



Board Meeting

Teleconference

Immediately following Special Meeting

April 15, 2020

AGENDA

ROLL CALL

Agenda Review MOTION

Declarations of Interest (written)

1. Verbal Update – Watershed Condition and Outlook (Jenn North)
2. Approval of Minutes – Board Meeting, February 19, 2020. See attached.
3. Business Arising from Minutes
4. Kashwakamak Lake Dam Project, Report 3056/20 (Juraj Cunderlik)
5. Epidemic/Pandemic Preparedness and Response Plan, Report 3052/20 (Sally McIntyre)
6. Budget Control Report, Report 3053/20 (Angela Millar and Sally McIntyre)
7. Lower Mississippi River Flood Plain Mapping Study, Report 3054/20 (Matt Craig)

Other Business

ADJOURNMENT

MISSISSIPPI VALLEY CONSERVATION AUTHORITY

52nd ANNUAL GENERAL MEETING

Mississippi Valley Conservation Centre
Carleton Place

MINUTES

February 19, 2020

MEMBERS PRESENT:

J. Mason, Chair
J. Atkinson;
E. Burke;
R. Darling;
E. El-Chantiry;
B. Holmes;
J. Inglis;
J. Karau;
W. King;
P. Kehoe;
C. Lowry;
G. McEvoy;
P. Sweetnam.

MEMBERS ABSENT:

F. Campbell;
T. Fritz;
G. Gower, Vice-Chair;
K. Thompson.

STAFF PRESENT:

S. McIntyre, General Manager;
A. Millar, Treasurer;
A. Broadbent, Information Technology Supervisor;
M. Craig, Manager, Planning and Regulations;
S. Gutoskie, Community Relations Coordinator;
J. North, Water Resources Technologist;
E. Levi, Recording-Secretary.

OTHERS PRESENT:

M. Kubasiewicz, South Nation Conservation Board;
G. Street, Cross Street Professional Corporation;
K. Wraggett, Mississippi-Rideau Source Protection.

J. Mason called the meeting to order at 1:00 p.m.

BUSINESS:

J. Mason advised that item 18 on the agenda will not be in-camera.

1. **B02/19/20-1**

MOVED BY: P. Kehoe

SECONDED BY: E. El-Chantiry

Resolved, That the Agenda for the Mississippi Valley Conservation Authority Board of Directors Annual General meeting be adopted as amended.

“CARRIED”

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2. Minutes – Board of Directors Meeting – December 4, 2019

B02/19/20-2

MOVED BY: C. Lowry

SECONDED BY: J. Karau

Resolved, That the Minutes of the Mississippi Valley Conservation Authority Board of Directors meeting held on December 4, 2019 be received and approved as printed.

“CARRIED”

3. Minutes – Finance & Administration Advisory Committee Meeting – November 15, 2019

B02/19/20-3

MOVED BY: E. El-Chantiry

SECONDED BY: C. Lowry

Resolved, That the Minutes of the Mississippi Valley Conservation Authority Finance and Administration Advisory Committee meeting held on November 15, 2019 be received.

“CARRIED”

4. Minutes – Policy & Priorities Advisory Committee Meeting – November 14, 2019

B02/19/20-4

MOVED BY: J. Atkinson

SECONDED BY: J. Inglis

Resolved, That the Minutes of the Mississippi Valley Conservation Authority Policy & Priorities Advisory Committee meeting held on November 14, 2019 be received.

“CARRIED”

5. Business Arising

2020 Per Diem and Mileage Rates

A. Millar reviewed Staff Report # 3040/20 and the recommendation from the Finance & Administration Advisory Committee meeting February 7, 2020 (see attached).

B02/19/20-5

MOVED BY: P. Sweetnam

SECONDED BY: R. Darling

Resolved, That the Board approve:

a) a 1.9% cost of living increase in Board member per diems and honorariums effective the Annual General Meeting, February 19, 2020.

b) an increase in mileage rate to \$0.565/km effective January 1, 2020.

“CARRIED”

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Update – WECI Projects

S. McIntyre reviewed Staff Report #3040/20 attached. There was a brief discussion regarding repair versus replacement of the Kashwakamak Lake Dam. A recommendation on that matter will be tabled at the April meeting.

6. Chair’s 2019 Report

J. Mason provided an overview of the work the CA did and challenges it faced in 2019. She thanked staff for their continued hard work and care of the well-being of the watershed. See attached report.

7. Presentation 2019 Financial Statements

G. Street presented the 2019 audited financial statements for the period ending December 31, 2019 and the Audit Findings Letter. He noted the authority had a successful year. He noted a clean audit and advised that it went very well thanks to staff preparations.

B02/19/20-6

MOVED BY: W. King

SECONDED BY: J. Karau

Resolved, That the audit findings letter dated January 31, 2020 be received.

“CARRIED”

B02/19/20-7

MOVED BY: R. Darling

SECONDED BY: E. El-Chantiry

Resolved, That the audited Financial Statements for the period ended December 31, 2019 be received, and further,

Resolved, That the Financial Statements for the period ended December 31, 2019 be adopted.

“CARRIED”

8. Elections of Officers for 2020

B02/19/20-8

MOVED BY: P. Kehoe

SECONDED BY: C. Lowry

Resolved, That Glenn Street be appointed as Chairman for the Election of Chairman for 2020.

“CARRIED”

B02/19/20-9

MOVED BY: P. Kehoe

SECONDED BY: E. El-Chantiry

Resolved, That Matt Craig, Sally McIntyre and Angela Millar be appointed to serve as Scrutineers in the event of an election.

“CARRIED”

All offices were declared vacant.

E. El-Chantiry nominated Janet Mason for the position of Chair of the Conservation Authority for 2020. G. Street asked three times for further nominations.

B02/19/20-10

MOVED BY: C. Lowry

SECONDED BY: E. El-Chantiry

Resolved, That nominations for the position of Chair be closed.

“CARRIED”

J. Mason agreed to let her name stand for the position of Chair. She was duly elected by acclamation. John Karau was nominated for the position of Vice-Chair but declined to stand. J. Atkinson nominated Glen Gower for the position of Vice-Chair of the Conservation Authority. J. Mason asked three times for any further nominations. J. Mason explained that G. Gower had written a letter affirming his acceptance of the nomination for position of Vice-Chair.

B02/19/20-11

MOVED BY: C. Lowry

SECONDED BY: R. Darling

Resolved, That nominations for the position of Vice-Chair be closed.

“CARRIED”

G. Gower was duly elected by acclamation.

9. Appointment of Auditors for 2020

B02/19/20-12

MOVED BY: P. Sweetnam

SECONDED BY: G. McEvoy

Resolved, That the firm of Cross Street Professional Corporation be engaged as the Authority’s Auditor for the year 2020.

