

**Board of Directors Meeting**

Hybrid meeting (via Zoom)

1:00 pm

December 9, 2024

MVCA Boardroom

**AGENDA****ROLL CALL****Declarations of Interest (written)****Adoption of Agenda****MAIN BUSINESS**

1. Approval of Minutes: Board of Directors Meeting Minutes, October 21, 2024, Page 2
2. DRAFT Finance & Administration Committee Meeting Minutes, November 28, 2024, Page 12
3. Staff Presentation – MVCA’s Drone Services, Lauren Shupe and Tim Yoon, Verbal Report
4. Watershed Conditions, Report 3459/24, Jennifer North, Page 18
5. GM Update, Report 3460/24, Sally McIntyre, Page 19

**Rising from Finance & Administration Committee**

In-Camera:

6. Management Salary Review, Report 3456/24, Paul Kehoe & Sally McIntyre, Page 33
7. Overtime Compensation, 3457/24, Sally McIntyre, Page 34
8. Employee Merit Increases and Bonuses, Report 3458/24, Sally McIntyre, Page 37
9. Financial Update – YTD September 30, 2024, Report 3453/24, Stacy Millard, Page 39
10. Draft 2025 Budget, Report 3454/24, Stacy Millard & Sally McIntyre, Page 47
11. 10-Year Capital Plan Update, Report 3455/24, Sally McIntyre & Stacy Millard, Page 98
12. 2025 Fee Schedule Update, Report 3468/24, Matt Craig, Page 109
13. 2025 Mileage, Per Diem & Honorarium Rates, Report 3461/24, Sally McIntyre, Page 115
14. Operational Plan, Report 3462/24, Juraj Cunderlik, Page 117
15. Land Conservation & Resource Strategy, Report 3463/24, Sally McIntyre, Page 140

**CONSENT ITEMS**

16. Licence Renewal – Carp River CA, Report 3464/24, Sally McIntyre, Page 246
17. Regulatory Enforcement Strategy, Report 3465/24, Will Ernewein, Page 247
18. Corporate Strategic Plan Update, Report 3466/24, Sally McIntyre, Page 257
19. 2025 Board Meeting Schedule, Report 3467/24, Sally McIntyre, Page 261

**ADJOURNMENT** – followed by Christmas Luncheon



**MINUTES**

Hybrid Meeting Via Zoom  
and at MVCA Office

Board of Directors Meeting

October 21, 2024

**MEMBERS PRESENT**

Paul Kehoe, Chair  
Jeff Atkinson, Vice Chair  
Allan Hubley  
Allison Vereyken (Virtual)  
Bev Holmes  
Cathy Curry (Virtual)  
Cindy Kelsey  
Clarke Kelly (Virtual)  
Dena Comley  
Glen Gower  
Helen Yanch (Virtual)  
Janet Mason  
Mary Lou Souter  
Richard Kidd  
Roy Huetl

**MEMBERS ABSENT**

Steven Lewis  
Taylor Popkie

**STAFF PRESENT**

Sally McIntyre, General Manager  
Juraj Cunderlik, Director of Engineering  
Alex Broadbent, Manager of IC & T  
Scott Lawryk, Properties Manager  
Matt Craig, Manager of Planning & Regulations  
Stacy Millard, Treasurer (Virtual)  
Jennifer North, Water Resources Technologist  
Marissa Okum, Stewardship Technician  
Kayla Cuddy, Stewardship Field Assistant  
Krista Simpson, Administrative Assistant (Virtual)  
Kelly Hollington, Recording Secretary

**GUESTS**

Joanne Glaser, Cornerstones Management Solutions Ltd.

P. Kehoe called the meeting to order at 1:00 p.m.

Declarations of Interest (Written)

Members were asked to declare any conflicts of interest and informed that they may declare a conflict at any time during the session. No declarations were received.

Agenda Review

There were no additions or amendments to the agenda.

**BOD24/10/21 - 1**

**MOVED BY: D. Comley**

**SECONDED BY: R. Huetl**

**Resolved, that the agenda for the October 21, 2024 Board of Directors Meeting be adopted as presented.**

**“CARRIED”**

**MAIN BUSINESS**

1. Approval of Minutes: Board of Directors Meeting, September 9, 2024

There were no additions or amendments to the minutes.

**BOD24/10/21 - 2**

**MOVED BY: G. Gower**

**SECONDED BY: J. Atkinson**

**Resolved, that the minutes of the Board of Directors Meeting held on September 9, 2024 be received and approved as printed.**

**“CARRIED”**

2. Employee Presentation: Review of Stewardship Program and Objectives, Marissa Okum & Kayla Cuddy

M. Okum and K. Cuddy presented a review of MVCA’s stewardship program for 2024. M. Okum highlighted the expansion of ALUS Lanark to ALUS Mississippi Rideau, covering 31 municipalities. She reviewed the stewardship projects for 2024 including: ALUS, Ottawa Rural Clean Water Program, and shoreline naturalization and planting. K. Cuddy reviewed community engagement and outreach projects including the City Stream Watch program, an invasive species removal from Watt’s Creek funded through the Invasive Species Action Fund, TD Tree days planting event and UnSmoke Canada litter removal event. M. Okum reviewed the program’s funding and partnerships and planned projects for 2025.

P. Kehoe asked about the current condition of Poole Creek and if it is still considered a cold-water creek. He noted that he has seen large amounts of litter in Poole Creek. M. Okum responded that there are indicators that Poole Creek is still a cold-water creek. MVCA staff are in the process of analysing 2024 temperature logger data and City Stream Watch results, with a report to be completed later this year. She noted that during the UnSmoke Canada litter removal event, large amounts of litter were removed from Poole Creek including construction debris.

3. Watershed Update, Report 3448/24, Jennifer North.

J. North recapped conditions from the end of 2023 until present. She highlighted the above average rain and higher flows seen throughout the watershed. Water safety bulletins were released in February, March, April, June, July and August regarding unsafe conditions and higher than normal flows. She reviewed significant spring and summer peak water levels throughout the system related to rainfall. She noted that the system has functioned as intended, reducing flooding impacts to the watershed. She reviewed the fall lake drawdown schedule.

4. GM Update, Report 3449/24, Sally McIntyre.

S. McIntyre presented the GM update. She highlighted the receipt of updated Agreement of Purchase & Sale of the K&P Trail from the three counties, with an appended Lease Agreement that would apply to the trail while land ownership issues are being resolved. She noted that under the new legislation, any lease agreements exceeding 5-years in duration must be approved by the Minister. She highlighted the renewal of Morris Island Conservation Area License of Occupancy for a 10-year period with the City of Ottawa. She highlighted Microsoft's discontinuation of support of Windows 10 by October 14, 2025 and the need to invest in new hardware.

M. Souter asked about the significance of the new regulation regarding lease agreements. S. McIntyre explained that this change falls under Ontario Regulation 686/21. She believes that the Province wants to ensure that Conservation Authorities are managing land assets appropriately.

R. Kidd asked if another organization leased MVCA-owned land if it would also fall under the regulation. S. McIntyre said that she believes the rule applies whether MVCA leases land to or from another organization/entity it would fall under the regulation, but that that she would confirm whether all types of lease agreements exceeding 5-years fall under the regulation.

5. Job Evaluation & Implementation Plan, Report 3439/24, Sally McIntyre.

6. Salary Review, Report 3440/24, Sally McIntyre & Stacy Millard.

Items 5 and 6 were considered together, in camera. P. Kehoe noted that Joanne Glaser from Cornerstones Management Solutions Ltd. will consult with the Board.

**BOD24/10/21 - 3**

**MOVED BY: M. Souter**

**SECONDED BY: J. Mason**

**Resolved, That the committee move to in-camera session for discussions of the following matter:**

- **Labour relations or employee negotiations**

**And further resolved, that Sally McIntyre and Joanne Glaser remain in the room.**

**“CARRIED”**

**BOD24/10/21 - 4**

**MOVED BY: J. Atkinson**

**SECONDED BY: M. Souter**

**Resolved, That the Board of Directors move out of in-camera discussions.**

**“CARRIED”**

**BOD24/10/21 - 5**

**MOVED BY: J. Atkinson**

**SECONDED BY: J. Mason**

**Resolved, That the Board of Directors approve the changes in job ratings as recommended and further resolved that the Board of Directors appoint the Executive Committee to review management compensation.**

**“CARRIED”**

7. **Proposed Budget Assumptions, Report 3442/24, Stacy Millard.**

S. McIntyre reviewed the budget process and MVCA’s approach to establishing the municipal levy envelop and building the annual budget. She reviewed the Workforce Plan adjustment amount that has been in place since 2021. She explained that the Board approved investments in the workforce in 2021 that could not be accommodated by a municipal levy increase and that were paid using the operating reserve. Those costs are being phased onto the levy over time. The residual net pressure for 2025 is \$129,327 (based upon one position being deemed redundant.) It is recommended that 50% be phased onto the municipal levy in 2025 and the

balance onto the levy in 2026. She reviewed the recommended assumptions and levy impacts by municipality.

M. Souter asked if the recommended assumptions are parameters for MVCA to work within when developing the budget to fit project needs. S. McIntyre confirmed and explained that the recommended assumptions are referred to as the municipal levy funding envelope.

**BOD24/10/21 – 6**

**MOVED BY: D. Comley**

**SECONDED BY: G. Gower**

**Resolved, That the Board of Directors direct staff to develop the 2025 budget and related documents in accordance with the following parameters:**

- 1. An increase of 2.9% plus assessment growth to the Operating Levy;**
- 2. An increase of 8.5% plus assessment growth to the Capital Levy;**
- 3. An assumed assessment growth rate of 1.5%;**
- 4. A cost of living increase to the 2025 Pay Scale of 2.0%; and**
- 5. Transfer \$64,664 onto the Municipal Levy for Workforce Plan Adjustments.**

**“CARRIED”**

8. Draft Land Conservation and Resource Strategy, Report 3445/24, Sally McIntyre.

S. McIntyre reviewed process used to develop the draft Land Conservation & Resource Strategy including public consultation regarding the Discussion Paper and the recreational facilities survey. She highlighted that the most valued features by survey respondents at their top hiking sites can be found at MVCA’s conservation areas. She reviewed the programs and services that MVCA provides, their key goals and objectives within each program area. She highlighted her use of the term *conservation area-type parkland* and explained that this is referring to properties that have similar features/attributes to a conservation area but are not necessarily owned by MVCA.

J. Mason expressed concern that MVCA is going outside it’s mandate with some objectives related to land acquisition and conservation preserves and conservation areas. She commented that it is not MVCA’s responsibility to fill recreation gaps. She commented that the objectives are setting expectations among others that MVCA plans to acquire property to meet objectives. She commented that organizations such as Mississippi Madawaska Land Trust and Ducks Unlimited Canada are better set up to acquire and manage land for conservation purposes. S. McIntyre clarified that the regulation requires that MVCA consider the assets within the watershed as a whole and to determine the needs of the area and how MVCA fits in.

She stated that member municipalities and the counties have not conducted an analysis of large parks available to residents at this scale.

P. Kehoe commented that the LC&RS policies regarding these lands are not binding to the MVCA Board or future Boards. He noted that objectives are worded in a way that they are considerations to keep in mind but not prescriptive. He added that regulations may change in the future that will affect MVCA's mandate.

J. Mason commented that the most acceptable way to approach the recreational needs of the watershed is to work with organizations that are set up to manage and conservation area-type parklands.

B. Holmes expressed concerns that MVCA is taking on too much. She asked if the LC&RS could have a statement that highlights the partnering with organizations to within the watershed to meet objectives. S. McIntyre responded that the language would be amended in the next draft version of the document to clarify.

P. Kehoe suggested a definition of *conservation area-type parkland* could be added.

R. Kidd expressed concern regarding the expectations the document will set with the public. He commented that more information is needed to clarify that land acquisition is dependent on funding and available opportunities. S. McIntyre responded that she will amend the executive summary within the LC&RS to capture the changes discussed. She asked the Board if a statement should be added that MVCA would be willing to support other organizations in an operational sense in regards to *conservation area-type parklands*.

B. Holmes expressed concerns that MVCA does not have the funds or staff time to support other organizations in this way. P. Kehoe suggested that support could be offered on a cost-recovery basis to offset funding needs. M. Souter commented that the term *supporting* needs amending to co-operating with/partnering with. J. Mason added that the amendments need to clarify that MVCA will only partner/co-operate/support other organizations when it is financially viable.

M. Souter asked for a definition of *sterilization* as it relates to undevelopable land. S. McIntyre explained that in the 1990s, MVCA took advantage of a federal funding program to purchase lands in Cedardale that are within the floodplain to ensure development could not take place in the area; the lands were *sterilized* to prevent any future development within the floodplain.

S. McIntyre reviewed next steps to complete the LC&RS. P. Kehoe commended S. McIntyre and the MVCA team for the work that went into the development of the LC&RS.

**BOD24/10/21 – 7****MOVED BY: B. Holmes****SECONDED BY: R. Huetl****Resolved, That the Board of Directors receive the Draft Land Conservation & Resource Strategy.****“CARRIED”****9. Education Program Review, Report 3451/24, Scott Lawryk.**

S. Lawryk presented the education program review including analysis conducted by Bill Elgie and report recommendations. He presented the proposed 2025 education program plan and budget targets. He noted that the summer camp program is projected to operate on a full cost-recovery basis.

B. Holmes asked if the field trips mentioned in the 2025 plan would include trips to the Mill of Kintail museum. S. Lawryk responded that the field trip plan details have not been fully developed and that museum visits could be included. B. Holmes commented that field trips are an opportunity to educate the community on the programs that MVCA offers and operates.

B. Holmes asked if the FTE position is permanent, part-time or temporary. S. Lawryk responded that based on the program, the hope is that the position would be a 1-year contract. B. Holmes asked if there are available funds for the education program position. S. Lawryk responded that the current funding support for the education program comes from the \$20,000 set aside in the Category 3 MOUs. The long-term goal of the program is to have full cost-recovery by the end of Year 4 of the agreements. He noted that there are plans to include additional educational programming for adults

R. Kidd asked if there is a rental charge associated with the summer camp program and for the major costs that are being recovered. S. Lawryk responded that facility costs have not yet been incorporated into the education program budget. The major cost being recovered from the program is labour-related, including a program coordinator and support staff.

R. Kidd asked what the cost for a session of summer camp is. S. Lawryk responded that in 2023 a full week was \$250 and a short week was \$200. For 2024, the suggested fees are \$260 for a full week and \$210 for a short week. R. Kidd asked if summer students are hired for the summer camp program. S. Lawryk stated counsellor positions are open to anyone with an interest in applying, not just students and that MVCA aims to have a ratio of 1 camp counsellor per 8 campers for larger programs and 1:6 for smaller programs.



**BOD24/10/21 – 8****MOVED BY: J. Atkinson****SECONDED BY: B. Holmes****Resolved, That the Board of Directors approve reinstatement of a Nature Education Program in 2025.****“CARRIED”****10. MVCA Asset Management Plan, Report 3450/24, Juraj Cunderlik.**

Juraj Cunderlik reviewed the *Asset Management Plan* (AMP) goals and objectives. He outlined the contents of the AMP. He noted that in the future, the plan is to add more chapters for other MVCA assets including conservation areas and vehicles. He reviewed the water and erosion control infrastructure (WECI) asset inventory, operational objectives and considerations, and external considerations such as federal and provincial standards and guidelines for dam owners. He presented the proposed levels of service for MVCA’s WECI assets and the criteria descriptions and the classifications for each water control structure. He reviewed the AMP implementation plan.

