



Grand River Conservation Authority
Agenda - General Meeting
PUBLIC

Friday, January 25, 2019

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 of January 25, 2019, be approved as circulated.

5. **Declarations of Pecuniary Interest**
6. **Minutes of the Previous Meetings**

THAT the minutes of the General Membership Meeting of December 14, 2018, be approved as circulated.

7. **Business Arising from Previous Minutes**
8. **Hearing of Delegations**
9. **Presentations**
10. **Correspondence**

THAT Correspondence from the Minister of the Environment, Conservation and Parks regarding unauthorized tenting be received as information.

| | | |
|------------|--|----|
| a. | MECP Response - Unauthorized Tenting | 9 |
| 11. | 1st and 2nd Reading of By-Laws | |
| 12. | Reports: | |
| a. | GM-01-19-01 - Report of the Audit Committee | 10 |
| | THAT the Report of the Audit Committee be received for information. | |
| b. | GM-01-19-07 - Grand River Conservation Foundation Member Appointment | 11 |
| | THAT the following new Member be appointed to the Grand River Conservation Foundation until the next Annual General Meeting: | |
| | • Ted Smith | |
| c. | GM-01-19-12 - Budget 2019 - Second Draft | 12 |
| | THAT Report Number GM-01-19-12 Budget 2019 – Draft #2 be received as information. | |
| d. | GM-01-19-09 - Per Diems and Honorariums | 63 |
| | THAT Report Number GM-01-19-09 – Per Diems and Honorariums for 2019 be received as information. | |
| e. | GM-01-19-06 - Cash and Investment Status | 66 |
| | THAT Report Number GM-01-19-06 Cash and Investment Status – December 2018 be received as information. | |
| f. | GM-01-19-03 - Award of Tender - Driveway Installation | 68 |
| | THAT the Grand River Conservation Authority award the tender for the driveway installation at 5500 Jones Baseline Guelph Eramosa to Bomar Landscaping of Elora, Ontario in the amount of \$114,091.50 including HST. | |
| g. | GM-01-19-10 - Award of Tender - 2019-2021 Firewood Supply | 70 |
| | THAT the Grand River Conservation Authority award the tender for the supply of firewood for the 2019, 2020 and 2021 camping seasons to Gerber's Firewood for the estimated sum of \$643,770.00 over a three year period (excluding HST). | |
| h. | GM-01-19-08 - Development, Interference with Wetlands and Alterations to Shorelines Regulation | 73 |
| | THAT Report Number GM-01-19-08 – Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation, be received as information. | |

- i. GM-01-19-13 - Environmental Assessments 75
 THAT Report Number GM-01-19-13 – Environmental Assessments be received as information.
- j. GM-01-19-02 - Brant Rural Water Quality Program Delivery Agreement Renewal 78
 THAT the Grand River Conservation Authority renew the agreement with the County of Brant and City of Brantford to continue delivery of a Rural Water Quality Program on their behalf.
- k. GM-01-19-04 - Bill 66 - Restoring Ontario's Competitiveness Act, 2018 82
 THAT Report Number GM-01-19-04 – Bill 66 – Restoring Ontario's Competitiveness Act, 2018 be received as information.
- l. GM-01-19-05 - A Made-in-Ontario Environment Plan 87
 THAT Report Number GM-01-19-05 – A Made-in-Ontario Environment Plan (ERO Posting #013-4208) be approved,
 AND THAT this report be forwarded to the Ministry of Environment, Conservation and Parks through the Environmental Registry.
- m. GM-01-19-11 - Grand River Watershed Flood Warning System 96
 THAT Report Number GM-01-19-11 – Grand River Watershed Flood Warning System be received as information.
- n. GM-01-19-14 - Current Watershed Conditions 98
 THAT Report Number GM-01-19-14 – Current Watershed Conditions as of January 16, 2019 be received as information.

13. Election of Officers

- a. Appointment of Scrutineer(s) - Motion Required
- b. Election of Chair
 - 1. Call for nominations
 Three calls, no seconder required.
 - 2. Motion to Close Nominations for Chair
 THAT nominations for the position of Chair of the Grand River Conservation Authority General Membership be closed.
 - 3. Distribution and collection of ballots by Scrutineer - if required

4. Announce Election Results
5. Motion to Destroy Ballots - if required

c. Election of Vice-Chair

1. Call for nominations
Three calls, no seconder required.
2. Motion to Close Nominations for Vice-Chair
THAT nominations for the position of Vice-Chair of the Grand River Conservation Authority General Membership be closed.
3. Distribution and collection of ballots by Scrutineer - if required
4. Announce Election Results
5. Motion to Destroy Ballots - if required

14. Committee of the Whole

15. General Business

16. 3rd Reading of By-Laws

17. Other Business

18. Closed Meeting - Motion Required

THAT the General Membership enter a closed meeting to discuss a proposed or pending acquisition or disposition of property.

- a. Proposed or pending acquisition or disposition of property

19. Return to Open Session - Motion Required

THAT the General Membership return to open session.

20. Resolutions from Closed Session

21. Next Meetings

22. Adjourn

THAT the General Membership Meeting be adjourned.

23. **Grand River Source Protection Authority Meeting (if required)**

Regrets only to:

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

Ministry of the Environment,
Conservation and Parks

Office of the Minister

77 Wellesley Street West
11th Floor, Ferguson Block
Toronto ON M7A 2T5
Tel.: 416.314.6790
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Ministère de l'Environnement,
de la Protection de la nature et des
Parcs

Bureau du ministre

77, rue Wellesley Ouest
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Télec. : 416 314-6748



DEC 11 2018

357-2018-1329

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

Dear Ms. Jowett:

Thank you for your letter of October 12, 2018 regarding unauthorized tenting on the Grand River Conservation Authority's land.

I appreciate being made aware of your concerns, and have shared your letter with ministry staff.

As her ministry has lead responsibility for this issue, I have forwarded your letter to my colleague, the Honourable Lisa MacLeod, Minister of Children, Community and Social Services, for her awareness and consideration.

Thank you for bringing this matter to my attention.

Sincerely,

A handwritten signature in blue ink, appearing to read "Rod Phillips".

Rod Phillips
Minister

c: The Honourable Lisa MacLeod
Minister of Children, Community and Social Services

The Honourable Ted Arnott
MPP, Wellington-Halton Hills

Grand River Conservation Authority

Report number: GM-01-19-01

Date: January 25, 2018

To: Members of the Grand River Conservation Authority

Subject: Report of the Audit Committee

Recommendation:

THAT the Report of the Audit Committee be received for information.

Summary:

Not required.

Report:

The Audit Committee met on November 23, 2018. The Grand River Conservation Authority's auditors, KPMG, presented the 2018 Audit Plan.

The following Resolution was passed by the Audit Committee:

AUD-18-12

Moved By Vic Prendergast

Seconded By Jane Mitchell

THAT the Audit Plan for the year ending December 31, 2018, proposed by KPMG Chartered Professional Accountants be approved.

Carried

Financial implications:

Not applicable

Other department considerations:

Not applicable

Prepared by:

Karen Armstrong
Deputy CAO/Secretary-Treasurer

Approved by:

Joe Farwell
CAO

Grand River Conservation Authority

Report number: GM-01-19-07
Date: January 25, 2019
To: Members of the Grand River Conservation Authority
Subject: Foundation Member Appointment

Recommendation:

THAT the following new Member be appointed to the Grand River Conservation Foundation until the next Annual General Meeting:

- Ted Smith

Summary:

Not applicable.

Report:

At its December 19, 2018 meeting, the GRCF Board of Directors appointed Ted Smith as a Member/Director until the Foundation's next Annual General Meeting. Under the Foundation's Bylaw, the Grand River Conservation Authority must approve the appointments of Foundation Members.

Ted Smith is a Partner with Collins Barrow based in Guelph and Centre Wellington, with many charitable and community involvements including the Groves Memorial Hospital Foundation, Ducks Unlimited, the Kiwanis Club of Guelph and Youth Outdoors Day at the Luther Marsh Wildlife Management Area.

Financial implications:

Not applicable.

Other department considerations:

Not applicable.

Prepared by:

Sara Wilbur, CFRE
Executive Director, GRCF

Approved by:

Joe Farwell, P.Eng.
Chief Administrative Officer

Grand River Conservation Authority

Report number: GM-01-19-12

Date: January 25, 2019

To: Members of the Grand River Conservation Authority

Subject: Budget 2019 – Draft #2

Recommendation:

THAT Report Number GM-01-19-12 Budget 2019 – Draft #2 be received as information.

Summary:

This draft continues to present a balanced budget position for 2019.

This draft of the budget includes the following significant changes since the September 28, 2018 draft #1 budget report:

- \$ 565,000 Special Projects spending/funding increased
- \$ 753,000 Operating Expenses increased
- \$ 223,000 2018 surplus carry forward increased
- \$ 30,000 Nature Centre Day Camp Program Revenue increase
- \$ 500,000 Net Transfer from reserves increased

The Final Budget will include adjustments for year-end carry forward projects and for final audited results.

This draft includes the following amounts:

- Expenditures \$35,313,773
- General Municipal Levy \$11,636,000 (2.5% increase over prior year)
- Provincial Water and Erosion Control Infrastructure (WECl) Grants \$1,500,000
- Provincial Source Protection Program Grant \$1,575,000
- Reserve Balance by Year End 2019 - \$18.2 million (\$2.5 million decrease)

A separate board report dated December 14, 2018 entitled 'Budget 2019 - General Levy Apportionment Update' outlines the issues related to the general municipal levy distribution as a result of Mining and Lands Commissioner decision dated December 17, 2017 stating the agreement that was used for apportionment of the City of Hamilton's levy since the early 2001 was not valid.

Report:

The final 2019 budget will be presented for approval at the February 22, 2019 General Membership Meeting.

This draft of the 2019 Budget includes the following changes made since the September 28, 2018 General Membership Meeting:

Special Projects Budget 2019 (net increase \$565,000):

| | |
|------------|--|
| \$ 100,000 | Subwatershed Study – City of Kitchener |
| \$ 100,000 | Municipal funding increased |
| \$ 140,000 | Waste Water Optimization Project |
| \$ 140,000 | Provincial funding increased |
| \$ 50,000 | Water Management Plan |
| \$ 50,000 | Provincial funding increased |
| \$ 70,000 | Species at Risk |
| \$ 70,000 | Federal funding increased |
| \$ 25,000 | Haldimand Water Festival |
| \$ 25,000 | Foundation funding increased |
| \$ 150,000 | Guelph Trail Development |
| \$ 150,000 | Foundation funding increased (Rotary) |
| \$ 30,000 | Dunnville Fishway Study |
| \$ 20,000 | Foundation funding increased |
| \$ 10,000 | Funding from General Capital Reserve increased |

Operating Budget 2019 (net expense increase \$753,000)

| | |
|-------------|--|
| \$ 30,000 | Nature Centres - Camp Revenue increased |
| (\$ 30,000) | Nature Centres - Wages & Benefits increased |
| \$ 50,000 | Demolition Expenses for Residential Rentals increased |
| (\$50,000) | Funding from Land Sale Proceeds reserve increased |
| \$450,000 | Head Office Major Maintenance (roof) Expenses increased |
| (\$450,000) | Funding from Building Reserve increased |
| \$223,000 | 2018 Surplus carry forward increased (from \$100,000 to \$323,000) |
| (\$30,000) | Document Management (digitizing) project expenses increased (carry forward project from 2018) |
| (\$50,000) | Communication expenses increased (from 2018) |
| (\$20,000) | Consulting expenses increased (from 2018) |
| (\$25,000) | Staff Development expenses increased (from 2018) |
| (\$50,000) | Legal expenses increased (from 2018) |
| (\$48,000) | Passive Lands Management expenses increased |

The \$223,000 2018 surplus is primarily due to budgeted spending for 2018 that was not incurred and is therefore being carried forward to the 2019 budget. The remaining \$48,000 surplus is being allocated to the management of passive lands where service demands have been increasing.

Significant Outstanding Budget Items

After actual 2018 figures are finalized, the final budget will be prepared and the outstanding matters listed below will be addressed.

(a) Year 2019 Carry forward Adjustments

2018 Surplus carry forward

This draft of the 2019 Budget assumes a \$343,000 surplus carry over from year 2018. The December 2018 Financial Summary for year-end 2018 forecast a \$343,000 surplus. This will be updated pending finalizing the yearend results. The actual "2018 Net Surplus" will be incorporated into the 2019 budget.

2018 Special Projects carry forward

Any projects commenced in year 2018 and not completed by December 31, 2018 will be carried forward and added to Budget 2019 (i.e. both the funding and the expense will be added to Budget 2019 and therefore these adjustments will have no impact on the breakeven net result).

Major Water Control Structures Capital Expenditures

A final determination of the amount of spending to be added to the Budget 2019 (i.e. unspent amounts from 2018) will be made, including use of the "capital reserve" for 2019 projects.

(b) Conservation Area Revenue and Expenses

Final revenue and operating expense figures to be determined following year-end actuals review.

(c) Source Protection Program

The current budget draft includes \$1,575,000 in spending. The final version of the GRCA 2019 Budget will be adjusted to reflect any anticipated funding approvals. Expenses for this program are funded 100% by a provincial grant.

Attached are the following:

Budget 2019 Timetable

Summary Reserve Report – Budget 2019

Preliminary Budget 2019 Package to Municipalities (separate attachment)

Notice to Municipalities:

Ontario Regulation 139/96, made under the Conservation Authorities Act, requires that Conservation Authorities provide 30 days notice to participating municipalities of the meeting at which the Budget and Levy will be voted upon. The notice must include the amount of each municipality's levy and the financial information relied on in support of that levy. Budget draft #2 was mailed out to municipalities on January 21st, 2019 in order to adhere to the notice timeline.

Financial implications:

In this draft, the GRCA is proposing a \$35,313,773 budget.

With respect to reserves this budget version outlines a net decrease to reserves of approximately \$2.5 million resulting in a reserve balance of approximately \$18.2 million by yearend 2019.

Prepared by:

Sonja Radoja
Manager, Corporate Services

Approved by:

Karen Armstrong
Assistant CAO/Secretary-Treasurer

Grand River Conservation Authority

Budget 2019 Timetable

January 25, 2019

Five Year Forecast

- Aug 24, 2018: Draft to General Meeting
- Oct-Dec/18: Communication to Municipalities (staff meetings as required)

2019 Budget

- Sept 28, 2018: Draft #1 to General Meeting
- Nov 23, 2018: Draft #2 to General Meeting (if necessary)
- Dec 14, 2018: Status Report to General Meeting (if necessary)
- Oct/18-Feb/19: Presentations to municipal councils
- Jan 23, 2019: Official Notice to Municipalities of Budget Vote
- Jan 25, 2019: Draft #3 to General Meeting
- Feb 22, 2019: Board Approval, Final 2019 Budget & Levy

Grand River Conservation Authority
SUMMARY RESERVE REPORT - BUDGET 2019

General Meeting - SEPTEMBER 28, 2018

| | BUDGET 2018 | "NET CHANGE" INCREASE/(DECREASE) 2018 VS 2019 | DETAILS OF "NET CHANGE" BUDGET 2019 | | | BUDGET 2019 |
|--|---------------------|---|-------------------------------------|--------------------|---|---------------------|
| | | | 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 | 1,496,833 | 0 | 0 | | | 1,496,833 |
| Small Office Equipment | 7,757 | 500 | 500 | | | 8,257 |
| Personnel | 1,022,112 | -15,000 | 0 | | -15,000 OUT- Leave,Vacation Accrual | 1,007,112 |
| Forestry | 658,359 | 10,000 | 10,000 | | | 668,359 |
| Computer Replacement | 1,153,993 | -101,000 | 22,000 | 1,320,000 | -1,443,000 IN-Chargebacks; OUT-Operating/Capital costs | 1,052,993 |
| Cottage Operations | 516,301 | 7,000 | 7,000 | | | 523,301 |
| Grand River Watershed Management Plan | 104,190 | 1,000 | 1,000 | | | 105,190 |
| Planning Enforcement | 425,142 | 8,000 | 8,000 | | | 433,142 |
| Property Rental Expenses | 338,824 | 1,000 | 1,000 | | | 339,824 |
| Watershed Restoration | 104,552 | 1,000 | 1,000 | | | 105,552 |
| Motor Pool Equipment | 1,713,423 | -47,700 | 37,000 | 1,174,000 | -1,258,700 IN-Chargebacks;OUT-Operating/Capital costs | 1,665,723 |
| Motor Pool Insurance | 81,254 | 0 | 0 | | | 81,254 |
| Capital Reserves (designated) | | | | | | |
| Water Control Structures | 2,856,749 | 44,000 | 44,000 | | | 2,900,749 |
| Cambridge Desiltation Pond | 7,522 | -500 | 500 | | -1,000 OUT-Cambrige Desiltation Pond costs | 7,022 |
| Completion of Capital Projects | 117,000 | -30,000 | 0 | | -30,000 OUT-Upper Grand Restoration costs | 87,000 |
| Conservation Areas-Capital | 370,000 | -370,000 | 0 | 300,000 | -670,000 IN-\$300K Reserve for Capital spending, OUT-\$670,000 Cons Area Capital | 0 |
| Conservation Areas-Stabilization/Capital | 3,089,499 | -900,000 | 55,000 | | -955,000 OUT- \$955,000 Cons Area Capital | 2,189,499 |
| Gauges | 491,859 | -50,000 | 0 | | -50,000 OUT-Gauge Expenses | 441,859 |
| Capital Reserves (undesignated) | | | | | | |
| General Capital Reserve | 565,103 | 13,000 | 13,000 | | | 578,103 |
| Total Type A: GRCA Controlled | 15,390,855 | -1,428,700 | 200,000 | 2,794,000 | -4,422,700 | 13,962,155 |
| Type B: Reserves with Outside Control | | | | | | |
| With MNRF Interest (Capital Reserves) | | | | | | |
| Gravel | 239,217 | 4,000 | 5,000 | | -1,000 OUT-Gravel Pit License & Gravel Rehabilitation | 243,217 |
| Land Sale Proceeds Reserve | 4,784,669 | -586,000 | 141,500 | 70,000 | IN-\$70K Hydro Revenue; OUT-\$50K Development Costs. \$50K Septic Systems,\$10K GRWMP, \$600K EAB, \$37,500 Floodplain Mapping, \$50K Demolitions | 4,198,669 |
| With School Board Interest (Operating Reserves) | | | | | | |
| App's Nature Centre | 23,898 | 500 | 500 | | | 24,398 |
| Laurel Creek Nature Centre | 67,065 | 1,000 | 1,000 | | | 68,065 |
| Guelph Lake Nature Centre | 135,633 | 1,000 | 1,000 | | | 136,633 |
| Taquanyah Nature Centre | 4,067 | 500 | 500 | | | 4,567 |
| Shade's Mills Nature Centre | 27,827 | 500 | 500 | | | 28,327 |
| Total Type B: Outside Control | 5,282,374 | -578,500 | 150,000 | 70,000 | -798,500 | 4,703,874 |
| TOTAL | \$20,673,229 | -2,007,200 | \$350,000 | \$2,864,000 | (\$5,221,200) | \$18,666,029 |



2019 BUDGET

(Draft to January 25, 2019 General Board Meeting)

Grand River Conservation Authority

2019 Budget

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GRCA 2019 Budget Highlights

The Grand River Conservation Authority is a successful partnership of municipalities, working together to promote and undertake wise management of the water and natural resources of the Grand River watershed.

The Grand River stretches 300 kilometres from Dundalk in Dufferin County to Port Maitland on Lake Erie. It takes in one of the fastest growing regions in the province, with a population of almost 1,000,000. The Grand River watershed is also home to some of the most intensively farmed land in the nation.

The prospect of high growth and the impact on water and natural resources and the quality of life present an enormous challenge to the GRCA, municipalities and all watershed residents. It creates an urgent need to work co-operatively to care wisely for the Grand River and its resources.

The work of the GRCA is divided into seven business areas:

- Reducing flood damages
- Improving water quality
- Maintaining reliable water supply
- Protecting natural areas and biodiversity
- Watershed planning
- Environmental education
- Outdoor recreation

In order to carry out these functions, the GRCA draws revenues from a variety of sources:

- User fees, such as park admissions, nature centre programs, planning fees and others which are set to offset most, if not all, the cost of these services
- Revenues from property rentals and hydro generation at our dams
- Municipal levies, which are applied primarily to watershed management programs
- Municipal grants dedicated to specific programs, such as the Rural Water Quality Program and Water Quality Monitoring
- Provincial transfer payments for water management operating expenses
- Provincial grants for specific purposes, such as studies on Source Water Protection and Capital Projects related to water management
- Donations from the Grand River Conservation Foundation for programs such as outdoor education, tree nursery operations and various special projects
- Federal grants and other miscellaneous sources of revenue

The GRCA continues to work on the updates and implementation of a Drinking Water Source Protection Plan for each of the four watersheds in the Lake Erie Source Protection Region, including the Grand River watershed, as part of the provincial Source Protection Program under the *Clean Water Act, 2006*. Besides supporting municipalities and other agencies in implementing the plans, the focus in 2019 is on completing updates to the Grand River Source Protection Plan, including water quantity risk assessment studies, development of water quantity policies, updating water quality vulnerability assessments, and the development of the first annual progress report for the Grand River Source Protection Plan.

The Water Management Plan was endorsed in 2014 as an update to the 1982 Grand River Basin Study that charts a course of actions to reduce flood damages, ensure water supplies, improve water quality and build resilience to deal with a changing climate. The third annual progress report – A Report on Actions was published in 2017. Municipal, provincial and federal government and Six Nations Water Managers meet quarterly to report on the progress of the commitments they made in the Plan. Two reports are underway: a technical report on the state of water resources and a summary report on the status of implementation are both to be completed in 2019.

In April 2018 the GRCA received approval from the Ministry of Natural Resources and Forestry to use up to \$1.8 million from the Land Sale Reserve for hazard tree management over a three year period. This funding has allowed the GRCA to accelerate its program of tree risk management to ensure the health and safety of the public using GRCA lands. This program will continue through 2019 and 2020.