“CARRIED”

10. Appointment of 2020 Committee Members

J. Mason advised the committee members for 2020 would remain the same as 2019 (with the exception of the Regulation Committee, which will be reduced in size) unless there was any requested change by members.

B02/19/20-13

MOVED BY: E. El-Chantiry

SECONDED BY: C. Lowry

Resolved, That the Board

- a. **Appoints the following Board members to the Regulations Committee to hear applications pursuant to Ontario Regulation 153/06 and the MVCA Administrative By-Law, as amended:**
 - i. **Chair, Janet Mason**

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- ii. Vice-Chair, Glen Gower
- iii. Christa Lowry (Mississippi Mills)
- iv. Roxanne Darling (Tay Valley)
- v. Kirby Thompson (Addington Highlands); and
- vi. Paul Kehoe (Drummond/North Elmsley) as an alternate

- b. Directs members of the Regulations Committee to deliberate on the evidence presented at the hearing, and grant or deny such permission on behalf of the Mississippi Valley Conservation Authority and provide the applicant with reasons, in writing, thereof.

“CARRIED”

It was noted that Janet Mason would remain the Conservation Ontario Voting Delegate, Jeff Atkinson would remain the first alternate, and Sally McIntyre as the second alternate.

B02/19/20-14

MOVED BY: R. Darling

SECONDED BY: G. McEvoy

Resolved, That the Board appoint a Voting Delegate to Conservation Ontario Council for 2020, as well as a first and second alternate.

“CARRIED”

11. 2019 Annual Report

S. McIntyre gave a presentation regarding the Conservation Authority Programs and Services accomplishments and challenges for 2019.

12. 2020 Capital Budget Amendment

A. Millar presented Staff Report # 3046/20 (attached) regarding an amendment to the capital budget from December to provide for rebuild of an authority tractor.

B02/19/20-15

MOVED BY: J. Karau

SECONDED BY: J. Inglis

Resolved, That the Board approve the cost to rebuild and repair the New Holland tractor engine be added to the Final 2020 budget and funded from the Vehicle and Equipment Reserve resulting in no increase to the 2020 municipal levy as previously proposed in the Draft 2020 Budget.

“CARRIED”

13. 2020 Budget and Work Plan

Staff Report #3047/20 (attached) regarding the 2020 Budget and Work Plan was reviewed by S. McIntyre.

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B02/19/20-15

MOVED BY: P. Kehoe

SECONDED BY: R. Darling

Resolved, That the Board

- a) **Approve the 2020 Budget and Work Plan, as amended.**
- b) **Direct staff to return to the Board with updated costs and recommendations for the Shabomeka Lake Dam and Kashwakamak Lake Dam capital projects prior to tendering.**
- c) **Direct that any increase in capital costs be borne by capital reserves with no impact to the 2020 general levy.**

“CARRIED”

14. 2020 Meeting Schedule

S. McIntyre reviewed the meeting schedule for 2020 and proposed to change the July meeting with a meeting in November instead (see Staff Report #3048/20 attached). After committee discussion, it was determined that there were conflicts with the proposed change and that a new date would have to be recommended at the next meeting.

15. Mill of Kintail Museum Update

J. Atkinson briefed the Board on Staff Report #3043/20 (attached) which was reviewed at the Finance & Administration Advisory Committee on February 7, 2020. New information has come forward regarding potential funders of the Museum and collections that require a timely response and legal clarity of the Authority.

J. Karau asked for the timeline proposed for seeking the legal clarity. S. McIntyre advised that it would be end of May 2020.

B02/19/20-16

MOVED BY: J. Atkinson

SECONDED BY: C. Lowry

Resolved, That the Board of Directors approve the following:

- 1) **That the MVCA make application to a Judge for an interpretation regarding MVCA’s legal obligations as it pertains to operation of the museum and grounds, and**
- 2) **That legal counsel be sought regarding governance options for the McKenzie and Naismith collections including:**
 - a. **establishing a new charitable organization;**
 - b. **repurposing the Mill of Kintail Canadian Arts and Pioneer Museum Corporation;**
and
 - c. **repurposing the R. Tait McKenzie Memorial Trust.**

“CARRIED”

16. Mississippi River Watershed Plan Update

S. McIntyre gave a brief update regarding the four Backgrounder Reports and the Mississippi River Watershed Plan. She advised that the reports were available on the Authority website and that a Discussion Paper was to be prepared this spring. The intent is to have the plan tabled and approved by the Board before the end of 2020.

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17. Watershed Conditions Update

J. North gave an update about current conditions in the watershed. She noted that snow conditions are currently above average for this time of year, but that there is limited correlation between snowpack and potential for flooding. She noted it was too early to make a long-term prediction for spring. She advised if regular precipitation occurs, we could experience higher flows than normal.

18. Land Disposition, Purchase & Easements

B02/19/20-17

MOVED BY: P. Sweetnam

SECONDED BY: B. Holmes

Resolved, That the committee move to in-camera session for discussion of a proposed or pending acquisition or disposition of land by the Authority, and further

Resolved, That Sally McIntyre remain in the room.

“CARRIED”

B02/19/20-19

MOVED BY: G. McEvoy

SECONDED BY: J. Atkinson

Resolved, That the committee move out of in-camera discussions.

“CARRIED”

J. Mason reported the following:

- A closed meeting was held.
- The item considered concerned the acquisition and sale of land.
- There is nothing further to report.

19. Recruitment for Director Position

S. McIntyre noted that interviews had been completed and that the Authority was currently in negotiations with the successful candidate. She advised that the intent was to have the position filled to commence work in April 2020.

ADJOURNMENT

The meeting was adjourned at 3:00 p.m.

B02/19/20-20

MOVED BY: C. Lowry

SECONDED BY: E. Burke

Resolved, That the Board of Directors meeting be adjourned.

“CARRIED”

Chair's 2019 Report - MVCA Board Mtg - 19 Feb 2020

2019 was an extraordinary year of change and transition for MVCA. I served on the board for four years between 2015 and 2018. There were some challenges - the extension of wetland regulation to meet our mandate being the greatest - but I have to say that the organization otherwise operated as it had done for many years. Not so for 2019. We had what I call a **Flood of Change**.