**BOD24/10/21 - 9****MOVED BY: J. Mason****SECONDED BY: M. Souter****Resolved, That the Board of Directors approve the *Asset Management Plan* attached to report 3450/24.****“CARRIED”****11. Fee Schedule Update, Report 3452/24, Stacy Millard.**

S. McIntyre explained that the province imposed a freeze on planning and regulation fees in 20223 and 2024, and that it is unknown whether the freeze will extend to 2025. The updated fees being tabled are not planning and regulations related. Planning and regulation related fees will be tabled with the Board in December and take effect if the province does not extend the freeze into 2025.

S. McIntyre presented the proposed updates to schedules D and E of MVCA’s Fee Schedule. Schedule D is related to Conservation Areas, rentals, programs and administration; and Schedule E is related to stewardship services. She highlighted that in schedule D, under Information and Professional Services, the Field Crew (2 staff) plus mileage rate of \$85/hour is

related to enable cost recovery for providing conservation area type services to other organizations.

**BOD24/10/21 – 10**

**MOVED BY: C. Kelsey**

**SECONDED BY: R. Huetl**

**Resolved, That the Board of Directors approve Schedules D and E of 2025 Fee Schedule as set out in report 3452/24.**

**“CARRIED”**

**CONSENT ITEMS**

12. Receipt of Draft Minutes:

- a. Finance and Administration Advisory Committee Meeting, September 30, 2024.
- b. Policy and Planning Advisory Committee Meeting, October 7, 2024.

For information.

13. Staff Compensatory Benefits, Report 3441/24, Stacy Millard.

For information.

14. Appointment of 2024 Auditor, Report 3443/24, Stacy Millard.

**BOD24/10/21 – 11**

**Resolved, That the Board of Directors appoint the firm Baker Tilley REO as the Authority’s Auditor for the year 2024.**

**“CARRIED”**

**Adopted by consent agenda**

15. LC&RS Community Surveys & Recreational Findings, Report 3444/24, Sally McIntyre.

For information.

16. Portage Routes: History and Use, Report 3446/24, Alex Broadbent.

For information.

**ADJOURNMENT**

**BOD24/10/21 - 12**

**MOVED BY: A. Vereyken**

**SECONDED BY: H. Yanch**

**Resolved, That the Board of Directors meeting be adjourned.**

**“CARRIED”**

The meeting adjourned at 3:17 p.m.

K. Hollington, Recording Secretary

DRAFT



**MINUTES**

Hybrid Meeting Via Zoom  
and at MVCA Office

Finance and Administration  
Advisory Committee Meeting

November 28, 2024

**MEMBERS PRESENT**

Janet Mason, Chair  
Roy Huetl, Vice Chair  
Allan Hubley (Virtual)  
Cathy Curry (Virtual)  
Jeannie Kelso  
Mary Lou Souter  
Paul Kehoe  
Richard Kidd (Virtual 11:00am)

**MEMBERS ABSENT**

Jeff Atkinson

**STAFF PRESENT**

Sally McIntyre General Manager  
Stacy Millard, Treasurer  
Juraj Cunderlik, Director of Engineering  
Matt Craig, Manager of Planning & Regulations  
Alex Broadbent, Manager of I&CT  
Scott Lawryk, Properties Manager  
Elizabeth Clifflen Gallant, Finance Assistant  
Kelly Hollington, Recording Secretary

**GUESTS**

Joanne Glaser, Cornerstones  
Kellie Howe, Cornerstones

J. Mason called the meeting to order at 10:01 a.m.

J. Mason welcomed the new Board representative from Lanark Highlands, Councillor Jeannie Kelso, to the Finance and Administration Advisory Committee.

**Declarations of Interest (Written)**

Members were asked to declare any conflicts of interest and informed that they may declare a conflict at any time during the session. No declarations were received.

**Agenda Review**

J. Mason noted that agenda was re-ordered to have the in-camera items first.

**FAAC24/11/28 - 1**

**MOVED BY: P. Kehoe**

**SECONDED BY: R. Huetl**

**Resolved, that the agenda for the November 28, 2024 Finance and Administration Advisory Committee meeting be adopted as amended.**

**“CARRIED”**

**MAIN BUSINESS**

1. Approval of Minutes: Finance and Administration Advisory Committee Meeting, September 30, 2024

J. Mason noted no comments or amendments to the minutes.

**FAAC24/11/28 - 2**

**MOVED BY: M. Souter**

**SECONDED BY: P. Kehoe**

**Resolved, that the minutes of the Finance and Administration Advisory Committee Meeting held on September 30, 2024 be received and approved as presented.**

**“CARRIED”**

2. Management Salary Review, Report 3456/24, Paul Kehoe & Sally McIntyre

3. Overtime Compensation, Report 3457/24, Sally McIntyre

4. Employee Merit Increases and Bonuses, Report 3458/24, Sally McIntyre

Items 2, 3 and 4 were all discussed in-camera.

**FAAC24/11/28 - 3**

**MOVED BY: P. Kehoe**

**SECONDED BY: M. Souter**

**Resolved, That the Finance and Administration Advisory Committee move to in-camera session for discussion of the following matter:**

- Labour relations or employee negotiations

**And further resolved, that Sally McIntyre, Kellie Howe and Joanne Glaser from Cornerstones Management Solutions Limited be allowed in the room.**

**And further resolved, That Sally McIntyre leave the room before the final discussions regarding labour relations/employee negotiations.**

**“CARRIED”**

**FAAC24/11/28 - 4**

**MOVED BY: M. Souter**

**SECONDED BY: P. Kehoe**

**Resolved, That the Finance and Administration Advisory Committee move out of in-camera discussions.**

**“CARRIED”**

**FAAC24/11/28 - 5**

**MOVED BY: C. Curry**

**SECONDED BY: P. Kehoe**

**Resolved, That the Finance and Administration Advisory Committee recommend that the Board of Directors approve updates to the Management Salary Scales and the 2024/2025 compensation for the General Manager as recommended by the Executive Committee and the General Manager.**

**“CARRIED”**

**FAAC24/11/28 - 6**

**MOVED BY: R. Huetl**

**SECONDED BY: M. Souter**

**Resolved, That the Finance and Administration Advisory Committee recommend that the Board of Directors approve update of section: 2.3.2. Overtime of MVCA’s Employee Manual as set out herein, and to implement the new program effective January 1, 2025.**

**“CARRIED”**

**FAAC24/11/28 - 7**

**MOVED BY: J. Kelso**

**SECONDED BY: P. Kehoe**

**Resolved, That the Finance and Administration Advisory Committee recommend that the Executive Committee examine the matter of staff merit increases and bonuses and return to the Finance and Administration committee with a recommendation.**

**“CARRIED”**

5. Financial Update – YTD September 30, 2024 Report 3453/23, Stacy Millard

S. Millard presented the Financial Update. She highlighted that the 2024 budget is on track. She explained that Q3 actuals include adjustments in dollar allocations based upon an analysis of staff time from January to October; and to align with the structure that is being forwarded for the 2025 budget to ease year over year comparative analysis. She noted that MVCA continues to earn good interest and that a report will be tabled with the Finance and Administration Committee in 2025 to determine how best to optimize interest earnings. She also explained that the category of *Watershed Management Technical Studies* has been divided into *Flood Erosion and Control* and *Technical Studies*, and that *Technical Studies* has been further separated into, *Hazard Mapping Technical Studies* and *Other Technical Studies*.

6. Draft 2025 Budget, Report 3454/24., Sally McIntyre & Stacy Millard

S. McIntyre summarized the annual budget process. She reviewed the operating budget summary and associated projects. She explained that the bi-lateral agreements between MVCA and member municipalities provided for up to 14% of the levy to be allocated to Category 2 and 3 programs. S. Millard noted that in 2024 only 11% was allocated to Category 2 and 3 programs, and that in 2025 only 7% is projected to be used. S. McIntyre highlighted that MVCA is working toward total cost-recovery of Category 3 programs.

J. Mason asked for clarification on the programs and services that are considered Category 3. S. McIntyre noted that Category 3 programs and services include education, stewardship and visitor services.

S. McIntyre reviewed the operating summary for Category 1 and Corporate and for Categories 2 and 3 with a focus on the draft proposed 2025 revenue items. She noted that the proposed 2025 budget assumes a continuation of the provincial freeze on planning and regulations permit fees. She highlighted that the allocation from the province for flood forecasting and warning has been frozen for the past 20 years, which does not provide for aging dam infrastructure, increased needs in operations and maintenance, consequently, these pressures are being placed on the municipal levy. She noted the significant increase in proposed fee for service revenues for Category 3 programming.

M. Souter asked for a review of the other revenue category. S. McIntyre responded that historically other revenue items include small grants and foundation donations. S. Millard explained that other revenue items include revenues for completing technical studies and earned interest. She noted that other revenue also includes a large donation that was received from the Danby foundation for stewardship programs.

S. McIntyre reviewed the Capital Budget, associated projects and the draft proposed revenues for 2025. She highlighted the Category 3 item of a requirement to undertake a condition assessment of the Mill of Kintail.

J. Mason asked the committee if there are any further questions or comments. No questions or comments were received.

**FAAC24/11/28 – 8**

**MOVED BY: M. Souter**

**SECONDED BY: R. Huetl**

**Resolved, That the Finance and Administrative Advisory Committee recommend the Draft 2025 Budget be tabled with the Board of Directors for consideration and circulated to member municipalities for comment.**

**“CARRIED”**

7. 10-Year Capital Plan Update, Report 3455/24, Sally McIntyre & Stacy Millard.

S. McIntyre provided the 10-Year Capital Plan Update. She stated that MVCA takes a pay-as-you-go approach to investment in infrastructure, with target reserve balances for WECl infrastructure set at 50% of the approved 8-year capital program, up to a maximum of \$500,000 per project. WECl projects valued greater than \$500,000 are considered inter-generational investments and are eligible for debt financing. She reviewed the targeted versus projected reserve balances for 2029 and 2034. S. McIntyre expressed her thanks to the generosity and commitment from the member municipalities in the support of capital levy increases to afford the capital program.

R. Huetl asked what the asterisks beside Farm Lake Dam and Pine Lake Dam under Water and Erosion Control Structures and Monitoring are referring to. S. McIntyre responded that those sites are not eligible for WECl funding.

R. Kidd asked where the interest on reserve balances is allocated. S. Millard responded that it currently feeds the operating reserve. She noted that discussions regarding the allocation of interest can be incorporated in discussions when the investment strategy that will be tabled with the committee in early 2025. R. Kidd expressed his support in the interest being rolled back into a capital reserve.

J. Mason expressed her thanks to S. McIntyre and MVCA staff who developed the 10-year capital plan, for getting MVCA on-track with Capital renewal. She commented that the 10-Year Capital Plan update is reflective of a healthy plan for MVCA to face future obligations.

**FAAC24/11/28 - 9**



**MOVED BY: P. Kehoe**

**SECONDED BY: R. Huetl**

**Resolved, That the Finance and Administrative Advisory Committee recommend that the Board of Directors approve the 10-Year Capital Plan update and schedule of capital levy increases presented herein.**

**“CARRIED”**

**ADJOURNMENT**

**FAAC24/11/28 - 10**

**MOVED BY: M. Souter**

**SECONDED BY: J. Kelso**

**Resolved, That the Committee meeting be adjourned.**

**“CARRIED”**

The meeting adjourned at time 11:57 a.m.

K. Hollington, Recording Secretary

**DRAFT**

**REPORT****3459/24**

TO:	The Chair and Members of the Mississippi Valley Conservation Authority Board of Directors
FROM:	Jennifer North, Water Resource Technologist
RE:	<b>Watershed Conditions</b>
DATE:	December 3, 2024

**For Information.**

Flows in all tributaries are close to normal conditions for this time of year, due to the average rainfall amounts received in October and November.

The removal of stoplogs from the upper lakes to drawdown water levels is now complete. Water levels on some of the lakes (Big Gull, Pine, Mississagagon, Shabomeka) are close to reaching their winter target levels and the dams on those lakes will be operated through the remainder of the winter to keep levels as stable as possible. Kashwakamak and Mazinaw Lake levels will continue to drop through late December and mid-January respectively before they reach their normal winter holding levels.

Crotch Lake is currently building through the release of water from the upper lakes. The dam will be operated over the next month or so to ensure there is enough water to maintain flows downstream from mid-January to April while also ensuring there is adequate storage available to capture runoff from a typical January thaw. Crotch Lake is currently sitting at the historical average for this time of year. Crotch Lake will continue to build through early January and then it will also be drawn down to provide maximum storage in the system by early to mid-March. All dams will be operated through the winter to maintain levels within the normal operating rule curves for the structures.


The long-range forecast is predicting a warmer than normal winter and above normal seasonal precipitation. This does not project what type of spring we will get. That will depend on how much precipitation is received over the next 4 months, how quickly temperatures increase to melt whatever snow is on the ground and how much rainfall occurs at that time. MVCA will be assessing and adapting our water management strategies as the winter progresses.

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**REPORT**
**3460/24**

TO:	The Chair and Members of the Mississippi Valley Conservation Authority Board of Directors
FROM:	Sally McIntyre, General Manager
RE:	<b>GM Update</b>
DATE:	December 3, 2024

**For Information.****INTERNAL**

- 1. Farm Lake Dam Condition Assessment** - Englobe Corp. (Englobe) was retained by MVCA to undertake a condition assessment of the Farm Lake Dam. A detailed field inspection was carried out on September 5, 2024. Based on the engineering review and inspection, the Farm Lake Dam was found in good overall condition. No remediation or repairs are required at this time. With the implementation of the recommended regular inspection and maintenance practices, the remaining service life of the current dam structure is estimated to be 10-20 years before any major upgrades or repairs are required.
- 2. Lanark Dam Safety Review** - A site inspection with D.M. Wills and a topographic survey by EGIS for the proposed public safety measures took place on November 29, 2024. The inspection aimed to identify new anchor locations for the safety boom to meet dam safety requirements and prevent future hazards at the site. The survey was completed to determine the positioning of the new safety boom anchors and the design of the dam's fence.
 
- 3. Kashwakamak Lake Dam Class EA Project** - The Class Environmental Assessment (EA) project has reached a milestone with the posting of the Notice of Completion on November 14, 2024, and the Project File Report on public record for a 30-day review period, running until December 16, 2024. This will allow stakeholders to provide input as part of the final stages of the Class EA project, addressing any concerns from the public before the project file report is finalized.

- 4. 2024 Annual Dam Inspections** - The annual dam inspections for 2024 began on November 7, 2024, and were completed on November 20, 2024, by several staff members from the Engineering Department. The inspections involved reviewing key dam components, assessing structural integrity, erosion, seepage, and public and operator safety. A drone survey was conducted for all MVCA structures. For specific dams, a detailed survey was carried out to establish key elevation reference points. The findings from the annual dam inspection will be reflected in MVCA's 2025 dam maintenance and repair work plan.
- 5. Mill of Kintail Gatehouse Windows** - In mid-November, windows on the Gatehouse were replaced with Heritage approved, models. This will help seal the building, improve energy efficiency, and improve building heating and cooling.
- 6. K&P Trail Dispute** - Staff attended a hearing on December 2. The court was provided with a report prepared by the landowner's consultant and a report prepared by Egis on behalf of MVCA. As the two reports do not agree, the landowners may need to commission a new survey to illustrate their case; and a hearing will be required. A motion to enforce the Minutes of Settlement is scheduled for September 9, 2025, with a corresponding case pre-conference scheduled for May 6, 2025 to discuss the steps leading up to the adjudication appointment.
- 7. K&P Trail Sale** – Staff have further investigated new regulatory requirements for entering into an agreement with the counties to lease/purchase the property for a period that extends beyond 5-years. It appears we are in uncharted territory and we have not received clear advice on this matter. In the meantime, the County of Frontenac has indicated that it is only interested in owning, not leasing land from MVCA.
- 8. Palmerston-Canonto Beach Property** – Legal matters between MVCA and adjacent landowners are finally resolved and MVCA is now in a position to transfer the property. As with the K&P Trail, staff need to confirm new regulatory requirements for this particular property and plan to bring forward a motion in February to allow for the sale.
- 9. HQ Municipal Services** – Staff spoke with the Town of Carleton Place on November 25<sup>th</sup> and was copied on a follow-up note to Cavanagh Construction. We are still waiting for a response to the letter MVCA submitted in support of the Town's cost apportionment proposal to Cavanagh Construction for the extension of water and sewer infrastructure.
- 10. Administrative Review Policy** – Section 8 of O. Reg. 41/24 gives permit applicants the ability to request a review of the contents of their application ("Administrative review"). Staff developed an implementation policy consistent with approved Conservation Ontario council documents to guide any requests received. The document was posted for comment on MVCA's website on Nov 7, 2024 and will take effect after 30 days.