Major water control capital projects planned for 2019 include completion of an ice jam study, capacity improvements, floodwall repairs and permanent closure of abandon railway openings along the Brantford dikes, repair of the floodwall along the Cambridge dike coordinated closely with City of Cambridge river access projects, solutions to address seepage under the Bridgeport dikes, gate control system upgrades and concrete repair designs at Conestogo dam, standby generator enhancements and temporary stoplog design to allow isolation of gates at Shand Dam, concrete and embankment repairs at Wellesley Dam, gate refurbishment at New Dundee Dam, concrete and embankment repairs St. Jacobs Dam and updating of operation and maintenance manuals

Major conservation area capital projects planned for 2019 include a new day use washroom at Byng Island, expansion of the Pines seasonal campground at Elora Gorge, a new workshop at Guelph Lake as well as a new trailer storage area, playground replacements at Brant Park and installation of automatic gates at Pinehurst Lake. Planning for 2020 construction will be undertaken for a new day use area at Elora Gorge, the replacement of the existing washroom building at Elora Quarry, and installation of automatic entry gates at Guelph Lake. Final design for the new Guelph Lake Nature Centre will be completed through 2019 with construction expected to begin in early 2020.

1. Watershed Management and Monitoring

Watershed management and monitoring programs protect watershed residents from flooding and provide the information required to develop appropriate resource management strategies and to identify priority actions to maintain a healthy watershed. Activities include operation of flood and erosion control structures such as dikes and dams; flood forecasting and warning; water quality monitoring; natural heritage restoration and rehabilitation projects; water quantity assessment; watershed and subwatershed studies.

Operating Expenditures:

| | | |
|--|-------------|-----------|
| Water Resources Planning and Environment | \$2,243,200 | (Table 1) |
| Flood Forecasting and Warning | \$ 801,000 | (Table 2) |
| Water Control Structures | \$1,723,900 | (Table 3) |

Capital Expenditures: **\$1,800,000** (Section B)

Total Expenditures: **\$6,568,100**

Revenue sources: Municipal levies and provincial grants.

2. Planning

Program areas:

- a) Natural Hazard Regulations
The administration of conservation authority regulations related to development in the floodplain, and other natural hazards e.g. wetlands, slopes, shorelines and watercourses.
- b) Plan Input and Review
Planning and technical review of municipal planning documents and recommending environmental policies for floodplains, wetlands and other environmentally significant areas; providing advice and information to municipal councils on development proposals and severances; review of environmental assessments; and providing outside consulting services on a fee-for-service basis to other conservation authorities and agencies.

Operating Expenditures: **\$2,084,600** (Table 4)

Capital Expenditures: **NIL**

Revenue sources: Permit fees, enquiry fees, plan review fees, provincial grants and municipal levy

3. Watershed stewardship

The watershed stewardship program provides information and/or assistance to private and public landowners and community groups on sound water and environmental practices that will enhance, restore or protect their properties. Some activities are reforestation/tree planting through the Burford Tree Nursery, the Rural Water Quality Program, restoration and rehabilitation projects. The program also, provides conservation information through workshops, publications, the web site and media contacts.

Operating Expenditures:

| | |
|------------------------------------|------------------------|
| Forestry & Conservation Land Taxes | \$ 1,411,400 (Table 5) |
| Conservation Services | \$ 885,200 (Table 6) |
| Communications and Foundation | \$ 733,900 (Table 7) |

Capital Expenditures: **NIL**

Total Expenditures: **\$3,030,500**

Revenue sources:

Municipal levies and grants, provincial grants, tree sales, landowner contributions, donations from the Grand River Conservation Foundation and other donations.

4. Conservation Land Management

This includes expenses and revenues associated with the acquisition and management of land owned or managed by the GRCA including woodlots, provincially significant wetlands (e.g. Luther Marsh, Dunnville Marsh), passive conservation areas, rail-trails and a number of rental properties. Activities include forest management, woodlot thinning, and hydro production at our dams.

Operating Expenditures:

Conservation Lands, Rentals, Misc \$3,775,400 (Table 10-Conservation Lands)
Hydro Production \$ 203,000 (Table 10-Hydro Production)

Capital Expenditures: **NIL**

Total Expenditures: **\$3,812,400**

Revenue sources:

Property rentals, hydro production, timber sales, conservation land income, donations from the Grand River Conservation Foundation

5. Education

The GRCA operates six nature centres, which provide curriculum-based programs to about 50,000 students from six school boards and independent schools throughout the watershed. In addition, about 16,000 members of the public attend day camps and weekend family and community events.

Operating Expenditures: **\$1,382,400** (Table 8)

Capital Expenditures: **NIL**

Revenue sources: School boards, nature centre user fees, community event fees, donations from the Grand River Conservation Foundation and municipal general levy.

6. Recreation

This includes the costs and revenues associated with operating the GRCA's 11 active conservation areas. The GRCA offers camping, hiking, fishing, swimming, skiing and other activities at its parks. It provides 2,500 campsites, making it the second-largest provider of camping accommodation in Ontario. About 1 million people visit GRCA parks each year. The parks are financially self-sufficient.

Operating Expenditures: **\$7,885,000** (Table 10)

Capital Expenditures: **\$2,590,000** (Section B)

Total Expenditures: **\$10,475,000**

Revenue sources:

Conservation Area user fees, government grants, reserves and donations.

7. Corporate services

This includes the cost of head office functions such as accounting and human resources, as well as the cost of facilities, insurance, consulting and legal fees and expenses relating to the General Membership.

Operating Expenditures: **\$3,841,973** (Table 9)

Capital Expenditures: **\$ 207,700** (Section B)

Total Expenditures: **\$4,049,673**

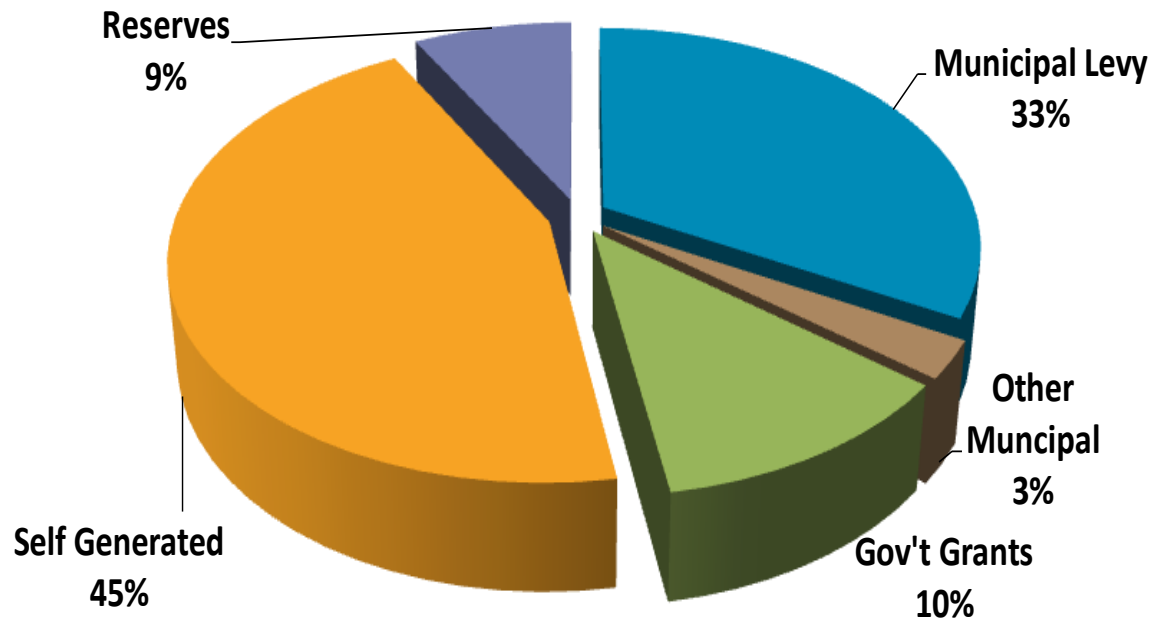
Revenue sources: Municipal levies and provincial grants.

BUDGET 2019 - Summary of Revenue and Expenditures

| FUNDING | | Actual 2017 | Budget 2018 | Budget 2019 | Budget Incr/(decr) |
|---|-----------|-------------------|-------------------|-------------------|------------------------|
| Municipal General Levy Funding | | 11,075,000 | 11,352,000 | 11,636,000 | 284,000 2.5% |
| Other Government Grants | | 4,941,840 | 4,928,573 | 4,501,073 | (427,500) -8.7% |
| Self-Generated Revenue | | 15,969,937 | 15,293,414 | 15,939,500 | 646,086 4.2% |
| Funding from Reserves | | 1,416,864 | 2,774,000 | 3,237,200 | 463,200 16.7% |
| TOTAL FUNDING | | 33,403,641 | 34,347,987 | 35,313,773 | 965,786 2.8% |
| EXPENDITURES | | Actual 2017 | Budget 2018 | Budget 2019 | Budget Incr/(decr) |
| Base Programs - Operating includes funding to reserves | SECTION A | 26,002,979 | 25,716,987 | 26,970,073 | 1,253,086 4.87% |
| Base Programs - Capital | SECTION B | 2,444,464 | 3,910,000 | 4,597,700 | 687,700 17.59% |
| Special Projects | SECTION C | 4,543,884 | 4,721,000 | 3,746,000 | (975,000) -20.7% |
| TOTAL EXPENDITURES | | 32,991,327 | 34,347,987 | 35,313,773 | 965,786 2.8% |
| NET RESULT | | 412,314 | - | - | |

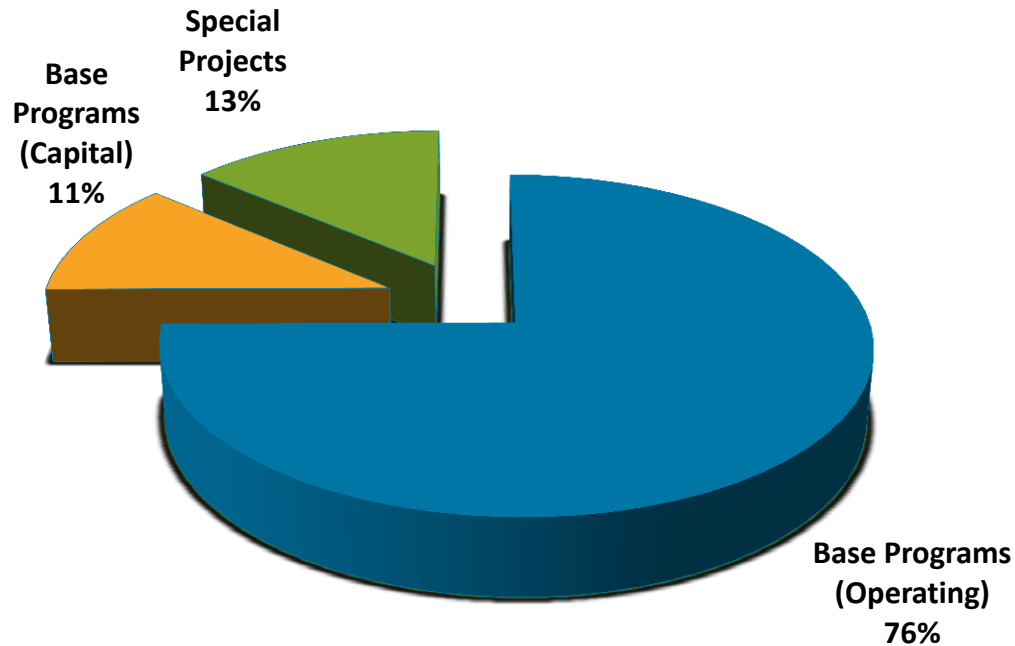
2019 Budget – Revenue by Source

Total 2019 Budget Revenue = \$35.3 Million (\$ 34.3 Million in 2018)

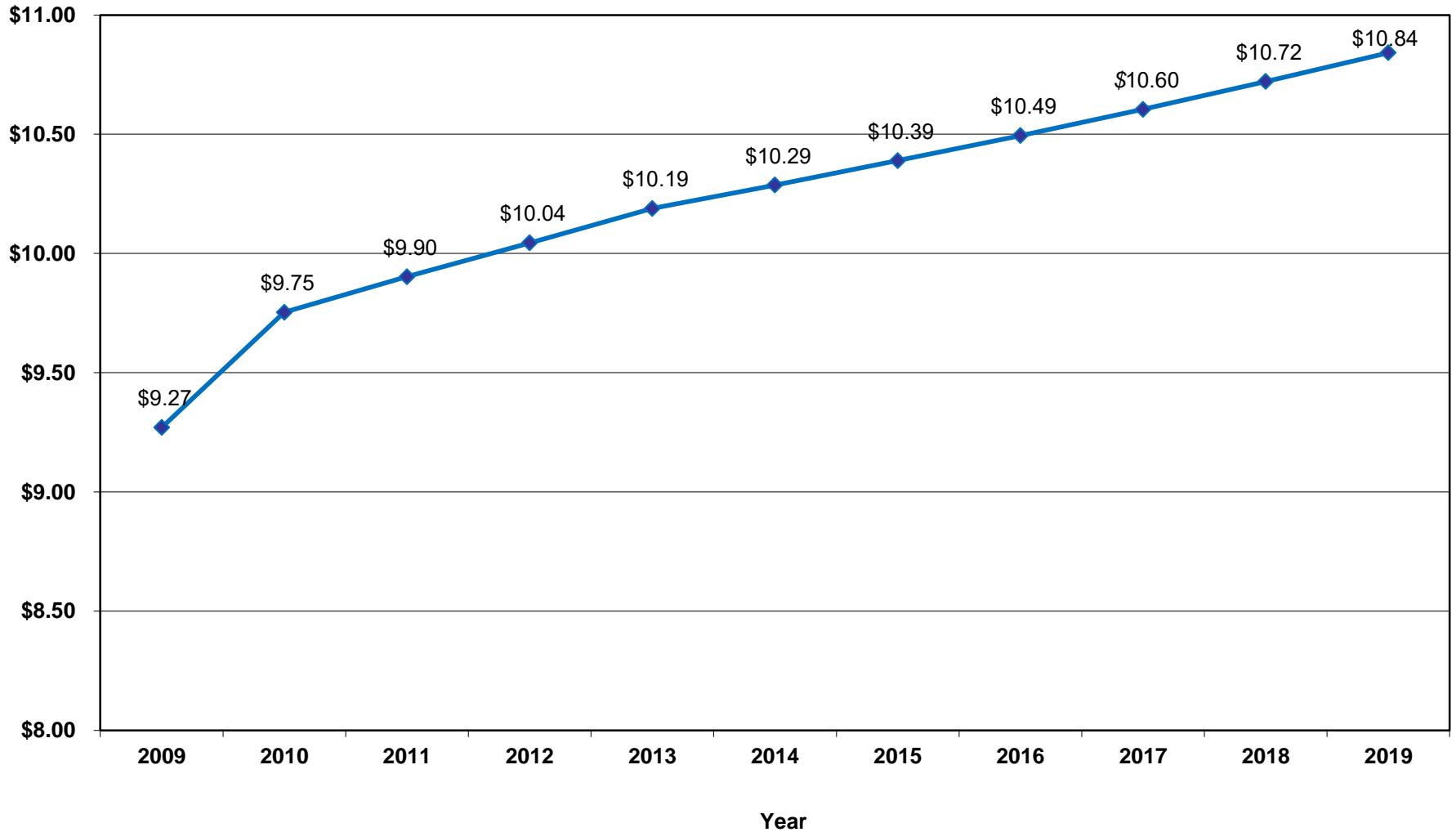


2019 Budget – Expenditures by Category

2019 Budget Expenditures = \$35.3 Million (\$ 34.3 Million in 2018)



GRCA Per Capita Levy 2009 to 2019



GRAND RIVER CONSERVATION AUTHORITY

Budget 2019 - Summary of Expenditures, Funding and Change in Municipal Levy

| | | TABLE 1 | TABLE 2 | TABLE 3 | TABLE 4 | TABLE 5 | TABLE 6 | TABLE 7 | TABLE 8 | TABLE 9 | TABLE 9 | TABLE 10 | TABLE 10 | TABLE 10 | |
|--------------------------------------|-----------------|--|-----------------------------------|-----------------------------|----------------------|--|--------------------------|--------------------------------|----------------------------|-----------------------|--|--|---------------------|-----------------------|------------|
| | | Water Resources Planning & Environment | Flood Forecasting & Warning | Water Control Structures | Resource Planning | Forestry & Conservation Land Taxes | Conservation Services | Communications & Foundation | Environmental Education | Corporate Services | Surplus available to offset Municipal Levy Increase | Conservation Land and Rental Management and Misc | Hydro Production | Conservation Areas | TOTAL |
| 2019 OPERATING | | | | | | | | | | | | | | | |
| TOTAL EXPENSES | A | 2,243,200 | 801,000 | 1,723,900 | 2,084,600 | 1,411,400 | 885,200 | 733,900 | 1,382,400 | 3,841,073 | | 3,775,400 | 203,000 | 7,885,000 | 26,970,073 |
| TOTAL OTHER FUNDING | B | 130,700 | 252,955 | 400,350 | 1,083,568 | 707,000 | 148,000 | 0 | 1,050,500 | 605,000 | | 3,325,000 | 473,000 | 7,885,000 | 16,061,073 |
| "Other Programs" Surplus/(Loss) | B less A | | | | | | | | | | | | | | (180,400) |
| Loss to be offset with Surplus | C | | | | | | | | | | 180,400 | (450,400) | 270,000 | - | (180,400) |
| Surplus 2018 carried forward to 2019 | | | | | | | | | | | (323,000) | | | | 323,000 |
| 2019 Levy | A less B less C | 2,112,500 | 548,045 | 1,323,550 | 1,001,032 | 704,400 | 737,200 | 733,900 | 331,900 | 3,236,073 | (142,600) | 0 | 0 | 0 | 10,586,000 |
| | | | | | | | | | | | | | | | 0 |
| Levy Increase: | | | | | | | | | | | | | | | |
| 2019 Levy | | 2,112,500 | 548,045 | 1,323,550 | 1,001,032 | 704,400 | 737,200 | 733,900 | 331,900 | 3,236,073 | (142,600) | | | | 10,586,000 |
| 2018 Levy | | 2,071,100 | 547,445 | 1,325,350 | 961,932 | 669,500 | 713,000 | 714,900 | 354,400 | 2,944,373 | | | | | 10,302,000 |
| Levy Increase over prior year | | 41,400 | 600 | (1,800) | 39,100 | 34,900 | 24,200 | 19,000 | (22,500) | 291,700 | (142,600) | n/a | n/a | n/a | 284,000 |
| | | | | | | | | | | | | | | | |
| 2019 CAPITAL | | | | | | | | | | | | | | | |
| TOTAL EXPENSES | A | 110,000 | 190,000 | 1,500,000 | | | | | | 207,700 | | | | 2,590,000 | 4,597,700 |
| TOTAL OTHER FUNDING | B | 50,000 | - | 700,000 | | | | | | 207,700 | | | | 2,590,000 | 3,547,700 |
| 2019 Levy | A less B | 60,000 | 190,000 | 800,000 | | | | | | - | | | | - | 1,050,000 |
| Levy Increase: | | | | | | | | | | | | | | | |
| 2019 Levy | | 60,000 | 190,000 | 800,000 | | | | | | - | | | | - | 1,050,000 |
| 2018 Levy | | 60,000 | 190,000 | 800,000 | | | | | | - | | | | - | 1,050,000 |
| Levy Increase over prior year | | - | - | - | | | | | | - | | | | - | - |
| | | | | | | | | | | | | | | | |
| 2018 SPECIAL | | | | | | | | | | | | | | | |
| TOTAL EXPENSES | A | 340,000 | 75,000 | 1,575,000 | | | 921,000 | | | | | 835,000 | | | 3,746,000 |
| TOTAL OTHER FUNDING | B | 340,000 | 75,000 | 1,575,000 | | | 921,000 | | | | | 835,000 | | | 3,746,000 |
| 2018 Levy | A less B | - | - | - | | | - | | | - | | - | | - | - |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | TOTAL EXPENSES | 35,313,773 |
| | | | | | | | | | | | | | | TOTAL FUNDING | 35,313,773 |
| | | | | | | | | | | | | | | NET RESULT | - |

Grand River Conservation Authority Summary of Municipal Levy - 2019 Budget

DRAFT-January 25, 2019

| | % CVA in | 2018 CVA | CVA-Based | 2018 Budget | 2019 Budget | 2019 Budget | 2019 Budget | 2019 Budget | Actual | |
|-----------------------|----------|------------------------|------------------------|----------------|----------------|------------------|------------------|-------------------|-------------------|-------------|
| | | | | | | | | | | |
| Brant County | 82.9% | 5,955,826,066 | 4,937,379,809 | 2.75% | 23,970 | 267,336 | 28,894 | 320,200 | 326,904 | -2.1% |
| Brantford C | 100.0% | 13,253,620,186 | 13,253,620,186 | 7.39% | 64,343 | 717,622 | 77,561 | 859,526 | 820,175 | 4.8% |
| Amaranth Twp | 82.0% | 692,356,801 | 567,732,577 | 0.32% | 2,756 | 30,740 | 3,322 | 36,818 | 35,971 | 2.4% |
| East Garafraxa Twp | 80.0% | 533,804,174 | 427,043,339 | 0.24% | 2,073 | 23,122 | 2,499 | 27,694 | 26,838 | 3.2% |
| Town of Grand Valley | 100.0% | 429,279,822 | 429,279,822 | 0.24% | 2,084 | 23,244 | 2,512 | 27,840 | 26,727 | 4.2% |
| Melancthon Twp | 56.0% | 507,262,719 | 284,067,123 | 0.16% | 1,379 | 15,381 | 1,662 | 18,422 | 18,160 | 1.4% |
| Southgate Twp | 6.0% | 883,428,392 | 53,005,703 | 0.03% | 257 | 2,870 | 310 | 3,437 | 3,294 | 4.3% |
| Haldimand County | 41.0% | 6,276,148,294 | 2,573,220,801 | 1.43% | 12,492 | 139,328 | 15,059 | 166,879 | 162,607 | 2.6% |
| Norfolk County | 5.0% | 8,618,652,073 | 430,932,604 | 0.24% | 2,092 | 23,333 | 2,522 | 27,947 | 27,566 | 1.4% |
| Halton Region | 10.4% | 39,536,197,403 | 4,121,457,995 | 2.30% | 20,009 | 223,158 | 24,119 | 267,286 | 253,594 | 5.4% |
| Hamilton City | 26.7% | 82,190,675,574 | 21,986,005,716 | 12.25% | 106,736 | 1,190,440 | 128,664 | 1,425,840 | 1,389,640 | 2.6% |
| Oxford County | 37.3% | 3,842,021,887 | 1,432,116,305 | 0.80% | 6,953 | 77,542 | 8,381 | 92,876 | 90,099 | 3.1% |
| North Perth T | 2.0% | 1,911,183,097 | 38,223,662 | 0.02% | 186 | 2,070 | 224 | 2,480 | 2,385 | 4.0% |
| Perth East Twp | 40.0% | 1,744,223,194 | 697,689,278 | 0.39% | 3,387 | 37,777 | 4,083 | 45,247 | 43,127 | 4.9% |
| Waterloo Region | 100.0% | 91,711,011,599 | 91,711,011,599 | 51.11% | 445,232 | 4,965,722 | 536,699 | 5,947,653 | 5,816,764 | 2.3% |
| Centre Wellington Twp | 100.0% | 4,490,977,731 | 4,490,977,731 | 2.50% | 21,802 | 243,166 | 26,282 | 291,250 | 285,969 | 1.8% |
| Erin T | 49.0% | 2,319,917,492 | 1,136,759,571 | 0.63% | 5,519 | 61,550 | 6,652 | 73,721 | 73,360 | 0.5% |
| Guelph C | 100.0% | 24,316,625,767 | 24,316,625,767 | 13.55% | 118,051 | 1,316,632 | 142,303 | 1,576,986 | 1,537,580 | 2.6% |
| Guelph Eramosa Twp | 100.0% | 2,527,154,919 | 2,527,154,919 | 1.41% | 12,269 | 136,834 | 14,789 | 163,892 | 159,913 | 2.5% |
| Mapleton Twp | 95.0% | 1,526,746,159 | 1,450,407,901 | 0.81% | 7,041 | 78,533 | 8,488 | 94,062 | 90,132 | 4.4% |
| Wellington North Twp | 51.0% | 1,516,305,544 | 773,315,828 | 0.43% | 3,754 | 41,871 | 4,526 | 50,151 | 49,212 | 1.9% |
| Puslinch Twp | 75.0% | 2,380,647,827 | 1,785,485,870 | 1.00% | 8,668 | 96,676 | 10,449 | 115,793 | 111,983 | 3.4% |
| Total | | 297,164,066,719 | 179,423,514,108 | 100.00% | 871,053 | 9,714,947 | 1,050,000 | 11,636,000 | 11,352,000 | 2.5% |

