$325,856	\$3,418,219	(\$3,845,232)	\$21,673,415

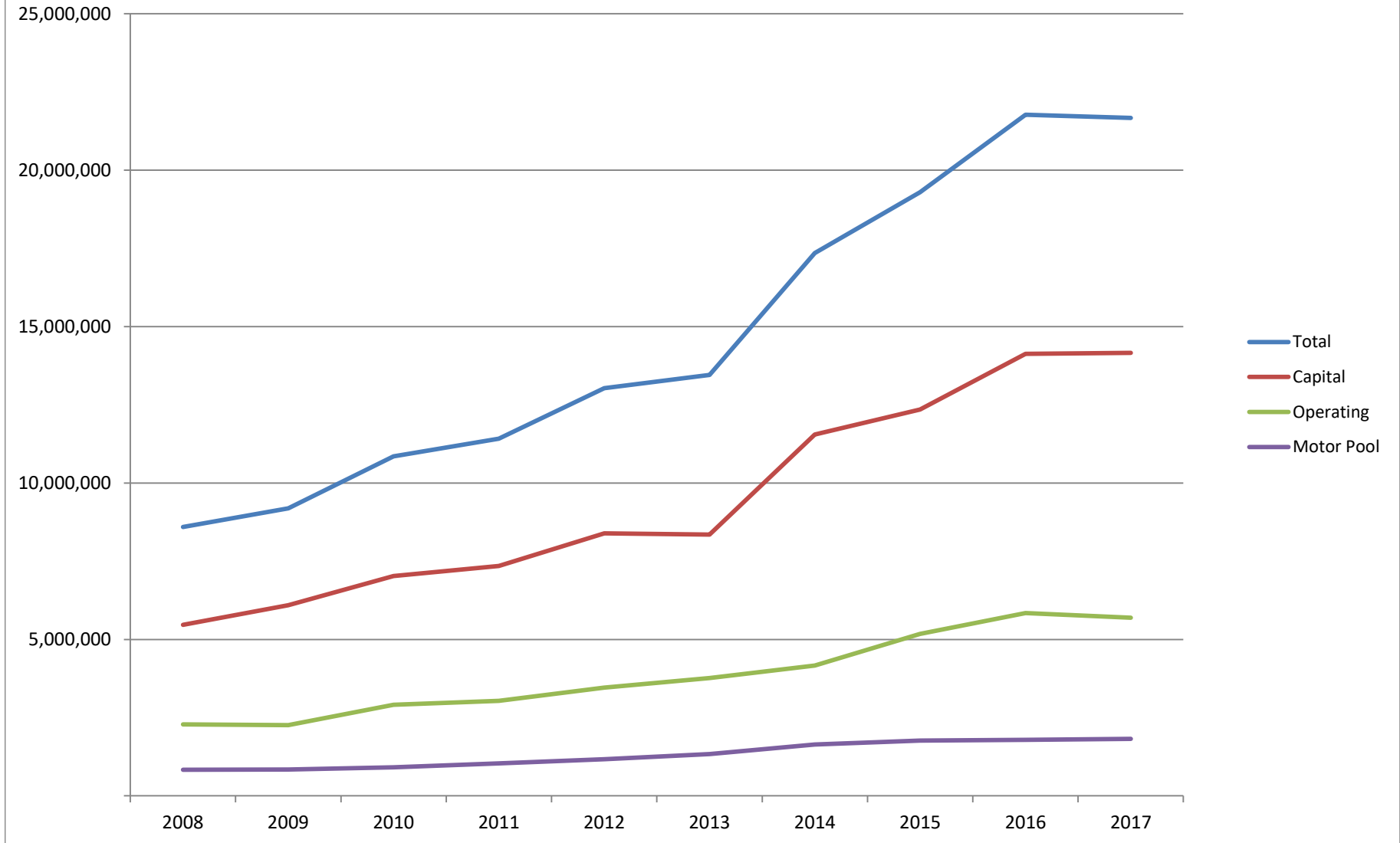
RESERVE ACTIVITY DETAIL - FORECAST 2016 (by Operating, Capital and Motor Pool)