1. We had the retirement of four long term staff members.
 - o General Manager and Secretary-Treasurer retired in the first quarter of 2019.
 - o Our Water Management Manager and Our Director of Water Resources Engineering retired at the end of the year.
 - o Collectively well over 130 years of experience and knowledge left the building.
3. We had a brand new general manager start in February.
4. We had a brand new Chair - me - also start a year ago at the AGM in February.
5. We had a brand new Treasurer start at the end of March.
6. Then in April/May we had the flood of 2019 - which staff and local people compared to the legendary flood of 1998 in terms of its breadth and impact on the Mississippi watershed and on our area of responsibility along the Ottawa River at Constance Bay. Staff responded with their usual professionalism and worked long hours to coordinate with municipalities and communicate with residents. Since then permit applications have doubled over normal volume.
7. We had Bill 108 - More Homes, More Choice Act - that caused a great of time to be spent on reviewing, understanding, and commenting on it - - at least by Sally and me. We are still awaiting the regulations that will determine MVCA's mandate.
8. Due to Bill 108, we had uncertainty and apprehension in the community about the future of the cherished museums at the Mill of Kintail. Looking for solutions has taken a large amount of time of some board members, Sally, and staff. Thank you to Christa, Jeff, and Bev for your leadership.
9. As an indicator of change to come - -

We completed the four Backgrounder documents that will form the foundation for the Mississippi River Watershed Management Plan, to be developed in 2020. The Plan will guide our actions in the watershed over decades. The Backgrounder effort was a huge amount of work by staff, particularly Alyson Symon, in a short period of time. Thanks also go to John Karau as the Board lead for this initiative.

I think you will be impressed with the quality and depth of content. You will learn new things about our watershed - in particular how connected we are. Actions taken in one place - even remote areas - can greatly affect water quality and quantity nearby or downstream or in ground water.

We are all neighbours, from the Addington Highlands to the Ottawa River. I encourage you to take the time to thoughtfully read all four backgrounder documents and think about how what's in them will affect decisions your municipalities take in the future.

I think that MVCA has weathered this **flood of change** very well. And keep in mind that change is not necessarily good or bad, but it is necessary. It's necessary because we need to evolve and improve as an organization. If we're not responding to changes in our environment - climate, population, politics, culture, technology - then we become ineffective and possibly irrelevant.

I am very proud of staff for rising to the challenges that the organization faced in 2019. I know this has taken a toll in terms of work load and stress. There are plans being developed to address this and I appreciate your patience.

In closing I would like to thank the Board, Sally, Angela, and especially all of the dedicated staff for your hard work and for caring about our river, our watershed, our well-being, and our future.

REPORT

3056/20

TO:	Board of Directors, Mississippi Valley Conservation Authority
FROM:	Juraj Cunderlik, Director Water Resource Engineering
RE:	Kashwakamak Lake Dam Risk Assessment
DATE:	April 13, 2020

Recommendations:

That the Board approval allocation of \$25,000 from the Kashwakamak Lake Dam capital budget towards completion of a Risk Assessment of the weir.

1.0 PURPOSE

The purpose of this report is to obtain approval to use a portion of the \$100,000 capital budget dedicated for the repair of the Kashwakamak Lake Dam to complete a third-party risk assessment of the weir. The goal is to determine the potential risk of postponing repair of the weir for up to 5 years while an environmental assessment and detailed design are carried out for replacement of the entire structure, as set out in the 10-year Capital Plan.

2.0 BACKGROUND

A 2016 study of the Kashwakamak Lake Dam recommended repair of the weir at an estimated cost of \$96,000. In December 2019, field work carried out during detailed design of the repair found that the weir requires greater work than originally estimated, and the cost estimate increased to approximately \$300,000 in January 2020.

Given that the entire structure (weir and dam) is slated for replacement within 5-years at an estimated cost of \$990,000 (2006 CND), the wisdom of investing so much in the short-term is in question.

In accordance with the MVCA Purchasing Policy, three written quotes were solicited to complete the risk assessment.

3.0 NEXT STEPS

The results of the risk assessment study will be made available to the Board at its May meeting with a recommendation to proceed or not proceed with repair of the dam this year. By that time, we will also know whether the project has received approval for 50% funding under the provincial Water & Erosion Control Infrastructure (WECI) program. (Note, the WECI application reflected the updated cost estimate for the repair.)

Detailed design of the repair is complete and can be tendered in a timely manner if needed this year. There is, of course, question regarding all capital works this year due to COVID-19 and the ability to secure contractors.

REPORT

3052/20

TO:	Board of Directors
FROM:	Sally McIntyre, General Manager
RE:	Epidemic/Pandemic Preparedness and Response Plan (COVID-19)
DATE:	April 8, 2020

Recommendation:

That the Board:

1. Approve the Epidemic/Pandemic Preparedness and Response Plan set out in this report.
2. Approve allocation of 2-weeks paid sick leave for 2020 to contract staff who do not have such leave.
3. Approve provision of one or more staff with Paid Declared Emergency Leave, as needed.
4. Direct the GM to review the scope of powers and actions of peers under emergency conditions and report back with recommendations to the Board.

1.0 BACKGROUND

The MVCA does *not* have policies regarding how to prepare for, respond to or recover from a pandemic such as COVID-19. This report summarizes the key matters to be addressed, with a draft escalation policy attached for the Board's consideration.

The objectives of the policy are three-fold:

- Protect employee health and wellness
- Maintain delivery of essential services
- Protect the legal and financial interests of MVCA

In developing the Epidemic Preparedness and Response Policy, consideration was given to the following matters:

- Existing MVCA Employee and Health & Safety policies and procedures
- Contagion risks and mitigation measures in the MVCA workplace
- Legislative requirements and limitations

Draft and approved policies of other CAs were also reviewed.

2.0 Regulatory Considerations¹

a) Occupational Health and Safety Act (OHSA)

MVCA employees have the right to refuse work if a condition of the workplace “is likely to endanger” their health or safety. “Certain employees are exempted from the right to refuse work. These include employees whose work is inherently dangerous or circumstances where a work refusal would endanger another’s life, health or safety.”

No jobs as the MVCA have been declared exempt under the OHSA. “Employees encountering the COVID-19 in the workplace (or who fear that they may encounter it) may seek to exercise their right to refuse work in this regard.” In order to mitigate such an occurrence while ensuring business continuity, this report recommends that additional paid leave and other measures be taken to address the current COVID-19 outbreak.

b) Employment Insurance Benefits

Not all MVCA employees have paid sick leave benefits. “In the absence of company paid sick benefit coverage or where benefits are exhausted, employees may be entitled to sickness benefits under the *Employment Insurance Act* (Act). Under the Act, employees who face a reduction in “normal weekly earnings” of at least 40% because of illness, injury or quarantine are eligible for EI sickness benefits, provided they have accumulated sufficient insurable hours.”²

In order to ensure that staff experiencing symptoms of COVID-19 do not feel obligated to attend work for financial reasons, it is recommended that commencing immediately all staff currently without sick leave benefits be provided with up to 10 days paid sick leave for 2020, to be taken in accordance with the Employee Manual.

At the GM’s discretion based upon previous indications from the Board, this provision has already been exercised by two contract employees who became symptomatic and were asked to self-isolate, and to work from home or independently in the field where possible for the recommended 14 days.