SECTION A

BASE PROGRAMS – OPERATING

SECTION A - Operating Budget

GRAND RIVER CONSERVATION AUTHORITY

Budget 2019 vs Budget 2018

| | Actual 2017 | Budget 2018 | Budget 2019 | Incr/(Decr) | %age change |
|-------------------------------|-------------------|-------------------|-------------------|------------------|--------------|
| EXPENDITURES | | | | | |
| OPERATING EXPENSES | 26,002,979 | 25,716,987 | 26,970,073 | 1,253,086 | 4.87% |
| Total Expenses | 26,002,979 | 25,716,987 | 26,970,073 | 1,253,086 | 4.87% |
| SOURCES OF FUNDING | | | | | |
| MUNICIPAL GENERAL LEVY (NOTE) | 9,586,312 | 10,302,000 | 10,586,000 | 284,000 | 2.76% |
| MUNICIPAL SPECIAL LEVY | 35,200 | 50,000 | 50,000 | - | 0.00% |
| OTHER GOVT FUNDING | 925,704 | 938,573 | 938,573 | - | 0.00% |
| SELF-GENERATED | 14,352,119 | 13,840,100 | 14,415,500 | 575,400 | 4.16% |
| RESERVES | 787,812 | 174,000 | 657,000 | 483,000 | 277.59% |
| SURPLUS CARRYFORWARD | 315,832 | 412,314 | 323,000 | (89,314) | -21.66% |
| Total BASE Funding | 26,002,979 | 25,716,987 | 26,970,073 | 1,253,086 | 4.87% |

NOTE: See "Summary of Revenue, Expenditures and Changes in Municipal Levy" for details of \$284,000 levy increase.

TABLE 1

(a) Watershed Studies

This category includes watershed and subwatershed studies. These studies provide the strategic framework for understanding water resources and ecosystem form, functions and linkages. These allow for assessment of the impacts of changes in watershed resources and land use. Watershed studies also identify activities and actions that are needed to minimize the adverse impacts of change. This program supports other plans and programs that promote healthy watersheds.

Specific Activities:

- Carry out or partner with municipalities and other stakeholders on integrated subwatershed plans for streams and tributaries. Subwatershed Plans are technical reports which provide comprehensive background on how surface water, groundwater, terrestrial and aquatic ecosystems function in a subwatershed. The plans recommend how planned changes such as urbanization can take place in a sustainable manner.

(b) Water Resources Planning and Environment and Support

This category includes the collection and analysis of environmental data and the development of management plans for protection and management of water resources and natural heritage systems. These programs assist with implementation of monitoring water and natural resources and assessment of changes in watershed health and priority management areas.

Specific Activities:

- operate 8 continuous river water quality monitoring stations, 73 stream flow monitoring stations, 27 groundwater monitoring stations, and 37 water quality monitoring stations in conjunction with MOE, apply state-of-the-art water quality assimilation model to determine optimum sewage treatment options in the central Grand, and provide technical input to municipal water quality issues
- analyze and report on water quality conditions in the Grand River watershed
- maintain a water budget to support sustainable water use in the watershed, and maintain a drought response program
- analyze water use data for the watershed and provide recommendations for water conservation approaches
- provide advice to Provincial Ministries regarding water use permits to ensure that significant environmental concerns are identified so that potential impacts can be addressed.

(c) Resource Management Division Support

Provides support services to the Engineering and Resource Management Divisions including support for Flood Forecasting and Warning and Water Control Structures.

Specific Spending:

- administrative services
- travel, communication, staff development and computer
- insurance

(d) Natural Heritage Management

The natural heritage management program includes those activities associated with providing service and/or assistance to municipalities, private and public landowners and community groups on sound environmental practices that will enhance, restore or protect the aquatic and terrestrial ecosystems. The program includes watershed scale natural heritage assessments and implements restoration activities on GRCA land..

Specific Activities:

- maintain and promote the ‘Grand River Fisheries Management Plan’.
- implement “best bets” for protection and enhancement of fisheries, work with outside agencies, non-government organizations and the public to improve fish habitat through stream rehabilitation projects including the implementation of the recommendations of the watershed studies.
- maintain and implement the Forest Management Plan for the Grand River watershed and develop and implement components of the watershed Emerald Ash Borer strategy
- carry out restoration and rehabilitation projects for aquatic and terrestrial ecosystems e.g. species at risk and ecological monitoring on GRCA lands, and prescribed burn activities and community events such as tree planting and stream restoration
- provide technical input and review services for applications that may affect the watershed ecosystems.

TABLE 1
 GRAND RIVER CONSERVATION AUTHORITY
Water Resources Planning & Environment

| OPERATING | Actual 2017 | Budget 2018 | Budget 2019 | Budget Change |
|---|--------------------|--------------------|--------------------|----------------------|
| Expenses: | | | | incr/(decr) |
| Salary and Benefits | 1,469,253 | 1,587,900 | 1,615,500 | 27,600 |
| Travel, Motor Pool, Expenses, Telephone, Training and Development, IT | 256,974 | 313,000 | 319,300 | 6,300 |
| Insurance | 115,267 | 110,000 | 113,300 | 3,300 |
| Other Operating Expenses | 152,699 | 210,900 | 195,100 | -15,800 |
| Amount set aside to Reserves | | - | - | |
| TOTAL EXPENSE | 1,994,193 | 2,221,800 | 2,243,200 | 21,400 |
| Funding | | | | (incr)/decr |
| Municipal Other | 35,200 | 50,000 | 50,000 | 0 |
| MNR Grant | 33,200 | 33,200 | 33,200 | 0 |
| Prov & Federal Govt | 23,465 | 37,500 | 47,500 | -10,000 |
| Donations | - | 3,000 | | 3,000 |
| Funds taken from Reserves | - | 27,000 | | 27,000 |
| TOTAL FUNDING | 91,865 | 150,700 | 130,700 | (10,000.00) |
| Net Funded by General Municipal Levy | 1,902,328 | 2,071,100 | 2,112,500 | |
| Net incr/(decr) to Municipal Levy | | | | 41,400 |

TABLE 2

Flood Forecasting and Warning

The flood warning system includes the direct costs associated with monitoring the streams, and rivers in order to effectively provide warnings and guidance to municipalities and watershed residents during flood emergencies.

Overall, flood protection services provide watershed residents with an effective and efficient system that will reduce their exposure to the threat of flood damage and loss of life. It is estimated that the existing flood protection in the Grand River watershed saves an average of over \$5.0 million annually in property damage.

Specific Activities:

- maintain a ‘state of the art’ computerized flood forecasting and warning system.
- operate a 24 hour, year-round, on-call duty officer system to respond to flooding matters.
- collect and manage data on rainfall, water quantity, reservoir conditions, water levels from 56 stream flow gauges, 24 rainfall gauges, and 12 snow courses.
- use data radio and Voice Alert system to continuously, monitor river conditions and detect warning levels, assist municipalities with emergency planning, and respond to thousands of inquiries each year.
- Assist municipalities with municipal emergency planning and participate in municipal emergency planning exercises when requested.

TABLE 2
GRAND RIVER CONSERVATION AUTHORITY
Flood Forecasting & Warning

| OPERATING | Actual 2017 | Budget 2018 | Budget 2019 | Budget change |
|---|----------------|----------------|----------------|---------------|
| Expenses: | | | | incr/(decr) |
| Salary and Benefits | 373,875 | 463,200 | 457,000 | (6,200) |
| Travel, Motor Pool, Expenses, Telephone, Training and Development, IT | 255,233 | 260,800 | 266,000 | 5,200 |
| Other Operating Expenses | 71,797 | 76,400 | 78,000 | 1,600 |
| Amount set aside to Reserves | 65,000 | | | |
| TOTAL EXPENSE | 765,905 | 800,400 | 801,000 | 600 |
| Funding | | | | (incr)/decr |
| MNR Grant | 252,955 | 252,955 | 252,955 | - |
| Prov & Federal Govt | 1,260 | - | - | - |
| TOTAL FUNDING | 254,215 | 252,955 | 252,955 | - |
| Net Funded by General Municipal Levy | 511,690 | 547,445 | 548,045 | |
| Net incr/(decr) to Municipal Levy | | | | 600 |

TABLE 3

Water Control Structures

This category includes costs associated with the capital and maintenance of structures, the primary purpose of which is to provide protection to life and property. These structures include dams, dykes, berms and channels etc. Also included in this category are non-flood control dams and weirs, which maintain upstream water levels.

Overall, flood protection services provide watershed residents with an effective and efficient system that will reduce their exposure to the threat of flood damage and loss of life. It is estimated that the existing flood protection in the Grand River watershed saves an average of over \$5.0 million annually in property damage.

Specific Activities:

- operate and maintain 7 major multi-purpose reservoirs, which provide flood protection and flow augmentation, and 25 kilometres of dykes in 5 major dyke systems (Kitchener-Bridgeport, Cambridge-Galt, Brantford, Drayton and New Hamburg)
- ensure structural integrity of flood protection infrastructure through dam safety reviews, inspections and monitoring, reconstruction of deteriorating sections of floodwalls and refurbishing of major components of dams
- carry out capital upgrades to the flood control structures in order to meet Provincial standards
- operate and maintain 22 non-flood control dams, which are primarily for aesthetic, recreational, or municipal water supply intake purposes
- develop and implement plans to decommission failing or obsolete dams
- ice management activities to prevent or respond to flooding resulting from ice jams
- develop and implement public safety plans for structures

TABLE 3
GRAND RIVER CONSERVATION AUTHORITY
Water Control Structures

| OPERATING | Actual 2017 | Budget 2018 | Budget 2019 | Budget change |
|---|--------------------|--------------------|--------------------|----------------------|
| Expenses: | | | | incr/(decr) |
| Salary and Benefits | 1,103,590 | 1,170,100 | 1,170,200 | 100 |
| Travel, Motor Pool, Expenses, Telephone, Training and Development, IT | 14,271 | 28,600 | 29,200 | 600 |
| Property Taxes | 163,892 | 189,000 | 179,700 | (9,300) |
| Other Operating Expenses | 268,628 | 338,000 | 344,800 | 6,800 |
| Amount set aside to Reserves | 128,500 | - | - | - |
| TOTAL EXPENSE | 1,678,881 | 1,725,700 | 1,723,900 | (1,800) |
| Funding | | | | (incr)/decr |
| MNR Grant | 400,350 | 400,350 | 400,350 | - |
| TOTAL FUNDING | 400,350 | 400,350 | 400,350 | - |
| Net Funded by General Municipal Levy | 1,278,531 | 1,325,350 | 1,323,550 | |
| Net incr/(decr) to Municipal Levy | | | | (1,800) |

TABLE 4

(a) PLANNING - Regulations

This category includes costs and revenues associated with administering the *Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation* made under the *Conservation Authorities Act*. This includes permit review, inspections, permit issuance, enforcement and follow-up, which may include defending appeals.

Specific Activities:

- Process over 800 permits each year related to development, alteration or activities that may interfere with the following types of lands:
 - ravines, valleys, steep slopes
 - wetlands including swamps, marshes, bogs, and fens
 - any watercourse, river, creek, floodplain or valley land
 - the Lake Erie shoreline
- The regulation applies to the development activities listed below in the areas listed above:
 - the construction, reconstruction, erection or placing of a building or structure of any kind,
 - any change to a building or structure that would have the effect of altering the use or potential use of the building or structure, increasing the size of the building or structure or increasing the number of dwelling units in the building or structure
 - site grading
 - the temporary or permanent placing, dumping or removal of any material originating on the site or elsewhere.
- maintain policies and guidelines to assist in the protection of sensitive environmental lands (i.e. Policies for the Administration of the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation)
- enforcement of the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation and maintain compliance policies and procedures
- update and maintain flood line mapping; develop natural hazards mapping in digital format to be integrated into municipal planning documents and Geographic Information Systems

(b) PLANNING - Municipal Plan Input and Review

This program includes costs and revenues associated with reviewing Official Plans, Secondary and Community Plans, Zoning Bylaws, Environmental Assessments, development applications and other proposals, in accordance with Conservation Authority and provincial or municipal agreements. It also includes watershed management consulting outside of the Grand River watershed, which is done from time-to-time on a fee-for-service basis.

Specific Activities:

- review municipal planning and master plan documents and recommend environmental policies and designations for floodplains, wetlands, natural heritage areas, fisheries habitat, hazard lands and shorelines, which support GRCA regulations and complement provincial polices and federal regulations
- provide advice to municipalities regarding environmental assessments, and other proposals such as aggregate and municipal drain applications to ensure that all environmental concerns are adequately identified and that any adverse impacts are minimized or mitigated
- provide information and technical advice to Municipal Councils and Committees and Land Division Committees regarding development applications to assist in making wise land use decisions regarding protection of people and property from natural hazard areas such as flood plains and erosion areas and protection and enhancement of wetlands, fish and wildlife habitat and natural heritage systems

TABLE 4
GRAND RIVER CONSERVATION AUTHORITY
Resource Planning

| OPERATING | Actual 2017 | Budget 2018 | Budget 2019 | Budget change |
|---|--------------------|--------------------|--------------------|----------------------|
| Expenses: | | | | incr/(decr) |
| Salary and Benefits | 1,594,807 | 1,706,200 | 1,807,400 | 101,200 |
| Travel, Motor Pool, Expenses, Telephone, Training and Development, IT | 193,435 | 218,100 | 222,500 | 4,400 |
| Other Operating Expenses | 84,075 | 53,600 | 54,700 | 1,100 |
| TOTAL EXPENSE | 1,872,317 | 1,977,900 | 2,084,600 | 106,700 |
| Funding | | | | (incr)/decr |
| Provincial | 6,831 | - | - | - |
| MNR Grant | 114,568 | 114,568 | 114,568 | - |
| Self Generated | 973,097 | 901,400 | 969,000 | (67,600) |
| TOTAL FUNDING | 1,094,496 | 1,015,968 | 1,083,568 | (67,600) |
| Net Funded by General Municipal Levy | 777,821 | 961,932 | 1,001,032 | |
| Net incr/(decr) to Municipal Levy | | | | 39,100 |

TABLE 5

Forestry & Property Taxes

The forestry program includes those activities associated with providing service and/or assistance to private and public landowners and community groups on sound environmental practices that will enhance, restore or protect their properties.

This category includes direct delivery of remediation programs including tree planting/reforestation.

General Municipal Levy funds the property tax for GRCA owned natural areas/passive lands.

Specific Activities:

- plant trees on private lands (cost recovery from landowner)
- operate Burford Tree Nursery to grow and supply native and threatened species
- carry out tree planting and other forest management programs on over 7,000 hectares of managed forests on GRCA owned lands
- manage Emerald Ash Borer infestation

TABLE 5
GRAND RIVER CONSERVATION AUTHORITY
Forestry & Conservation Land Taxes

| OPERATING | Actual 2017 | Budget 2018 | Budget 2019 | Budget change |
|---|--------------------|--------------------|--------------------|----------------------|
| Expenses: | | | | incr/(decr) |
| Salary and Benefits | 587,194 | 539,900 | 556,000 | 16,100 |
| Travel, Motor Pool, Expenses, Telephone, Training and Development, IT | 56,118 | 43,400 | 44,300 | 900 |
| Property Taxes | 168,606 | 177,800 | 183,200 | 5,400 |
| Other Operating Expenses | 528,035 | 615,400 | 627,900 | 12,500 |
| Amount set aside to Reserves | | - | | 0 |
| TOTAL EXPENSE | 1,339,953 | 1,376,500 | 1,411,400 | 34,900 |
| Funding | | | | (incr)/decr |
| Donations | 5,089 | 57,000 | 57,000 | - |
| Self Generated | 623,588 | 650,000 | 650,000 | - |
| Funds taken from Reserves | 16,205 | - | - | - |
| TOTAL FUNDING | 644,882 | 707,000 | 707,000 | 0 |
| Net Funded by General Municipal Levy | 695,071 | 669,500 | 704,400 | |
| Net incr/(decr) to Municipal Levy | | | | 34,900 |

TABLE 6

Conservation Services

The conservation service program includes those activities associated with providing service and/or assistance to private and public landowners and community groups on sound environmental practices that will enhance, restore or protect their properties.

This category includes the Rural Quality program and Forestry extension services.

Specific Activities:

- Co-ordinate the Rural Water Quality Program. This involves landowner contact, promotion/education and providing grants to assist farmers with capital improvements to address manure containment, livestock fencing, soil conservation, and other rural non-point sources of river water pollution. Funding for this important initiative comes from watershed municipalities and other government grants.
- Carry out tree planting, restoration and rehabilitation projects with private landowners
- Co-ordinate community events e.g. children's water festivals and agricultural and rural landowner workshops to promote water and environmental initiatives
- Co-ordinate GRCA Volunteer Program to enable public participation in community and GRCA environmental activities

TABLE 6
GRAND RIVER CONSERVATION AUTHORITY
Conservation Services

| OPERATING | Actual 2017 | Budget 2018 | Budget 2019 | Budget change |
|---|--------------------|--------------------|--------------------|----------------------|
| Expenses: | | | | incr/(decr) |
| Salary and Benefits | 651,189 | 693,100 | 714,000 | 20,900 |
| Travel, Motor Pool, Expenses, Telephone, Training and Development, IT | 94,505 | 110,000 | 112,200 | 2,200 |
| Other Operating Expenses | 18,756 | 57,900 | 59,000 | 1,100 |
| Amount set aside to Reserves | | | | |
| TOTAL EXPENSE | 764,450 | 861,000 | 885,200 | 24,200 |
| Funding | | | | (incr)/decr |
| Prov & Federal Govt | - | 30,000 | 30,000 | - |
| Donations | 93,175 | 87,000 | 87,000 | - |
| Self Generated | 6,095 | - | - | - |
| Recoverable Corporate Services Expenses | - | - | - | - |
| Funds taken from Reserves | 742 | 31,000 | 31,000 | - |
| TOTAL FUNDING | 100,012 | 148,000 | 148,000 | - |
| Net Funded by General Municipal Levy | 664,438 | 713,000 | 737,200 | |
| Net incr/(decr) to Municipal Levy | | | | 24,200 |

TABLE 7

Communications & Foundation

The Communications department provides a wide range of services and support for the GRCA, the Grand River Conservation Foundation, as well as Lake Erie Region Source Protection Program. This category includes watershed-wide communication and promotion of conservation issues to watershed residents, municipalities and other agencies.

The Grand River Conservation Foundation provides private sector funding for GRCA projects with limited or no other sources of revenue. This category includes operational costs related to fundraising.

Communications - Specific Activities:

- Media relations
- Public relations and awareness building
- Online communications
- Issues management and crisis communications
- Community engagement and public consultation
- Corporate brand management

Foundation - Specific Activities:

- Solicit donors for financial support
- Orient and train volunteers to assist with fundraising
- Provide site tours and other events to stakeholders

TABLE 7
GRAND RIVER CONSERVATION AUTHORITY
Communications & Foundation

| OPERATING | Actual 2017 | Budget 2018 | Budget 2019 | Budget change |
|---|--------------------|--------------------|--------------------|----------------------|
| Expenses: | | | | incr/(decr) |
| Salary and Benefits | 487,770 | 566,400 | 583,400 | 17,000 |
| Travel, Motor Pool, Expenses, Telephone, Training and Development, IT | 73,722 | 75,500 | 77,000 | 1,500 |
| Other Operating Expenses | 34,102 | 73,000 | 73,500 | 500 |
| Amount set aside to Reserves | | - | - | - |
| TOTAL EXPENSE | 595,594 | 714,900 | 733,900 | 19,000 |
| Funding | | | | |
| Net Funded by General Municipal Levy | 595,594 | 714,900 | 733,900 | |
| Net incr/(decr) to Municipal Levy | | | | 19,000 |

TABLE 8

Environmental Education

This category includes costs and revenues associated with outdoor education facilities, which provide education and information about conservation, the environment and the Conservation Authority's programs to 50,000 students in 6 school boards and 16,000 members of the general public annually. The majority of funding for this program comes from school boards, the Grand River Conservation Foundation and public program fees.