- 11. 2025 Septic Fee Increases** – The Mississippi Rideau Septic System Office (MRSSO) administers sewage systems approvals (Part 8 of the *Ontario Building Code*) on behalf of Beckwith, Lanark Highlands, Mississippi Mills and Tay Valley townships. This is a Category 2 municipal service that is offered on a full cost recovery through the administration of user fees. Rideau Valley Conservation Authority (RVCA), which administers the program, recently increased fees for 2025 by ~4% to reflect cost of living increases and ensure that the program continues to cover expenses. Annual increases are in keeping with Section 4.02 of the agreements signed with each municipality. MVCA will be issuing a letter to the townships on behalf of RVCA notifying them of the fee changes set out in Attachment 2. Staff will be updating MVCA's Fee Schedule to include these updated fees.
- 12. Payroll System Change** - Automation of timesheets was initially done through ADP as that was the payroll system that MVCA had used for many years. It is functional but has been plagued with customer service and support issues. A review was done and recommendations sought. Payworks is in use and recommended by South Nation and Cataraqui Conservation. Key advantages are that it is a fully Canadian Company, and less expensive compared to ADP. We will have the transition complete this month.
- 13. 5<sup>th</sup> IAHR Young Professionals Congress Abstract on Ottawa River** – Juraj Cunderlik collaborated on a study with the Department of Civil Engineering at the University of Ottawa, *Assessing HEC-RAS and AI Integration for Hydraulic Behaviour Analysis of the Ottawa River*. The manuscript and poster were accepted for the 5<sup>th</sup> IAHR Young Professionals Congress. The poster was presented on Thursday, November 28<sup>th</sup>. See Attachment 2.
- 14. Joint Health & Safety Committee** – See Attachment 3 for the latest minutes.
- 15. Kintail Country Christmas** - Our annual Kintail Country Christmas is taking place December 14th from 12:00 to 6:00 pm at the Mill of Kintail Conservation Area. This year's activities include horse-drawn carriage rides, photos with Santa, Stories and S'mores by the fire, a scavenger hunt, food trucks, and so much more!
- If you wish to attend, please make sure to RSVP to [khollington@mvc.on.ca](mailto:khollington@mvc.on.ca) to be placed on the guest list. We hope to see you there!



**EXTERNAL**

**16. Municipal Flood Resilience Action Training** – Training is available for municipalities across Canada in January and February 2025 to prepare for flood hazards. Find details [here](#).

**17. Wildfire Community Preparedness Events** – communities can apply for a \$500 award to hold a Wildfire Community Preparedness Day between May and October next year. Applications are due January 31, 2025. Find details [here](#).

**18. Federation of Ontario Cottagers' Association Lake Partner Program** - FOCA created two short videos to engage a younger audience in the Lake Partner Program, FOCA's long-standing water quality monitoring program with our volunteer Lake Stewards across Ontario, and the scientists of the Ministry of Environment, Conservation and Parks.

- [What's in My Lake?](#) and [Reeling in the Big One](#)

**Attachments:**

1. Abstract: *Assessing HEC-RAS and AI Integration for Hydraulic Behaviour Analysis of the Ottawa River*
2. 2025 Fee Schedule: Sewage System Inspection Program
3. Minutes: Joint Health & Safety Committee, October 16, 2024.

## Assessing HEC-RAS and AI Integration for Hydraulic Behavior Analysis of the Ottawa River

Mohammad Uzair Anwar Qureshi<sup>1</sup>, Mohammad Shaheen<sup>1</sup>, Ousmane Seidou<sup>1</sup>, Juraj Cunderlik<sup>2</sup> and Hossein Bonakdari<sup>1</sup>

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### ABSTRACT

The frequency and intensity of extreme flood events in the Ottawa River Basin have escalated due to climate change, underscoring the limitations of traditional hydrodynamic models like HEC-RAS in providing real-time hydrological predictions. Although Artificial Intelligence (AI) models rely on high-quality historical data for training and testing, recent hydrological anomalies, such as the 2019 flood, which surpassed the scale of a 100-year event, have exposed the inadequacy of historical data alone for reliable flood forecasting. This study explores the integration of the HEC-RAS hydrodynamic model with an Extreme Learning Machine (ELM) to enhance flood prediction accuracy in a changing climate. **The research focuses on a 14 km section of the Ottawa River, covering 22 cross-sections in flood-prone areas such as the town of Quyon & Constance Bay.** The HEC-RAS model is calibrated using a wide range of discharge data & river bathymetric surveys to simulate the river's hydraulic behavior under various flow conditions. The calibrated results are then used to develop a robust AI-driven model that incorporates real-time data and adapts to previously unforeseen flood events. The integration of traditional hydrodynamic modeling with AI techniques aims to produce more reliable and timely flood predictions, improving flood risk management and decision-making in the context of climate variability. The ELM's reliability analysis demonstrates its effectiveness in peak flow forecasting, with Mean Absolute Relative Error (MARE) values remaining below 10% across various discharge scenarios and lead times, underscoring the model's precision in predicting high-impact flood events.

**Keywords:** Ottawa River, Artificial Intelligence, HEC-RAS, Machine Learning, Hydrodynamic Modeling.

### 1 INTRODUCTION

The Ottawa River, a key waterway with a length of approximately 1,271 km in eastern Canada, flows through Ontario and Quebec and is the largest tributary of the St. Lawrence River. It plays an essential role in the region's hydrological system, draining a vast watershed and transporting water, runoff, and sediment, which impact local and regional flow regimes. The Ottawa River and its surrounding areas have a history of major flooding that endanger property and residential lives, significantly influence human society and ecosystems, contaminate water resources, and alter the natural environment (Ebtehaj and Bonakdari, 2023). In 2017, heavy rainfall and snowmelt caused severe flooding in communities like Gatineau and Ottawa, reaching levels not seen in over 50 years (Teufel et al., 2019) which caused damages exceeding 220 million CAD (Insurance Bureau of Canada, 2019). Traditional hydrodynamic models, such as the Hydrologic Engineering Center's River Analysis System (HEC-RAS), have been widely used for flood prediction and management. However, these models often struggle with the complex, non-linear dynamics of river systems, specifically under the changing climatic conditions that introduce unprecedented variability in hydrological predictions. Extreme Learning Machine (ELM) has emerged as a powerful tool in various scientific fields, including hydraulics (Bonakdari et al., 2023). The ELM model can analyze vast amounts of data, including historical flood events, weather patterns, and real-time hydrological data, to identify patterns and relationships that traditional models might miss. This paper explores the recent advancements in combining ELM with HEC-RAS for flood prediction in the Ottawa River Basin, highlighting the benefits, challenges, and future directions of this approach.

### 2 METHODOLOGY & RESULTS

This study integrates HEC-RAS hydrodynamic modeling with an Extreme Learning Machine (ELM) algorithm to enhance flood prediction and improve climate change adaptation strategies for the Ottawa River Basin. The study area is located upstream of the city of Ottawa, near Morris Island, along a branch of the Ottawa River that runs parallel to the Mississippi Valley Watershed. The selected area covers a 14 km stretch of the river, including 22 cross-sections obtained through high-resolution LiDAR data & River Bathymetric surveys provided to the research team by the Mississippi Valley Conservation Authority (Figure 1).

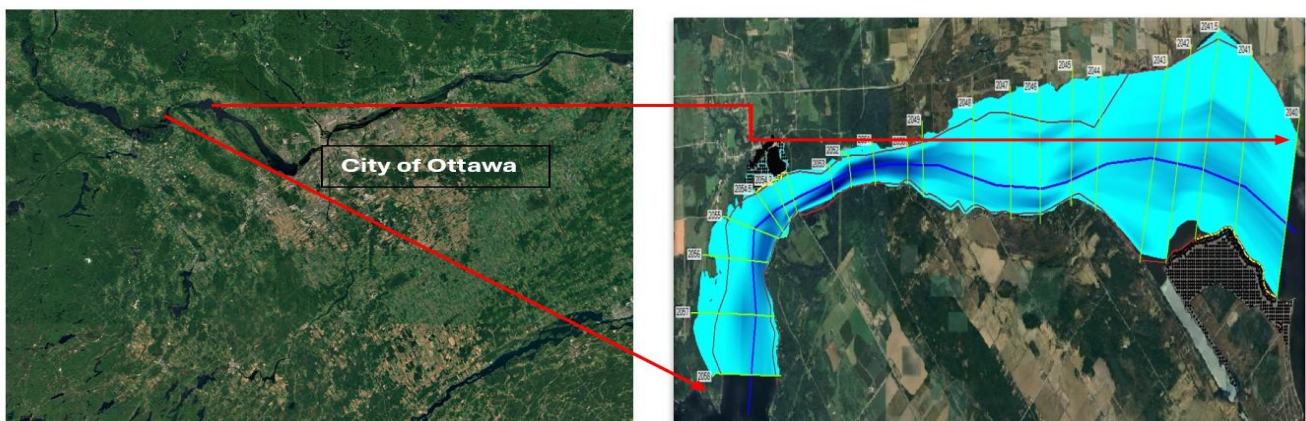


Figure 1. Study Area

The model was run & calibrated based on Hydrometric station (Station 02KF005) data in the Ottawa River provided to the researchers by the Environmental & Natural Resources department of the Government of Canada, the duration of the model run was two months with discharges ranging from 3000 m<sup>3</sup>/s to 8000 m<sup>3</sup>/s between April & May to simulate snowmelt and spring thaws. Extreme Learning Machine (ELM) was employed to predict discharge caused by the impact of climate change; Historical Climate station data was utilized from the Meteorological Service of Canada utilizing Inputs of Temperature & Precipitation from 1960 to 2024 (Climate Station Ottawa CDA). Furthermore, the output discharge of the HEC-RAS Model was used to test and train the AI model to simulate discharge based on climate change scenarios.

Figure 2 illustrates the time series comparison of observed and predicted discharge values for both the training and testing stages of the model. In these plots, discharge is measured in cubic meters per second (m<sup>3</sup>/s) and plotted against time, with the observed values shown in black and the predicted values shown in gray. In the training stage (left plot), the model achieves a correlation coefficient (R) of 0.73, indicating a moderate-to-strong correlation between observed and predicted discharge values. The model captures the general seasonal and interannual variability in discharge, as evidenced by the close alignment of the predicted curve with the observed data. However, for certain high-discharge events like flood September 2001, discrepancies are apparent, where the model underestimates or overestimates peak values. These variations are more noticeable during extreme discharge events, suggesting limitations in the model's accuracy when predicting higher magnitudes of discharge. The testing stage (right plot) yields a slightly higher correlation coefficient (R = 0.77), indicating consistent performance in capturing the discharge patterns in the test data. The model continues to follow the observed discharge trends reasonably well, successfully predicting the general fluctuations and seasonal cycles. However, as in the training stage, there are deviations in the prediction of peak discharge events, where the model sometimes fails to fully capture the highest observed values. These instances highlight the model's tendency to struggle with extreme discharge values, possibly due to limitations in training data for such events or inherent model constraints.

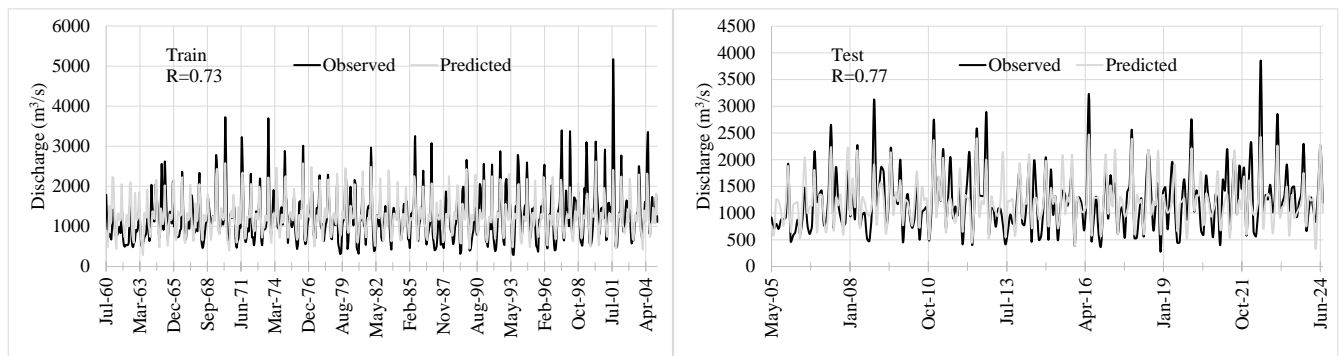


Figure 2: Time Series Comparison of Observed and Predicted Discharge for Training and Testing Stages"

### 3 CONCLUSIONS

This study highlights the transformative potential of combining numerical modeling with cutting-edge machine learning techniques for flood risk assessment and mitigation. By leveraging a robust dataset and integrating the hydrodynamic capabilities of the HEC-RAS model with the predictive power of the Extreme Learning Machine (ELM), we have developed a hybrid approach that enhances both the accuracy and timeliness of flood forecasting. The incorporation of real-time data and adaptive AI modeling provides a more dynamic and responsive tool for flood risk management, which is especially critical in the face of growing climate variability. This innovative approach not only improves flood prediction reliability but also supports more resilient water resource management and adaptive climate strategies. As climate challenges intensify, such hybrid models offer a scalable and precise solution, contributing to the broader goal of sustainable and proactive disaster management.

### REFERENCES

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**Schedule “F” – Onsite Sewage Disposal Systems**

<b>Sewage System New Construction/Replacement <sup>1</sup></b>	<b>Fee</b>
Class 4 (Leaching Bed System) & Class 5 (Holding Tank)	
Residential	\$970
Class 4 Required Maintenance Contract Registration	\$155
Residential QUINN FARM (includes labour for sampling)	\$1,260
Commercial or Other Occupancies	\$1,390
Class 2 & 3 Systems	\$470
Class 4 Septic Tank Only	\$450
Inspections (subgrade, partial install, squirt height)	\$225
<b>Revisions to Existing Permit</b>	
<b>Major:</b> e.g. Different type of system, different location > 10 metres	50% of Fee
<b>Minor:</b> e.g. Change Design Flow, Type of Treatment Unit	\$225
<b>Administrative:</b> e.g. Change of Documentation Only	\$140
<b>Alteration to Existing Sewage System</b>	
<b>Major:</b> e.g. Addition of Treatment Unit, Mantle	\$450
<b>Minor:</b> e.g. Level Header, Filter & Riser	\$225
<b>Renovation/Change of Use Permits</b>	
Renovation/Change of Use (OBC Part 10 & 11)	\$340
Renovation/Change of Use (OBC Part 10 & 11) with Part 8 Application	\$175
<b>Miscellaneous</b>	
File Search for septic records	\$175
<b>Renewals &amp; Cancellations <sup>2</sup></b>	
Renewal & Review Fee (maximum 1-year extension)	\$225
Cancellation within 12 months of issuance (refund)	50% of Fee

<b>Permit to Demolish</b>	
Permit to demolish/decommission a septic system	\$175
<b>Planning – Septic (Outside City of Ottawa)</b>	
Planning Comment (per lot for Subdivision Plan Review - Maximum fee of \$5,000)	\$240
Consent Application	\$350
Additional Consent Applications (same retained parcel)	\$160
Minor Variances and Zoning By-Law Amendments	\$350

NOTE 1: If construction begins before a permit is issued a 50 percent (%) surcharge applies to all permits.