¹ Large portions of section 2.0 are taken from an information item published by the law firm Hicks Morley in relation to the COVID-19 pandemic. The full document can be found at [https://hicksmorley.com/2020/03/02/Update-on-Coronavirus-\(COVID-19\)-Ontario-Announces-Enhanced-Measures-to-Safeguard-Public-March-2,-2020](https://hicksmorley.com/2020/03/02/Update-on-Coronavirus-(COVID-19)-Ontario-Announces-Enhanced-Measures-to-Safeguard-Public-March-2,-2020). Unless otherwise indicated, all quoted text is from the Hicks Morley document.

² Source: <https://pm.gc.ca/en/news/news-releases/2020/03/11/prime-minister-outlines-canadas-covid-19-response>

c) *Declared State of Emergency and Employment Standards Act (ESA)*

On March 17, the province declared a State of Emergency. All public schools are closed to May 4, 2020 with the potential for an extension; and the province has ordered closure of non-essential workplaces and public areas to mitigate the spread of the COVID-19.

The MVCA is a public service and delivers several essential services and is therefore largely exempt from the regulation. However, all CAs are examining their activities to determine what tasks cannot be performed at home, are non-essential, and that could place employees at increased risk of exposure to COVID-19. Consequently, MVCA has recently closed two of the four conservation areas and will be conducting minimal activities at those sites for the foreseeable future.

While most office-based employees have meaningful productive work that is being performed at home and on a rotating basis in the office, depending on the duration of the emergency, and the scope of orders from the province, the ability to keep all staff occupied will diminish.

MVCA employees with benefits can take personal and vacation leave, or use accumulated Time-Off-In-Lieu (TOIL) of overtime for periods when there is insufficient work or where child-care and similar responsibilities prevent them from completing a 37.5-hour work week. Leave and TOIL balances vary significantly amongst employees, particularly as some have already taken leave this year due to teacher union strike actions. Employees without leave benefits can only access available TOIL balances.

Depending on the duration of school closures and other COVID-related actions, some employees may exceed their leave balances before the emergency is over. It is believed that all MVCA employees are entitled for Declared Emergency Leave under the *Emergency Management and Civil Protection Act* (EMCPA), however, several employees, particularly field operators perform critical functions of the organization and redundancy is necessary, particularly during an epidemic.

In order to ensure workforce continuity and support MVCA employees in managing family and health needs during the COVID-19 outbreak, it is recommended that the Board approve provision of one or more staff with Paid Declared Emergency Leave, as needed.

d) *Human Rights Code* and Privacy Considerations

MVCA has health and safety policies governing the *duty to accommodate* someone with a disability. MVCA collects basic health information that is sealed and on-hand in case of an emergency; and has asked people to self-identify if they are part of group that is at higher risk of

the coronavirus. Staff who self identified were some of the first to be given remote access and directed to work from home.

Current MVCA policy requires a *doctor's note* where an employee is off for 3 or more consecutive days, and another if returning to work after an absence of 5 or more days. The province has prohibited this requirement to mitigate potentially-infected employees contaminating doctors offices and workplaces.

However, in order to assess and mitigate risks in the workplace, legal counsel is advising employers to “examine what information needs to be used or disclosed in the circumstances to fulfill their obligations to all of their employees, as well as to those to whom the employer provides services.”

In order to protect the health of MVCA employees:

- **any staff that become symptomatic of COVID-19 will be requested to self-isolate and share related test results with their supervisor so that management can reassess risks in the workplace and take appropriate action.**

Several staff have been requested to self-isolate over the past six weeks in accordance with Public Health Unit recommendations. To date, none has developed COVID-19.

3.0 PROTECTING EMPLOYEE HEALTH AND WELLNESS

The MVCA will monitor recommendations³ and orders issued by area Public Health Units and the province, and will promote and facilitate their adoption in the workplace. Currently, advice to the general population is as follows:

- Wash your hands often with soap and water, or use hand sanitizer
- Avoid touching your eyes, nose, and mouth unless you have just washed your hands with soap
- Cover your cough and sneeze with a tissue or into your arm, not your hand
- If possible, stay home if they are sick
- Avoid visiting people in hospitals or long-term care centres if they are sick

A poster provided by the province has been posted at all work sites to remind employees on how to minimize exposure to and transmission of the virus. In addition to the above, job-specific risk assessments were completed and mitigation measures identified to reduce contagion risks and maintain service delivery, as summarized in Table 1.

³ Refer to Attachment 1

Table 1: Job Specific Risks and Mitigating Measures

Job	Job-specific risks	Mitigating Measures
All	<ul style="list-style-type: none"> • Workplace contamination 	<ul style="list-style-type: none"> • Buildings (when in use) – Daily cleaning of all phones, keyboards/mice, door handles, copier equipment, front counter, external mail slot; and daily disposal of waste bin contents. • Vehicles – Cleaning of steering wheel, other dash components and door handles before use; provision of waste bins in each vehicle to be emptied upon return to the yard
Staff Front Desk	<ul style="list-style-type: none"> • Interacting with the general public 	<ul style="list-style-type: none"> • Post sign on door asking those with symptoms to drop-off applications/cheques in mail slot, wear mask, or use phone or email • Provide public with hand cleanser, tissues, and waste bin at front desk • Provide method for sterilizing shared equipment and mail/packages.
Deliver Education Programs and staff Museum	<ul style="list-style-type: none"> • Interacting with the general public • Use of space by renters 	<ul style="list-style-type: none"> • Post signage, notify users and, if ordered or deemed appropriate, close the museum and halt delivery of group programs and space rentals.
Delivery of Planning, Permit, and Septic services	<ul style="list-style-type: none"> • Interacting with the general public 	<ul style="list-style-type: none"> • Update website to encourage electronic submission of applications and supporting documents • Use the telephone instead of face to face meetings wherever possible • Follow PHU recommendations when conducting site visits

4.0 BUSINESS CONTINUITY

4.1 Staff Levels and Resiliency

MVCA has limited redundancy in personnel and therefore limited resiliency to staff shortages that could arise during the pandemic. Table 2 identifies staffing in key service areas and associated risks arising from staff shortages. Note, the table does not include the new planner and Director of Engineering who will be joining MVCA at the end of the month. Both will require a training period but bring to the organization extensive knowledge and experience and will quickly increase both capacity and resiliency.