Specific Activities:

- operate 6 outdoor education centres under contract with watershed school boards, providing hands-on, curriculum-based, outdoor education (App's Mills near Brantford, Taquanyah near Cayuga, Guelph Lake, Laurel Creek in Waterloo, Shade's Mills in Cambridge and Rockwood)
- offer curriculum support materials and workshops to watershed school boards
- offer conservation day camps to watershed children and interpretive community programs to the public (user fees apply)

TABLE 8
GRAND RIVER CONSERVATION AUTHORITY
Environmental Education

| OPERATING | Actual 2017 | Budget 2018 | Budget 2019 | Budget change |
|---|--------------------|--------------------|--------------------|----------------------|
| Expenses: | | | | incr/(decr) |
| Salary and Benefits | 930,588 | 942,400 | 1,000,000 | 57,600 |
| Travel, Motor Pool, Expenses, Telephone, Training and Development, IT | 92,419 | 74,300 | 75,800 | 1,500 |
| Insurance | 10,447 | 10,000 | 10,300 | 300 |
| Property Taxes | 11,440 | 19,400 | 20,000 | 600 |
| Other Operating Expenses | 281,215 | 270,300 | 276,300 | 6,000 |
| Amount set aside to Reserves | 70,000 | 30,000 | | (30,000) |
| TOTAL EXPENSE | 1,396,109 | 1,346,400 | 1,382,400 | 36,000 |
| Funding | | | | (incr)/decr |
| Provincial & Federal Grants | 3,075 | - | - | - |
| Donations | 72,092 | 50,000 | 50,000 | - |
| Self Generated | 895,627 | 942,000 | 1,000,500 | (58,500) |
| Funds taken from Reserves | 2,450 | - | - | - |
| TOTAL FUNDING | 973,244 | 992,000 | 1,050,500 | (58,500) |
| Net Funded by General Municipal Levy | 422,865 | 354,400 | 331,900 | |
| Net incr/(decr) to Municipal Levy | | | | (22,500) |

TABLE 9

CORPORATE SERVICES

This category includes the costs for goods and services, as listed below, that are provided corporately. A small portion of these costs is recovered from provincial grants, namely from source protection program funding and from the MNR operating grant.

Specific Activities:

This category includes the following departments:

- Office of the Chief Administrative Officer and the Assistant Chief Administrative Officer/Secretary-Treasurer
- Finance
- Human Resources
- Payroll
- Health & Safety
- Office Services

In addition, this category includes expenses relating to:

- The General Membership
- Head Office Building
- Office Supplies, Postage, Bank fees
- Head Office Communication systems
- Insurance
- Audit fees
- Consulting, Legal, Labour Relations fees
- Health and Safety Equipment, Inspections, Training
- Conservation Ontario fees
- Corporate Professional Development
- General expenses

TABLE 9
GRAND RIVER CONSERVATION AUTHORITY
Corporate Services

| Budget 2019 | | Surplus available to offset Municipal Levy Increase |
|---|------------------|--|
| Expenses: | | |
| | 25 | |
| Salary and Benefits | 1,897,000 | |
| Travel, Motor Pool, Expenses, Telephone, Training and Development, IT | 369,000 | |
| Insurance | 57,000 | |
| Other Operating Expenses | 1,518,073 | |
| Amount set aside to Reserves | | |
| TOTAL EXPENSE | 3,841,073 | |
| Funding | | |
| MNR Grant | 70,000 | |
| Recoverable Corporate Services Expenses | 70,000 | |
| Funds taken from Reserves | 465,000 | |
| TOTAL FUNDING | 605,000 | |
| Net Result before surplus adjustments | 3,236,073 | |
| Deficit from Other Programs offset by 2018 Surplus Carryforward | | (180,400) |
| 2018 Surplus Carried Forward to 2019 used to reduce Levy | | 323,000 |
| Net Funded by General Municipal Levy | 3,236,073 | 142,600 |

| Budget 2018 | | Surplus available to offset Municipal Levy Increase |
|---|------------------|--|
| Expenses: | | |
| | 1,990,000 | |
| Salary and Benefits | 1,990,000 | |
| Travel, Motor Pool, Expenses, Telephone, Training and Development, IT | 337,300 | |
| Insurance | 55,000 | |
| Other Operating Expenses | 1,087,687 | |
| Amount set aside to Reserves | | |
| TOTAL EXPENSE | 3,469,987 | |
| Funding | | |
| MNR Grant | 70,000 | |
| Recoverable Corporate Services Expenses | 70,000 | |
| Funds taken from Reserves | 15,000 | |
| TOTAL FUNDING | 155,000 | |
| Net Result before surplus adjustments | 3,314,987 | |
| Deficit from Other Programs offset by 2017 Surplus Carryforward | | (41,700) |
| 2016 Surplus Carried Forward to 2017 used to reduce Levy | | 412,314 |
| Net Funded by General Municipal Levy | 3,314,987 | 370,614 |

| ACTUAL 2017 | | Surplus available to offset Municipal Levy Increase |
|---|------------------|--|
| Expenses: | | |
| | 1,848,424 | |
| Salary and Benefits | 1,848,424 | |
| Travel, Motor Pool, Expenses, Telephone, Training and Development, IT | 297,506 | |
| Insurance | 56,897 | |
| Other Operating Expenses | 779,367 | |
| Amount set aside to Reserves | 170,000 | |
| TOTAL EXPENSE | 3,152,194 | |
| Funding | | |
| MNR Grant | 70,000 | |
| Donations/Other | 25,000 | |
| Recoverable Corporate Services Expenses | 64,862 | |
| TOTAL FUNDING | 159,862 | |
| Net Result before surplus/(deficit) adjustments | 2,992,332 | |
| Deficit from Other Programs offset by 2016 Surplus Carryforward | | (61,474) |
| 2016 Surplus Carried Forward to 2017 used to reduce Levy | | 315,832 |
| Net Funded by General Municipal Levy | 2,992,332 | 254,358 |

TABLE 10 (a)

Conservation Lands, Rental Properties, Forestry & Misc

The Conservation Land Management Program includes all expenses and revenues associated with acquisition and management of land owned/managed by the Authority. This includes protection of *Provincially Significant Conservation Lands*, woodlot management, rental/lease agreements and other revenues generated from managing lands and facilities. These expenses do not include those associated with recreation and education programs on GRCA lands.

Specific Activities:

- acquire and manage significant wetlands and floodplain lands, e.g. the Luther Marsh Wildlife Management Area, the Keldon Source Area, the Bannister-Wrigley Complex, and the Dunnville Marsh
- operate “passive” conservation areas in order to conserve forests and wildlife habitat. Some are managed by municipalities or private organizations (Chicopee Ski Club in Kitchener, Scott Park in New Hamburg, etc.)
- develop and maintain extensive trail network on former rail lines owned by GRCA and municipalities (much of this is part of the Trans-Canada Trail network). Necessary funding is raised by The Grand River Conservation Foundation
- rent 733 cottage lots at Belwood Lake and Conestogo Lake; hold leases on over 1200 hectares of agricultural land and 19 residential units, and over 50 other agreements for use of GRCA lands. Income from these rentals aids in the financing of other GRCA programs
- host controlled hunts at various locations including Luther Marsh Wildlife Management Area and Conestogo Lake
- carry out forestry disease control, woodlot thinning and selective harvesting on GRCA lands in accordance with the Forest Management Plan while generating income from sale of timber. Income generated helps pay for future forest management activities
- where appropriate, dispose of lands that have been declared surplus and continue to identify and plan for disposition of other surplus lands. Proceeds from future dispositions will be used for acquisition of “Environmentally Significant Conservation Lands” and for other core programs
- payment of non-insured losses and deductibles for vandalism, loss or theft; miscellaneous amounts recovered from insurance settlements

- investment income arising from reserves and funds received in advance of program expenses

TABLE 10 (b)

HYDRO PRODUCTION

This program generates revenue from ‘hydro production’.

Specific Activities:

- generate hydro from turbines in 2 large dams, Shand and Conestogo; the income is used to fund GRCA programs and repay reserves accordingly for the cost of building/repairing turbines.

TABLE 10 (c)

CONSERVATION AREAS

These programs include costs and revenues associated with delivering recreational programs on GRCA lands and include the costs and revenues associated with day-use, camping, concessions and other activities at GRCA active Conservation Areas.

Specific Activities:

- operate 11 “active” Conservation Areas (8 camping and 3 exclusively day-use) that are enjoyed by over 1.7 million visitors annually. It is estimated that these visitors also help generate significant revenues for the local tourism industry
- offer camping, hiking, fishing, swimming, boating, picnicking, skiing and related facilities
- provide 2,200 campsites – second only to the provincial park system as a provider of camping accommodation in Ontario

TABLE 10
 GRAND RIVER CONSERVATION AUTHORITY
OTHER PROGRAMS - OPERATING - SUMMARY of Results

| | Conservation Lands | Property Rentals | MISC | (a) Cons Lands, Rental, Misc | (b) Hydro Production | (c) Conservation Areas | TOTAL Other Programs |
|---|--------------------|------------------|----------------|------------------------------------|-------------------------|---------------------------|-------------------------|
| Budget 2019 - OPERATING | | | | | | | |
| Expenses: | | | | | | | |
| Salary and Benefits | 1,138,800 | 576,000 | - | 1,714,800 | 43,500 | 4,502,000 | |
| Travel, Motor Pool, Expenses, Telephone, Training and Development, IT | 159,600 | 74,500 | - | 234,100 | - | 177,000 | |
| Insurance | 147,300 | 16,500 | - | 163,800 | - | - | |
| Property Taxes | - | 101,000 | - | 101,000 | - | 62,000 | |
| Other Operating Expenses (consulting etc) | 665,000 | 826,700 | 70,000 | 1,561,700 | 89,500 | 2,844,000 | |
| Amount set aside to Reserves | - | - | - | - | 70,000 | 300,000 | |
| TOTAL EXPENSE | 2,110,700 | 1,594,700 | 70,000 | 3,775,400 | 203,000 | 7,885,000 | 11,863,400 |
| Funding | | | | | | | |
| Donations | 65,000 | - | - | 65,000 | - | - | |
| Self Generated | 86,000 | 2,875,000 | 148,000 | 3,109,000 | 473,000 | 7,885,000 | |
| Funds taken from Reserves | 1,000 | 150,000 | - | 151,000 | - | - | |
| TOTAL FUNDING | 152,000 | 3,025,000 | 148,000 | 3,325,000 | 473,000 | 7,885,000 | 11,683,000 |
| NET Surplus/(Deficit) for programs not funded by general levy | (1,958,700) | 1,430,300 | 78,000 | (450,400) | 270,000 | - | (180,400) |
| Budget 2018 - OPERATING | | | | | | | |
| Expenses: | | | | | | | |
| Salary and Benefits | 1,042,500 | 574,000 | - | 1,616,500 | 42,000 | 4,177,000 | |
| Travel, Motor Pool, Expenses, Telephone, Training and Development, IT | 156,500 | 73,000 | - | 229,500 | - | 173,000 | |
| Insurance | 143,000 | 15,500 | - | 158,500 | - | - | |
| Property Taxes | - | 98,000 | - | 98,000 | - | 60,000 | |
| Other Operating Expenses (consulting etc) | 605,000 | 834,900 | 70,000 | 1,509,900 | 88,000 | 2,700,000 | |
| Amount set aside to Reserves | - | - | - | - | 70,000 | 300,000 | |
| TOTAL EXPENSE | 1,947,000 | 1,595,400 | 70,000 | 3,612,400 | 200,000 | 7,410,000 | 11,222,400 |
| Funding | | | | | | | |
| Donations | 65,000 | - | - | 65,000 | - | - | |
| Self Generated | 86,000 | 2,900,700 | 148,000 | 3,134,700 | 470,000 | 7,410,000 | |
| Funds taken from Reserves | 1,000 | 100,000 | - | 101,000 | - | - | |
| TOTAL FUNDING | 152,000 | 3,000,700 | 148,000 | 3,300,700 | 470,000 | 7,410,000 | 11,180,700 |
| NET Surplus/(Deficit) for programs not funded by general levy | (1,795,000) | 1,405,300 | 78,000 | (311,700) | 270,000 | - | (41,700) |
| Actual 2017 - OPERATING | | | | | | | |
| Expenses: | | | | | | | |
| Salary and Benefits | 1,014,057 | 571,683 | - | 1,585,740 | 56,537 | 3,833,510 | |
| Travel, Motor Pool, Expenses, Telephone, Training and Development, IT | 92,798 | 63,033 | - | 155,831 | 538 | 173,930 | |
| Insurance | 148,276 | 14,787 | - | 163,063 | - | - | |
| Property Taxes | - | 106,621 | - | 106,621 | - | 57,784 | |
| Other Expenses | 503,226 | 1,422,317 | 109,038 | 2,034,581 | 120,003 | 2,837,821 | |
| Amount set aside to Reserves | 117,424 | 233,000 | - | 350,424 | 125,000 | 842,000 | |
| TOTAL EXPENSE | 1,875,781 | 2,411,441 | 109,038 | 4,396,260 | 302,078 | 7,745,045 | 12,443,383 |
| Funding | | | | | | | |
| Donations | 89,825 | - | 5,064 | 94,889 | - | 41,335 | |
| Self Generated | 93,888 | 2,937,919 | 168,914 | 3,200,721 | 572,154 | 7,704,395 | |
| Funds taken from Reserves | - | 768,415 | - | 768,415 | - | - | |
| TOTAL FUNDING | 183,713 | 3,706,334 | 173,978 | 4,064,025 | 572,154 | 7,745,730 | 12,381,909 |
| NET Surplus/(Deficit) for programs not funded by general levy | (1,692,068) | 1,294,893 | 64,940 | (332,235) | 270,078 | 685 | (61,474) |

OTHER INFORMATION

1. INFORMATION SYSTEMS & TECHNOLOGY - COMPUTER CHARGES

The work of the IS&T Group including wages, capital purchases and ongoing maintenance and operations is funded through the Information Systems and Technology Reserve. The IS&T Reserve is sustained through a charge back framework. A “Computer Charge” is allocated to the individual programs based on the number of users and the nature of system usage or degree of reliance on IS&T activities and services.

The *Information Systems and Technology* (IS&T) group leads GRCA’s information management activities; develops and acquires business solutions; and oversees investment in information and communications technology as detailed below:

Specific Activities:

- Develop and implement GRCA's long-term information management, information technology and communications plans.
- Assess business needs and develop tools to address requirements, constraints and opportunities. Acquire and implement business and scientific applications for use at GRCA. Manage information technology and business solutions implementation projects on behalf of GRCA, GRCF and the Lake Erie Source Protection Region.
- Develop, and implement GRCA’s Geographic Information Systems (GIS) technology and spatial data infrastructure. Manage GRCA’s water-related data. Create and maintain standards for the development, use and sharing of corporate data. Develop policies and implement tools to secure GRCA’s data and IT and communications infrastructure.
- Acquire, manage and support GRCA’s server, storage, network and personal computer infrastructure to support geographic information systems (GIS); flood forecasting and warning, including real-time data collection; database and applications development; website hosting; electronic mail; internet access; personal computing applications; and administration systems, including finance, property and human resources.
- Develop and operate a wide area network connecting 14 sites and campus style wireless point-to-multipoint networks at Head Office, Conservation Areas, Nature Centres and Flood Control Structures. Develop and operate an integrated Voice over IP Telephone network covering nine sites and 220 handsets. Support and manage mobile phones, smart phones and pagers. Develop, implement and maintain GRCA’s IS&T disaster recovery plan.
- Operate on-line campsite reservation and day-use systems with computers in 10 Conservation Areas. Provide computers and phone systems for use at outdoor education centres.
- Build and maintain working relationships with all other departments within GRCA. Develop and maintain partnerships and business relationships with all levels of government, Conservation Ontario, private industry and watershed communities with respect to information technology, information management, business solutions and data sharing.

2. VEHICLE, EQUIPMENT – MOTOR POOL CHARGES

Motor Pool charges are allocated to the individual sections based on usage of motor pool equipment. Effectively, motor pool charges are included with administrative costs or other operating expenses, as applicable, on Tables 1 to 10.

Specific Activities:

- Maintain a fleet of vehicles and equipment to support all GRCA programs.
- Purchases of new vehicles and/or equipment.
- Disposal of used equipment.
- Lease certain equipment.

SECTION B

BASE PROGRAMS – CAPITAL

SECTION B – CAPITAL BUDGET

Capital Spending in 2018 includes spending in the following program areas:

- Water Resources Planning
- Flood Forecasting and Warning
- Water Control Structures
- Conservation Areas

Water Resources Planning expenditures will be for water quality monitoring equipment.

Flood forecasting and warning expenditures will be for software systems and gauge equipment.

Water Control Structures expenditures will include the following projects:

- Brantford Dikes - floodwall repairs and permanent closure of abandon railway openings
- Cambridge Dikes - floodwall repairs, coordinated closely with City of Cambridge
- Bridgeport Dikes - address seepage issues
- Conestogo Dam - gate control system upgrades and concrete repair designs
- Shand Dam - standby generator enhancements and temporary stoplog design to allow isolation of gates
- Wellesley Dam - concrete and embankment repairs
- New Dundee Dam - gate refurbishment
- St. Jacobs Dam - concrete and embankment repairs

Conservation Area capital spending includes expenditures as part of the regular maintenance program as well as spending on major repairs and new construction. In 2019, major capital projects within the Conservation Areas will include:

- Elora Gorge – Pines campground expansion
- Eora Gorge – Planning for new day use area
- Byng – washroom
- Brant – playground
- Pinehurst – automatic gates
- Guelph Lake - workshop

Corporate Services capital spending represents the portion of overall Information Services and Motor Pool expenses that are funded by the Information Technology (IT) and Motor Pool (MP) reserve. See “Other Information” above for spending descriptions for IT and MP.

SECTION B - Capital Budget

GRAND RIVER CONSERVATION AUTHORITY

Budget 2019

| | Water Resources Planning & Environment | FFW | Flood Control Expenses | Conservation Land Management (Sch 4) | Conservation Areas | Corporate Services | BUDGET TOTAL |
|---|--|----------------|---------------------------|--|-----------------------|-----------------------|------------------|
| Expenses: | | | | | | | |
| WQ Monitoring Equipment & Instruments | 110,000 | | | | | | 110,000 |
| Flood Forecasting Warning Hardware and Gauges | | 190,000 | | | | | 190,000 |
| Flood Control Structures-Major Maintenance | | | 1,500,000 | | | | 1,500,000 |
| Conservation Areas Capital Projects | | | | | 2,590,000 | | 2,590,000 |
| PSAB Project | | | | | | | - |
| Building Major Maintenance | | | | | | | - |
| Net IT/MP Capital Spending not allocated to Departments | | | | | | 207,700 | 207,700 |
| TOTAL EXPENSE | 110,000 | 190,000 | 1,500,000 | - | 2,590,000 | 207,700 | 4,597,700 |
| Funding | | | | | | | |
| Municipal Special Levy | | | | | | | - |
| Prov & Federal Govt | | | 700,000 | | | | 700,000 |
| Self Generated | | | | | 965,000 | | 965,000 |
| Funding from Reserves | 50,000 | | | | 1,625,000 | 207,700 | 1,882,700 |
| TOTAL FUNDING | 50,000 | - | 700,000 | - | 2,590,000 | 207,700 | 3,547,700 |
| Net Funded by General CAPITAL Levy | 60,000 | 190,000 | 800,000 | - | - | - | 1,050,000 |

BUDGET 2018 - CAPITAL

| | Water Resources Planning & Environment | FFW | Flood Control Expenses | Conservation Land Management (Sch 4) | Conservation Areas | Corporate Services | BUDGET TOTAL |
|---|--|----------------|---------------------------|--|-----------------------|-----------------------|------------------|
| Expenses: | | | | | | | |
| WQ Monitoring Equipment & Instruments | 110,000 | | | | | | 110,000 |
| Flood Forecasting Warning Hardware and Gauges | | 190,000 | | | | | 190,000 |
| Flood Control Structures-Major Maintenance | | | 1,500,000 | | | | 1,500,000 |
| Conservation Areas Capital Projects | | | | | 1,820,000 | | 1,820,000 |
| PSAB Project | | | | | | | - |
| Building Major Maintenance | | | | | | | - |
| Net IT/MP Capital Spending not allocated to Departments | | | | | | 290,000 | 290,000 |
| TOTAL EXPENSE | 110,000 | 190,000 | 1,500,000 | - | 1,820,000 | 290,000 | 3,910,000 |
| Funding | | | | | | | |
| Municipal Special Levy | | | | | | | - |
| Prov & Federal Govt | | | 700,000 | | | | 700,000 |
| Self Generated | | | | | 670,000 | | 670,000 |
| Funding from Reserves | 50,000 | | | | 1,150,000 | 290,000 | 1,490,000 |
| TOTAL FUNDING | 50,000 | - | 700,000 | - | 1,820,000 | 290,000 | 2,860,000 |
| Net Funded by General CAPITAL Levy | 60,000 | 190,000 | 800,000 | - | - | - | 1,050,000 |

ACTUAL 2017 - CAPITAL

| | Water Resources Planning & Environment | FFW | Flood Control Expenses | Conservation Land Management (Sch 4) | Conservation Areas | Corporate Services | ACTUAL TOTAL |
|---|--|----------------|---------------------------|--|-----------------------|-----------------------|------------------|
| Expenses: | | | | | | | |
| WQ Monitoring Equipment & Instruments | 73,117 | | | | | | 73,117 |
| Flood Forecasting Warning Hardware and Gauges | | 204,172 | | | | | 204,172 |
| Flood Control Structures-Major Maintenance | | | 1,112,074 | | | | 1,112,074 |
| Conservation Areas Capital Projects | | | | | 859,691 | | 859,691 |
| Funding to Reserves | | | 173,500 | | | 84,757 | 258,257 |
| Net IT/MP Chargebacks in excess of expenses | | | | | | (62,847) | (62,847) |
| TOTAL EXPENSE | 73,117 | 204,172 | 1,285,574 | - | 859,691 | 21,910 | 2,444,464 |
| Funding | | | | | | | |
| Prov & Federal Govt | | | 486,489 | | 83,250 | 21,910 | 591,649 |
| Self Generated | | | | | 776,441 | | 776,441 |
| Funding from Reserves | | | | | | | - |
| TOTAL FUNDING | - | - | 486,489 | - | 859,691 | 21,910 | 1,368,090 |
| Net Funded by General CAPITAL Levy | 73,117 | 204,172 | 799,085 | - | - | - | 1,076,374 |

SECTION C
SPECIAL PROJECTS

SECTION C – SPECIAL PROJECTS

This category of activity represents projects that the GRCA undertakes where special one time and/or multi-year funding is applicable. The duration of these projects is typically one year although in some instances projects may extend over a number years, such as Source Protection Planning. External funding is received to undertake these projects.