NOTE 2: A permit is valid for 12 months from the original date of issuance noted in permit. If lapsed, it may be renewed only once for a period of 12 months from the original date of expiry.



**MISSISSIPPI VALLEY CONSERVATION AUTHORITY  
JOINT HEALTH AND SAFETY COMMITTEE**

Mississippi Valley Conservation Authority

9:00 a.m.

October 16, 2024

**MINUTES**

**MEMBERS PRESENT:** A. Broadbent, Co-chair, Information Technology & Communication Manager  
J. Arbour, Co-Chair, Maintenance Technician  
S. Lawryk, Property Manager  
D. Reid, Environmental Planner (virtual)  
T. Yoon, E.I.T.

**MEMBERS ABSENT:** J. Hendry, Field Operations Supervisor

**STAFF PRESENT:** K. Simpson, Recording Secretary

A. Broadbent called the meeting to order at 9:08 a.m.

**Review of agenda & request for additions**

A. Broadbent reviewed the agenda and inquired if there were any additions to the agenda. There were two additions: A. Broadbent added: review of PPE table – table is now finalized. J. Arbour added: discussion on preparedness for fall season and winter conditions.

**JHSC24/10/16 - 1**

**MOVED BY: J. Arbour**

**SECONDED BY: T. Yoon**

**Resolved, that the agenda for the Joint Health and Safety Committee be adopted as amended.**

**“CARRIED”**

**MAIN BUSINESS:**

**1. Review of action items & any business arising from the *July 16, 2024 Minutes***

- Note that J. Arbour presented for J. Hendry who was absent, on actions 1,2,3,4
- 1. **Action: J. Hendry** to remind the staff to move surveying tripod currently in the storage room.
  - Completed
- 2. **Action: J. Hendry** to email supervisors to initiate running an onsite course to train staff of the proper selection and use of PFD's and throw ropes.
  - Not yet corrected as a result of time constraints

3. **Action: J. Hendry** to add both the Men's Shed and the Field Garage to the MOK inspection sheet.
  - Incomplete
4. **Action: J. Hendry** to arrange the moving of the canoe rack to alternate location - to allow clear path near MVCA garage.
  - Completed
5. **Action: A. Broadbent** to suggest to GM that: the work planning and job training module which is currently being developed, focus on PPE – per needs assessment, and that each department be responsible for managing the changes in roles and how this affects the PPE requirements – in particular the need for CSA approved foot wear.
  - Completed, noting that other business review of PPE will show what has come of action to this item.
6. **Action: D. Reid** to draft governance document to address recommendations to management (for internal JHSC expectations) - term, responsibilities, department representation.
  - Incomplete
7. **Action: D. Reid and J. Arbour** to ask staff to take over the workplace inspections. Orientate on the forms and processes for inspection completion.
  - D. Reid: Complete
    - i. MVCA workplace inspections have been transferred from D. Reid to T. Yoon.
  - T. Yoon reports:
    - i. Last month's inspection was completed together between D. Reid and T. Yoon.
    - ii. T. Yoon will continue to complete MVCA office inspections – to be completed mid-month.
    - iii. Completed inspection information will be stored in 2 ways: 1. Sent to J. Hendry, and 2. Saved on the server as per protocol.
    - iv. T. Yoon noted that there is room for improvement on the inspections – after several inspections T. Yoon will present his ideas to JHSC.
  - J. Arbour: Incomplete
    - i. J. Arbour asked S. Kirkham to consider doing the MOK's workplace inspections. S. Kirkham will not be taking on the task due to the time commitment the inspections will require.
    - ii. J. Arbour stated that M. Way has shown interest in doing the MOK workplace inspections.
    - iii. J. Arbour to show M. Way how to complete an inspection.
    - iv. **Action: J. Arbour** to follow up with JHSC to confirm if M. Way will take on the workplace inspections at the MOK moving forward.

## 2. Workplace inspections

- D. Reid/T. Yoon for MVCA office workplace inspections
  - Everything was good in the last round of workplace inspections – some lights are still out as is 'typical'.
  - T. Yoon noted that the seal was opened on the first aid kit in the kitchen
- J. Arbour for Mill of Kintail workplace inspections
  - All is well, noting that a few light bulbs burnt out

### 3. Accidents & Incidents

- 2 reports have been identified since the last JHSC Meeting held in July 2024
- One claim has not yet been closed (pending GMs review)
- A. Broadbent's report was presented to the JHSC for discussion. Notes include:
  - Date of incident: July 31, 2024
  - Reported to S. McIntyre who was on leave at the time of reporting; thereby reported to M. Craig – acting GM
  - Investigating JHSC was J. Arbour
  - Situation:
    1. A. Broadbent injured his head while working in the server room – which offers limited working room to maneuver
    2. A. Broadbent was under duress of time
    3. The equipment requiring attention was located on top of rack
    4. It was a timely repair because there were consulting technicians on a virtual meeting – the success of the meeting was dependent on his assignment/fix in the server room
    5. A. Broadbent put a monitor and keyboard on top of the rack in the server room
    6. A 3-foot step-stool was prepared
    7. When bent down, A. Broadbent's forehead hit the keyboard/shelf edge
    8. Head was cut and bled
    9. No medical care provided
  - **Action: A. Broadbent/ J. Arbour** to remove both shelving units and relocate them behind the door and/or pad the edges of the shelf with foam and duct tape (materials to be used TBD).
- M. Way's incident was reported however the report is not yet completed/filed
  - The incident was described at the JHSC meeting by J. Arbour who was onsite at the time of the incident
  - Date of incident: Early/mid-September, 2024
  - Reported to S. Lawryk who presented the report to S. McIntyre for completion
  - Investigating JHSC was J. Arbour
  - Situation:
    1. There was a bee's nest in the ground
    2. M. Way was stung 3 times – arm, wrist, stomach
    3. M. Way and MVCA team members evacuated the area and dealt with the nest afterwards
  - Incident report was filled out but not yet filed.
  - **Action: S. Lawryk** to ensure that M. Way's bee sting incident report is completed and filed into the appropriate JHSC folder – noting that S. Lawryk suggests that the report is currently with S. McIntyre.

### 4. Other Business

- A. Broadbent: PPE table review – table is now finalized

- A. Broadbent presented the PPE table to JHSC
- A. Broadbent expressed that MVCA has adopted J. Cunderlik's version to include the jobs each department does, the list of staff, and the need for PPE; followed up by gaps
- A. Broadbent expressed that the document which was presented at today's meeting is the document moving forward
- T. Yoon noted that safety boots for several of the newer Engineering staff have yet to be purchased
  1. T. Yoon claims that Engineering department will need further PPE once the winter comes.
  2. **Action: T. Yoon** to inquire with J. Cunderlik on further PPE requirements for team, as noted: newer Engineering staff still need work boots.
- D. Reid noted that she redirected her graph assignment to M. Craig to complete as she wasn't certain of all of the Planning teams' needs.
- The PPE table shows that the entire Planning department has appropriate work boots
- J. Arbour noted that the Operations team has all of the required equipment less the below mentioned:
  1. S. Lawryk acknowledged that the graph shows that some equipment is missing for his direct position, however he claims that he does not have a need for these items.
- A. Broadbent noted that at the managers' retreat on Oct 10<sup>th</sup>, 2024 – it was presented that the Administration department's needs for PPE have not yet been evaluated.
  1. Noted as an example was that the GM will need safety boots to visit a dam
  2. **Action: A. Broadbent** to add admin to the PPE table.
- T. Yoon: opened for discussion the interpretation of *SOP 29: Traffic Protection*
  1. T. Yoon's interpretation is that the SOP suggests that each time an MVCA staff member is driving an MVCA vehicle – they need to be wearing safety boots
  2. T. Yoon: further identified that perhaps the SOP is meant to indicate that staff need this equipment for when they step outside of the vehicle – not necessarily to be worn when driving the vehicle.
  3. T. Yoon asked A. Broadbent to display the SOP on the screen to present to JHSC team: *SOP 29: Traffic Protection, Procedure 5. states:*
    - *At a minimum, all workers on a project exposed to vehicular traffic must wear the following, CSA approved, personal protective equipment (PPE): five-point tear away hi-vis safety vest, hard hat and CSA approved safety boots or shoes.*
    - General consensus of the JHSC members in attendance is that if applying a reasonable expectation/perspective to this SOP then it is understood that: PPE must be worn when working on a project that exposes staff to vehicular traffic – PPE is not required to be worn when driving. Examples discussed include: staff are required to wear PPE

once onsite at a project – for example, once onsite at a dam, PPE must be worn.

- J. Arbour: Review of the communication from OHSa to Info email:
  - Email titled: *OHSa fines increased by 15 times this past decade! Are you compliant?*
  - This email reinforced that fall/winter are imminent and MVCA staff should be prepared.
  - As a result, J. Arbour presented several suggestions for consideration:
    1. To schedule cleaning of the HVAC systems and duct work – as they will be used more often in the colder months.
      - In particular: J. Arbour identified the gatehouse at the MOK is requiring service.
      - S. Lawryk recognized the importance of this cleaning and made note of this service as being a costly expense: estimated to be tens-of-thousands of dollars to do a proper clean out of HVAC at MVCA headquarters.
      - Further noting that the filters in the furnace are changed regularly as part of MVCA’s maintenance agreement.
      - S. Lawryk suggested that it may prove to be difficult to fit this service into this year’s budget.
      - S. Lawryk noted that the gatehouse and museum would be more affordable to have serviced.
      - **Action: S. Lawryk** to investigate pricing to have MVCA headquarters’, gatehouse and museum’s HVAC systems and duct work cleaned.
    2. **Action: J. Arbour** to remind staff to ensure that ladders have safe bottoms.
    3. **Action: J. Arbour** to clean up the lighting where the boat is located – under the lean-to. Lighting is on a timer. J. Arbour to ensure the timer is set to the proper timing to accommodate shortened light during days.
    4. **Action: J. Arbour** to send an email to all staff – include seasonal health and safety messaging.
      - For example: vehicles to be prepared for fall/winter weather mid November, sand/salt to be on-hand, drive carefully, take your time, ensure a snow brush is in each vehicle...

#### **ADJOURNMENT:**

The meeting was completed at 9:43 a.m.

**JHSC24/10/16 - 2**

**MOVED BY: J. Arbour**

**SECONDED BY: T. Yoon**

**Resolved, that the MVCA Joint Health and Safety Committee meeting is adjourned.**

**“CARRIED”**

**Review of Action Items:**

1. **Action: J. Hendry** to email supervisors to initiate running an onsite course to train staff of the proper selection and use of PFD's and throw ropes.
2. **Action: J. Hendry** to add both the Men's Shed and the Field Garage to the MOK inspection sheet.
3. **Action: D. Reid** to draft governance document to address recommendations to management (for internal JHSC expectations) - term, responsibilities, department representation.
4. **Action: J. Arbour** to follow up with JHSC to confirm if M. Way will take on the workplace inspections at the MOK moving forward.
5. **Action: A. Broadbent/ J. Arbour** to remove both shelving units and relocate them behind the door and/or pad the edges of the shelf with foam and duct tape (materials to be used TBD).
6. **Action: S. Lawryk** to ensure that M. Way's bee sting incident report is completed and filed into the appropriate JHSC folder – noting that S. Lawryk suggests that the report is currently with S. McIntyre.
7. **Action: T. Yoon** to inquire with J. Cunderlik on further PPE requirements for team, as noted: newer Engineering staff still need work boots.
8. **Action: A. Broadbent** to add admin to the PPE table.
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10. **Action: J. Arbour** to remind staff to ensure that ladders have safe bottoms.
11. **Action: J. Arbour** to clean up the lighting where the boat is located – under the lean-to. Lighting is on a timer. J. Arbour to ensure the timer is set to the proper timing to accommodate shortened light during days.
12. **Action: J. Arbour** to send an email to all staff – include seasonal health and safety messaging.



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**REPORT**
**3456/24**

TO:	The Chair and Members of the Mississippi Valley Conservation Authority Board of Directors
FROM:	Paul Kehoe, Board Chair and Sally McIntyre, General Manager
RE:	<b>Management Salary Review</b>
DATE:	November 8, 2024

**Recommendation:**

**That the Board of Directors approve updates to the Management Salary Scales and the 2024/2025 compensation for the General Manager as recommended by the Finance and Administration Advisory Committee.**

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As directed by Report 3440/24, MVCA's Executive Committee worked with Cornerstones Management Solutions Ltd. to examine current management salaries and those of comparable organizations and to make recommendations for changes where deemed appropriate. The purpose of this report is to table recommendations to the Finance Committee for consideration, and for the F&A Advisory Committee to consider and make recommendations to the Board of Directors.

Results and recommendations will be provided in-camera, with comments provided by the General Manager regarding salaries for her direct reports. Kellie Howe of Cornerstones Management Solutions Ltd. will be available during the in-camera session to address questions of Committee members.

## REPORT

3457/24

TO:	The Chair and Members of the Mississippi Valley Conservation Authority Board of Directors
FROM:	Sally McIntyre, General Manager
RE:	<b>Overtime Compensation</b>
DATE:	November 8, 2024

**Recommendation:**

**That the Board of Directors approve update of section: 2.3.2 Overtime of MVCA's Employee Manual as set out herein, and to implement the new program effective January 1, 2025.**

**1. BACKGROUND**

MVCA's *Employee Manual* states the following:

*When overtime is authorized, it will be taken as time off in lieu at the following rates:*

- *Straight time for all hours worked beyond the bi-weekly standard 75 hours in any given work week to a maximum of 88 hours bi-weekly*
- *Time-and-a-half for all hours worked beyond 88 hours in 2-week timecard period. The time-and-a-half will be compensated by time off in lieu of time worked.*

*...Accumulated overtime must be used within the calendar year that it is earned. If an employee has unused overtime at the end of the year, approval will be required from the General Manager to carry the overtime into the next year and used within a specified time period agreed to by the employee and the General Manager.*

Five issues are proposed to be addressed by this report:

- Errors in the language;
- Lack of clarity regarding what constitutes "hours worked" when calculating overtime;
- Lack of direction to use flexible time as opposed to accumulating overtime;
- Lack of clarity regarding the applicability of this policy to MVCA's management team; and

- Non-compliance with the compensation requirements of the *Employment Standards Act (ESA)*.

Cornerstones Management Solutions Ltd. was consulted regarding these matters, with their findings and recommendations regarding the compensation of managers for overtime provided in Attachment 1.

## 2. DISCUSSION & RECOMMENDATIONS

a) The following CORRECTION is recommended to the first bullet:

- *Straight time for all hours worked beyond the ~~bi~~-weekly standard 37.5 ~~75~~-hours in any given work week to a maximum of 44~~88~~ hours ~~bi~~-weekly;*

b) The following NEW bullet is recommended to clarify how overtime is calculated:

- *For clarity, "hours worked" does not include any form of leave taken within the same work week (e.g. TOIL, Personal, Bereavement, Sick leave.)*

c) The following NEW bullet is recommended to minimize the accumulation of overtime.