SCHEDULE 2

Balance Dec 31 16	OPERATING RESERVES	Year-to-date Income to Res	Year-to-date Interest	Year-to-date Outputs fr Res	Balance Sept 30/17	Forecast Interest	Fcst Change Incr (Decr)	Fcst Dec 31/17	Recommended Changes	Recommended 2017 Balance
270,383	Property & Liability Insurance				270,383	0		270,383		270,383
1,341,833	Building & Mechanical Equipment				1,341,833	0		1,341,833	(50,000)	1,291,833
7,134	Small Office Equipment (consolidate)		93		7,227	31		7,258		7,258
1,022,112	Personnel Reserve				1,022,112	0	(15,000)	1,007,112		1,007,112
23,000	App's Nature Centre		299		23,299	100		23,399		23,399
67,350	Laurel Creek Nature Centre		874		68,224	291		68,515		68,515
34,044	Guelph Lake Nature Centre		442		34,486	147		34,633		34,633
	Guelph Lake Nature Centre Capital Project				-			0	100,000	100,000
10,240	Taquanah Nature Centre		133		10,373	44		10,417		10,417
26,862	Shade's Mills Nature Centre		349		27,211	116		27,327		27,327
1,248,196	Computer Replacement	962,724	15,527	(984,965)	1,241,482	5,176	(123,759)	1,122,899		1,122,899
391,529	Cottage Lot Program		5,083		396,612	1,694		398,306		398,306
101,435	Water Management Plan		1,317		102,752	439		103,191		103,191
410,049	Planning Enforcement Reserve		5,324		415,373	1,775		417,148		417,148
212,154	Property Rental Expenses		2,754		214,908	918		215,826		215,826
579,341	Forestry Management Reserve	2,219	7,473	(49,039)	539,994	2,491	(50,000)	492,484		492,484
101,791	Watershed Restoration (Wetland Restoration)		1,322		103,113	441		103,554		103,554
5,847,453	TOTAL OPERATING RESERVES	964,943	40,990	(1,034,004)	5,819,382	13,663	(188,759)	5,644,286	50,000	5,694,286
(42,057)										
Balance Dec 31 16	CAPITAL RESERVES	Year-to-date Income to Res	Year-to-date Interest	Year-to-date Outputs fr Res	Balance Sept 30/17	Forecast Interest	Fcst Change Incr (Decr)	Fcst Dec 31/17	Recommended Changes	Recommended 2017 Balance
8,623	Cambrige Desiltation Pond		107	(742)	7,988	36	(250)	7,774		7,774
147,000	Completion of Capital Projects				147,000	0	(10,000)	137,000		137,000
231,219	Gravel		3,002		234,221	1,001		235,222		235,222
(713,595)	Contaminated Sites		(9,265)		(722,860)	-3,088		(725,948)		(725,948)
1,904,529	Land Sale - Woolner		24,720	(4,605)	1,924,644	8,240		1,932,884		1,932,884
457,296	Land Sale - Horst		5,937		463,233	1,979		465,212		465,212
1,481,441	Land Sale - Valley Lands - KW		19,225		1,500,666	6,408	(27,000)	1,480,074		1,480,074
1,964,916	Land Sale-Valley Land-KW (Pioneer Tower)		25,097	(88,819)	1,901,194	8,366	(153,000)	1,756,560		1,756,560
523,161	Land Sale - Valley Land - Guelph		5,229	(281,923)	246,467	1,743	(79,000)	169,210		169,210
275,874	Land Sales - Residential Properties		2,766	(51,919)	226,721	922		227,643		227,643
517,994	Land Sale - Laurel		6,725		524,719	2,242		526,961		526,961
170,793	Land Sale - Puslinch		2,145	(14,117)	158,822	715		159,537		159,537
19,747	Land Sale - Woolwich		256		20,003	85		20,088		20,088
(29,216)	Land Sale - Elora		(447)	(46,833)	(76,496)	-149		(76,645)		(76,645)
542,716	General Capital Reserve		7,046		549,762	2,349		552,111		552,111
468,751	Water Gauges		6,086		474,837	2,029		476,866		476,866
3,693,335	Conservation Areas -Capital & Stabilization	498,000	48,554	(83,086)	4,156,803	16,185	(18,000)	4,154,988	(50,000)	4,104,988
2,468,059	Water Control Structures		32,043		2,500,102	10,681	200,000	2,710,783		2,710,783
14,132,643	TOTAL CAPITAL RESERVES	498,000	179,226	(572,043)	14,237,826	59,742	(87,250)	14,210,318	(50,000)	14,160,318
(42,057)										
Balance Dec 31 16	MOTOR POOL RESERVE	Year-to-date Income to Res	Year-to-date Interest	Year-to-date Outputs fr Res	Balance Sept 30/17	Forecast Interest	Fcst Change Incr (Decr)	Fcst Dec 31/17	Recommended Changes	Recommended 2017 Balance
1,714,604	Equipment Replacement	875,685	23,140	(843,069)	1,770,360	7,713	(40,516)	1,737,557		1,737,557
79,872	Insurance		1,037		80,909	346		81,255		81,255
1,794,476	TOTAL MOTOR POOL RESERVE	875,685	24,177	(843,069)	1,851,269	8,059	(40,516)	1,818,812	0	1,818,812
Balance Dec 31 16	TOTAL RESERVES	Year-to-date Income to Res	Year-to-date Interest	Year-to-date Outputs fr Res	Balance Sept 30/17	Forecast Interest	Fcst Change Incr (Decr)	Fcst Dec 31/17	Recommended Changes	Recommended 2017 Balance
5,847,453	Operating Reserves	964,943	40,990	(1,034,004)	5,819,382	13,663	(188,759)	5,644,286	50,000	5,694,286
14,132,643	Capital Reserves	498,000	179,226	(572,043)	14,237,826	59,742	(87,250)	14,210,318	(50,000)	14,160,318
1,794,476	Motor Pool Reserves	875,685	24,177	(843,069)	1,851,269	8,059	(40,516)	1,818,812		1,818,812
21,774,572	TOTAL RESERVES	2,338,628	244,393	(2,449,116)	21,908,476	81,464	(316,525)	21,673,415	0	21,673,415