The main project in this category is the provincial Source Protection Planning program under the *Clean Water Act, 2006*. Plan development work commenced in 2004, with plan implementation starting in 2015. Work includes research and studies related to the development and updates of a Drinking Water Source Protection Plan for each of the four watersheds in the Lake Erie Source Protection Region. The focus in 2019 is on completing updates to the Grand River Source Protection Plan, including water quantity risk assessment studies, development of water quantity policies, updating water quality vulnerability assessments, and the development of the first annual progress report for the Grand River Source Protection Plan.

Other special projects in the area of watershed stewardship include the “Rural Water Quality Program” grants, Emerald Ash borer infestation management, floodplain mapping projects, Upper Blair subwatershed study, waste water optimization project, water festivals, Dunnville Fishway study, the Mill Creek Ranger stream restoration project and numerous ecological restoration projects on both GRCA lands and private lands in the watershed.

SECTION C - Special Projects Budget

GRAND RIVER CONSERVATION AUTHORITY

Budget 2019

| EXPENDITURES | ACTUAL 2017 | BUDGET 2018 | BUDGET 2019 |
|---|------------------|------------------|------------------|
| Grand River Management Plan | 33,840 | 20,000 | 70,000 |
| Subwatershed Plans - City of Kitchener | 107,653 | 100,000 | 100,000 |
| Dunnville Fishway Study | - | - | 30,000 |
| Natural Heritage Study-Wellington | 28,313 | 30,000 | - |
| Waste Water Optimization Program | 109,765 | 135,000 | 140,000 |
| Floodplain Mapping | 132,927 | 850,000 | 75,000 |
| RWQP - Capital Grants | 1,011,358 | 800,000 | 800,000 |
| Brant/Brantford Children's Water Festival | 25,544 | 26,000 | 26,000 |
| Haldimand Children's Water Festival | 42,303 | 40,000 | 25,000 |
| Species at Risk | 78,678 | 70,000 | 70,000 |
| Ecological Restoration | 185,284 | 270,000 | - |
| AGGP-UofG Research Buffers | 20,812 | - | - |
| Great Lakes SHSM Event | 6,076 | - | - |
| Trails Capital Maintenance | - | - | 150,000 |
| Emerald Ash Borer | 314,172 | 400,000 | 600,000 |
| Lands Mgmt - Land Purchases/Land Sale Expenses | 139,401 | - | - |
| Lands Mgmt - Development Costs | - | 50,000 | 50,000 |
| Mill Creek Rangers | 28,890 | 35,000 | 35,000 |
| Parkhill Hydro Turbine Project | 112,472 | 300,000 | - |
| Apps' Mill Nature Centre Renovation | 260,266 | - | - |
| Dickson Trail and Boardwalk Rehabilitation | 238,957 | 20,000 | - |
| Total SPECIAL Projects 'Other' | 2,973,476 | 3,146,000 | 2,171,000 |
| Source Protection Program | 1,570,408 | 1,575,000 | 1,575,000 |
| Total SPECIAL Projects Expenditures | 4,543,884 | 4,721,000 | 3,746,000 |
| SOURCES OF FUNDING | | | |
| Provincial Grants for Source Protection Program | 1,570,408 | 1,575,000 | 1,575,000 |
| OTHER GOVT FUNDING | 1,848,150 | 1,675,000 | 1,217,500 |
| SELF-GENERATED | 496,274 | 381,000 | 256,000 |
| FUNDING FROM/(TO) RESERVES | 629,052 | 1,090,000 | 697,500 |
| Total SPECIAL Funding | 4,543,884 | 4,721,000 | 3,746,000 |

Grand River Conservation Authority

Report number: GM-01-19-09
Date: January 25, 2019
To: Members of the Grand River Conservation Authority
Subject: Per Diems and Honorariums for 2019

Recommendation:

THAT Report Number GM-01-19-09 – Per Diems and Honorariums for 2019 be received as information.

Summary:

Not Required

Report:

On March 23, 2018, the General Membership passed Resolution number 18-59, which included the following wording:

“...THAT Board Member Per Diems and Honorariums be adjusted each year on January 1 by the same rate as non-union positions.”

Prior to the above resolution, in accordance with a resolution passed by the General Membership in 2007, per diems and honorariums were increased annually at a rate equal to the Consumer Price Index. In accordance with the prior version of the Conservation Authorities Act, approval of the Ontario Municipal Board (OMB) was required for all expenses, allowances and salaries paid to any members of the authority. The current Conservation Authorities Act does not require Ontario Municipal Board approval for payments to Members.

At the December 14, 2018 General Membership meeting, Resolution number 18-234 was passed approving a 1.5% increase for non-union positions effective January 1, 2019. A summary of Per Diems, Honorariums and Reimbursement for Members, January 1, 2019 is attached, reflecting the 1.5% increase. At the present time, no change is recommended for mileage in the 2019 Budget (\$0.50 per km).

Financial implications:

The 2019 Draft Budget includes \$120,000 for Board Members' honorariums, per diems, mileage and expenses. The anticipated adjusted rates have been incorporated into the budgeted amount.

Other department considerations:

Not Applicable

Prepared by:

Karen Armstrong
Deputy CAO, Secretary-Treasurer

Approved by:

Joe Farwell
Chief Administrative Officer

**Grand River Conservation Authority
Per Diems, Honorariums and Reimbursement for Members
January 1, 2019**

| | | Chair | Vice-Chair | Other Members |
|-----|--|----------------------------|---------------------------|------------------------------|
| (1) | General Membership/Committee of the Whole | \$ 149.13 ** | \$ 149.13 ** | \$ 149.13 ** |
| (2) | Other Committees - Audit, Special Recognition or Ad Hoc Committees struck by the Board <i>Note: A Per Diem is only paid when a Committee meets on a separate day from (1)</i> | \$ 89.75 ** | \$ 89.75 ** | \$ 89.75 ** |
| (3) | Other time spent on business of the Authority (pursuant to Section B.14 of the By-Law)* | \$ 27,025.39 (per year) | \$ 2,702.95 (per year) | \$ 89.75 ** (per meeting) |
| (4) | Mileage for travel to or from any of the above*** | \$ 0.50 (per km) | \$ 0.50 (per km) | \$ 0.50 (per km) |

***GRCA By-law No.1-2018, Section B.14 Remuneration of Members**

The Authority shall establish a per-diem rate from time to time to be paid to Members for attendance at General Meetings and Advisory Board or Committee meetings, and at such other business functions as may be from time to time requested by the Chair, through the Secretary-Treasurer. In addition, an honorarium will be approved by the Authority for the Chair and Vice-chair(s) as compensation for their additional responsibilities. A single per-diem will be paid for attendance at more than one meeting if they occur consecutively on the same day. The following activities shall be eligible for per diem allowance under this clause:

- Attendance at meetings of municipal councils to present the Authority's Annual budget and general levy requirement, if the member does not sit on that council and when such council presentations are scheduled through the Chair's office or at the request of the General Membership;
- Attendance at meetings of working groups or committees when appointed by the General Membership to such group or committee as an "official representative" of the Authority;
- Attendance at workshops, conferences or tours hosted by the Authority or Conservation Ontario, if participation is open to all Members and registration is made through the Chair's office;
- Any other business approved as eligible for a per diem allowance by the General Membership.

In the event of a scheduled meeting being adjourned for lack of a quorum, those attending a meeting so adjourned shall be entitled to receive the standard per diem rate and expense.

The Authority shall reimburse Members' reasonable travel expenses incurred for the purpose of attending approved meetings and/or functions on behalf of the Authority, including actual cost of meals, lodging, public transportation and conference fees, as applicable.

A per-kilometre rate to be paid for use of a personal vehicle shall be approved by Resolution of the General Membership from time-to-time and shall be consistent with Canada Revenue Agency guidelines. Requests for such reimbursements shall be submitted on a Per Diem & Expense Claim Sheet monthly with the distance travelled entered for each meeting and allowable expenses shown. Each Member must sign a certification printed on the sheet that the information is correct.

The Chair may submit monthly expense claims, which will be reviewed and signed by the Chief Administrative Officer, the Secretary-Treasurer and the Vice-Chair. The purpose of this review is to ensure that the Chair's expense claims conform to any policies that have been established by the Authority, are within the approved budget and are supported with appropriate documentation.

**** Per-diems** have been adjusted by 1.50% effective January 1, 2019

***** Mileage rate** has remained unchanged from 2018

Grand River Conservation Authority

Report number: GM-01-19-06

Date: January 25, 2019

To: Members of the Grand River Conservation Authority

Subject: Cash and Investment Status – December 2018

Recommendation:

THAT Report Number GM-01-19-06 Cash and Investment Status – December 2018 be received as information.

Summary:

The cash position included Notes Receivable of the Grand River Conservation Authority as at December 31, 2018 was \$30,015,573 with outstanding cheques written in the amount of \$123,166.

Report:

Attached.

Financial implications:

Interest rates, etc. are shown on the report.

Other department considerations:

Not applicable.

Prepared by:

Carol Anne Johnston
Senior Accountant

Sonja Radoja
Manager of Corporate Services

Approved by:

Karen Armstrong
Deputy CAO/Secretary Treasurer

**Grand River Conservation Authority
Cash and Investments Status Report
December 31, 2018**

| BANK ACCOUNTS | Location | Type | Amount | Interest Rate |
|---------------|-------------------------------------|-----------------|------------------|---------------|
| | CIBC | Current Account | 2,152,419 | 2.15% |
| | RBC | Current Account | 39,007 | nil |
| | Wood Gundy | Current Account | 36,539 | 0.20% |
| | CIBC - SPP Holding | Current Account | 252,719 | 2.15% |
| | TOTAL CASH - CURRENT ACCOUNT | | 2,480,684 | |

| INVESTMENTS | Date Invested | Location | Type | Amount | Face Value Interest Rate | Yield Rate | Date of Maturity | 2018 Total Interest Earned/ Accrued |
|-------------|--------------------------|------------------------|-------------------------------|-------------------|--------------------------|------------|-------------------|-------------------------------------|
| | September 9, 2009 | CIBC Renaissance | High Interest Savings Account | 1,818,460 | 1.60% | 1.60% | not applicable | 33,529 |
| | October 1, 2014 | CIBC Trust Savings | High Interest Savings Account | 2,236,014 | 1.60% | 1.60% | not applicable | 27,270 |
| | July 15, 2016 | One Investment Savings | High Interest Savings Account | 4,146,369 | 2.41% | 2.41% | not applicable | 84,950 |
| | December 8, 2014 | Laurentian Bank | Bond | 1,578,000 | 2.81% | 2.364% | June 13, 2019 | 37,697 |
| | January 28, 2015 | CIBC | Step up bond | 726,046 | 1.80% | 1.80% | May 15, 2019 | 13,545 |
| | September 3, 2015 | CIBC | Step up bond | 2,000,000 | 2.25% | 2.25% | September 3, 2025 | 45,326 |
| | October 14, 2015 | Laurentian Bank | Bond | 1,996,000 | 2.50% | 2.62% | January 23, 2020 | 51,814 |
| | March 1, 2016 | CIBC | Bond | 1,300,000 | 1.70% | 1.80% | March 1, 2023 | 23,293 |
| | September 16, 2016 | CIBC | Bond | 1,184,000 | 1.30% | 1.30% | March 13, 2020 | 15,868 |
| | August 24, 2017 | Bank of Montreal | Bond | 1,550,000 | 1.61% | 2.01% | October 28, 2021 | 30,781 |
| | March 15, 2018 | Bank of Nova Scotia | Bond | 2,000,000 | 3.036% | 2.20% | October 18, 2019 | 36,266 |
| | July 16, 2018 | Bank of Nova Scotia | Bond | 1,000,000 | 2.27% | 2.23% | January 13, 2020 | 10,178 |
| | October 11, 2018 | National | Bond | 2,000,000 | 2.404% | 2.326% | October 28, 2019 | 10,266 |
| | October 11, 2018 | RBC | Bond | 2,000,000 | 2.35% | 2.34% | December 9, 2019 | 10,328 |
| | October 11, 2018 | Bank of Nova Scotia | Bond | 2,000,000 | 2.27% | 2.399% | January 13, 2020 | 10,445 |
| | TOTAL INVESTMENTS | | | 27,534,889 | | | | \$441,555 |

| | |
|--|---------------------|
| TOTAL CASH AND INVESTMENTS | \$30,015,573 |
| * Reserve Balance at December 31st, 2017 | 21,774,572 |

Investment By Institution

| | <u>% of Total Portfolio</u> |
|------------------------|-----------------------------|
| C.I.B.C. | 34% |
| Bank of Nova Scotia | 18% |
| Bank of Montreal | 6% |
| Royal Bank | 7% |
| National | 7% |
| Laurentian | 13% |
| One Investment Program | 15% |
| | <u>100%</u> |

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

Grand River Conservation Authority

Report number: GM-01-19-03
Date: January 25, 2019
To: Members of the Grand River Conservation Authority
Subject: Award of Tender for the installation of a Driveway 5500 Jones Baseline

Recommendation:

THAT the Grand River Conservation Authority award the tender for the driveway installation at 5500 Jones Baseline Guelph Eramosa to Bomar Landscaping of Elora, Ontario in the amount of \$114,091.50 including HST.

Summary:

Not applicable

Report:

The Grand River Conservation Authority (GRCA) issued a tender for the installation of a driveway at 5500 Jones Baseline Guelph Eramosa on December 12, 2018. This is known as the McCutcheon property. The scope of work for this tender consisted of the site preparation, supply of material, and installation of a driveway.

The scope of services includes the provision of labour, site supervision, materials, equipment, disposal, tipping and transport fees, inspections and any necessary permits and approvals. The contractor will be responsible for all locates and relocation of any services necessary to and from the residence that will be interfered with as a result of the driveway installation. The contractor will also be required to obtain all necessary permits.

The timeline for the completion of the driveway installation is April 30, 2019.

The tender document for the driveway installation was posted to biddingo.com. The tender packages were opened at 11:00 am on Friday, January 4, 2019 at GRCA's Administration Centre. The tender opening committee consisted of Sonja Radoja (Manager of Corporate Services), Samantha Lawson (Manager of Property), and Matt Amy (Superintendent of Property).

The results of the tender process are shown below:

| Vendor Name | Total Tender Amount | Total Tender Amount (plus 15% contingencies) |
|--------------------------|----------------------------|---|
| Melrose Paving | 280,175.33 | 322,201.62 |
| E&E Seegmiller | 197,925.00 | 227,613.75 |
| Roubos Farm Service Ltd. | 174,266.50 | 200,406.48 |

| Vendor Name | Total Tender Amount | Total Tender Amount (plus 15% contingencies) |
|--------------------|----------------------------|---|
| Steed & Evans | 120,620.00 | 138,713.00 |
| Cox Construction | 115,332.88 | 132,632.81 |
| Bomar Landscaping | 99,210.00 | 114,091.50 |

Staff have confirmed that Bomar Landscaping can meet all the requirements outlined in the tender package.

Financial implications:

The McCutcheon property was declared surplus on August 26, 2016 through Resolution No. 2016-14. The associated cost for preparing the property for sale will be taken out of the sale proceeds. The net sale proceeds will be placed into the land sale reserves for projects as approved by the Ministry of Natural Resources, including the acquisition of environmentally significant lands.

Other department considerations:

Not applicable

Prepared by:

Matt Amy
Property Superintendent

Approved by:

Joe Farwell
CAO

Samantha Lawson
Manager of Property

Grand River Conservation Authority

Report number: GM-01-19-10
Date: January 25, 2019
To: General Membership
Subject: 2019-21 Firewood Supply Tender Results

Recommendation:

THAT the Grand River Conservation Authority award the tender for the supply of firewood for the 2019, 2020 and 2021 camping seasons to Gerber's Firewood for the estimated sum of \$643,770.00 over a three year period (excluding HST).

Summary:

Not applicable

Report:

The Grand River Conservation Authority (GRCA) operates eight campgrounds within the conservation areas. As a service to the patrons, firewood is offered for sale in prepackaged (bagged) units. The conservation areas sell approximately 31,000 bags of firewood each year.

Due to a fire at their facility, the current supplier J.H. Keeso & Son was unable to fulfill the final year of their contract. As a result the GRCA issued a new tender for the supply of firewood for a three year term covering the 2019, 2020 and 2021 camping seasons. Notice for the 2019-2021 Firewood Tender was publicly advertised on the Biddingo electronic procurement website.

Three packages were submitted by the tender closing date. The tender opening was held at 2:00 p.m. on January 2, 2019 at the GRCA Administration Centre. The tender opening committee consisted of Joe Farwell, Chief Administrative Officer; Pamela Walther-Mabee, Manager of Conservation Area Operations; and Melissa Coderre, Park Operations Coordinator.

Bidders were given the opportunity to bid on supplying firewood to individual conservation areas or to the entire system. This was done to encourage participation from suppliers who would not otherwise be able to supply quantities to all eight of the campgrounds.

The bid results are shown in Appendix A. For all of the conservation areas and years the lowest bid was received from Gerber's Firewood, of Gads Hill, Ontario at a unit price \$6.90/bag (excluding HST).

It is recommended that the 2019-2021 Firewood Supply Tender be awarded Gerber's Firewood in the amount of \$643,770.00 (excluding HST) conditional on inspection of their facility and product sample.

Financial implications:

Firewood purchases are funded from the approved annual conservation area budget. The total amount purchased in any given year is dependent on the demand from the public, and can be effected by factors such as fire bans. Actual costs will be based on the number of bags purchased for each campground and the price per bag identified in the bid documents.

In 2018 firewood was purchased at \$7.45 (HST included) per bag and sold for \$8.00 (HST included) per bag. The pricing provided by Gerber Firewood represents a \$0.35 (HST included) per bag increase. This price is fixed for the duration of the three year contract. Due to the increased expense the fee for a bag of firewood will be raised to \$8.50 (HST included) to ensure firewood sales do not run at a deficit.

Other department considerations:

Not applicable

Prepared by:

Pam Walther-Mabee
Manager Conservation Areas

Approved by:

Dave Bennett
Director of Operations

Appendix A – Quotations by Conservation Area and Year

(HST Excluded)

| Campground | Annual Quantity | Lumber Logic | | | Israel Bauman | | | Gerber's Firewood | | |
|----------------|-----------------|---------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| | | 2019 | 2020 | 2021 | 2019 | 2020 | 2021 | 2019 | 2020 | 2021 |
| Brant | 4,100 | \$7.25 | \$7.30 | \$7.35 | - | - | - | \$6.90 | \$6.90 | \$6.90 |
| Byng Island | 2,900 | \$7.25 | \$7.30 | \$7.35 | - | - | - | \$6.90 | \$6.90 | \$6.90 |
| Conestogo Lake | 1,200 | \$7.40 | \$7.45 | \$7.50 | \$6.95 | \$6.95 | \$6.95 | \$6.90 | \$6.90 | \$6.90 |
| Elora Gorge | 8,600 | \$7.40 | \$7.45 | \$7.50 | \$7.10 | \$7.10 | \$7.10 | \$6.90 | \$6.90 | \$6.90 |
| Guelph Lake | 6,300 | \$7.40 | \$7.45 | \$7.50 | - | \$7.10 | \$7.10 | \$6.90 | \$6.90 | \$6.90 |
| Laurel Creek | 2,000 | \$7.40 | \$7.45 | \$7.50 | - | \$7.10 | \$7.10 | \$6.90 | \$6.90 | \$6.90 |
| Pinehurst Lake | 2,100 | \$7.25 | \$7.30 | \$7.35 | - | - | - | \$6.90 | \$6.90 | \$6.90 |
| Rockwood | 3,900 | \$7.40 | \$7.45 | \$7.50 | - | \$7.20 | \$7.20 | \$6.90 | \$6.90 | \$6.90 |
| Total | | \$643,770.00 | | | \$382,220.00 | | | \$690,990.00 | | |

* Volume 34dm³/1.2 cu. ft. per bag

Grand River Conservation Authority

Report number: GM-01-19-08

Date: January 25, 2019

To: Members of the Grand River Conservation Authority

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

Recommendation:

THAT Report Number GM-01-19-08 – 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 Q4 – October, November, December 2019

| Municipality | Total |
|--------------------------------|--------------|
| City of Brantford | 8 |
| City of Cambridge | 11 |
| City of Guelph | 6 |
| City of Hamilton | 4 |
| City of Kitchener | 10 |
| City of Waterloo | 5 |
| County of Brant | 15 |
| Haldimand County | 9 |
| Town of Erin | 3 |
| Town of Grand Valley | 2 |
| Township of Amaranth | 2 |
| Township of Blandford-Blenheim | 4 |
| Township of Centre Wellington | 17 |
| Township of East Garafraxa | 3 |
| Township of Guelph/Eramosa | 8 |

| | |
|------------------------------|------------|
| Township of Mapleton | 14 |
| Township of North Dumfries | 9 |
| Township of Norwich | 1 |
| Township of Perth East | 1 |
| Township of Puslinch | 15 |
| Township of Southgate | 1 |
| Township of Wellesley | 4 |
| Township of Wellington North | 1 |
| Township of Wilmot | 11 |
| Township of Woolwich | 7 |
| Total Permits in Q4: | 171 |

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

Report number: GM-01-19-13

Date: January 25, 2019

To: Members of the Grand River Conservation Authority

Subject: Environmental Assessments

Recommendation:

THAT Report Number GM-01-19-13 – 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 January 25, 2019

A. New Environmental Assessments Received

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

1. First Notice – MTO Intersection Improvements at Victoria Street North (Highway 7) & Greenhouse Road, Township of Woolwich

The Ministry of Transportation has initiated a Class Environmental Assessment (EA) and Preliminary Design Study (Group ‘C’ project) under the MTO Class EA for Provincial Transportation Facilities (2000) for improvements to the Victoria Street North and Greenhouse Road intersection located in Breslau in the Township of Woolwich. Improvements being considered are as follows:

- Eastbound right turn lane from Victoria Street North (Highway 7) to Greenhouse Road;
- Eastbound and westbound left turn lanes on Victoria Street North (Highway 7);
- Northbound left turn lane from Greenhouse Road to Victoria Street North (Highway 7); and
- Conversion of stop-controlled intersection to a signalized intersection with partial illumination.