- *Where feasible, flexible work hours should be used in accordance with policy 6.3 to mitigate the accumulation of overtime. Flexing start and end times and days of work to mitigate the accumulation of overtime shall be agreed upon between the Employee and their Supervisor in advance of implementation on a case by case basis, and should occur within the same two-week pay period where possible.*

d) The following CHANGE is recommended to bring the overtime policy into compliance with the Employment Standards Act (ESA):

*...Accumulated overtime must be used within the calendar year that it is earned. If an employee has unused overtime at the end of the year, it shall be paid-out in full. Approval will be required from the General Manager to carry the overtime into the next year and used within a specified time period agreed to by the employee and the General Manager.*

The current ESA requires MVCA to compensate staff for time worked, and therefore we must either permit staff to carry over unused amounts or pay it out. In order to mitigate the financial liability of accumulated unused TOIL it is recommended that outstanding balances be paid at the end of each year.

- e) The following NEW section is recommended to clarify how management positions will be compensated for overtime.

### 2.3.2 a) Management

The following policies shall apply to members of MVCA's Management Team, currently comprised of the following: General Manager, Director of Engineering, Treasurer, Manager of Planning & Regulations, Property Manager, and Information & Communication Technology Manager.

1. The first 5 additional hours worked bi-weekly (difference between 75 and 80 hours) is not recognized as overtime and does not require Supervisor approval.
2. Management staff who are working beyond 80 hours per pay period are eligible to earn overtime at straight time to a maximum of 2 weeks or 75 hours per calendar year.
3. Overtime hours and the purpose of the overtime are to be recorded on the employee's time sheet in the pay period in which the overtime was worked.
4. Managers are encouraged to track hours worked beyond 75 hours of overtime. This will support decisions regarding workload management, changes to the staff complement, merit increases, as well as the need for other employee work/life balance and wellness supports.
5. Eligibility for TOIL accrual shall be pro-rated during the first year of employment, similar to other types of leave.
6. All overtime banked shall be used prior to the end of the calendar year in which it is earned. Overtime banks will be paid out at Year-End and revert to "0" on January 1<sup>st</sup>.
7. The Board will support management staff efforts to manage and flex time worked, e.g., there are eleven member municipalities, a 200 km wide watershed, and many community group meetings and events.

## 3. CORPORATE STRATEGIC PLAN

The recommendations of this report support achievement of the following corporate goal and objectives:

**Goal 3: People and Performance** – support the operational transformations required to achieve MVCA's priorities and to address legislative changes.

- b) Monitor the quality, efficiency and impact of what we do and modify to improve operational effectiveness.
- c) Promote an engaging and inclusive environment that attracts and retains passionate and highly skilled people, and optimizes their expertise and contributions.

## REPORT

3458/24

TO:	The Chair and Members of the Mississippi Valley Conservation Authority Board of Directors
FROM:	Sally McIntyre, General Manager
RE:	<b>Staff Merit Increases and Bonuses</b>
DATE:	November 12, 2024

**Recommendation:**

**That the Board of Directors direct the General Manager to investigate options to improve the current system of merit increases and bonuses and provide a recommendation for implementation in Fiscal 2026.**

**1. BACKGROUND**

MVCA's *Employee Manual* provides three mechanisms for staff wage increases:

- Annual Cost of Living Adjustment (COLA). This increment allows MVCA's wages to retain their value and competitiveness over time, and is applied to all pay bands within MVCA's Salary Scale effective January 1 each year. The COLA amount varies year to year and is based upon the August Consumer Price Index (CPI) for Ontario – All, or other amount set by the Board.
- Merit increases are given at the General Manager's discretion based upon a person's performance, and allow their wage to increase within the pay band for their position (e.g. from an entry level wage of \$20/hour to the top of the pay band for that position \$25/hour over time.)
- An annual bonus may be given at the General Manager's discretion based upon a person's performance when they have reached the top of the pay band for their position and their wage cannot be raised further (e.g. a cheque for \$500.)

The combined budget envelop for Merit increases and Bonuses is currently set at 2% of the draft compensation budget prior to application of COLA. The *Employee Manual* provides the following Performance Pay Guide Chart to support decision-making by the General Manager, but sets a standard that consistently cannot be met due to the following:

- Most employees are not at the top of their pay band; and

- Most employees “meet” or “exceed” expectations, and
- the recommended percentage increases in the table far exceed the annual budget envelop of 2%.

### Performance Pay Guide Chart

Performance Rating	Current salary is below midpoint of salary band	Current Salary is above midpoint of salary band
Met Expectations	5-7%	4-6%
Exceeded Expectations	6-7%	5-7%
Did Not Meet Expectations	0%	0%

Consequently:

- It can take many years to progress people to the top of their pay band if they are hired at or near an entry level; and
- It is difficult to appropriately recognize higher levels of achievement without unfairly delaying others’ progress through their pay scales.

## 2. DISCUSSION

In camera.

## 3. CORPORATE STRATEGIC PLAN

The recommendations of this report support achievement of the following corporate goal and objectives:

**Goal 3: People and Performance** – support the operational transformations required to achieve MVCA’s priorities and to address legislative changes.

- b) Monitor the quality, efficiency and impact of what we do and modify to improve operational effectiveness.
- c) Promote an engaging and inclusive environment that attracts and retains passionate and highly skilled people, and optimizes their expertise and contributions.

**REPORT****3453/24**

<b>TO:</b>	Chair and Members of the Mississippi Valley Conservation Authority Board of Directors
<b>FROM:</b>	Stacy Millard, Treasurer
<b>RE:</b>	<b>Financial Update – YTD September 30, 2024</b>
<b>DATE:</b>	November 25, 2024

**For Information.**

The purpose of this report is to present year-to-date financial data as at September 30, 2024 and updated financial projections for fiscal 2024. Details are contained in Attachments.

**1.0 OPERATING**

Year-to-date expenditures and revenues are on track and sit at 71.75% of budgeted, as shown in Table 1. Details are shown in Attachments 1 and 2.

**Table 1: Operating Budget**

Budget Item	2024 Budget	Sept 30 2024 YTD actuals	YTD Percentage of Budget	Revised Projection
<b>Expenditures</b>				
Corporate Services	\$1,134,464	\$892,249	78.65%	\$1,311,539
Watershed Management	\$1,332,249	\$978,828	73.47%	\$1,351,772
Flood and Erosion Control	\$995,643	\$631,927	63.47%	\$843,812
Conservation Services	\$370,469	\$247,190	66.72%	\$332,435
Category 2 Programs	\$296,536	\$117,013	39.46%	\$163,648
Category 3 Programs	\$412,981	\$363,123	87.93%	\$457,484
<b>Total Operating</b>	<b>\$4,542,341</b>	<b>\$3,230,330</b>	<b>71.12%</b>	<b>\$4,460,690</b>
<b>Revenues</b>				
Municipal Levy	\$3,140,197	\$2,289,519	72.91%	\$3,140,197
Reserve Funds	\$196,786	\$25,257	12.83%	\$56,434
Provincial & Federal Grants	\$237,116	\$197,134	83.14%	\$210,580
Fees for Service	\$776,020	\$505,844	65.18%	\$812,398
Other Revenue	\$192,221	\$212,576	110.59%	\$241,081
<b>Total Revenues</b>	<b>\$4,542,341</b>	<b>\$3,230,330</b>	<b>71.12%</b>	<b>\$4,460,690</b>

## CHANGE IN COST ALLOCATIONS

Historically, *Watershed Management – Tech Studies* has been used as the “home” department for engineering staff, meaning that the cost of employee leaves, training, and benefits were captured in that line item. Because all CAs do Flood & Erosion Control (FEC) and to ease comparative analysis with other CAs, the home department for engineering staff is being changed to FEC as part of the 2025 Budget process.

This financial update has re-categorized those costs to allow for comparison with the accompanying Draft 2025 Budget. Cost allocations have also been updated to reflect actual timesheets for this year to date. The previously projected compensation surplus due to maternity and paternity leaves will be negated by projected severance costs.

## 2.0 CAPITAL BUDGET AND 10-YEAR CAPITAL PLAN

Referring to Attachment 3, capital projections have been updated as follows:

- WECI Capital Projects
  - No WECI funding was received for 2024-25 studies, to offset this we are postponing the Widow Lake Dam DSR.
- Conservation Areas
  - MOK – Workshop Building and Washroom projects have been delayed to future years.
- Corporate Projects
  - HQ Sewer & Water Connection is on hold and not expected to happen in this fiscal year.
  - Vehicle plan has been adjusted to acquire 1 SUV and 1 Large Truck, instead of original plan of 2 SUVs. This is due to maintenance issues with our Large Truck. This is a timing adjustment on our 10 Year Capital Plan and not a new item.
- Tech Studies Capital
  - MVCA FFW System Model has been delayed, with completion expected in 2025.
- Category 3 Capital
  - Windows at MOK – Gatehouse were not brought forward from the 2023 budget, the Category 3 – Operating Reserve will be used to offset.

## 3.0 RESERVES

Reserve Balance projections have been updated as shown in Attachment 4. We are projecting decreased use of Category 1 Reserves, with potential further reductions based on actual Compensation and Consulting costs. We are projecting higher contributions to Category 2 & 3 operating reserves due to budget savings and additional funding found.



Total Operating Summary	2024	YTD SEPT 30	YTD	REVISED	VARIANCE
	APPROVED	2024	PERCENTAGE	PROJECTION	PROJECTION
	BUDGET		OF BUDGET		TO BUDGET
<b>Category 1</b>					
<b>Category 1 Programs</b>					
Compensation	\$2,997,632	\$2,192,327	73.14%	\$3,022,202	\$24,570
Operating Expenses	\$728,692	\$523,674	71.86%	\$732,757	\$4,065
Special Projects	\$106,500	\$34,194	32.11%	\$84,599	-\$21,901
<b>TOTAL</b>	<b>\$3,832,824</b>	<b>\$2,750,195</b>	<b>71.75%</b>	<b>\$3,839,558</b>	<b>\$6,734</b>
<b>Category 2</b>					
<b>Category 2 Programs</b>					
Compensation	\$144,536	\$67,881	46.96%	\$91,000	-\$53,536
Operating Expenses	\$82,000	\$19,541	23.83%	\$43,000	-\$39,000
Special Projects	\$70,000	\$29,590	42.27%	\$29,648	-\$40,352
<b>TOTAL</b>	<b>\$296,536</b>	<b>\$117,013</b>	<b>39.46%</b>	<b>\$163,648</b>	<b>-\$132,888</b>
<b>Category 3</b>					
<b>Category 3 Programs</b>					
Compensation	\$270,172	\$233,282	86.35%	\$292,000	\$21,828
Operating Expenses	\$58,359	\$43,612	74.73%	\$56,384	-\$1,975
Special Projects	\$84,450	\$86,230	102.11%	\$109,100	\$24,650
<b>TOTAL</b>	<b>\$412,981</b>	<b>\$363,123</b>	<b>87.93%</b>	<b>\$457,484</b>	<b>\$44,503</b>
<b>Total Operating - Expenses</b>	<b>\$4,542,341</b>	<b>\$3,230,330</b>	<b>71.12%</b>	<b>\$4,460,690</b>	<b>-\$81,651</b>
<b>REVENUE</b>					
Municipal Levy	\$3,140,197	\$2,289,519	72.91%	\$3,140,197	\$0
Reserve Fund	\$196,786	\$25,257	12.83%	\$56,434	-\$140,352
Provincial/Federal Grants	\$237,116	\$197,134	83.14%	\$210,580	-\$26,536
Fees for Services	\$776,020	\$505,844	65.18%	\$812,398	\$36,378
Other Revenue	\$192,221	\$212,576	110.59%	\$241,081	\$48,860
<b>Total Operating - Revenues</b>	<b>\$4,542,341</b>	<b>\$3,230,330</b>	<b>71.12%</b>	<b>\$4,460,690</b>	<b>-\$81,651</b>

CATEGORY 1: PROGRAMS & SERVICES					
	2024 APPROVED BUDGET	YTD SEPT 30 2024	YTD PERCENTAGE OF BUDGET	REVISED PROJECTION	VARIANCE PROJECTION TO BUDGET
<b>EXPENSES</b>					
<b>Watershed Management</b>					
<b>Technical Studies</b>					
Compensation	\$223,174	\$216,100	96.83%	\$288,133	\$64,959
Operating Expenses	\$26,700	\$5,352	20.04%	\$14,100	-\$12,600
Special Projects	\$79,000	\$32,516	41.16%	\$77,599	-\$1,401
<b>Subtotal</b>	<b>\$328,873.53</b>	<b>\$253,968</b>	<b>77.22%</b>	<b>\$379,832</b>	<b>\$50,958</b>
<b>Planning &amp; Regulations</b>					
Compensation	\$905,875	\$651,893	71.96%	\$869,190	-\$36,685
Operating Expenses	\$82,500	\$72,967	88.44%	\$102,750	\$20,250
Special Projects	\$15,000	\$0	0.00%	\$0	-\$15,000
<b>Subtotal</b>	<b>\$1,003,375</b>	<b>\$724,860</b>	<b>72.24%</b>	<b>\$971,940</b>	<b>-\$31,435</b>
<b>TOTAL</b>	<b>\$1,332,249</b>	<b>\$978,828</b>	<b>73.47%</b>	<b>\$1,351,772</b>	<b>\$19,523</b>
<b>Flood &amp; Erosion Control</b>					
<b>Flood Forecasting &amp; Warning</b>					
Compensation	\$684,884	\$467,004	68.19%	\$622,672	-\$62,212
Operating Expenses	\$56,400	\$52,161	92.48%	\$61,200	\$4,800
Special Projects					
<b>Subtotal</b>	<b>\$741,284</b>	<b>\$519,165</b>	<b>70.04%</b>	<b>\$683,872</b>	<b>-\$57,412</b>
<b>Dam Operations &amp; Maintenance</b>					
Compensation	\$167,859	\$77,054	45.90%	\$102,740	-\$65,119
Operating Expenses	\$86,500	\$35,708	41.28%	\$57,200	-\$29,300
Special Projects					
<b>Subtotal</b>	<b>\$254,359</b>	<b>\$112,762</b>	<b>44.33%</b>	<b>\$159,940</b>	<b>-\$94,419</b>
<b>TOTAL</b>	<b>\$995,643</b>	<b>\$631,927</b>	<b>63.47%</b>	<b>\$843,812</b>	<b>-\$151,831</b>
<b>Conservation Areas</b>					
<b>Conservation Areas</b>					
Compensation	\$233,813	\$185,677	79.41%	\$250,000	\$16,187
Operating Expenses	\$64,800	\$49,833	76.90%	\$60,935	-\$3,865
Special Projects					
<b>Subtotal</b>	<b>\$298,613</b>	<b>\$235,510</b>	<b>78.87%</b>	<b>\$310,935</b>	<b>\$12,322</b>
<b>Technical Studies</b>					
Compensation	\$60,856	\$10,028	16.48%	\$15,000	-\$45,856
Operating Expenses	\$0	\$0		\$0	\$0
Special Projects	\$11,000	\$1,652	15.02%	\$6,500	-\$4,500
<b>Subtotal</b>	<b>\$71,856</b>	<b>\$11,680</b>	<b>16.26%</b>	<b>\$21,500</b>	<b>-\$50,356</b>
<b>TOTAL</b>	<b>\$370,469</b>	<b>\$247,190</b>	<b>66.72%</b>	<b>\$332,435</b>	<b>-\$38,034</b>
<b>Corporate Services</b>					
<b>Corporate Services</b>					
Compensation	\$721,172	\$584,570	81.06%	\$874,467	\$153,295
Operating Expenses	\$411,792	\$307,653	74.71%	\$436,572	\$24,780
Special Projects	\$1,500	\$26	1.76%	\$500	-\$1,000
<b>TOTAL</b>	<b>\$1,134,464</b>	<b>\$892,249</b>	<b>78.65%</b>	<b>\$1,311,539</b>	<b>\$177,075</b>
<b>Total Category 1 - Expenses</b>	<b>\$3,832,824</b>	<b>\$2,750,195</b>	<b>71.75%</b>	<b>\$3,839,558</b>	<b>\$6,734</b>
<b>REVENUE</b>					
Municipal Levy	\$2,817,071	\$2,106,802	74.79%	\$2,817,071	\$0.0
Reserve Fund	\$196,786	\$21,086	10.72%	\$207,325	-\$10,539
Provincial/Federal Grants	\$147,671	\$137,614	93.19%	\$137,614	\$10,057
Fees for Services	\$511,295	\$344,829	67.44%	\$520,548	-\$9,253
Other Revenue	\$160,000	\$139,863	87.41%	\$157,000	\$3,000
<b>Total Category 1 - Revenues</b>	<b>\$3,832,823</b>	<b>\$2,750,195</b>	<b>71.75%</b>	<b>\$3,839,558</b>	<b>-\$6,735</b>