Grand River Conservation Authority Reserves 2008 to 2017

SCHEDULE 3



**GRAND RIVER CONSERVATION AUTHORITY
PURPOSE OF RESERVES & GUIDELINES FOR CALCUALATING AMOUNTS**

Reserves	Purpose and Guidelines
Property & Liability Insurance	For losses not covered by our property and liability insurance policies and to cover deductibles as necessary. Reserve was established with premium savings realized at the time GRCA increased the deductibles.
Building and Mechanical Equipment	For future head office large repairs and maintenance (office renovations, roof, roads, boiler room, air conditioning).
Small Office Equipment	For unbudgeted replacements of small office equipment.
Personnel	For unbudgeted expenses related to compensation and benefits including: restructuring, severance, sick leaves, vacation liability, emergency costs (i.e. flood overtime, pandemic), LTD severance.
Nature Centres	For building major maintenance and repairs.
Computer Replacement	For computer equipment, telecommunications equipment and software. The reserve acts as a pool with operating and capital expenses funded by this reserve and then internal charges to departments used to replenish the reserve. Internal charges set to cover average annual cost (operating and capital) of information systems and technology.
Cottage Operations	For cottage lot program common area service expenses (i.e. roads and hazard tree maintenance). Allows for smoothing of costs included in annual operating budget and available to fund unanticipated unbudgeted costs.
Grand River Management Plan	For expenses related to implementing and maintaining the Grand River Management Plan. Established with surplus realized in 2008.
Planning Enforcement	For expenses related to enforcement of planning regulations.
Forest Management	For expenses related to forest management (including Emerald Ash Borer infestation). Each year 15% of Timber Sale revenue allocated to the reserve and surplus from the Private Land Tree Planting program may be allocated to this reserve.

Reserves	Purpose and Guidelines
Property Rental	For unanticipated unbudgeted property rental expenses. Each year if the property rental program realizes a surplus an amount may be allocated to the reserve.
Cambridge Desiltation Pond	For expenses related to maintaining the City of Cambridge Pond as per agreement. City originally advanced funds to GRCA for this work. Each year actual expenditures funded by this reserve.
Completion of Capital Projects	For expenses related to projects underway (committed). This reserve includes funds set aside for Upper Grand Restoration Projects and each year actual expenditures funded through this reserve.
Gravel	For expenses that are in accordance with MNR policies (including land purchases) and for water treatment capital expenditures. Any gravel income would be added to this reserve.
Land Sale Proceeds	Reserve established via land sale proceeds net of selling costs and costs to prepare land for sale. Expenditures funded by this reserve must be in accordance with MNR policies. Funds were borrowed from this reserve to fund major maintenance of GRCA turbines and the reserve is being repaid with hydro generation revenue over time (\$135,000 revenue budgeted to be allocated back to the reserve annually). To the extent that hydro revenue realizes a surplus in excess of budgeted amount, this excess is also repaid to the reserve.
General Capital	For expenses related to GRCA water management capital projects. This reserve was originally established with funds held for the Dunnville lock project which never proceeded.
Gauges	For expenses related to construction of water monitoring gauges. Reserve established from prior years unspent gauge budgets.
Watershed Restoration (previously Wetland Acquisition)	For expenses related to wetland acquisitions or enhancements to wetlands in the watershed, natural heritage restoration projects, and conservation services watershed restoration projects. Reserve established from violation settlement proceeds, 2015 Biennial Tour surplus and 2015 COA funding.

Reserves	Purpose and Guidelines
Conservation Areas Capital/Stabilization	<p><u>Capital:</u></p> <p>For capital expenses that are unanticipated and/or budgeted for. There is annual budgeted allocation of \$150,000 to this reserve for pools (\$50,000) and water treatment equipment (\$100,000). To extent that capital projects were budgeted for and not completed by year-end, any unspent amount will be placed in this reserve.</p> <p><u>Stabilization:</u></p> <p>To fund operating shortfalls. This reserve is increased in years when the conservation areas achieve an overall surplus.</p>
Water Control Structures	<p>For expenses related to major maintenance of water control structures. To extent that capital projects were budgeted for and not completed by year-end, any unspent amount will be placed in this reserve. This reserve will also be increased by any operating surplus realized by the Dam program. Allows for smoothing of costs included in annual operating budget and available to fund unanticipated unbudgeted costs.</p>
Motor Pool Equipment Replacement	<p>For motor pool equipment. The reserve acts as a pool with operating and capital expenses funded by this reserve and then internal charges to departments used to increase the reserve. A target amount for this reserve is approximately 15% to 25% of replacement cost. Internal charges set to cover average annual cost (operating and capital) of motor pool operations.</p>
Motor Pool Insurance	<p>For expenses related to non-insured vehicle damage/loss including deductibles. Reserve was established with premium savings realized at the time GRCA increased the deductibles.</p>

Grand River Conservation Authority

Report number: GM-11-17-120

Date: November 24, 2017

To: Members of the Grand River Conservation Authority

Subject: Current Watershed Conditions as of November 15, 2017

Recommendation:

THAT Report Number GM-11-17-120 – Current Watershed Conditions as of November 15, 2017 be received as information.

Report:

Precipitation

Precipitation in the first part of November is close to the long term average. The first week of the month was a bit wetter than the second week, but during the second week the watershed received its first recorded snowfall. The snow was deepest at the Luther climate station with 6cm recorded. The snow melted after a few days of warm weather near the middle of the month.

October was a slightly wetter month with most of the watershed climate stations recording above average precipitation. The Luther Dam climate station recorded the most precipitation with 112mm, or 130% of the long term average. The Woolwich Dam climate station recorded the least with 75.6mm, which is still 120% of the long term average for October at that station.

Monthly precipitation at the Conestogo and Shades climate stations from 2012 to 2017 is shown in Figure 1. Table 1 includes monthly and recent precipitation trends for select watershed climate stations.