The study area abuts a Provincially Significant Breslau Wetland Complex. Staff will provide written notice that we have an interest in the EA and will be participating in the study review.

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 –

1. Final Notice – Eramosa River Bridge on Wellington Road 124, Town of Erin

The County of Wellington has completed a Municipal Class Environmental Assessment (EA) for options to address the deteriorating bridge over the Eramosa River.

The study area contains resource features of interest to the GRCA including the Provincially Significant Eramosa River Wetland, a watercourse, floodplain, and associated regulated allowances.

A complete replacement of the bridge has been identified as the preferred solution.

Staff will review the detailed design of the bridge replacement through the GRCA permit process.

2. Final Notice – Salem Bridge on Woolwich Street West (Wellington Road 18), Township of Centre Wellington

The County of Wellington has completed a Municipal Class Environmental Assessment (EA) Study for Salem Bridge to address existing structural deficiencies.

The study area contains features of interest to the GRCA including Irvine Creek, floodplain, slope hazards and associated regulated allowances.

A complete replacement of the bridge has been identified as the preferred solution. The bridge is listed in the 2013 Heritage Bridge Inventory - Arch, Truss, and Beam Report and has cultural heritage value, but has not been designated. The EA report includes design and commemoration recommendations for consideration at final design.

Staff will review the detailed design of the bridge replacement through the GRCA permit process.

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-01-19-02

Date: January 25, 2019

To: Members of the Grand River Conservation Authority

Subject: Brant Rural Water Quality Program Delivery Agreement Renewal

Recommendation:

THAT the Grand River Conservation Authority renew the agreement with the County of Brant and City of Brantford to continue delivery of a Rural Water Quality Program on their behalf.

Summary:

The Brant Rural Water Quality Program (RWQP) began in 2002 as an initiative to improve and protect water quality in Brant County, the City of Brantford and benefitting downstream communities. Through the program, Brantford and Brant County provide cost share funding to farmers and rural landowners voluntarily implementing water quality improvement projects on their property. The Grand River Conservation Authority administers the program on behalf of the municipalities. GRCA and Long Point Region Conservation Authority contribute staff to deliver the program. The delivery agreement expired December 31, 2018. Renewal of the delivery agreement to December 31, 2023 is proposed. The Brant RWQP is one of six municipally funded Rural Water Quality Programs in the Grand River watershed.

Report:

The Brant Rural Water Quality Program (RWQP) began in 2002 as an initiative to improve and protect water quality in Brant County, the City of Brantford and downstream communities. The RWQP provides cost share funding to farmers and rural landowners voluntarily implementing eligible water quality improvement projects on their property.

The manure storage, livestock fencing, erosion control, tree planting, wetland and naturalization projects along with practices like establishing winter cover crops all help to manage water and nutrients on the landscape and improve local water quality. The many water wells decommissioned with program support also help to protect groundwater resources and local water supplies.

Since 2002, 720 projects worth \$3.8 million have been completed with program support. Landowners have contributed \$2.4 million dollars to these projects and received \$1.4 million in grants. In 2018 Brantford and Brant County each contributed \$50,000 to the program. Brantford and Brant County have each contributed \$475,000 to the program since 2002. This municipal funding has been used to leverage more than \$575,000 in additional funds from a variety of sources, including provincial and federal initiatives.

GRCA administers the county wide program and contributes delivery staff within the watershed. Outside the Grand River watershed the program is delivered by Long Point Region Conservation Authority staff.

GRCA administers and delivers similar programs on behalf of the Region of Waterloo as well as Wellington, Haldimand and Dufferin counties. GRCA also delivers the Oxford County Clean Water Program which is administered by the Upper Thames Region Conservation Authority.

Conservation Services staff work with landowners to develop applications that are presented to a local Review Committee. The committee is comprised of municipal, agricultural and resource management representatives. The Review Committee grants approvals based on eligibility standards defined in the program guidelines and on the project's potential to improve or protect water quality.

The benefits of the Rural Water Quality Program can be measured in a variety of ways, such as the dollars invested, the kilometers of stream fenced to restrict livestock, or the number of projects implemented. Another method of estimating the impact of the Rural Water Quality Program is to examine the relationship of the best management practices implemented to the kilograms of phosphorus retained on the land. Using established phosphorus accounting algorithms for Ontario, annual estimates of phosphorus retention resulting from projects implemented are possible.

Brant RWQP Program highlights include:

- 720 projects completed worth \$3.4 million
- An estimated 9000 kg of phosphorus are retained on the landscape annually resulting from projects implemented since 2002
- 414 tree planting projects have resulted in 584 acres of fragile agricultural land being retired from agricultural production and planted to trees and shrubs and the establishment of 5.4 km of stream buffer.
- 123 unused water wells were properly decommissioned.
- 33 fencing projects have restricted 1500 livestock from 15.4km of watercourses.
- 29 cover crop projects protected 2843 acres from water and wind erosion.
- 25 nutrient management plans help to guide efficient nutrient applications on an estimated 5837 acres.
- 18 manure storages constructed to contain 1,284,302 ft³ of waste and efficiently manage nutrients.

The first municipally funded RWQP in the Grand River watershed was launched in the Region of Waterloo in 1998. Since that time there has been over \$18 million in grant provided to more than 6,400 projects across the watershed. Together, landowners and funding partners have invested over \$51 million in water quality projects. Figure 1 shows the distribution of projects across the watershed.

The Brant RWQP Delivery Agreement expired at the end of 2018. Renewal of the agreement for another 5 years is proposed. As with previous agreements, continuation of the program would be subject to annual budget approvals by both the City of Brantford and County of Brant.

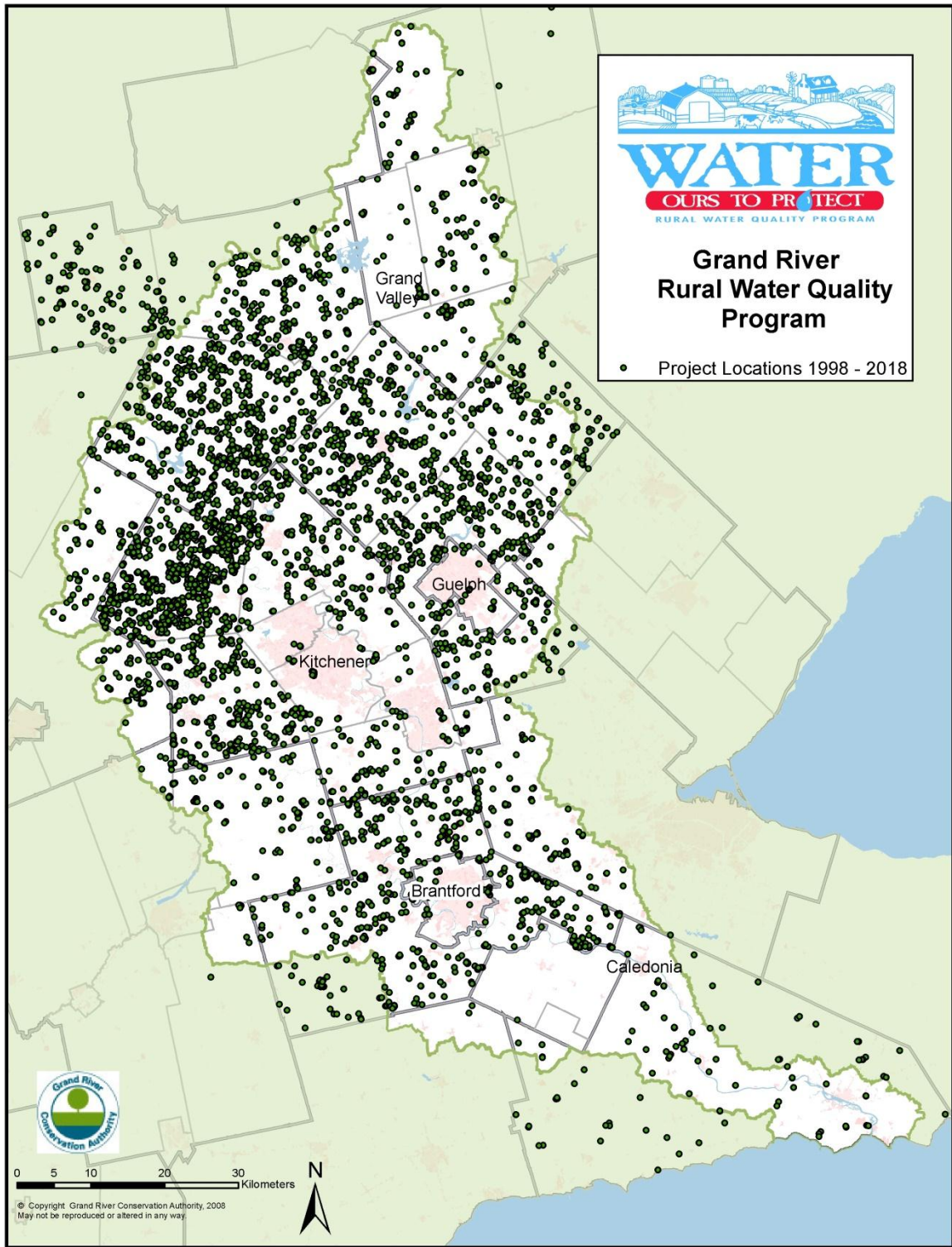


Figure 1: Rural Water Quality Project Locations in the Grand River Watershed.

Financial implications:

Pending municipal approval as proposed, the financial forecast will be updated to include Special Project funding of \$100,000 revenue for this program in 2019. Funding levels for this program are determined annually by the municipalities.

Other department considerations:

Not applicable

Prepared by:

Louise Heyming
Supervisor of Conservation Outreach

Tracey Ryan
Manager of Environmental Education and
Restoration

Approved by:

Nancy Davy
Director of Resource Management

Grand River Conservation Authority

Report number: GM-01-19-04
Date: January 25, 2019
To: Members of the Grand River Conservation Authority
Subject: Bill 66 - Restoring Ontario's Competitiveness Act (ERO Posting #013-4293)

Recommendation:

THAT Report Number GM-01-19-04 – Bill 66 – Restoring Ontario’s Competitiveness Act, 2018 be received as information.

Summary:

Grand River Conservation Authority (GRCA) staff submitted this report and the attached comments on Bill 66 - Restoring Ontario's Competitiveness Act, 2018 (ERO Posting #013-4293) through the Environmental Registry. The proposal outlines the purpose of the Act is to streamline development approvals, thereby increasing business and employment opportunities at the local level. If approved, the Bill would allow municipalities to pass Open-for-business by-laws. Through proposed amendments to the Planning Act, these by-laws would be exempted from a number of provincial policies, plans and statutes such as the Provincial Policy Statement and Clean Water Act. GRCA staff's comments to the province focus on the sections of the Bill that could present challenges to the protection of public health and safety as it relates to natural hazards and water resources.

Report:

Bill 66 – Restoring Ontario’s Competitive Act was given first reading on December 6, 2018 by the provincial legislature. The Bill is part of the provincial government’s Open for Business Action Plan which aims to streamline development approvals, reduce red-tape and attract businesses and jobs to the province. Consultation on the Act is provided through the Environmental Registry of Ontario (ERO #013-4293). The province has also posted two associated initiatives: the proposed Open-for-Business Planning Tool (ERO #013-4125) and a proposed New Regulation under the Planning Act for an Open-for-Business Planning Tool (ERO #013-4239).

Bill 66 proposes substantial amendments and repeals to 18 provincial statutes including the Planning Act. These changes would allow municipalities to utilize Open-for-business by-laws (the “planning tool”) which would be exempted from conformance to provincial policies, plans and Acts in order to quickly approve applications for “major employment uses”. Details of when and how the by-laws could be used will be provided in a supporting regulation at a later date. Little detail is provided at this time on the regulation except for general requirements of applications for the Open-for-Business (OFB) by-law.

GRCA staff has identified sections of the proposed Act and OFB by-law planning tool that could have a significant impact on the short and the long term health and safety of people in the Grand River watershed. Amendments proposed to the Planning Act would allow municipalities to disregard sections of the Planning Act, Provincial Policy Statement (PPS), Clean Water Act, Places to Grow Act, Greenbelt Act and Great Lakes Protection Act to name a few. OFB by-laws would be exempted from conformance with municipal official plans, public/agency consultation and could not be appealed through the Local Planning Appeals Tribunal.

GRCA Key Comments

It is proposed that the natural hazard policies of the PPS and Section 39 of the Clean Water Act will not apply to development applications where OFB by-laws are approved. This is a particular concern to GRCA staff. Section 3 of the PPS directs new development away from hazard lands such as floodplains, steep slopes and unstable soils in order to protect public health and safety and minimize property damage. Application of the hazard lands policies of the PPS is becoming increasingly important with the impacts of climate change on communities such as significant flood events. The PPS should remain applicable to any proposed OFB by-law.

Under the Clean Water Act, municipalities must conform to significant drinking water threat policies in source protection plans when making Planning Act related decisions. These policies ensure that impacts from development do not harm municipal drinking water sources. In the Grand River watershed, approximately 861,000 people are serviced by municipal water supplies, from both surface and groundwater sources. Based on this, Section 39 of the Clean Water Act should also remain in effect.

In addition to the key GRCA areas of importance noted above, GRCA has also identified other areas where the proposed Bill should be amended to ensure a streamlined planning approval process that achieves provincial goals and objectives for economic development. A copy of GRCA's detailed comments to the Province is included as Attachment 1.

GRCA staff will continue to monitor the progress/status of the Bill moving forward.

Financial implications:

Not applicable

Other department considerations:

Source protection program staff contributed to this report.

Prepared by:

Melissa Larion
Policy Planner

Approved by:

Nancy Davy
Director of Resource Management



January 18, 2019

Mr. Michael Helfinger
Intergovernmental Policy Coordination Unit
900 Bay Street, Hearst Block
7th Floor
Toronto, ON, M6H 4L1

Re: Proposed Restoring Ontario's Competitiveness Act, 2018 (ERO 013-4293)

Dear Mr. Helfinger:

Thank you for the opportunity to provide comments on Bill 66 - Restoring Ontario's Competitiveness Act, 2018 as posted to the Environmental Registry of Ontario (ERO 013-4293). Staff of the Grand River Conservation Authority (GRCA) have reviewed the proposed Bill and identified important considerations that relate to public health and safety. The GRCA Board of Directors meeting will be held on January 25, 2019 after the posted commenting period. A copy of this letter and a report will be provided to the Board at that time. Further comments from the GRCA Board may be provided to the province following this meeting.

The GRCA is concerned with the removal of sections of the Planning Act e.g. Provincial Policy Statement, Provincial plans, and the Clean Water Act for areas that would be covered by the proposed Open-for-business (OFB) by-law. We offer the following detailed comments for your consideration.

Ministry of Municipal Affairs and Housing – Schedule 10 (Planning Act)

Hazard Lands

The Provincial Policy Statement (PPS) directs new development to areas that are outside hazard lands such as floodplains, erosion hazards such as steep slopes, and unstable soils. Under Bill 66, municipal application of OFB by-laws would not need to be in conformance with the PPS. This section of the PPS ensures that public health and safety is addressed before land use decisions are made. For example, the proposed approach may increase challenges related to flood warning and response and a requirement for the province to provide provincial funding for disaster relief for new development in areas where flood risks are known.

Maintaining a requirement to ensure development is located outside of hazardous lands will ensure that new development does not increase existing hazard risks or create new hazards that affect a property and adjacent landowners.

In addition, the prescribed criteria for Ministerial approval should include a requirement that development permitted under an OFB by-law will not be located within hazard lands. Primary or secondary residential uses should not be permitted, and all uses should have safe access during a flood. New uses should not cause or contribute to offsite impacts to the community or neighbouring landowners such as increased flooding and erosion.

- The GRCA supports an amendment to the proposed Bill to keep Section 3.1 of the PPS (Natural Hazards) applicable to Open-for-business by-laws in order to protect public health and safety and prevent property damage.

Watershed Planning

Under Bill 66, the Planning Act would be amended so that the Places to Grow Act would not apply to OFB by-laws. The most recent changes to the Growth Plan for the Greater Golden Horseshoe (2017), has a requirement for municipalities to undertake watershed planning. Watershed Planning enables a comprehensive review of water management and the co-ordination of water and natural environment systems management across municipal boundaries. For example, the absence of information obtained through watershed planning, such as assimilative capacity of a river with multiple municipal waste water treatment facilities, may affect an adjacent municipality's ability to maintain their wastewater treatment requirements for current or future growth. Watershed studies also provide information to adjacent municipalities to identify and protect important ecological and hydrologic features and systems such as wetlands and recharge areas for municipal drinking water supplies.

- The GRCA supports an amendment to the Bill to require watershed planning for development associated with major employment uses prior to approval of OFB by-laws

Agency Notice

Under Bill 66, the Planning Act would be amended so that notice of proposed OFB by-laws to the public, agencies and other stakeholders would not be required. This amendment will remove conservation authorities from receiving notice of the proposed by-laws and the opportunity to provide technical information and advice to the municipality before the by-law is approved. This approach could result in creating a risk to public safety in cases where development is proposed in or adjacent to hazard lands (e.g. floodplains, erosion hazards). In some cases these hazards have not yet been identified in all municipal documents so this information is not readily available through current planning documents. Providing advice and information to municipalities and applicants at the beginning of the decision making process ensures that approvals for building and grading can be done quickly and efficiently.

- The GRCA supports an amendment to the Bill to include Conservation Authorities as an agency that is contacted prior to the approval of an OFB By-law to ensure that the risk to the public from natural hazards is assessed prior to new development.

Other Possible Exempted Acts

Included in the list of Acts which would not apply to OFB By-laws is a reference to "Any prescribed provision". It appears that the province may be proposing an approach that would enable the addition of more clauses or other Acts to this list.

- The GRCA supports modification to the Bill that would ensure that adding additional Acts or clauses to Schedule 10 would only be considered through further legislative amendments to the Planning Act or other legislation and not through a prescription by other means that may not provide an opportunity for public review.

The province recently released their Made-In-Ontario Environment Plan (2018) to protect water, address climate change, and conserve land and greenspace. Bill 66 appears to be inconsistent with the actions outlined in this plan. Many of the provisions outlined in Schedule 10 of Bill 66 (i.e. Planning Act (Provincial Planning Policy Statement and provincial plans), Clean Water Act, Places to Grow Act, Greenbelt Act) work together to ensure that the actions listed in the Environment Plan can be achieved. Together, they form the foundation of ensuring a strong economy while implementing sound water and environmental planning in the province of Ontario.

Source Protection Authority

Bill 66 proposes to exempt major employment uses passed through OFB by-laws from Section 39 of the Clean Water Act. This section of the Act requires that provincial and municipal decisions conform to policies in Source Protection Plans that address significant drinking water threats. Ensuring that development does not create drinking water threats is a key part of the Clean Water Act. Eliminating the requirement to adhere to Section 39 would not allow for proactive planning where impacts can be prevented early on in the development process.

The majority of municipalities in the Grand River watershed and approximately 861,000 people rely on groundwater and/or the Grand River as the source of their drinking water. Source protection plan policies addressing significant drinking water threats should remain applicable to protect drinking water and public health.

- The Clean Water Act should be removed from Schedule 10 of Bill 66 to ensure the short and long-term protection of municipal drinking water supplies in the Grand River watershed.

GRCA staff note that it is difficult to fully assess or predict the outcomes of Bill 66 in relation to the Planning Act in the absence of more detailed information including the associated regulation. If the province proceeds with the exemptions as outlined in the current wording of Schedule 10 of Bill 66, the proposed Regulation and Open-for-Business Planning Tool will need to include specific criteria that avoids putting people at risk or creating new risks for the community.

The GRCA has a long history of working with watershed municipalities, and the development industry through a Liaison Committee, to ensure that technical information and advice is provided in a timely manner and the planning approval process is streamlined. The GRCA would be pleased to meet with the province to discuss our comments on Bill 66 and other mechanisms to streamline the approval process to achieve the provincial goals of economic development, preservation and protection our environment and the protection of people and property. Should you have any questions, please contact Melissa Larion at (519) 621-2763 ext.2247 or Nancy Davy at ext. 2235.

Sincerely,

Joe Farwell, P. Eng.
Chief Administrative Officer
Grand River Conservation Authority

Grand River Conservation Authority

Report number: GM-01-19-05

Date: January 25, 2019

To: Members of the Grand River Conservation Authority

Subject: A Made-in-Ontario Environment Plan (ERO Posting #013-4208)

Recommendation:

THAT Report Number GM-01-19-05 – A Made-in-Ontario Environment Plan (ERO Posting #013-4208) be approved,

AND THAT this report be forwarded to the Ministry of Environment, Conservation and Parks through the Environmental Registry.

Summary:

On November 29, 2018, the provincial government announced its new environment plan which outlines efforts to address Ontario's most pressing environmental challenges. A number of high-level initiatives are proposed such as protecting our lakes and rivers, addressing climate change and keeping our land and soil clean. The environment plan includes many references to conservation authorities; the role they play in water management and their mandate of protecting people and property from natural hazards and conserving natural resources.

Grand River Conservation Authority (GRCA) comments in this report and Appendix 1 will be provided to the province through the Environmental Registry. The comments in this report provide recommendations for the province that relate to key areas that may affect the GRCA flood infrastructure and natural hazard programs and also outline specific actions or programs where GRCA programs may assist the province in the implementation of the Made-in-Ontario Environment Plan (herein referred to as 'Environment Plan').

Report:

The "Preserving and Protecting our Environment for Future Generations: A Made-in-Ontario Environment Plan" (ERO Posting #013-4208) is posted to the Environmental Registry for consultation and the deadline for comments is January 28th, 2019. The climate change section of the plan is intended to act as Ontario's Climate Change Plan which was a commitment made by the province under the *Cap and Trade Cancellation Act, 2018*.

The Environment Plan is based on three guiding principles: Clear Rules and Strong Enforcement, Trust and Transparency and Resilient Communities and Local Solutions. The guiding principles are the basis for an extensive list of actions, some of which relate directly to GRCA. There are several components of the proposed plan that may affect GRCA flood infrastructure and natural hazard programs. A summary of the recommendations are outlined below.

Recommendations

Province-wide climate change impact assessment

The Plan proposes a provincial-wide impact assessment to determine how climate change will affect communities as well as building resilience in the province's critical infrastructure.