Table 2: Staffing Levels and Resiliency Risk by Service Area

Service Area/Activity	Staff levels⁴	Risks
System monitoring, flood forecasting, daily planning	1.5	<ul style="list-style-type: none"> Loss of ability to monitor system, conduct forecasting and system planning, and issue timely notifications to the public/agencies
Dam/field operations	4+3 ⁵	<ul style="list-style-type: none"> Insufficient crew to safely operate structures or to meet contract obligations to OPG and MNRF (2-3 per crew required dep. on site) Increased risk of property damage and flooding of public and private roads. Inability to carryout routine maintenance, repairs, and capital works at three conservation areas
Plan and permit review (planning)	5.5	<ul style="list-style-type: none"> Failure to meet required timelines; reduced compliance monitoring; failure to meet legal requirements related to enforcement actions
Plan and permit review (technical)	1.25 ⁶	<ul style="list-style-type: none"> Failure to meet required timelines; and delay in completion of flood plain mapping
Project management – Capital program	0.5	<ul style="list-style-type: none"> Failure to deliver on one or more 2020 capital projects
Payroll and HR Administration	1	<ul style="list-style-type: none"> Failure to meet payroll and fulfill associated requirements and responsibilities
GIS/IT services	2+0.2 ⁷	<ul style="list-style-type: none"> Inability to conduct analysis and produce products including flood plain mapping Reduced uptime in event of computer failure
Front desk	2	<ul style="list-style-type: none"> Loss of phone operator services, Board and Committee support, and administrative support to staff and the public
MOK programs and services	2	<ul style="list-style-type: none"> Inability to deliver education program, manage space rentals, open/operate museum
Natural Systems and Watershed Monitoring and Planning	3.5	<ul style="list-style-type: none"> Inability to comment on planning applications, provide advisory services, carryout summer monitoring program, deliver stewardship programs, and complete Watershed Plan

⁴ Approximate, as all staff serve multiple purposes.

⁵ Four people are responsible for carrying out log operations and other field work. There are three other employees at MVCA who have carried out and are trained and knowledgeable in log operations; however, there are health and safety concern associated with them operating the dams under extreme conditions.

⁶ 0.25 relates to geotechnical support services provided by RVCA, so no real redundancy.

⁷ On-call IT contractor in place who provides regular support, and who also has back-up support.

Only system monitoring and operations are considered to be activities where a work refusal would “endanger another’s life, health or safety” under the *Occupational Health and Safety Act*. However, these activities have limited interaction with the public and are not at heightened risk of exposure to COVID-19, therefore the likelihood of a work refusal during the pandemic is unlikely unless there is a fellow employee who poses the risk and separation distances cannot be maintained.

4.2 Working from Home

Several jobs at MVCA can be performed remotely from home with appropriate technological support as shown in Table 3. There are limits to this due to the software and hardware in place both at MVCA and at people’s homes including firewalls and licencing limitations; because appropriate work is not always available; and because health and household circumstances may prevent employees from applying themselves to the tasks.

Table 3: Work from Home Opportunities

Service Area	Remote	Duration
System monitoring, flood forecasting, daily planning	Some	indefinitely
Dam/field operations	No	-
Plan and permit review (planning)	Some	6 weeks
Plan and permit review (technical)	Some	6 weeks
Project management – Capital program	Some	indefinitely
Payroll and HR Administration	Some	indefinitely
GIS / field services	Some	2-4 weeks
Front desk	Some	2-4 weeks
MOK programs and services	Limited	2-4 weeks
Stewardship and Watershed Monitoring and Planning	Limited	2-4 weeks

At present, most employees are working from home and have a detailed list of productive tasks to complete. Depending upon the duration of the event, workloads may decrease and staff with benefits will use unused Leave banks to off-set unproductive time associated with the COVID-19 event.

4.3 Dam Operations

MVCA operates Crotch Lake and High Fall dams under contract to Ontario Power Generation (OPG), its own dams, and a handful of smaller facilities for the Ministry of Natural Resources and Forestry. The knowledge and experience needed to complete this work is not widespread and is largely held only by fellow facility owners and operations. In order to mitigate risks within the watershed, MVCA reached out to all known dam owners and operators and has put in place a plan to share staff should that become necessary.

4.4 Site Closures

The Mill of Kintail and Morris Island Conservation Areas are now closed with signs and barricades in line with actions taken by the local municipalities, the NCC and recent provincial directives. However, MVCA must continue to inspect and maintain sites to a safe standard as windstorms and rain events can down trees and branches, and damage infrastructure. Therefore, a base level of staffing is required to keep facilities safe.

4.5 Reduced Service Levels

To date, staff has been able to meet planning and permit needs within regulated deadlines with few exceptions. If the virus becomes locally widespread it is likely that timelines may not be met by MVCA and partner organizations. This will be monitored and action taken as needed to inform regulators, applicants, and service delivery partners of staffing or other constraints.

4.6 Supply Chain

MVCA relies on local suppliers and specialty shops for the equipment and supplies needed to operate and maintain the dams and monitoring and telecommunications equipment. Staff are assessing existing stores and obtaining key supplies and replacement parts needed to keep it operating at current levels over the next 6 months.

4.7 Governance

MVCA's Administrative By-law has no policies regarding moving into or out of a state of Emergency Operation or how the organization will be governed if the General Membership cannot meet. Changes to the *MVCA Administrative By-law, 2018* are recommended to provide direction on this matter that would allow:

- the General Manager to move into Emergency Operations in consultation with the Chair and Vice Chair of the Board of Directors;
- the General Manager to request establishment of an Executive Committee comprised of the Board Chair and Vice Chair, and the two Standing Committee Chairs;
- the General Manager to request other Board members to participate in the Executive Committee if one or more of the Chairs or Vice Chair are unable to fulfil their role on the Executive Committee.
- the Executive Committee to assume a selection of executive functions as set out in Section B 1) c) Powers of the General Membership of the *MVCA Administrative by-law, 2018*.

The proposed by-law amendments are detailed in Staff Report 3055/20.

5.0 ESCALATION PLAN – EPIDEMIC/PANDEMIC

Table 4 provides an escalation plan per the following operating conditions:

Normal Operations	Normal rate/severity of infections in the community
Enhanced Operations	Notice received regarding likely potential of virulent strain and/or transmission rates of infection entering the community
Emergency Operations	Infectious threat within the daily work/life sphere of MVCA staff
Recovery Operations	Announcement from Public Health Unit or other recognized authority that infection/transmission rates have normalized