CATEGORY 2: PROGRAMS & SERVICES					
	2024 APPROVED BUDGET	YTD SEPT 30 2024	YTD PERCENTAGE OF BUDGET	REVISED PROJECTION	VARIANCE PROJECTION TO BUDGET
<b>Watershed Management</b>					
<b>Technical Studies</b>					
Compensation	\$144,536	\$67,881	46.96%	\$91,000	-\$53,536
Operating Expenses	\$82,000	\$19,541	23.83%	\$43,000	-\$39,000
Special Projects	\$70,000	\$29,590	42.27%	\$29,648	-\$40,352
TOTAL	\$296,536	\$117,013	39.46%	\$163,648	-\$132,888
<b>Total Category 2 - Expenses</b>	<b>\$296,536.31</b>	<b>\$117,013</b>	<b>39.46%</b>	<b>\$163,648</b>	<b>-\$132,888</b>
<b>REVENUE</b>					
Municipal Levy	\$178,536	\$38,127	21.36%	\$178,536	\$0
Reserve Fund	\$0	\$0		-\$93,774	-\$93,774
Provincial/Federal Grants	\$50,000	\$10,886	21.77%	\$10,886	-\$39,114
Fees for Services	\$68,000	\$68,000	100.00%	\$68,000	\$0
Other Revenue	\$0	\$0		\$0	\$0
<b>Total Category 2 - Revenues</b>	<b>\$296,536</b>	<b>\$117,013</b>	<b>39.46%</b>	<b>\$163,648</b>	<b>-\$132,888</b>

CATEGORY 3: PROGRAMS & SERVICES					
	2024 APPROVED BUDGET	YTD SEPT 30 2024	YTD PERCENTAGE OF BUDGET	REVISED PROJECTION	VARIANCE PROJECTION TO BUDGET
<b>Stewardship Programs</b>					
<b>Stewardship Programs</b>					
Compensation	\$82,571	\$83,570		\$110,000	\$27,429
Operating Expenses	\$7,500	\$3,226		\$4,850	-\$2,650
Special Projects	\$69,450	\$80,568		\$103,000	\$33,550
<b>TOTAL</b>	<b>\$159,521</b>	<b>\$167,364</b>	<b>\$51,996</b>	<b>\$217,850</b>	<b>\$58,329</b>
<b>Education Services</b>					
<b>Education Services</b>					
Compensation	\$41,470	\$41,094		\$55,000	\$13,530
Operating Expenses	\$4,700	\$5,178		\$5,825	\$1,125
Special Projects	\$15,000	\$5,662		\$6,100	-\$8,900
<b>TOTAL</b>	<b>\$61,170</b>	<b>\$51,933</b>	<b>\$19,970</b>	<b>\$66,925</b>	<b>\$5,755</b>
<b>Vistor Services</b>					
<b>Vistor Services</b>					
Compensation	\$146,130	\$108,618		\$127,000	-\$19,130
Operating Expenses	\$46,159	\$35,208		\$45,709	-\$450
Special Projects					\$0
<b>TOTAL</b>	<b>\$192,289</b>	<b>\$143,826</b>	<b>\$72,623</b>	<b>\$172,709</b>	<b>-\$19,580</b>
<b>Total Category 3 - Expenses</b>	<b>\$412,980.93</b>	<b>\$363,123</b>	<b>\$144,590</b>	<b>\$457,484</b>	<b>\$44,503</b>
<b>REVENUE</b>					
Municipal Levy	\$144,590	\$144,590	100.00%	\$144,590	\$0
Reserve Fund	\$0	\$4,171		-\$57,117	-\$57,117
Provincial/Federal Grants	\$39,445	\$48,635	123.30%	\$62,080	\$22,635
Fees for Services	\$196,725	\$93,015	47.28%	\$223,850	\$27,125
Other Revenue	\$32,221	\$72,713		\$84,081	\$51,860
<b>Total Category 3 - Revenues</b>	<b>\$412,981</b>	<b>\$363,123</b>	<b>87.93%</b>	<b>\$457,484</b>	<b>\$44,503</b>

Total Capital Summary					
	2024 APPROVED BUDGET	YTD SEPT 30 2024	YTD PERCENTAGE OF BUDGET	REVISED PROJECTION	VARIANCE PROJECTION TO BUDGET
<b>Category 1</b>					
WECI Capital Projects	\$295,000	\$155,967	52.87%	\$200,000	-\$95,000
Conservation Areas	\$78,250	\$45,748	58.46%	\$52,500	-\$25,750
Corporate Projects	\$891,850	\$66,541	7.46%	\$255,000	-\$636,850
Tech Studies - Capital	\$149,375	\$47,040	31.49%	\$112,500	-\$36,875
Debt Repayment	\$344,922	\$165,061	47.85%	\$312,417	-\$32,505
<b>Total Category 1</b>	<b>\$1,759,397</b>	<b>\$480,357</b>	<b>27.30%</b>	<b>\$932,417</b>	<b>-\$826,980</b>
<b>Category 3 Capital</b>	\$30,000	\$0	0.00%	\$72,000	\$42,000
<b>Total Capital Program</b>	<b>\$1,789,397</b>	<b>\$480,357</b>	<b>26.84%</b>	<b>\$1,004,417</b>	<b>-\$784,980</b>
<b>FUNDING</b>					
Municipal Levy	\$691,745	\$384,866	55.64%	\$691,745	\$0
Reserve Fund	\$237,652	\$0	0.00%	\$212,181	-\$25,471
Provincial/Federal Grants	\$150,000	\$95,491	63.66%	\$95,491	-\$54,509
Fees for Services	\$0	\$0		\$0	\$0
Other Revenue	\$735,000	\$0	0.00%	\$5,000	-\$730,000
<b>Total Category 3 - Revenues</b>	<b>\$1,814,397</b>	<b>\$480,357</b>	<b>26.47%</b>	<b>\$1,004,417</b>	<b>-\$809,980</b>

**Reserve Investments**

	Dec 31 2023 Balance	2024 Budget Allocations FROM Reserves	2024 Budget Allocations TO Reserves	Projected Dec 31 2024 Balance
<b>Capital Reserves</b>				
Building (HQ) Reserve	\$534,701	\$0		\$534,701
Conservation Areas Reserve	\$185,700		\$0	\$185,700
Information & Communication Technology Reserve	\$80,185	\$23,604		\$56,581
Priority Projects (Formerly Glen Cairn)	\$438,836	\$45,000		\$393,836
Sick Pay (STD) Reserve	\$73,843	\$21,086		\$52,757
Vehicles & Equipment Reserve	\$263,537	\$45,000		\$218,537
Water Control Structure Reserve - MVCA	\$514,391	\$65,412		\$448,979
Category 3 Capital Reserve	\$39,000	\$58,165	\$19,165	\$0
<b>Total</b>	<b>\$2,130,193</b>	<b>\$258,267</b>	<b>\$19,165</b>	<b>\$1,891,091</b>
<b>Operating Reserves</b>				
Museum Building & Art Reserve	\$0			\$0
Operating Reserve	\$1,022,526	\$161,239	\$0	\$861,287
Category 2 Operating Reserve	\$89,000		\$93,774	\$182,774
Category 3 Operating Reserve	\$125,760	\$19,165	\$57,117	\$163,712
<b>Total</b>	<b>\$1,237,286</b>	<b>\$180,404</b>	<b>\$150,891</b>	<b>\$1,207,773</b>
<b>TOTAL</b>	<b>\$3,367,479</b>	<b>\$438,671</b>	<b>\$170,056</b>	<b>\$3,098,864</b>

**REPORT****3454/24**

<b>TO:</b>	The Chair and Members of the Mississippi Valley Conservation Authority Board of Directors
<b>FROM:</b>	Sally McIntyre, General Manager Stacy Millard, Treasurer
<b>RE:</b>	<b>Draft 2025 Budget</b>
<b>DATE:</b>	November 12, 2024

**Recommendation:**

**That the Draft 2025 Budget be received and circulated to member municipalities for comment.**

**1.0 TOTAL BUDGET**

The proposed 2025 budget is \$6,640,474 as shown in Table 1. Details of the Draft 2025 Budget are contained in Attachment 2.

<b>Table 1: TOTAL BUDGET</b>	<b>2023 Actuals</b>	<b>2024 Budget</b>	<b>2025 Budget</b>
<b>Operating – Cat. 1</b> (mandatory)	4,135,146	3,832,823	4,176,945
<b>Operating – Cat. 2</b> (support municipalities)	104,130	296,536	160,001
<b>Operating – Cat. 3</b> (other, public facing)	331,370	412,981	562,240
<b>Capital – Category 1</b>	1,002,491	1,759,397	1,689,238
<b>Capital – Category 3</b>	0	30,000	52,050
<b>Total</b>	<b>\$5,573,137</b>	<b>\$6,331,737</b>	<b>\$6,640,474</b>

## 2.0 MUNICIPAL LEVIES

Of the proposed \$308,737 budget increase between 2024 and 2025, \$272,007 or 88% will be borne by an increase to the municipal levy. As authorized by the Board of Directors on October 21, 2024, the municipal levy portion of the Draft 2025 Budget will provide for the following:

- An increase of 2.9% plus assessment growth to the Operating Levy;
- An increase of 8.5% plus assessment growth to the Capital Levy;
- An assumed assessment growth rate of 1.5%.
- A cost of living allowance (COLA) increase to the 2024 Pay Scale of 2.0%<sup>1</sup>; and
- Transfer \$64,664 onto the Municipal Levy for *Workforce Plan* adjustments.

As presented in October, the *Workforce Plan* adjustment is based on the calculations set out in Table 2. Combined, the above increases raise the Total Municipal Levy by 7.1% as shown in Table 3. Impacts on individual municipal levies are provided in Attachment 1.

<b>Table 2: WORKFORCE PLAN Adjustment to Levy</b>	
Outstanding Compensation on Operating Reserve, 2024	\$219,327
Reduce Payroll by 1.0 FTE including benefits in 2025	(\$105,000)
Implement 2025 Job Evaluation Recommendations <sup>2</sup>	\$15,000
Net Pressure 2025	\$129,327
<b>Recom. for 2025: split 50/50 Municipal Levy and Op. Reserve</b>	<b>\$64,664</b>

<b>Table 3: MUNICIPAL LEVIES</b>	<b>2024</b>	<b>2025</b>
<b>Operating – Cat. 1 (mandatory)</b>	2,817,071	3,105,324
<b>Operating – Cat. 2 (support municipalities)</b>	178,536	89,001
<b>Operating – Cat. 3 (other, public facing)</b>	144,590	148,705
<b>Capital – Category 1</b>	677,910	745,701
<b>Capital – Category 3</b>	13,835	15,218
<b>Total Levy</b>	<b>\$3,831,942</b>	<b>\$4,103,949</b>
<b>Special Levy<sup>3</sup></b>	<b>\$68,000</b>	<b>\$71,000</b>

<sup>1</sup> COLA does **not** place further pressure on the Operating Levy and is only noted to inform annual staff increments.

<sup>2</sup> Refer to Report 3439/24 approved October 21, 2024.

<sup>3</sup> Several years ago, the City contracted-out its city-wide water quality monitoring program to the three local CAs. The City requested that this remain as a special levy as opposed to being considered a Category 2 program.



### 3.0 BUDGET ALLOCATIONS

The budget was developed in accordance with O. Reg. 402/22 that prescribes how CA budgets are to be apportioned between Category 1, 2, and 3 programs and services.<sup>4</sup> As conservation authorities become more familiar with how time and expenses should be allocated amongst the three categories, management has been adjusting how they are captured within the budget, with most changes occurring within categories.

The budget also reflects the agreements approved by member municipalities effective January 1, 2024 that allow for the following:

- Up to 14% of the Municipal Operating Levy to be allocated to Category 2 and 3 programs and services; and
- Up to 2% of the Municipal Capital Levy to be allocated to Category 3 infrastructure.

Accordingly, the 2025 Draft Budget is organized as follows:

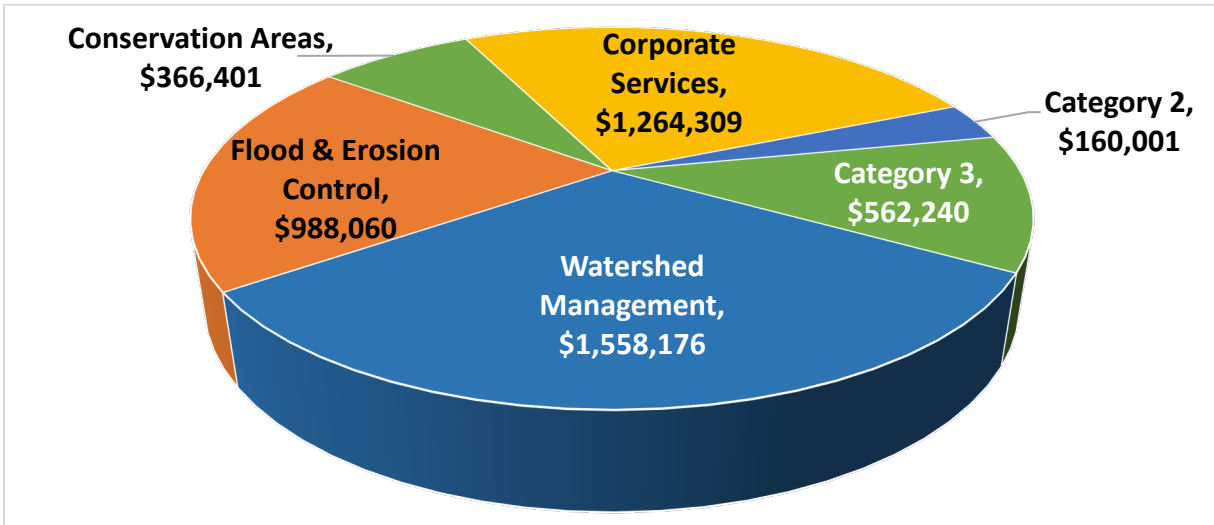
- 2025 Operating Budget Summary
  - Category 1 Programs & Services (mandatory)
  - Category 2 Programs & Services (support municipalities)
  - Category 3 Programs & Services (other, public-facing programs)
- 2025 Capital Budget Summary
  - Category 1 infrastructure sheets
  - Category 3 infrastructure (at the Mill of Kintail)

Figures 1 and 2 summarize the recommended 2025 budgets of MVCA's primary business lines and Category 2 and 3 programs; and how they are proposed to funded.