GRCA recommends that flood control infrastructure like dams, dikes and monitoring equipment are included in the impact assessment.

Policy and Technical Guideline updates to improve climate change resilience

An update to government policies to improve local climate resilience is proposed. GRCA recommends that provincial natural hazard policies (e.g. floodplain policies) remain focused on reducing the risk to public safety and directing development outside of the floodplain and other hazard lands. GRCA also recommends that the provincial natural hazard policies and technical guidelines be updated to address climate change and include modernized approaches to floodplain mapping and stormwater management guidelines.

Promote climate-related disclosures

The province proposes to work with the financial sector to promote climate-related disclosures in Ontario. An example of this may be that an applicant for a loan or mortgage or the financial institution will be required to disclose information that a property has been subject to flooding or is in an area identified as floodplain. The GRCA recommends that the province include a requirement to disclose information related to riverine flood hazards in financial transactions due to the exposure these properties may present to the financial sector and future land owners.

Make it easier and safer to reuse excess soil

The province proposes to set clear rules to allow for better use of safe soils. GRCA recommends that the province establish regulations and policies to ensure the appropriate testing of soil quality for the intended use. In addition, GRCA recommends that the province provide technical and financial assistance to conservation authorities for investigation and enforcement of illegal dumping of fill or excess soil.

In addition to the above-noted recommendations, there are many opportunities for GRCA to work with and support the province in their implementation of the Environment Plan. Examples include: sharing of water quality and floodplain data and mapping, compliance and enforcement of excess fill within regulated areas, providing recreational opportunities, public environmental education and awareness.

A detailed summary of sections of the Environment Plan and GRCA recommendations/ comments is attached as Appendix 1.

Financial implications:

Not applicable

Other department considerations:

Not applicable

Prepared by:

Melissa Larion
Policy Planner

Nancy Davy
Director of Resource Management

Approved by:

Joe Farwell
Chief Administrative Officer

Appendix 1 – GRCA Comments - A Made-in-Ontario Environment Plan, Ministry of Environment, Conservation and Parks

| Theme | Section | Provincial description and proposed Actions | GRCA Recommendations and Comments |
|--------------------------------------|--------------------|--|---|
| Our Province | Guiding Principles | <p>Clear Rules and Strong Enforcement: We will ensure that polluters are held accountable with tougher penalties, while reducing regulatory burden for responsible businesses.</p> | <p>Under the Conservation Authorities Act development and other activities are reviewed. A component of this legislation is related to pollution (i.e. dumping of excess soil). Improvements to enforcement and compliance could be considered in this review.</p> |
| | | <p>Trust and Transparency: We will provide Ontarians with the information and tools required – with a particular focus on real-time monitoring – to understand the current environmental challenges we face and how these challenges impact individuals, businesses and communities across the province.</p> | <p>GRCA data and floodplain mapping could contribute to provincial initiatives to build resilient communities including real-time monitoring of river data.</p> |
| | | <p>Resilient Communities and Local Solutions: We recognize that environmental impacts faced by communities across Ontario may be very different. We will work with these communities and use best scientific practices and other evidence-based methods to develop unique solutions to their challenges.</p> | <p>GRCA has a long history of working directly with local communities to reduce flood damage, provide access to outdoor spaces, share information about the natural environment, and make the watershed more resilient to climate change. We also work closely with private landowners to help them restore or improve the natural environment, water quality and other projects on their properties.</p> |
| Protecting our Air, Lakes and Rivers | Clean Water | <p><u>Introduction</u> Developing an online platform for reporting incidents (pollution incidents and spills).</p> | <p>GRCA provides information to the provincial Spills Action Centre. The guide for reporting wastewater treatment plant by-passes in the watershed may provide information for the province for the development of the proposed online reporting platform.</p> |
| | | <p><u>Continue work to restore and protect our Great Lakes &</u> <u>Continue to protect and identify vulnerable waterways and inland waters</u> Supporting the Lake Erie Action Plan.</p> | <p>GRCA’s Rural Water Quality Program contributes to the protection of waterways and inland waters by working with farmers to undertake environmental projects and implement best management practices such as stream fencing, tree planting, manure storage and well decommissioning.</p> |
| | | <p>Build on the ministry’s monitoring and drinking water source protection</p> | <p>Municipalities report on their policies related to salt, through the Grand River</p> |

| Theme | Section | Provincial description and proposed Actions | GRCA Recommendations and Comments |
|--------------------------------------|-------------|--|--|
| Protecting our Air, Lakes and Rivers | Clean Water | <p>activities to ensure that environmental impacts from road salt use are minimized. Work with municipalities, conservation authorities, the private sector and other partners to promote best management practices, certification and road salt alternatives.</p> | <p>Source Protection process.</p> |
| | | <p><u>Ensure sustainable water use and water security for future generations</u></p> <p>Enhance how we manage water takings to ensure we have sustainable water resources in the face of a changing climate and continued population growth.</p> <p>Ensure the knowledge gained through the drinking water source protection program helps inform our water management programs.</p> | <p>Water management in Ontario is a collaborative effort in which conservation authorities play a major role. Source protection programs in particular contribute to sustainable water use and security.</p> <p>Watershed-based management plans also support this action. For example, the Grand River Water Management Plan aims to:</p> <ul style="list-style-type: none"> • Ensure sustainable water supplies for communities, economies and ecosystems • Improve water quality to improve river health and reduce the river's impact on Lake Erie • Reduce flood damage potential • Increase resiliency to deal with climate change |
| | | <p><u>Improve municipal wastewater and stormwater management and reporting</u></p> <p>Consider how wastewater and stormwater financing could be updated to improve investment and support new innovative technologies and practices.</p> <p>Update policies related to municipal wastewater and storm water.</p> | <p>GRCA works with municipal water managers and the Ministry of the Environment and Climate Change to improve the operation of wastewater treatment plants. The goal of the wastewater optimization program is to raise the quality of treated effluent that leaves the plants and enters waterbodies.</p> <p>GRCA provides advice to municipalities and the development industry on stormwater management.</p> <p>GRCA recommends that the provincial stormwater guidelines (2003) be updated to address climate change and address modernized technical tools to address stormwater management.</p> |

| Theme | Section | Provincial description and proposed Actions | GRCA Recommendations and Comments |
|---------------------------|---|--|---|
| Addressing Climate Change | Building Resilience: Helping Families and Communities Prepare | <p><u>Improve our understanding of how climate change will impact Ontario</u></p> <p>Undertake a provincial impact assessment to identify where and how climate change is likely to impact Ontario's communities, critical infrastructure, economies and natural environment. The assessment would provide risk-based evidence to government, municipalities, businesses, Indigenous communities and Ontarians and guide future decision making.</p> | <p>GRCA recommends that flood control infrastructure: dams, dikes, and monitoring equipment be categorized as critical infrastructure to assess the impacts of climate change.</p> <p>GRCA floodplain mapping and data could be utilized to support the proposed provincial impact assessment. Large reservoirs at the GRCA reduce flows and large dikes provide further risk and damage reduction in the communities of Kitchener-Bridgeport, Cambridge-Galt and City of Brantford.</p> <p>It is estimated that without reservoirs and dikes, a February 2009 flood event would have resulted flood damages of approximately \$7,700,000. With the GRCA flood control dams, reservoirs and dikes the estimated damaged would have been approximately \$290,000.</p> |
| | | <p><u>Help Ontarians understand the impacts of climate change</u></p> <p>Develop a user-friendly online tool that makes practical climate change impact information available for the public and private sectors. This tool will help developers, planners, educators, homeowners and others understand the potential impacts of climate change in their communities.</p> <p>Work closely with climate science modeling experts, researchers, Indigenous communities and existing climate service providers to identify and create adaptation solutions.</p> | <p>GRCA floodplain mapping could assist in illustrating those areas most at risk of riverine flooding. Digital floodplain mapping is currently available on our website and is often used by planners, developers, realtors and homeowners in better understanding their floodplain risks.</p> <p>GRCA operates a river gauging network and climate stations throughout the watershed. This information could be part of an assessment of adaptation solutions.</p> |
| | | <p><u>Update government policies and build partnerships to improve local climate resilience</u></p> <p>Review land use planning policies and laws to update policy direction on climate resilience. This will help make the way our communities are planned and designed more responsive and adaptive to changing weather conditions, such as improving the way that stormwater is managed.</p> | <p>GRCA recommends that the provincial natural hazard policies (i.e. floodplain policies) remain focused on reducing the risk to public safety and directing development outside of the floodplain and other hazard lands. It is important to update the legislation and provincial policies and guidelines to ensure that new development does not occur in areas that are susceptible to existing and new natural hazards related to a changing climate.</p> |

| Theme | Section | Provincial description and proposed Actions | GRCA Recommendations and Comments |
|---------------------------|---|---|---|
| Addressing Climate Change | Building Resilience: Helping Families and Communities Prepare | <p>Build resilience in the province's critical infrastructure, through better technology as well as back-up generation and energy storage options, so that our vital services and infrastructure, such as hospitals, can better withstand and remain operational during extreme weather events.</p> <p>Continue to support programs and partnerships intended to make the agriculture and food sectors more resilient to current and future climate impacts. We will support on-farm soil and water quality programming and work with partner to improve agricultural management practices.</p> | <p>GRCA recommends an update to the provincial technical guidelines for natural hazards including floodplains. This would support municipalities and conservation authorities in their responsibilities for land use planning and issuance of permits in managing floodplain risks.</p> <p>GRCA recommends that the province identify flood infrastructure such as dams and river monitoring equipment as critical infrastructure due to their role in extreme weather events such as flooding. This would target financial investment where it is most needed to protect communities.</p> <p>The GRCA in partnership with watershed municipalities implements a rural water quality program. This is an excellent example of a program that provides funding support to farmers to make on-the-ground changes to improve water quality and soil retention.</p> |
| | Make Polluters Accountable | <p><u>Implement emissions performance standards for large emitters</u></p> <p>We will create and establish emission performance standards to achieve greenhouse gas emission reductions for large emitters...the program may include compliance flexibility mechanism such as offset credits...</p> | <p>The province is encouraged to use payments that may be received through the proposed program to fund on-the-ground action to improve local resilience to the impact of climate change, in addition to funding capital improvements in private infrastructure through the 'Ontario Carbon Trust'.</p> |
| | Activate the Private Sector | <p><u>Introduction</u></p> <p>We also want to enable consistent disclosure about financial risks associated with climate change so that companies can provide information to investors, lenders, insurers and other stakeholders.</p> <p><u>Enhance corporate disclosure and information sharing</u></p> <p>Work with the financial sector to promote climate-related disclosures in Ontario.</p> | <p>GRCA recommends that properties subject to riverine flood hazards be identified in financial transactions due to the exposure these properties may present to the financial sector and future land owners (e.g. require an applicant for a loan or mortgage to disclose information that a property has been subject to flooding or is in an identified floodplain).</p> |

| Theme | Section | Provincial description and proposed Actions | GRCA Recommendations and Comments |
|--|-------------------------|---|---|
| Reducing Litter and Waste in Our Communities | Reduce Litter and Waste | <p><u>Reduce litter in our neighbourhoods and parks</u></p> <p>Develop future conservation leaders through supporting programs that will actively clean up litter in Ontario's green spaces, including provincial parks, conservation areas and municipalities.</p> | <p>GRCA operates 11 conservation areas that see over 1 million visitors annually. Conservation areas and GRCA Nature Centre programs provide education and awareness on pollution and other environmental issues. These programs could contribute to public education on litter reduction, keeping communities clean and promotion of the three "R"s to a wide demographic of the population, especially youth.</p> |
| Keeping Our Land and Soil Clean | Clean Soil | <p><u>Make it easier and safer to reuse excess soil</u></p> <p>Recognize that excess soil is often a resource that can be reused. Set clear rules to allow industry to reduce construction costs, limit soil being sent to landfill and lower greenhouse gas emissions from trucking by supporting beneficial reuses of safe soils.</p> <p>Work with municipalities, conservation authorities, other law enforcement agencies and stakeholders to increase enforcement on illegal dumping of excess soil.</p> | <p>Managing excess soil in the province requires a collaborative effort by the province, municipalities, conservation authorities, landowners and others to ensure that it is disposed of safely.</p> <p>GRCA recommends that the province establish regulations and policies to ensure the appropriate testing of soil quality for the intended use.</p> <p>Illegal fill placement is a substantial issue for the GRCA and provincial assistance with enforcement should be provided. GRCA regulates fill placement and removal in areas regulated under the Conservation Authorities Act. In addition to processing permits of large fill applications in regulated areas, GRCA also conducts regulatory compliance to ensure that wetlands and hazard lands such as floodplains are not negatively impacted by excess fill placement.</p> <p>GRCA recommends that the province provide technical and financial assistance to conservation authorities for investigation and enforcement of illegal dumping of fill or excess soil.</p> |
| Conserving Land and Greenspace | Action Areas | <p><u>Improve the resilience of natural ecosystems</u></p> <p>Collaborate with partners to conserve and restore natural ecosystems such as wetlands and</p> | <p>GRCA supports this action. The GRCA board has approved a policy that protects the majority of wetlands in the watershed, but allows for some changes to the landscape where a comprehensive review has been</p> |

| Theme | Section | Provincial description and proposed Actions | GRCA Recommendations and Comments |
|--------------------------------|--------------|--|--|
| Conserving Land and Greenspace | Action Areas | ensure that climate change impacts are considered when developing plans for their protection. | <p>undertaken to evaluate alternatives to avoid wetland loss. We would appreciate the opportunity to provide input on any future provincial plans/strategies related to wetland protection.</p> <p>GRCA owns approximately 48,000 acres of land with a large proportion in a natural state including forests, grasslands and wetlands. These areas are particularly important in Southern Ontario where changes in land uses have modified the landscape over many generations and some areas have limited natural features remaining.</p> |
| | | <p><u>Support conservation and environmental planning</u></p> <p>Work in collaboration with municipalities and stakeholders to ensure that conservation authorities focus and deliver on their core mandate of protecting people and property from flooding and other natural hazards, and conserving natural resources.</p> | GRCA supports this action. The GRCA operates flood control infrastructure throughout the watershed such as dams and dikes. The flood warning program has been designed to work closely with municipal and emergency response personnel. Through GRCA plan review, permitting and compliance programs, the GRCA continues to work to protect people and property from flooding and other natural hazards. |
| | | <p><u>Support conservation and environmental planning</u></p> <p>Protect vulnerable or sensitive natural areas such as wetlands and other important habitats through good policy, strong science, stewardship and partnerships.</p> | GRCA supports the conservation of natural resources and sensitive areas through our conservation areas, management of other GRCA lands (i.e. passive land holdings) as well as providing advice to municipalities and landowners. |
| | | <p><u>Promote parks and increase recreational opportunities</u></p> <p>Share the responsibility of conserving Ontario's protected lands by continuing to partner with municipalities, conservation authorities, Indigenous communities, conservation organizations and other community groups...</p> | GRCA conservation areas offer recreational opportunities, promote environmental stewardship and contribute to community health and wellness through outdoor experiences. Conservation areas are uniquely accessible to a large number of Ontario residents due to their close proximity to major urban centres. |

| Theme | Section | Provincial description and proposed Actions | GRCA Recommendations and Comments |
|------------|-----------------------|--|---|
| Next Steps | Implementing Our Plan | <p><u>Establish an advisory panel on climate change</u></p> <p>An advisory panel on climate change will be established to provide advice to the Minister on implementation and further development of actions and activities in our plan specific to climate change.</p> | <p>GRCA welcomes the opportunity to participate on a climate change advisory panel to support the implementation of the Environment Plan.</p> |

Grand River Conservation Authority

Report number: GM-01-19-11

Date: January 25, 2018

To: Members of the Grand River Conservation Authority

Subject: Grand River Watershed Flood Warning System

Recommendation:

THAT Report Number GM-01-19-11 – Grand River Watershed Flood Warning System be received as information.

Summary:

The 2019 Municipal Flood Coordinator's meeting will be held on February 14, 2019 at 1:30 p.m. at the Grand River Conservation Authority Head Office. The program will include a review of the flood message distribution, a discussion on the role of the Municipal Flood Coordinators, a discussion on the Authority's emergency preparedness planning program, and a detailed report on watershed conditions. Municipal Flood Coordinators, Municipal Police, Ontario Provincial Police, Provincial Ministries, Environment Canada, GRCA Members, Other Conservation Authority staff, News Media, and GRCA Staff will be invited to attend the meeting.

Report:

Flooding has been a major concern to residents of the Grand River watershed. While most major river flooding occurs in March and April, serious flooding can still occur in any month of the year. The Grand River Conservation Authority has undertaken a major program of flood control through the construction of reservoirs and dyking systems. While these reservoirs and flood protection works play a significant role in controlling floods, they do not eliminate the possibility of flooding.

The primary responsibility for managing a flood emergency rests with the municipality, through its emergency plan. The Grand River Conservation Authority has the following roles during a flood emergency:

- a) monitoring watershed and weather conditions to predict flooding,
- b) operating dams and reservoirs to reduce the effects of flooding,
- c) issuing flood warning messages.

In the event of a flood, it is important that watershed residents and emergency response personnel be warned in sufficient time to take appropriate action to reduce flood damages and the threat to loss of life. The Grand River Conservation Authority has developed a flood warning system to provide timely flood warning and information to municipal officials and watershed residents.

Each year, the Grand River Conservation Authority tests the flood system, and hosts a Municipal Flood Coordinator's meeting. This meeting is an opportunity to review the results of the test, along with reviewing the role of the various agencies, municipal flood

coordinators, and emergency response personnel to ensure efficient operation of the Emergency Flood Warning System.

This year the Municipal Flood Coordinator's meeting will be held on February 14, 2019 at 1:30 p.m. at the Grand River Conservation Authority Head Office. The program will include a review of the flood warning system test, a discussion on the role of the Municipal Flood Coordinators, a discussion on the Authority's emergency preparedness planning program, a presentation about the February 2018 flood and a detailed report on watershed conditions.

In 2018 ninety five people attended the Municipal Flood Coordinators meeting. Included among the attendees were Municipal Flood Coordinators, Municipal Police, Ontario Provincial Police, Provincial Ministries, GRCA Members, Other Conservation Authority staff, News Media, and GRCA Staff

Financial implications:

Costs to operate and maintain the flood forecasting and warning system are included in the annual budget.

Other department considerations:

Conservation Area Staff and Operations staff involved in the flood warning system are invited to the Municipal Flood Coordinators' meeting.

Prepared by:

Dwight Boyd
Director of Engineering

Approved by:

Joe Farwell
Chief Administrative Officer

Grand River Conservation Authority

Report number: GM-01-19-14

Date: January 25, 2019

To: Members of the Grand River Conservation Authority

Subject: Current Watershed Conditions as of January 16, 2019

Recommendation:

THAT Report Number GM-01-19-14 – Current Watershed Conditions as of January 16, 2019 be received as information.

Report:

Precipitation

With the exception of the Brantford Climate Station, precipitation in the first two weeks of January was close to the long term average. Very little precipitation was recorded at the Brantford climate station in January to date. More rain than snow has been recorded throughout the watershed in January. As of January 15th there was very little snow on the ground. Where there was measurable snow on the ground, the snowpack had very little water content.

Precipitation in December varied across the watershed. In some places it was below the long term average, while in other places it was at or above the long term average. Most December precipitation was recorded as rain with only 25% or less recorded as snow.

Table 1 includes monthly and recent precipitation trends for select watershed climate stations. Monthly precipitation at the Shand, Shades and Brantford climate stations from 2014 to 2018 is shown in **Figure 1**.

Table 1: Precipitation Averages at Watershed Climate Stations

| Station | Monthly Precipitation | | Percentage of Long Term Average | | | | | |
|------------------|-----------------------|------------------------------|---------------------------------|-----------------------|--------------------------|--------------------------|---------------------------|---------------------------|
| | 16-Jan (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 | 31.5 | 73.0 | 86% | 110% | 114% | 91% | 95% | 95% |
| Conestogo | 41.4 | 85.6 | 97% | 75% | 92% | 83% | 94% | 93% |
| Guelph | 32.1 | 69.6 | 92% | 100% | 120% | 102% | 104% | 104% |
| Luther | 48.7 | 80.8 | 120% | 88% | 103% | 101% | 104% | 104% |
| Woolwich | 36.1 | 69.4 | 104% | 90% | 136% | 105% | 100% | 103% |
| Laurel | 35.3 | 75.4 | 94% | 86% | 134% | 111% | 112% | 109% |
| Shades | 27.3 | 69.8 | 78% | 78% | 118% | 114% | 114% | 110% |
| Brantford | 6.5 | 54.4 | 24% | 96% | 103% | 102% | 110% | 107% |

Air Temperatures

The average air temperature for the first two weeks of January was well above the long term average across the watershed. Forecast air temperatures for the second half of January are cooler, which should bring the monthly average closer to the long term average.

December was also a warm month. The average monthly air temperature at the Shand Dam climate station was approximately 1.8 degrees above the long term average. At the Shades Mill climate station in Cambridge, December temperatures were approximately 2 degrees above the long term average. Warm temperatures since December have resulted in a minimal snowpack by mid-January.

Figure 2 presents recent mean monthly air temperature departures from the long term average recorded at Shand Dam.

Lake Erie Conditions

The level of Lake Erie continues to be above the long term average. The average lake elevation in December was 174.61m, which is approximately 0.62m above the long term average. Forecast water levels into mid-2019, from the Canadian Hydrographic Service, indicate that lake levels will likely recede over the next few months, but stay well above the long term average.

A high lake level conditions statement was issued on October 12 warning of an increased risk of shoreline flooding and erosion due to the high static lake level. This conditions statement is in effect for the fall of 2018 through to the summer of 2019.

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

Reservoir Conditions

The large reservoirs are at their normal operating levels for this time of the year. Rain in December and early January increased runoff and inflows to the reservoirs causing levels to increase. Discharges were increased to match inflows and bring water levels down to normal levels. Discharge from the reservoirs have been reduced with the return of colder weather to help prevent frazil ice from forming.

As the winter progresses, water in the snowpack will be evaluated against available storage to ensure the reservoirs can be filled in the spring, while balancing the need to maintain sufficient flood storage.

Reservoir levels are shown in **Figures 4** and **Figure 5** for the four large reservoirs.

Long Range Outlook

Environment Canada's seasonal forecasts are predicting above normal temperatures to continue through the January to March period. The 3-month precipitation forecast from Environment Canada was for near normal precipitation.