Table 1: Precipitation Averages at Watershed Climate Stations

Reservoir	Monthly Precipitation		Percentage of Long Term Average					
	15-Nov (mm)	Long Term Average (mm)	Current Half Month	Last Full Month	Last 3 Full Months	Last 6 Full Months	Last 12 Full Months	Last 15 Full Months
Shand	47.0	82.7	114%	118%	84%	120%	128%	125%
Conestogo	45.6	92.6	98%	112%	104%	136%	129%	120%
Guelph	48.8	80.3	122%	130%	91%	122%	133%	129%
Luther	37.4	93.4	80%	140%	87%	152%	140%	127%
Woolwich	41.6	72.8	114%	120%	95%	114%	121%	118%
Laurel	40.7	87.1	94%	120%	90%	106%	119%	115%
Shades	53.1	78.7	135%	111%	101%	115%	127%	126%
Brantford	41.0	75.8	108%	105%	72%	90%	102%	102%

Air Temperatures

Temperatures in November to date have been a bit below the long term average for the start of the month, but close to the long term average of the entire month. November is a transition month where the average temperature at the start of the month is a few degrees warmer than at the end. The forecast for the remainder of the month is for near seasonal temperatures.

October was a very warm month across the watershed. The average monthly air temperature at the Shand Dam climate station was 11.6 degrees, which was almost 4 degrees above the long term average. September was also warm with some of the hottest days of the year. These warm fall months followed a cooler-to-normal summer period.

Figure 2 presents recent mean monthly air temperature departures from normal recorded at Shand Dam.

Lake Erie Conditions

The level of Lake Erie continues to be well above the long term average. The average lake level for October was 174.50m, which is approximately 0.43m above the long term average. The October 1st forecast water levels for Lake Erie indicate the lake level will continue to fall over the next month and then be stable until early spring. Water levels will remain above the long term average. High lake levels increase the potential for Lake Erie shoreline flooding by lake-surge events.

Two Lake Erie shoreline flood messages were issued over the past month: one on October 30th and one on November 1st. High winds caused a rise in the lake level at Port Maitland and wave run up. In both cases, water levels peaked below the critical warning level for short periods.

Figure 3 presents current and forecast Lake Erie level from the Canadian Hydrographic Service.

Staff participated in an emergency planning exercise with Haldimand County and colleagues from Long Point Region Conservation Authority on November 10th. The focus of the exercise was emergency preparedness for Lake Erie surge flood events. A history and explanation of Lake Erie surge flooding was presented to Haldimand staff. The risk of lake surge events is higher than normal due to high Lake Erie levels. Lake Erie levels have not been this high since 1997 as illustrated by Figure 6. The risk of Lake Erie surge events increases as temperatures cool. The highest risk of lake surge events is during the November to April period. The highest number of events typically occurs in the months of December and January. A history of lake surge events by day of year is illustrated by Figure 7; the highest recorded Lake Erie surge event occurred in December 1985.

GRCA worked with LPRCA staff to define five zones of Lake Shore flooding along the Haldimand County shoreline. The five zones cover the range of potential lake shore flooding. The five zones were explained and provided to Haldimand County staff. These zones will be referred to when future Lake Erie flood messages are issued by GRCA and LPRCA staff.

Reservoir Conditions

Water levels in the four large reservoirs are close to their normal level for this time of the year. Heavy rain earlier in the month increased water level in the reservoirs. Water levels have been brought back down into the normal range.

Over the next few months, reservoir levels will be stabilized near the upper rule curve moving into freeze up. During the winter period reservoir discharges are used to augment river flows to aid in wastewater assimilation and to maintain flows for ecological purposes.

Reservoir levels for 2017 are shown in Figures 4 and 5 for Shand Dam, Conestogo Dam, Guelph Dam, and Luther Dam.

Long Range Outlook

Environment Canada's seasonal forecasts are predicting above normal temperatures and precipitation for the watershed for the November to January period.

The Ministry of Natural Resources and Forestry weather forecasters will be providing an update to their seasonal forecast on November 16th. Their last forecast was for slightly below normal temperatures in November and then below normal temperatures in December. Precipitation is forecast to be near normal in southern Ontario, but with areas of high precipitation from lake effect snow in late November and December.

Flood Preparedness

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

Staff are participating in emergency planning exercises with Township of Woolwich during late November and early December. All these exercises deal with preparedness for flood events.

Financial implications:

Not applicable

Other department considerations:

Not applicable

Prepared by:

Stephanie Shifflett
Water Resources Engineer

Approved by:

Dwight Boyd
Director of Engineering

Figure 1: Precipitation at Conestogo Dam and Shades Mill Dam 2012 to present

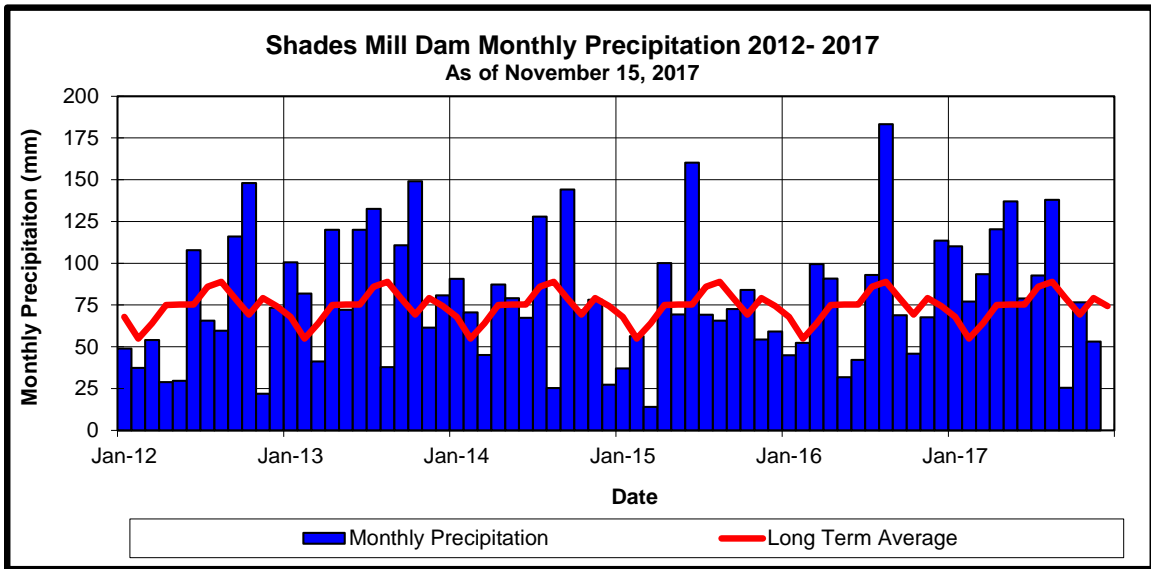
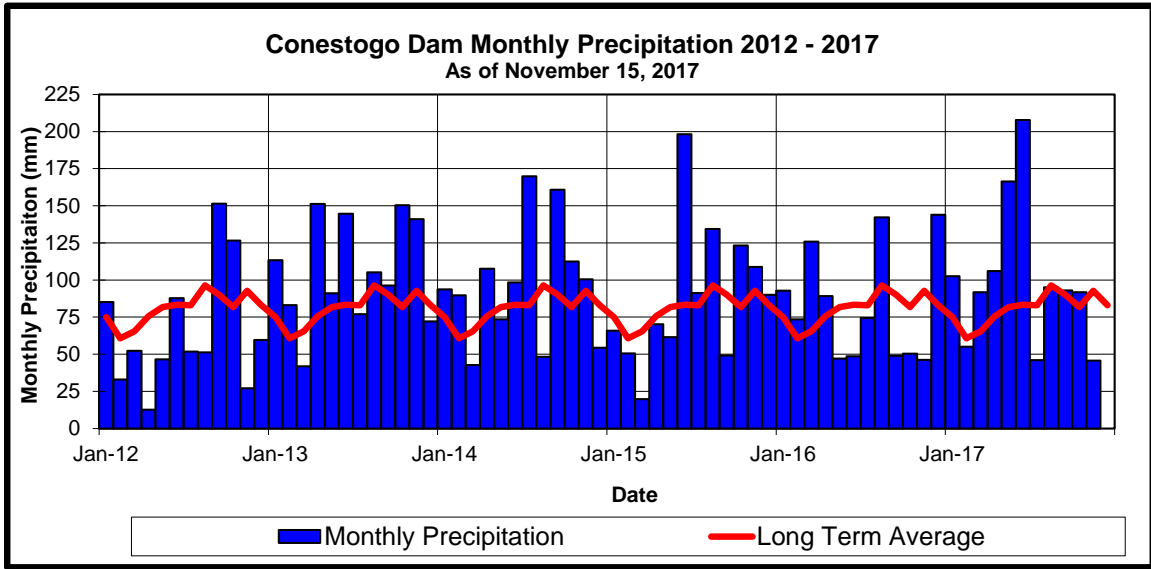