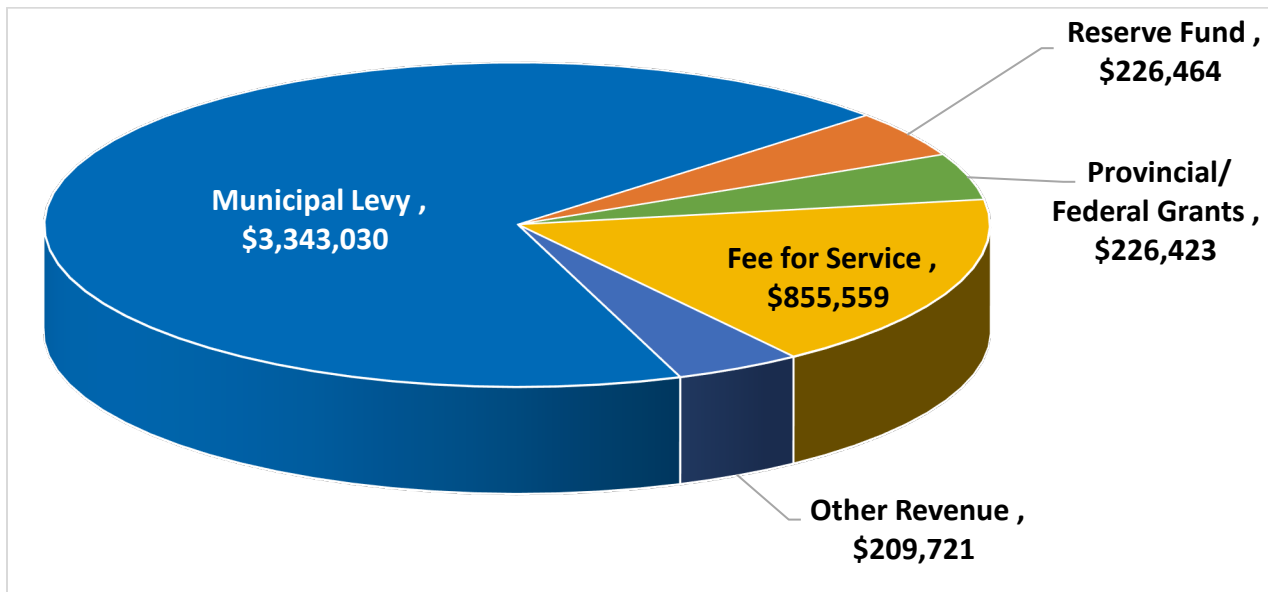
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<sup>4</sup> As set out in O. Reg. 686/21 and 687/21.

**Figure 1: Draft 2025 Operating Budget by Program & Service Category**



**Figure 2: Draft 2025 Projected Operating Revenues**



## 4.0 2025 OPERATING BUDGET

### 4.1 Assumptions

Employee compensation is the largest cost category, constituting 73% of the Draft 2025 Operating Budget and 9% of the 2025 Capital Budget.<sup>5</sup> MVCA's practice is to use the CPI rate that is available in September to inform annual inflationary wage increases. This year the posted rate was 2.0%, which has been assumed to help protect the competitiveness of staff wages. Other key operating budget assumptions are the following:

- No changes to the provincial Section 39 grant of \$128,436.
- Continued provincial freeze on Planning & Regulation Fees with an opportunity cost of ~\$16,800 to be made-up from the Operating Reserve.
- MVCA will obtain approximately 5% of the operating budget from federal/provincial grants.
- MVCA will earn approximately \$855,559 (17.5%) of revenues through fees for service.

The proposed drawdown of the Operating Reserve leaves an account balance that complies with the Authority's Reserve Policy.

### 4.2 Projects

Year-over-year changes to the operating budget are largely associated with inflationary increases and special projects. The following is a list of key projects proposed to be carried out in 2025. Some projects are contingent upon grants and will only proceed if the necessary funds are obtained. A few projects listed were scheduled for 2024 that were postponed or are ongoing.

- |   |   |
|---|---|
| 1. City of Ottawa Floodplain Mapping Projects | 6. Mill of Kintail Accessibility Study    |
| 2. MVCA FPM Projects (Fall River)             | 7. Carp River Climate Change Study        |
| 3. City of Ottawa – Landslide                 | 8. Mississippi River Climate Change Study |
| 4. Hazard Identification and Mapping          | 9. K&P land ownership research            |
| 5. Corporate Strategic Plan Update            | 10. Enhanced Cat. 1 outreach program      |

## 5.0 2025 CAPITAL BUDGET

Only 2 capital projects are planned for water control structures (WCS) in 2025, with required budgets indicated in brackets:

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<sup>5</sup> MVCA is permitted to charge staff time to capitalized assets on which they perform capital works, for example work on the Kashwakamak Lake Dam Environmental Assessment and reconstruction of boardwalks.

- Lanark Dam Safety design and repair works \$206,000
- Kashwakamak Lake Dam Design \$128,750
- Staff time to work on the above projects \$108,789<sup>5</sup>

Capital works to be carried out at conservation areas such as replacement of boardwalks in 2025 are the following:

- Purdon \$26,000
- Mill of Kintail \$24,100
- Morris Island \$11,000
- K&P \$17,200<sup>6</sup>
- Staff time to work on the above projects \$46,429<sup>5</sup>

Capital works proposed at the HQ building in 2025 consists of installing the new municipal sewer and water connection and decommissioning the existing well, septic, and water storage systems at an estimated cost of \$715,000. This work continues to be on hold pending a cost sharing agreement between the Town of Carleton Place and Cavanagh Construction.

In addition, fleet and IT purchases will be made as needed as outlined in the Fleet Management Plan and IT Asset Management Plan.<sup>7</sup>

## 6.0 RESERVES

Table 3 illustrates how reserve balances are projected to change over the next year.

<b>Table 3: Reserve Balance</b>	<b>2023 - Year End Actual</b>	<b>2024 - Projected</b>	<b>2025 - Projected</b>
Operating Reserve – YE Balance	\$1,237,286	\$1,175,156	\$1,039,696
Capital Reserves – YE Balance	\$2,130,193	\$1,906,691	\$1,781,773
Contribution to Reserves		\$137,439	\$25,830
Allocations from Reserves		\$423,071	\$286,208

<sup>6</sup> This amount is shown in the event that the Lease/Sale Agreement with the counties does not proceed.

<sup>7</sup> Refer to reports 3367/23 and 3368/23.

## 7.0 LONG-TERM DEBT

Table 4 shows MVCA's current debt schedule.

<b>Table 4: Debt Schedule</b>	<b>Principal</b>	<b>Interest and Amortization</b>	<b>Annual Payments</b>	<b>Retirement</b>
Shabomeka Lake Dam	\$700,000	3.0% for 30 years	\$35,412	2052
HQ / works yard mortgage	\$4,640,000	3.4% for 25 years	\$277,005	2040

Annual debt payments are made from the annual capital budget.

## 8.0 NEXT STEPS

Subject to Committee and Board deliberations, the Draft budget will be accepted or revised and circulated to member municipalities for consideration and comment before being approved by the Board in February. In the interim, the GM may recommend another meeting of the Finance & Administration Committee to consider and address comments received and any material changes.

## 9.0 CORPORATE STRATEGIC PLAN

Implementation of the 2025 Budget will allow for progress on all three goals and eleven objectives contained in MVCA's *2021-2025 Corporate Strategic Plan*.

## Attachment 1: Impact on Municipal Levies

The following table shows the impact of the draft 2025 Budget on projected municipal levies and highlights three municipalities where the annual apportionment has increased.

Municipality	2024 Apportionment %	2025 Apportionment %	2024 Levy	2025 Levy	Variance	% Increase
Addington Highlands	0.1551	0.1535	\$5,945	\$6,299	\$354	5.96%
<b>Beckwith</b>	<b>0.6922</b>	<b>0.6987</b>	\$26,524	\$28,676	\$2,151	8.11%
<b>Carleton Place</b>	<b>2.6709</b>	<b>2.7932</b>	\$102,347	\$114,633	\$12,286	12.00%
Central Frontenac	0.4303	0.4284	\$16,490	\$17,579	\$1,090	6.61%
Drummond/North Elm	0.4870	0.4849	\$18,662	\$19,899	\$1,237	6.63%
Greater Madawaska	0.0351	0.0352	\$1,344	\$1,446	\$102	7.59%
Lanark Highlands	1.1084	1.1065	\$42,473	\$45,411	\$2,938	6.92%
<b>Mississippi Mills</b>	<b>2.7838</b>	<b>2.8059</b>	\$106,674	\$115,153	\$8,479	7.95%
North Frontenac	0.9116	0.8997	\$34,931	\$36,925	\$1,994	5.71%
Ottawa	90.1030	89.9756	\$3,452,696	\$3,692,554	\$239,858	6.95%
Tay Valley	0.6226	0.6183	\$23,857	\$25,374	\$1,517	6.36%
<b>Total</b>	<b>100</b>	<b>100</b>	<b>\$3,831,942</b>	<b>\$4,103,949</b>	<b>\$272,007</b>	<b>7.10%</b>



# Draft 2025 BUDGET

November 2024

# Mississippi Valley Conservation Authority



MVCA was established in 1968 to deliver programs for the **conservation, restoration, development and management of natural resources** in the Mississippi River and Carp River watersheds and in areas draining to the Ottawa River from the outlet of the Mississippi River downstream to Shirley's Bay.

We are a not-for-profit organization governed by a Board of Directors comprised of 17 representatives from the eleven municipalities we serve, and a provincially appointed agricultural representative.

Our annual budget was developed in accordance with Ontario Regulation 402/22 under the *Conservation Authorities Act*.

## **Our Board of Directors:**

Rear: Roy Huetl, Janet Mason, Paul Kehoe, John Karau (now retired)

Middle: Helen Yanch, Cindy Kelsey, Mary Lou Souter, Dena Comley

Front: Richard Kidd, Cathy Curry, Bev Holmes, Clarke Kelly, Taylor Popkie, Jeff Atkinson

Absent: Allan Hubley, Glen Gower, Steve Lewis, Wayne Baker and Jeannie Kelso



# What we do

MVCA delivers a variety of programs and services ranging from the planning, design, and operation of water control structures through to the delivery of shoreline planting programs, and the operation of conservation areas. Our primary mandate is to deliver the following **Category 1** programs and services:

- Identify and delineate natural hazards (flooding, erosion, and unstable soils).
- Administer a permitting system that limits development in hazardous areas.
- Undertake regulatory compliance promotion, monitoring and enforcement.
- Review and comment on planning applications on behalf of the province.
- Forecast and issue flood warnings, and coordinate drought response.
- Monitor and manage ice.
- Manage water and erosion control structures we own or operate for others.
- Manage conservation lands we own or operate for others.

These activities constitute the majority of our work and ~85% of the Draft 2025 Operating Budget.

## Category 1

- CA programs and services mandated by regulation.

## Category 2

- Services that MVCA provides to help municipalities meet their legislated responsibilities.

## Category 3

- Optional, largely community-based programs that MVCA delivers as funding allows.

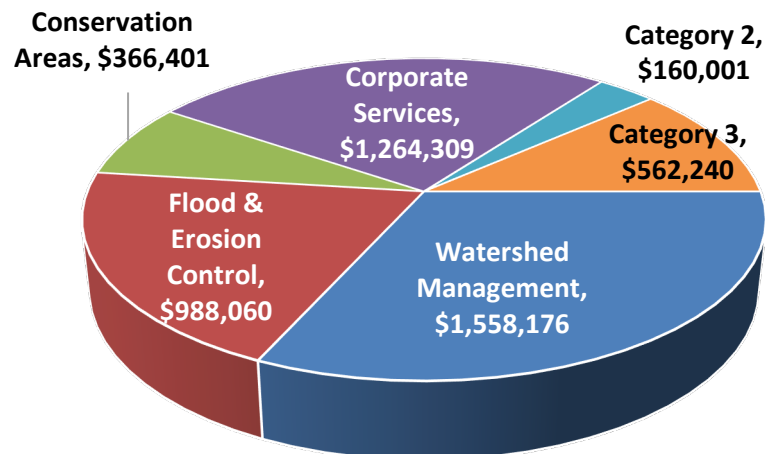
Our eleven municipalities pay an annual levy that covers ~68% of our annual operating costs. Commencing this year they authorized spending up to 14% of their annual levy on Category 2 and 3 programs.

# Budget Summary

## DRAFT 2025 Budget

	2023 Actuals	2024 Budget	2025 Budget
<b>Operating</b>	\$4,570,646	\$4,542,341	\$4,899,186
<b>Capital</b>	\$1,002,491	\$1,789,397	\$1,741,288
<b>Total</b>	\$5,573,137	\$6,331,738	\$6,640,474

## 2025 Operating Budget



MVCA is currently in a period of significant capital renewal, with over \$1 million in capital expenditures occurring per year, largely to address the needs of water and erosion control structures. In 2025, detailed design will be carried out for replacement of the Kashwakamak Lake Dam and various safety improvements are planned at Lanark Dam. MVCA is continuing to expand its water gauge system, enhance its predictive modeling capabilities, and implement its hazard identification and mapping program.

Operating budget increases are largely associated with employee wages to address cost of living and market rate conditions, increasing goods and service costs, and special projects to ensure that MVCA's flood forecasting and warning modeling and operational strategies reflect current knowledge regarding changing climatic conditions.

The budget is divided by regulatory category and by program area. Appendix 1 shows the impact of this budget on our operating and capital reserves. Appendix 2 provides a summary of municipal level apportionments. Appendix 3 contains details budget sheets.

# Operating Summary: Category 1 and Corporate

Category 1	BUDGET		2025 REVENUE (Draft Proposed)					
	2024 (APPROVED)	2025 (Draft Proposed)	Municipal Levy	Reserve Fund	Provincial/ Federal Grants	Fee for Service	Other Revenue	Total Revenue
<b>Watershed Management</b>								
Technical Studies	\$327,873	\$530,485	\$210,764	\$115,000	\$97,987	\$101,734	\$5,000	\$530,485
Planning & Regulations	\$1,004,375	\$1,027,691	\$730,891	\$16,800	\$0	\$280,000	\$0	\$1,027,691
<b>Subtotal</b>	<b>\$1,332,248</b>	<b>\$1,558,176</b>	<b>\$941,655</b>	<b>\$131,800</b>	<b>\$97,987</b>	<b>\$381,734</b>	<b>\$5,000</b>	<b>\$1,558,176</b>
<b>Flood &amp; Erosion Control</b>								
Flood Forecasting & Warning	\$741,284	\$794,964	\$666,528	\$0	\$128,436	\$0	\$0	\$794,964
Dam Operations & Maintenance	\$254,359	\$193,095	\$134,095	\$0	\$0	\$59,000	\$0	\$193,095
<b>Subtotal</b>	<b>\$995,643</b>	<b>\$988,060</b>	<b>\$800,624</b>	<b>\$0</b>	<b>\$128,436</b>	<b>\$59,000</b>	<b>\$0</b>	<b>\$988,060</b>
<b>Conservation Areas</b>								
Conservation Areas	\$298,613	\$306,646	\$266,646	\$0	\$0	\$35,000	\$5,000	\$306,646
Technical Studies	\$71,856	\$59,755	\$44,755	\$15,000	\$0	\$0	\$0	\$59,755
<b>Subtotal</b>	<b>\$370,469</b>	<b>\$366,401</b>	<b>\$311,401</b>	<b>\$15,00</b>	<b>\$0</b>	<b>\$35,000</b>	<b>\$5,000</b>	<b>\$366,401</b>

O.Reg. 686/21 defines mandatory Category 1 programs and services, and O.Reg. 402/22 sets out how they and corporate (general) services are to be recovered.