Water Quality

On January 13 in the early morning hours, there was an accident on Highway 401 near Highway 6 North that resulted in a spill of jet fuel. Although actions were taken to contain the spill on site and prevent it from entering nearby watercourses, some of the spilled material made its way into Mill Creek. As of January 16th a number of containment booms were placed in Mill Creek and the Ministry of the Environment, Conservation and Parks was coordinating cleanup and taking samples to determine impacts.

A verbal update on this situation will be provided to Board Members at the meeting.

Flood Preparedness

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

Planning is underway for the spring flood season. A meeting with the watershed police and Community Emergency Management Co-ordinators (CEMC's) will take place on January 29th. The annual Municipal Flood Co-ordinators Meeting is scheduled for the February 14th. The annual River Watch Meeting with internal staff is scheduled for the afternoon of February 28th.

Financial implications:

Not applicable

Other department considerations:

Not applicable

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Approved by:

Dwight Boyd
Director of Engineering

Figure 1: Precipitation at Shand Dam, Shades Mill Dam and Brantford 2015 to Jan 16 2019

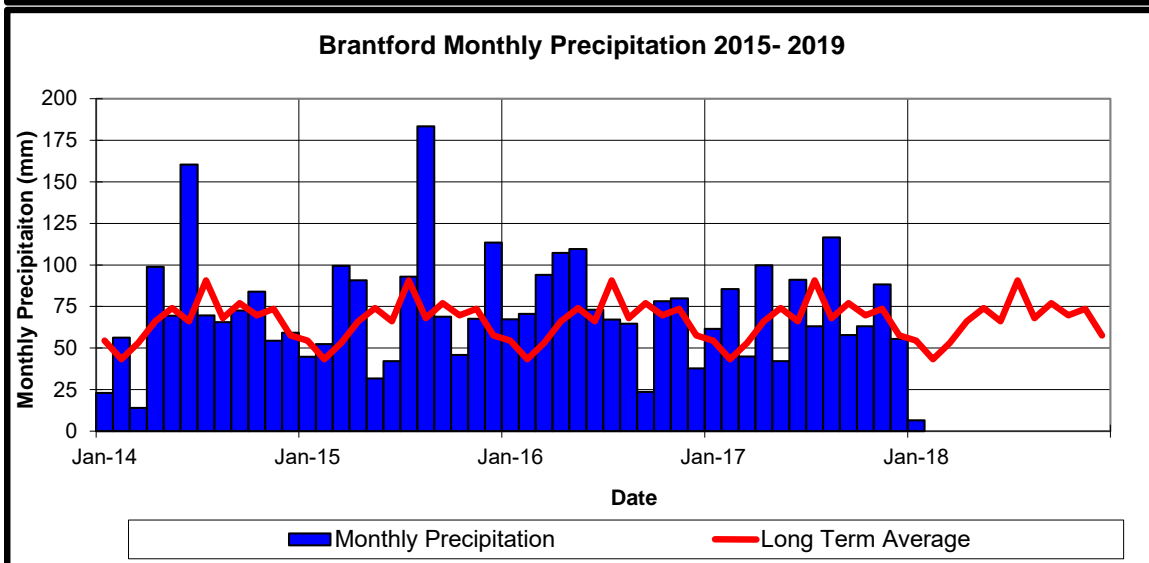
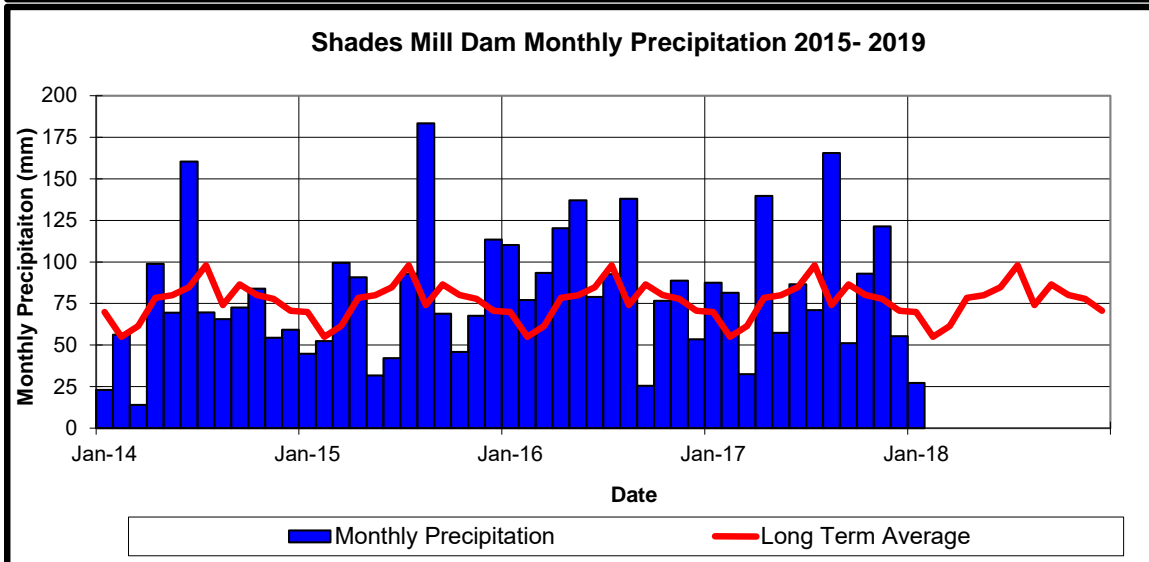
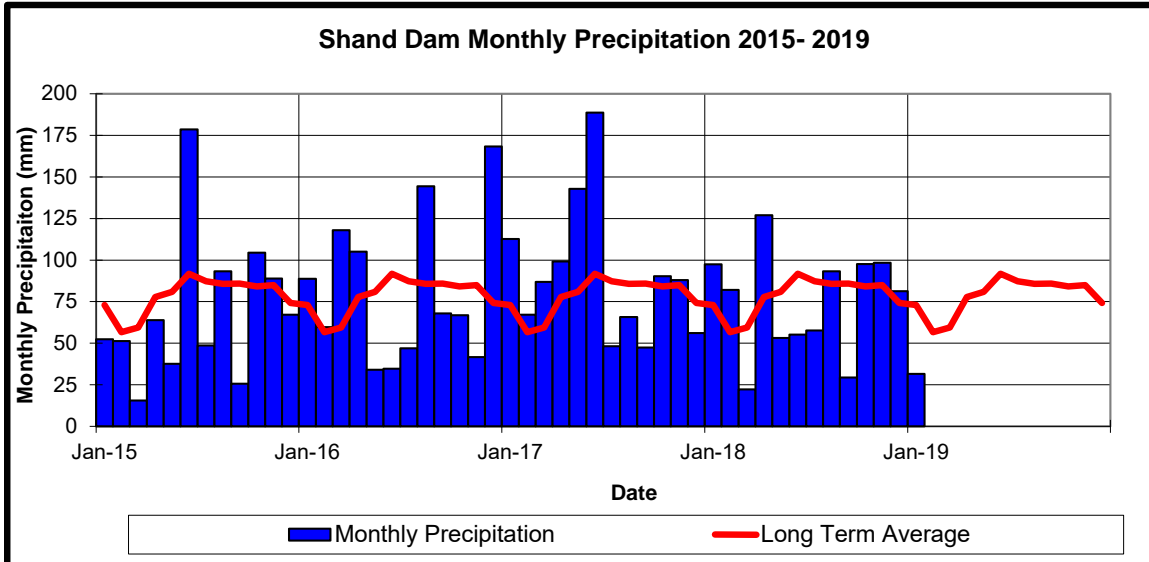


Figure 2: Departures from Average Air Temperatures

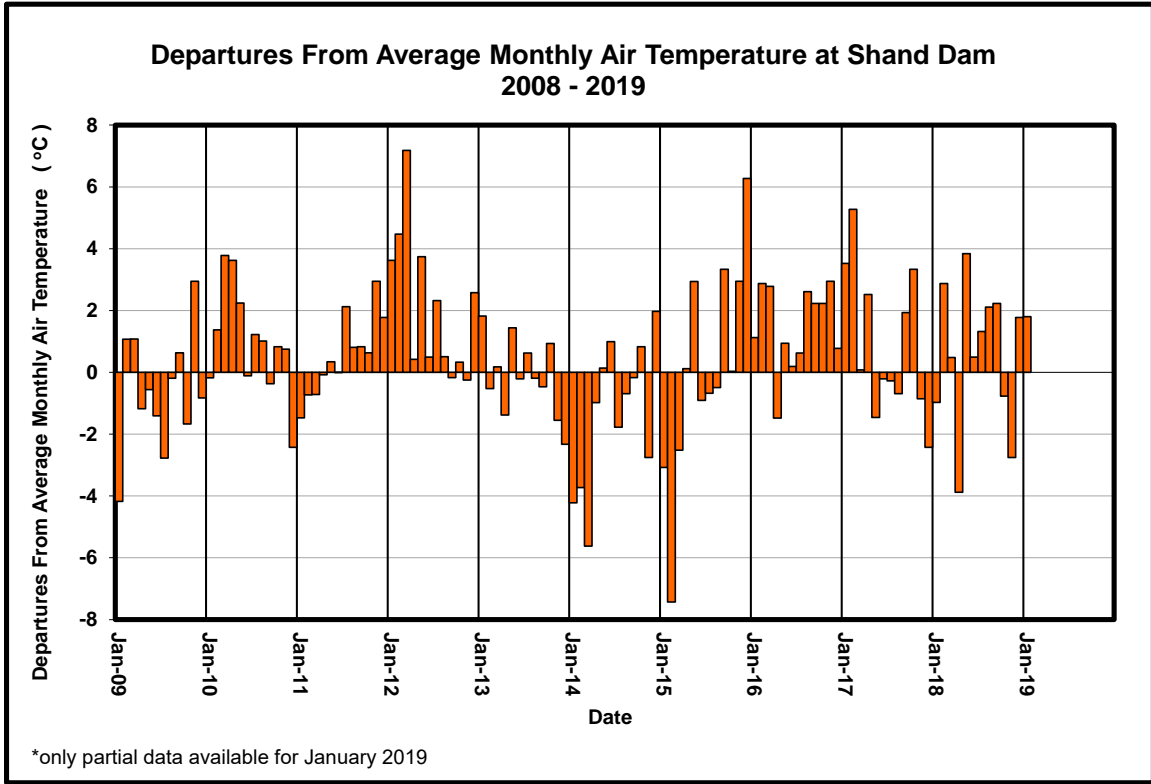


Figure 3: Forecasted Lake Erie Levels

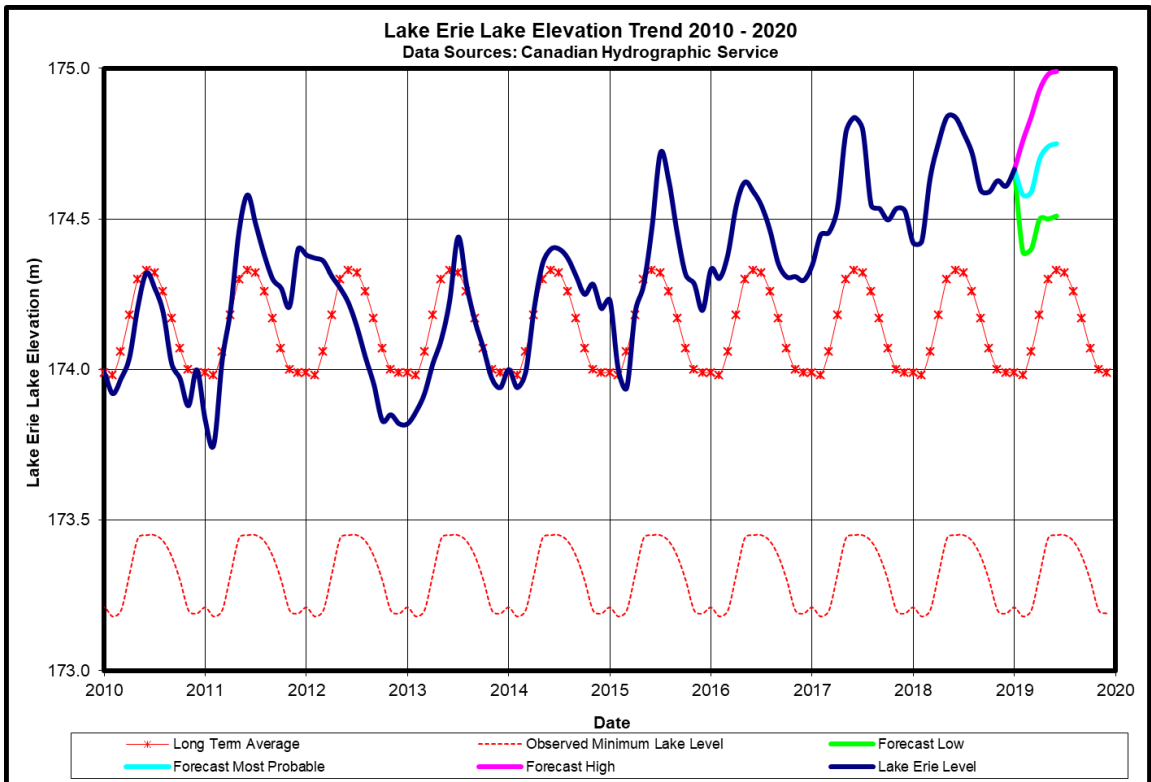


Figure 4: Shand and Conestogo Reservoir Elevation Plots

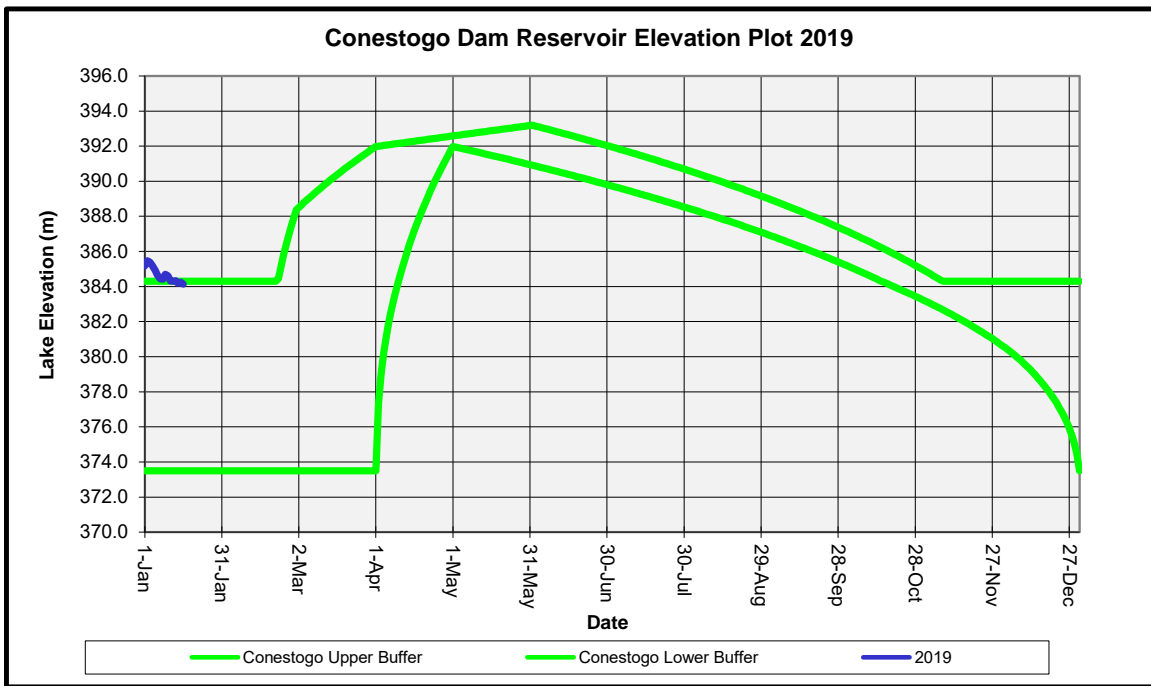
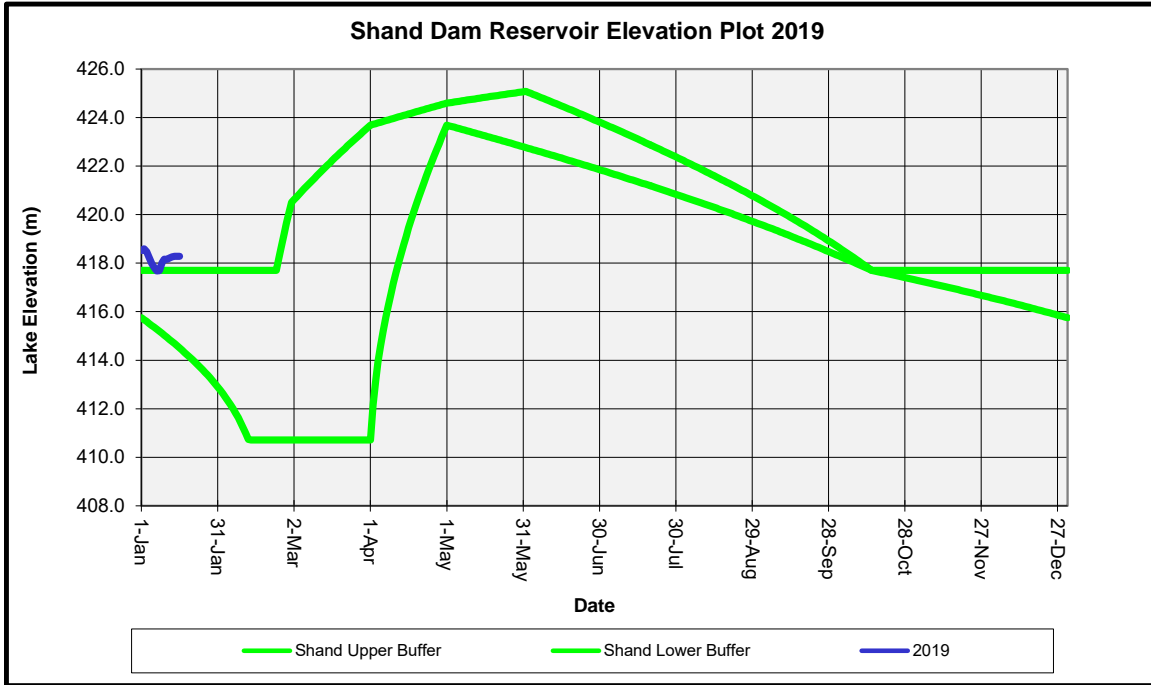
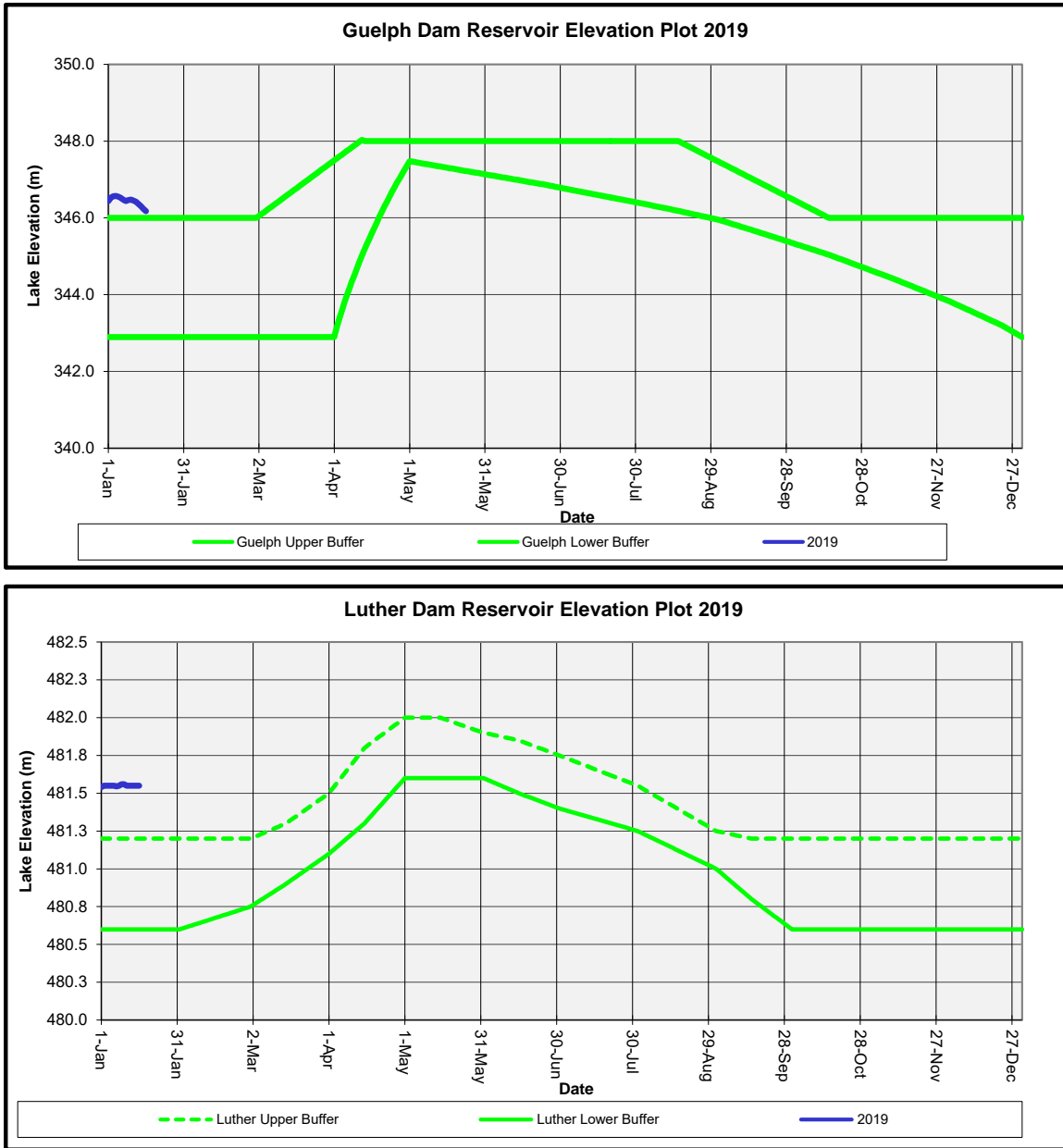


Figure 5: Guelph and Luther Reservoir Elevation Plots



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.