Figure 2: Departures from Average Air Temperatures

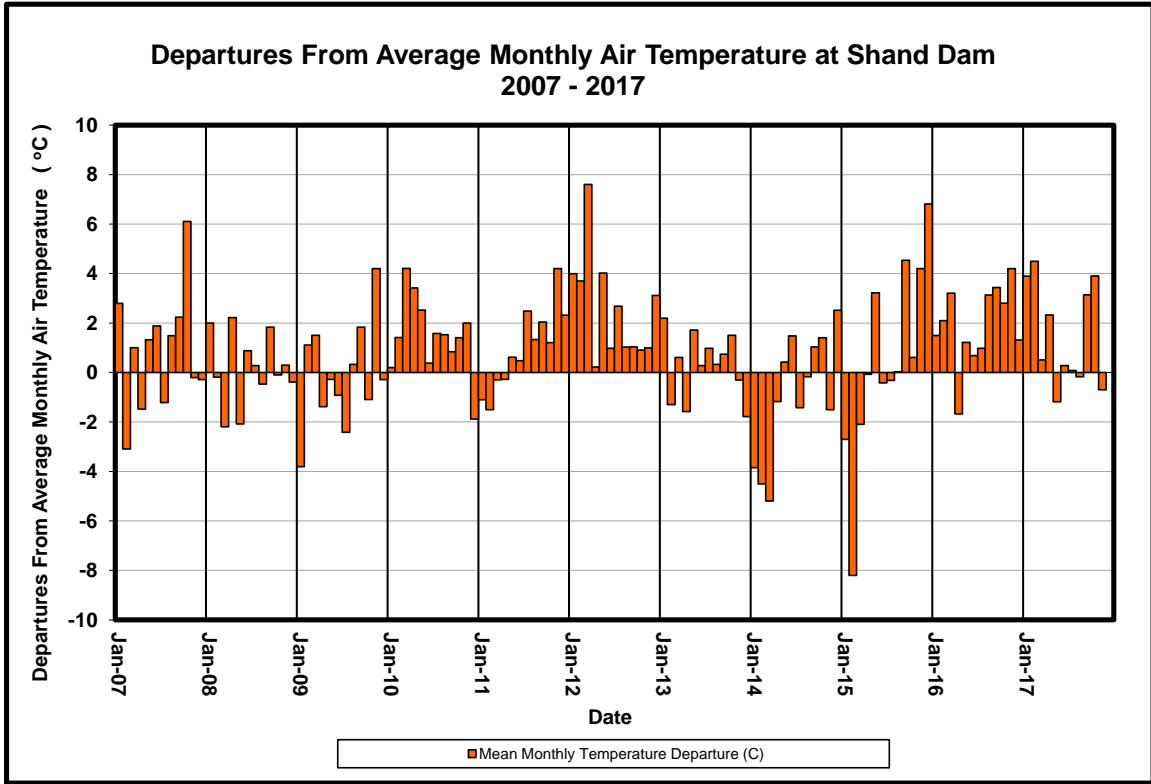


Figure 3: Forecasted Lake Erie Levels

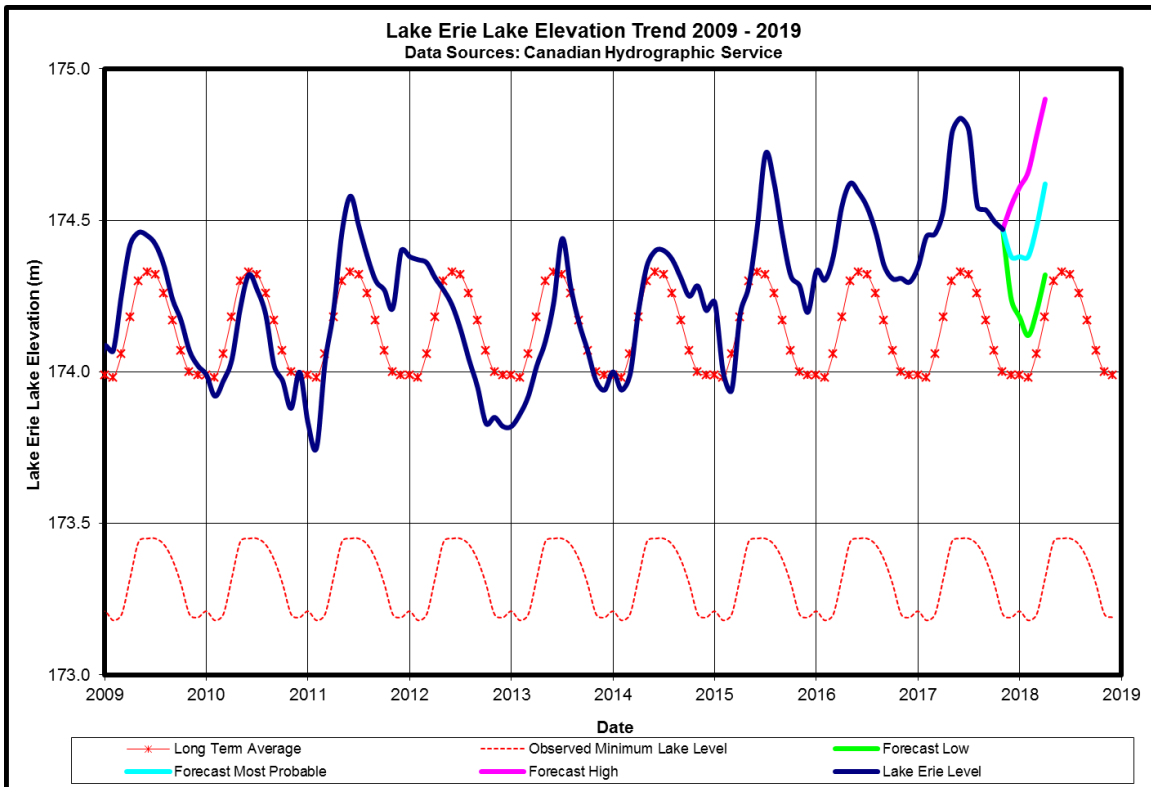