Table 5: Event Escalation Plan

STATUS	Enhanced Operations (Prevention)	Emergency Operations (Response)	Recovery Operations
Trigger	Notice received regarding likely potential of unusually virulent strain and/or transmission rates of infection entering the community	Infectious threat within the daily work/life sphere of MVCA staff	Announcement from Public Health Unit or other recognized authority that infection/transmission rates have normalized
Cleaning / Sanitation	<ul style="list-style-type: none"> • Advise staff per Public Health notices • Post signs at all work sites • Heighten cleaning of work environment per Table 1 	Any work areas potentially contaminated by known COVID-19 patient to be cleaned as advised by PHU.	Standard set in current contract for cleaning services.
Attendance / Compensation	<ul style="list-style-type: none"> • All staff asked to monitor their health for symptoms • Anyone showing relevant symptoms requested to stay home; and if meeting PHU criteria to seek testing and share test results • Staff reminded of leave policies • Staff informed of government income support programs • Staff who are returning from out of country or areas of heightened risk requested to self-isolate for 14 consecutive days • Staff asked to self-identify if they believe they are part of a vulnerable community for disability considerations 	Same as Enhanced, and: <ul style="list-style-type: none"> • Select staff offered to work in rotation • Select staff offered to work from home per Table 3, where feasible • Staff maintain detailed time/task tracking to ensure appropriate compensation for time worked at home or in rotation in the workplace • Staff directed to stay home without productive work to use unused TOIL and leave reserves, as approved by the Board, or be placed on unpaid leave. 	Per the Employee Manual.
Levels of Service	<ul style="list-style-type: none"> • Make arrangements with existing service delivery partners and alternative service providers • Building signage and notices issued to program users and renters requiring those with symptoms or in contact with a confirmed case to not attend the site • Discuss service continuity and service level expectations with key stakeholders • Provide cross-training refresher for core business functions 	<ul style="list-style-type: none"> • System monitored remotely and operational staff placed On Call and called-in to conduct operations required to protect people and property from flooding only. • Retain payroll and AP/AR support if required. • Close the museum and cancel education programs. • Cancel MOK and Main Office rentals. • No non-essential face-to-face meetings on or off-site 	<ul style="list-style-type: none"> • Identify regulatory deficiencies and prioritize recovery actions • Retain extra support to address back-log of planning and regulation applications; and to address unmet regulatory requirements at CAs and main office • Re-open sites where orders lifted

STATUS	Enhanced Operations (Prevention)	Emergency Operations (Response)	Recovery Operations
		<ul style="list-style-type: none"> • Close Conservation Areas if ordered or if baseline safety needs cannot be met • Close main office if ordered or if sanitation needs cannot be sustained 	<ul style="list-style-type: none"> • Re-establish programs as staff recover and risk in community determined to be minimal
Governance/Finance	<ul style="list-style-type: none"> • Set up codes needed to appropriately track time expended working from home and for non-productive leave, as approved by the Board; and other event-related costs • Set up alternative approvals / authorities to the GM and Treasurer; • Identify alternative supervisors 	<ul style="list-style-type: none"> • Where appropriate, establish an Executive Committee and assign to it key executive functions until Recovery Operations are achieved. 	<ul style="list-style-type: none"> • Pay and leave impacts/balances calculated per employee • Calculate cost/revenue impacts of the event • Apply for compensation as available

ATTACHMENT 1 - Health Unit Recommendations⁸

As an employer, what do I need to do to prevent the novel coronavirus?

If you receive questions from your employees, we invite you to point them to our webpage on novel coronavirus. Our website is updated regularly, and the frequently asked questions (FAQ) are available in English, French, and Simplified Chinese.

In order to reduce employee absenteeism and reduce the spread of germs, including the flu and the novel coronavirus (COVID-19), we recommend that individuals:

- Wash their hands often with soap and water, or use alcohol based hand sanitizer
- Avoid touching their eyes, nose, and mouth unless they have just cleaned their hands
- Cover their cough and sneeze with a tissue or into their arm, not their hand
- If possible, stay home if they are sick
- Avoid visiting people in hospitals or long-term care centres if they are sick

The Federal Quarantine Act requires any person entering Canada by air, sea or land to self-isolate for 14 days whether or not they have symptoms of COVID-19. Leaving your property to go for a walk is not permitted under the Quarantine Order, issued on March 25, 2020.

Please note: in order to decrease transmission of COVID-19 in Ottawa, it is IMPERATIVE that all residents of Ottawa practice **(physical) social distancing**.

If you think you have COVID-19 symptoms or have been in close contact with someone who has it, use the **Ontario Government self-assessment tool** to help determine how to seek further care.

The priority of the healthcare system is being able to test those who are most in need. Not everyone requires testing. People WITHOUT respiratory symptoms (such as fever or cough) will **NOT** be tested for COVID-19, regardless of potential exposures.

Even if you do not have symptoms, you must **self-isolate for 14 days** if:

- You have travelled anywhere outside of Canada (including the United States of America).
- You live with, provided care for, or spent extensive time with someone who has:
 - Tested positive for COVID-19, OR is suspected to have COVID-19, OR who has respiratory symptoms (fever, cough, or shortness of breath) that started within 14 days of travel outside of Canada.

If you have MILD symptoms, where you are NOT short of breath and can manage symptoms reasonably at home

⁸ Source: <https://www.ottawapublichealth.ca/en/shared-content/frequently-asked-questions.aspx#As-an-employer-what-do-I-need-to-do-to-prevent-the-novel-coronavirus-COVID-19> accessed April 9, 2020.

- Do NOT call Ottawa Public Health
- **Self-isolate** until 24 hours AFTER symptoms have FULLY resolved or 14 days from returning home, whichever is LONGER

NOTE: Most people with mild symptoms will recover on their own at home

For employees, if your employer requires a sick note please send them **this letter from Ottawa Public Health**. For employers, please visit our **COVID-19 info page for workplaces**.

If you have ESCALATING SYMPTOMS such as a new or worsening cough and/or fever, AND have either travelled outside of Canada or been in contact with someone who has been diagnosed with COVID-19 in the past 14 days:

- Do NOT call Ottawa Public Health
- Children under 6 months of age meeting this criteria should be taken to CHEO
- Visit the COVID-19 Assessment Centre (see below for more info) – you do NOT need a referral from Ottawa Public Health OR
- Call your health care provider (if available)
- If the COVID-19 Assessment Centre and your health care provider are both closed, go to the hospital emergency department and pay attention to special signage

If you have SEVERE SYMPTOMS (you have frequent shortage of breath and cannot manage your symptoms at home)

- If this is a medical emergency, please **call 9-1-1 immediately**
- Go to the hospital emergency department and pay attention to special signage

There are other situations where your employees may be asked by Ottawa Public Health to self-isolate. If individuals who are self-monitoring develop symptoms, they have been asked to immediately distance themselves from others and to contact Ottawa Public Health at 613-580-6744. We ask you to support the guidance your employees have received from any health authority.

Ottawa Public Health is responsible to conduct public health follow-up of close contacts, including any workplace exposures and will contact your organization as needed.

REPORT

3053/20

TO:	Board of Directors, Mississippi Valley Conservation Authority
FROM:	Angela Millar, Treasurer and Sally McIntyre, GM
RE:	Budget Control Report – up to March 31, 2020
DATE:	April 14, 2020

Recommendations:

That the Board receive this Budget Control Report for information purposes.

1.0 PURPOSE

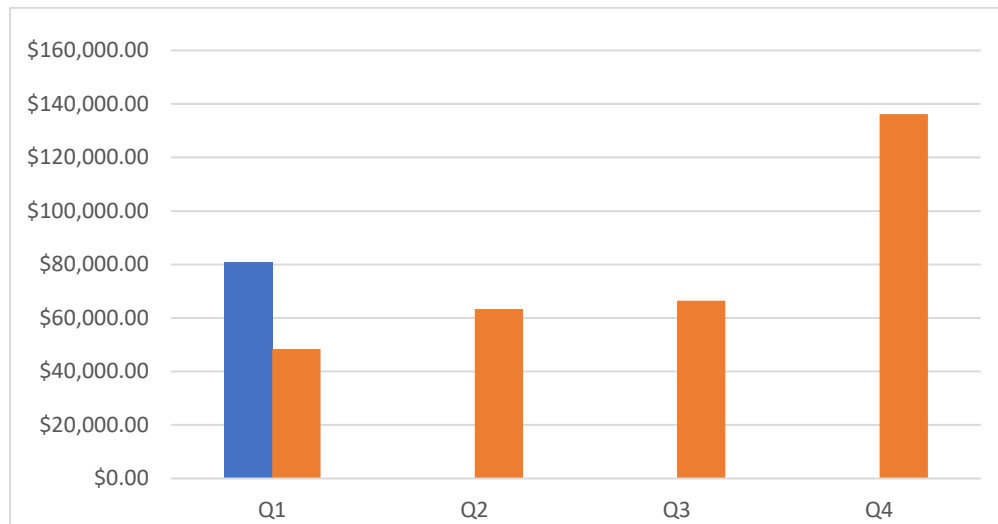
The purpose of this report is to provide a comparison of year-to-date expenditures and revenues to the approved 2020 Budget; and to provide an initial outlook for the balance of 2020 in light of the COVID-19 pandemic.

2.0 FINDINGS

As of March 31, 2020, revenues are slightly above average for this time of year, and expenditures are tracking normally as shown in Table 1. Planning and permit revenues continued strong over the winter months, in part due to works arising from the 2019 flood, as shown in Figure 1.

Table 1: Operations Budget	2019 Actual	2020 Budget	Year-To-Date as at: March 31 2020	%YTD
Expenditures				
Corporate Services	\$774,952	\$606,469	\$178,260	29%
Watershed Management	\$1,529,063	\$1,485,131	\$329,588	22%
Flood and Erosion Control	\$644,557	\$705,579	\$194,896	28%
Conservation Services	\$638,727	\$849,262	\$167,927	20%
Total Operating	\$3,587,299	\$3,646,441	\$870,670	24%
Revenues				
Municipal Levy	\$2,358,073	\$2,650,214	\$722,036	27%
Provincial Transfer Payment	\$128,438	\$128,438	\$0	0%
Special Grants	\$25,161	\$25,161	\$11,974	48%
User Fees & Contract Revenue	\$513,617	\$412,000	\$101,458	25%
Special Reserves	\$118,229	\$115,368	\$15,501	13%
Other	\$443,781	\$315,260	\$19,700	6%
Total Revenues	\$3,587,299	\$3,646,441	\$870,670	24%

Figure 1: 2020 Planning & Regulations Revenues versus 5-year average (2015-2019) by Quarter



The province recently confirmed that MVCA will receive the same annual transfer payment of \$128,438 in 2020 as it did in 2019 under Section 39 of the *Conservation Authorities Act*. Furthermore, that the Water and Erosion Control Infrastructure (WECI) grant program for capital projects will proceed in 2020 despite the pandemic. Per the 2020 budget and 10-year capital plan, MVCA submitted applications for funding to complete the Shabomeka Lake Dam Reconstruction, repair of the Kashwakamak Lake Dam weir, and to conduct an environmental assessment (EA) study for total replacement of the Kashwakamak Lake Dam. We anticipate notification regarding the grant by early May.

Corporate expenditures are often higher in the first quarter due to renewal of the annual insurance premium. There are no other items of significance from Q1.

3.0 FINANCIAL OUTLOOK: COVID-19

Like organizations worldwide, MVCA user fees and other revenues will be affected by COVID-19 and the declared state of emergency. Revenues considered at risk include the following:

- User fees to deliver educational programs and other services
- Mill of Kintail Conservation Area rental fees and gift shop revenues
- Parking revenues from conservation areas
- Planning and regulations fees

Own-source revenues, including operating grants from other levels of government, total \$867,789 or roughly 24% of the annual budget. Of this, \$148,634 has been received to date, however, it is unclear whether operating grants received from other levels of government will require refund if those programs do not proceed due to COVID-19, e.g. the Canadian Museum

Operating Grant (CMOG.) Similarly, expenditures in some areas will diminish due to constraints on delivering programs safely and in the spirit of the “stay at home” messaging being communicated by all levels of government.

Some projects/expenditures included in the 2020 Budget are no longer viewed as priorities or possible given current circumstances, specifically:

- Timesheet software for managing anticipated regulatory changes, \$10,000
- Attendance by Board members and staff at the Latornell Conference, \$14,000
- Summer student positions will not be filled, \$50,000

At present, all office staff are working from home or on a rotating basis in the office and are completing tasks according to their job descriptions. Due to closure of the conservation areas (CAs), field staff have been divided into two teams that are working alternate weeks. During “off” weeks, staff are depleting their leave reserves to maintain income. Similarly, if at some point there is insufficient workload for one or more office staff, they have been instructed to book leave. Maintaining redundancy in field employees is needed as they are all cross-trained and perform log operations and maintain water control structures as well as working at the CAs. Given the risk of losing staff to COVID-19 it is essential that all field staff be retained.

Table 2 illustrates how expenditures and revenues may be impacted this year based upon information available today.

Table 2: Operations Budget	2020 Budget	At Risk Revenues	Projected Savings	Potential YE Surplus/Deficit
Expenditures				
Corporate Services	\$606,469		\$24,000	\$582,469
Watershed Management	\$1,485,131		\$21,900	\$1,463,231
Flood and Erosion Control	\$705,579			\$705,579
Conservation Services	\$849,262		\$28,100	\$821,162
Total Operating	\$3,646,441			\$3,572,441
Revenues				
Municipal Levy	\$2,650,214	\$61,500		\$2,588,714
Provincial Transfer Payment	\$128,438			\$128,438
Special Grants	\$25,161	\$25,161		\$0
User Fees & Contract Revenue	\$412,000	\$132,996		\$279,004
Special Reserves	\$115,368			\$115,368
Other	\$315,260	\$5,300		\$309,960
Total Operating	\$3,646,441			\$3,421,484
Potential YE Surplus/Deficit				-\$150,957

4.0 RESERVES

During his report to MVCA’s Finance Committee earlier this year, the Auditor Glenn Street described MVCA’s reserves to be “healthy at 2019 year-end although future capital needs may exceed the limitations of those reserves.” Table 3 shows the 2019 year-end balance and 2020 budgeted allocations.