Figure 4: Shand and Conestogo Reservoir Elevation Plots

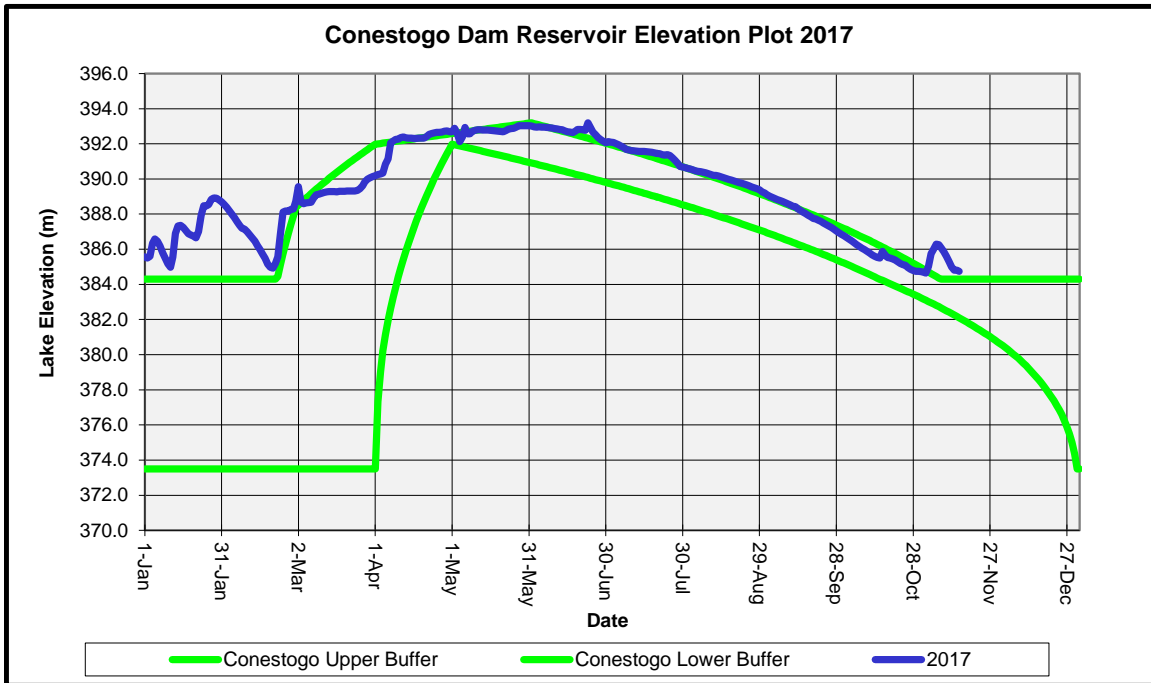
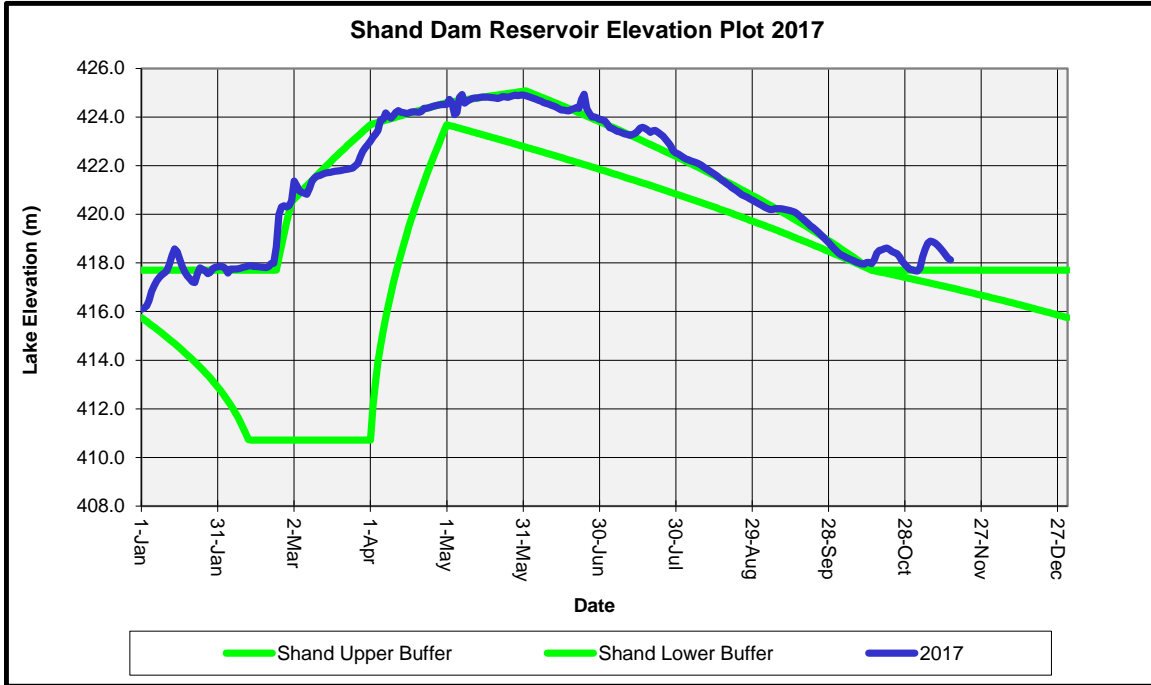
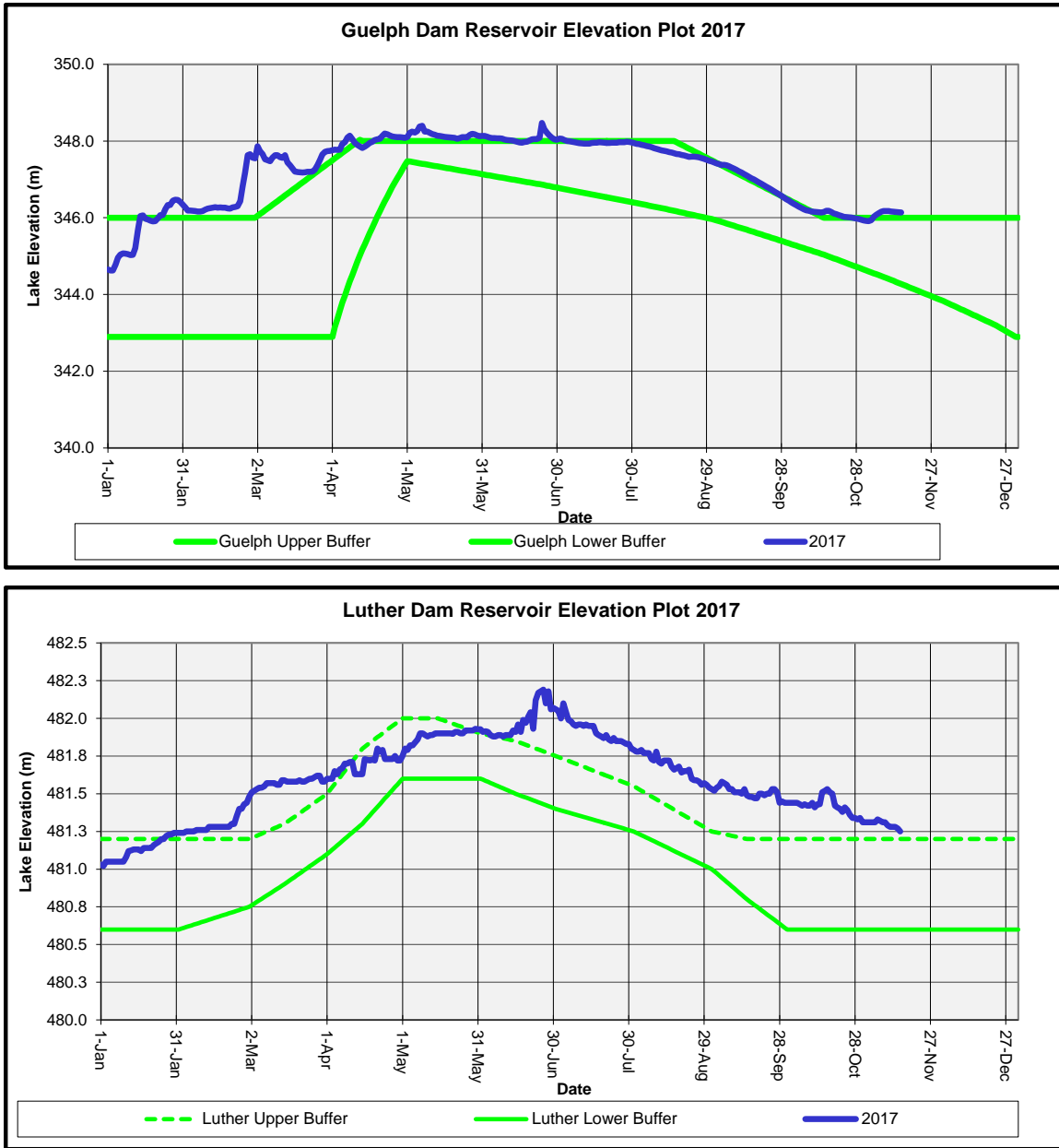