TABLE 3: Expenditures	Dec 31 2019 Balance	2020 Budget Allocations FROM Reserves	2020 Budget Allocations TO Reserves	Projected Dec 31 2020 Balance
Building Reserve	338,701	0		338,701
Information Technology Reserve	32,000	15,700		16,300
Museum Building & Art Reserve	4,398	0		4,398
Sick Leave Reserve	73,843	0		73,843
Vehicles & Equipment Reserve	95,403	0		95,403
Water Control Structure Reserve - MVCA	208,885	40,000	89,761	258,646
Water Control Structure Reserve - Glen Cairn	578,771	485,668		93,103
Conservation Areas Reserve	17,000	0	25,000	42,000
Operating Reserve	918,969	10,000		908,969
Total	2,267,970	551,368	114,761	1,831,363

As has been described by many, the COVID-19 pandemic is one of the most extreme and impactful events of this generation. Therefore, it is reasonable that during this time a draw down of reserves is made if required. As noted by the Auditor and illustrated with current work on the Kashwakamak Lake Dam Repair Project, capital demands are only going to increase this decade and, therefore, care must still be taken to maintain the health of the reserves. Management is exploring ways to further minimize expenditures and the need to draw down reserves at year-end.

REPORT

3054/20

TO:	The Chair and Members of the Mississippi Valley Conservation Authority Board of Directors
FROM:	Matt Craig, Manager of Planning and Regulations
RE:	Lower Mississippi River Flood Plain Mapping Study
DATE:	March 11, 2020

Recommendation:

That the Board of Directors adopt the report *Lower Mississippi River Flood Plain Mapping Study* dated September 2019 and the associated GIS-based flood hazard limit lines and flood plain maps as the delineation of areas along the Lower Mississippi River system that are susceptible to flooding during the Regional flood standard as defined in Schedule 1 of Ontario Regulation 153/06; and that the report, maps and Regulation Limit be used in the implementation of Ontario Regulation 153/06.

1.0 PURPOSE

The purpose of this report is to summarize the analysis completed and findings documented in the *Lower Mississippi River Flood Plain Mapping Study* report. The report addresses land and major tributaries downstream of Highway No. 7 in Carleton Place to the Mississippi River's confluence with the Ottawa River, as shown on Figure 1.

2.0 BACKGROUND

The major tributaries of the lower Mississippi River (the focus of the flood plain mapping study) are the Indian River, Indian Creek, Cody Creek and Cartwrights Creek. Also located within the study reach, are the following Provincially Significant Wetlands (PSW):

- Morris Island Wetland Complex at the confluence of the Mississippi River with the Ottawa River;
- Appleton Wetland directly north of the village of Appleton; and
- Clayton–Taylor Wetland Complex around Clayton/Taylor Lake.

Towns and villages along the river include Carleton Place, Appleton, Almonte, Pakenham, and Galetta. The entire length of the study reach has a well-defined channel, with areas of flooding generally limited to isolated areas.

Figure 1: Lower Mississippi River Study Reach



The study produced flood plain maps for the following:

- the main branch of Mississippi River from Highway 7 in Carleton Place downstream to the confluence with the Ottawa River;
- the Indian River, including Clayton/Taylor Lake downstream to the confluence with the Mississippi River; and
- Cody Creek from March Road downstream to the Mississippi River.

The study was prepared by MVCA staff and is the summary of analysis and findings for the flood plain analysis of lower Mississippi River system. Financial assistance for the study was received from the Federal Government under the National Disaster Mitigation Program (NDMP).

Flood plain mapping for this study reach, including the Indian River, Clayton/Taylor Lake and Cody Creek, was last produced in 1983. A portion of the Mississippi River within the Town of Carleton Place was last updated in 2014 during the Mississippi Lake Flood Plain Mapping Study.

3.0 ANALYSIS AND FINDINGS

The hydrologic and hydraulic analysis and the flood plain maps were completed in accordance with the standards found in *Technical Guide River & Stream Systems: Flooding Hazard Limit* (OMNR 2002). The accompanying engineering report documents the work completed for this project. Major components of the project were the following:

- Preparation of topographic mapping based on LiDAR ((Light Detection and Ranging laser technology) flown in 2012 for Cody Creek and 2014 for the remainder of the study area with 2014 aerial photography. The below the water line channel bathymetry for the Mississippi River was obtained using a sonar unit attached to a boat and/or collected from other studies (e.g. in Almonte);
- Hydrologic analysis to estimate flood discharge/flows for various return periods at key points along the river system.
- Hydraulic calculations using the HEC-RAS backwater program to estimate flood levels associated with the flood flows.
- The delineation and plotting of flood lines on the topographic maps to delineate areas that are susceptible to flooding during the Regulatory (1:100 year) flood event and definition of the Regulation Limit based on provincial standards. The Regulatory flood plain for the Mississippi River system is shown on 29 maps at a scale of scale of 1:5000. Flood plain for the urban areas (Carleton Place, Almonte, Blakeney, Pakenham, Galetta) can be produced at a 1:2000 scale and with GIS system any scale for presentation purposes is possible.

Two Open Houses were held on December 3 and 4, 2019 at the MVCA office and the Pakenham Community Centre, respectively, to show the draft flood plain maps to the public and answer questions. The Open Houses were advertised in West Carleton Online, Your Community Voice and on the MVCA website. Draft flood plain maps were also available on the MVCA website prior to the Open House. Notices of the Open Houses were also sent to the applicable municipalities. Forty-five people attended the two Open Houses.

The report provides the technical basis for the associated maps defining areas subject to flood hazards along lower Mississippi River system, during a Regulatory (1:100 year) flood event.

The final products of this project are the following:

1. The *Lower Mississippi River Plain Mapping Study* dated September 2019
2. Flood hazard limit lines in GIS format (shape files)
3. The SWMHYMO and HEC-RAS model files
4. The mapping schedules (29 flood plain maps) prepared at a scale of 1:5000.

PDF copies of the maps will be posted and be available for download from the MVCA website. The report will be available to the public upon request. The model files will be available, subject to the acceptance of the standard “terms of use” that apply to the release of MVCA data and information.

5.0 CONCLUSION

The analysis documented in *Lower Mississippi River Flood Plain Study* report meets the standards found in the *Technical Guide River & Stream Systems: Flooding Hazard Limit* (OMNR 2002) and therefore, the resulting Regulatory (1:100 year) flood plain and Regulation Limit delineation is suitable for use in MVCA’s Regulation mapping as well as for municipal land use planning purposes.

After the adoption by the MVCA Board of Directors the report, maps and Regulation Limit will be used in the implementation of Ontario Regulation 153/06 and forwarded to the municipalities for inclusion in their municipal planning documents.