Figure 5: Guelph and Luther Reservoir Elevation Plots



Luther Dam Operating Curves

Luther Dam primarily provides a flow augmentation function to the upper Grand River and to Shand Dam. While it does provide some benefits from a flood control perspective, these benefits are limited due to the small drainage area regulated by Luther Dam.

The buffers between March 1st and September 30th define the operating range to meet downstream low flow targets. The lower buffer defines the lowest operating range for flow augmentation before reducing downstream flow augmentation targets. The earlier winter (January 1st to March 1st) and late fall (October 1st to December 31st) upper buffer curve is defined from ecologic considerations from the Luther Marsh Master Plan.

Figure 6: Lake Erie Mean November Lake Elevation 1962 to 2017

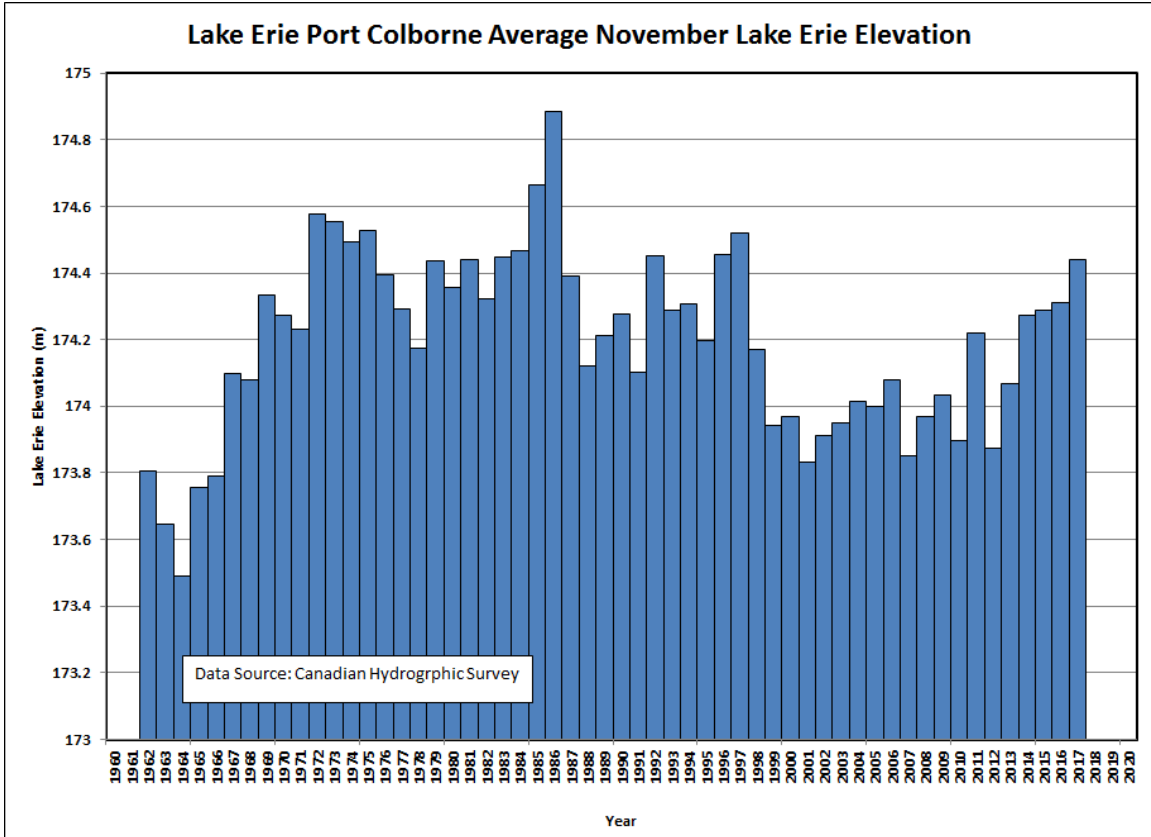


Figure 7: History of Lake Surge Events Peak Elevations 1962 to 2017