<b>General / Corporate Services</b>								
<b>Subtotal</b>	<b>\$1,134,464</b>	<b>\$1,264,309</b>	<b>\$1,051,645</b>	<b>\$79,664</b>	<b>\$0</b>	<b>\$17,000</b>	<b>\$116,000</b>	<b>\$1,264,309</b>
<b>TOTAL</b>	<b>\$3,832,823</b>	<b>\$4,176,945</b>	<b>\$3105,324</b>	<b>\$226,464</b>	<b>\$226,423</b>	<b>\$492,734</b>	<b>\$126,000</b>	<b>\$4,176,945</b>

# Operating Summary: Categories 2 & 3

CATEGORY 2	BUDGET		2025 REVENUE (Draft Proposed)					
	2024 (APPROVED)	2025 (Draft Proposed)	Municipal Levy	Reserve Fund	Provincial/ Federal Grants	Fee for Service	Other Revenue	Total Revenue
<b>Watershed Management</b>								
Monitoring & Watershed Planning	\$296,536	\$160,001	\$89,001	\$0	\$0	\$71,000	\$0	\$161,001
<b>TOTAL</b>	<b>\$296,356</b>	<b>\$160,001</b>	<b>\$89,001</b>	<b>\$0</b>	<b>\$0</b>	<b>\$71,000</b>	<b>\$0</b>	<b>\$161,006</b>

CATEGORY 3	BUDGET		2025 REVENUE (Draft Proposed)					
	2024 (APPROVED)	2025 (Draft Proposed)	Municipal Levy	Reserve Fund	Provincial/ Federal Grants	Fee for Service	Other Revenue	Total Revenue
<b>Stewardship</b>								
Stewardship	\$159,521	\$265,325	\$73,825	\$0	\$0	\$135,000	\$56,500	\$265,325
<b>Education</b>								
Education	\$61,070	\$133,607	\$19,282	\$0	\$13,000	\$96,325	\$5,000	\$133,607
<b>Visitor Services</b>								
Visitor Services	\$192,289	\$163,308	\$55,598	\$0	\$24,989	\$60,500	\$22,221	\$163,308
<b>TOTAL</b>	<b>\$412,981</b>	<b>\$562,240</b>	<b>\$148,705</b>	<b>\$0</b>	<b>\$37,989</b>	<b>\$291,825</b>	<b>\$83,721</b>	<b>\$562,240</b>

O.Reg. 687/21 defines Category 2 programs and services and sets out how they and Category 3 programs and services are to be cost recovered.

# 2025 Budget



MVCA has just over 30 full-time employees who are responsible for delivering a combination of Category 1, 2, and 3 programs and services.

The following budget sheets indicate the break-down in costs between payroll compensation, program expenses, and costs to be incurred to implement special projects. A list of projects is provided where applicable.

The budget also shows how each program is funded through a combination of municipal levy, reserves, fees for service, federal and provincial grants, and other contributions.

CATEGORY 1: PROGRAMS & SERVICES	BUDGET		2025 REVENUE (Draft Proposed)					
	2024 (APPROVED)	2025 (DRAFT PROPOSED)	Municipal Levy	Reserve Fund	Provincial/ Federal Grants	Fee for Service	Other Revenue	Total Revenue
<b>Watershed Management</b>								
<b>Technical Studies</b>								
Compensation	\$223,173	<b>\$270,285</b>						
Operating Expenses	\$25,700	<b>\$8,200</b>						
Special Projects	\$79,000	<b>\$252,000</b>						
Subtotal	\$327,873	<b>\$530,485</b>	\$210,764	\$115,000	\$97,987	\$101,734	\$5,000	\$530,485
<b>Planning &amp; Regulations</b>								
Compensation	\$905,875	<b>\$931,178</b>						
Operating Expenses	\$83,500	<b>\$96,513</b>						
Special Projects	\$15,000	<b>\$0</b>						
Subtotal	\$1,004,375	<b>\$1,027,691</b>	\$730,891	\$16,800	\$0	\$280,000	\$0	\$1,027,691
<b>TOTAL</b>	<b>\$1,332,248</b>	<b>\$1,558,176</b>	<b>\$941,655</b>	<b>\$131,800</b>	<b>\$97,987</b>	<b>\$381,734</b>	<b>\$5,000</b>	<b>\$1,558,176</b>

## Scope

Watershed management activities focus on the identification and management of natural hazards by:

- Monitoring water flows and levels, ice, surface and ground water quality, and changes in hydrologic and hydraulic conditions.
- Carrying out field investigations and developing predictive tools to identify, map, and managing natural hazards.
- Administering the regulatory permitting system to direct development away from hazards.
- Reviewing and commenting on planning applications on behalf of the province for compliance with provincial policy and regulations.

## 2025 Special Projects

- Ottawa Floodplain Mapping Update (Kinburn, Upper Feedmill)
- Unstable soils hazard identification and mapping
- Fall River flood plain mapping
- Climate change analysis (Mississippi and Carp models)

## Details

Refer to sheets 1 thru 4 in Appendix 3.

CATEGORY 1: PROGRAMS & SERVICES	BUDGET		2025 REVENUE (Draft Proposed)					
	2024 (APPROVED)	2025 (DRAFT PROPOSED)	Municipal Levy	Reserve Fund	Provincial/ Federal Grants	Fee for Service	Other Revenue	Total Revenue
<b>Flood &amp; Erosion Control</b>								
<b>Flood Forecasting &amp; Warning</b>								
Compensation	\$684,884	\$736,144						
Operating Expenses	\$56,400	\$58,820						
Special Projects								
Subtotal	\$741,284	\$794,964	\$666,528	\$0	\$128,436	\$0	\$0	\$794,964
<b>Dam Operations &amp; Maintenance</b>								
Compensation	\$167,859	\$131,779						
Operating Expenses	\$86,500	\$61,317						
Special Projects								
Subtotal	\$254,359	\$193,095	\$134,095	\$0	\$0	\$59,000	\$0	\$193,095
<b>TOTAL</b>	<b>\$995,643</b>	<b>\$988,060</b>	<b>\$800,624</b>	<b>\$0</b>	<b>\$128,436</b>	<b>\$59,000</b>	<b>\$0</b>	<b>\$988,060</b>

## Scope

Flood & Erosion control activities focus on the following:

- monitoring and analysis of current water levels and flows and weather conditions.
- using predictive tools to identify short and medium-term risks of flooding and the potential need to operate control structures.
- operating water control structures to mitigate potential flooding and comply with Mississippi River Watershed Management Plan.
- notifying the public and key stakeholders of potential flood risks and coordinating drought response.
- collaborating with partner organizations such as OPG and MNRF for overall river management.

## 2025 Special Projects

No special projects are planned.

## Details

Refer to sheets 5 and 6 in Appendix 3.

CATEGORY 1: PROGRAMS & SERVICES	BUDGET		2025 REVENUE (Draft Proposed)					
	2024 (APPROVED)	2025 (DRAFT PROPOSED)	Municipal Levy	Reserve Fund	Provincial/ Federal Grants	Fee for Service	Other Revenue	Total Revenue
<b>Conservation Areas</b>								
<b>Conservation Areas</b>								
Compensation	\$233,813	\$240,166						
Operating Expenses	\$64,800	\$66,480						
Special Projects								
Subtotal	\$298,613	\$306,646	\$266,646	\$0	\$0	\$35,000	\$5,000	\$306,646
<b>Technical Studies</b>								
Compensation	\$60,856	\$28,255						
Operating Expenses	\$0	\$0						
Special Projects	\$11,000	\$31,500						
Subtotal	\$71,856	\$59,755	\$44,755	\$15,000	\$0	\$0	\$0	\$59,755
<b>TOTAL</b>	<b>\$370,469</b>	<b>\$366,401</b>	<b>\$311,401</b>	<b>\$15,000</b>	<b>\$0</b>	<b>\$35,000</b>	<b>\$5,000</b>	<b>\$366,401</b>

## Scope

MVCA has six conservation areas: four that it owns, and two at City of Ottawa properties. Operational activities at these sites include the following:

- Year-round site maintenance (parking areas, trails and bridges, washrooms, signage, grass).
- Hazard tree, drinking water and other health and safety inspections and measures.
- Public notifications and other communications.

## 2025 Special Projects

- K&P ownership project
- Mill of Kintail Masterplan Update
- Accessibility study of MOK

## Details

Refer to sheets 7 and 8 in Appendix 3.



	BUDGET		2025 REVENUE (Draft Proposed)					
	2024 (APPROVED)	2024 (DRAFT PROPOSED)	Municipal Levy	Reserve Fund	Provincial/ Federal Grants	Fee for Service	Other Revenue	Total Revenue
<b>Corporate Services</b>								
<b>Corporate Services</b>								
Compensation	\$721,172	\$793,728						
Operating Expenses	\$411,792	\$470,581						
Special Projects	\$1,500	\$0						
<b>TOTAL</b>	<b>\$1,134,464</b>	<b>\$1,264,309</b>	<b>\$1,051,645</b>	<b>\$79,664</b>	<b>\$0</b>	<b>\$17,000</b>	<b>\$116,000</b>	<b>\$1,264,309</b>

## Scope

Corporate services refers to the variety of services used to support delivery of our mandate and includes the following activities:

- Board administration and corporate governance.
- Financial management.
- Fleet management.
- Information and communication technology support.
- Communications.
- Utility and other operating expenses at our office on Highway 7.

## 2025 Special Projects

No special projects are planned.

## Details

Refer to sheets 9 thru 13 in Appendix 3.

CATEGORY 2: PROGRAMS & SERVICES	BUDGET		2025 REVENUE (Draft Proposed)					
	2024 (APPROVED)	2025 (DRAFT PROPOSED)	Municipal Levy	Reserve Fund	Provincial/ Federal Grants	Fee for Service	Other Revenue	Total Revenue
<b>Watershed Management</b>								
<b>Technical Studies</b>								
Compensation	\$144,536	\$96,801						
Operating Expenses	\$82,000	\$45,700						
Special Projects	\$70,000	\$17,500						
<b>TOTAL</b>	<b>\$296,536</b>	<b>\$160,001</b>	<b>\$89,001</b>	<b>\$0</b>	<b>\$0</b>	<b>\$71,000</b>	<b>\$0</b>	<b>\$160,001</b>

## Scope

Approximately ~3% of the Annual Operating Levy goes towards the following technical supports to our eleven member municipalities:

- Field monitoring of surface water bodies that are not captured in the provincial monitoring program and for parameters not captured under that program.
- Watershed planning and implementation of watershed plans.
- Public engagement including administrative support to the Mississippi River Watershed Plan Implementation Public Advisory Committee.

## 2025 Special Projects

- Facilitation of Large Park Planning
- Indigenous Engagement

## Details

Refer to sheets 14 and 15 in Appendix 3.

CATEGORY 3: PROGRAMS & SERVICES	BUDGET		2025 REVENUE (Draft Proposed)					
	2024 (APPROVED)	2025 (DRAFT PROPOSED)	Municipal Levy	Reserve Fund	Provincial/ Federal Grants	Fee for Service	Other Revenue	Total Revenue
<b>Stewardship</b>								
<b>Stewardship</b>								
Compensation	\$82,571	\$136,325						
Operating Expenses	\$7,500	\$5,500						
Special Projects	\$69,450	\$123,500						
<b>TOTAL</b>	<b>\$159,521</b>	<b>\$265,325</b>	<b>\$73,825</b>	<b>\$0</b>	<b>\$0</b>	<b>\$135,000</b>	<b>\$56,500</b>	<b>\$265,325</b>

## Scope

MVCA administers a variety of programs to help property owners, community groups and the public at large take action to prevent soil erosion, maintain and restore ecological features and functions, including:

- County of Lanark Program - Community Forest
- Ottawa Clean Water Program
- Shoreline Naturalization
- ALUS Project Delivery
- City Stream Watch
- Rural Stream Watch
- Trees Canada Program (RVCA Partnership)

## 2025 Special Projects

No special projects are planned.

## Details

Refer to sheet 16 in Appendix 3.

CATEGORY 3: PROGRAMS & SERVICES	BUDGET		2025 REVENUE (Draft Proposed)					Total Revenue
	2024 (APPROVED)	2025 (DRAFT PROPOSED)	Municipal Levy	Reserve Fund	Provincial/ Federal Grants	Fee for Service	Other Revenue	
<b>Education</b>								
<b>Education</b>								
Compensation	\$41,470	\$111,807						
Operating Expenses	\$4,700	\$21,800						
Special Projects	\$15,000	\$0						
<b>TOTAL</b>	<b>\$61,170</b>	<b>\$133,607</b>	<b>\$19,282</b>	<b>\$0</b>	<b>\$13,000</b>	<b>\$96,325</b>	<b>\$5,000</b>	<b>\$133,607</b>

## Scope

MVCA's education program was suspended during the pandemic. A trial summer program was introduced in 2024, and a program evaluation carried out to determine if there is a business case to reintroduce a more comprehensive program.

The 2025 Budget provides for near-full cost recovery of an education program that is to be offered at the Mill of Kintail, as well as at schools and in the broader community.

## 2025 Special Projects

No special projects are planned.

## Details

Refer to sheet 17 in Appendix 3.

CATEGORY 3: PROGRAMS & SERVICES	BUDGET		2025 REVENUE (Draft Proposed)					
	2024 (APPROVED)	2025 (DRAFT PROPOSED)	Municipal Levy	Reserve Fund	Provincial/ Federal Grants	Fee for Service	Other Revenue	Total Revenue
<b>Visitor Services</b>								
<b>Visitor Services</b>								
Compensation	\$146,130	\$107,808						
Operating Expenses	\$46,159	\$50,500						
Special Projects		\$5,000						
<b>TOTAL</b>	<b>\$192,289</b>	<b>\$163,308</b>	<b>\$55,598</b>	<b>\$0</b>	<b>\$24,989</b>	<b>\$60,500</b>	<b>\$22,221</b>	<b>\$163,308</b>

## Scope

Our Mill of Kintail site has been developed over the years to provide a variety of community-based services including the following:

- The Mill of Kintail Museum – displays artifacts from the lives of James Naismith and R. Tait McKenzie, renowned Canadians.
- Gate House – rented by community groups and individuals; houses our museum archives.
- Cloister and Picnic Shelter – rented by community groups and individuals for special events.

This budget provides for museum and site management. MVCA is working towards full cost-recovery of these programs.

## 2025 Special Projects

- Review of secondary entrance at Gate House

## Details

Refer to sheet 18 in Appendix 3.

Capital Budget	BUDGET		2025 REVENUE (Draft Proposed)					
	2024 (APPROVED)	2025 (DRAFT PROPOSED)	Municipal Levy	Reserve Fund	Provincial/ Federal Grants	Fee for Service	Other Revenue	Total Revenue
<b>Capital Budget</b>								
<b>Category 1</b>								
WECI Capital Projects	\$295,000	<b>\$360,244</b>	\$167,119	\$0	\$193,125	\$0	\$0	\$360,244
Conservation Areas	\$78,250	<b>\$61,100</b>	\$61,100	\$0	\$0	\$0	\$0	\$61,100
Corporate Projects	\$891,850	<b>\$860,750</b>	\$145,750	\$0	\$0	\$0	\$715,000	\$860,750
Tech Studies - Capital	\$149,375	<b>\$78,475</b>	\$78,475	\$0	\$0	\$0	\$0	\$78,475
Debt Repayment	\$344,922	<b>\$328,669</b>	\$293,257	\$35,412	\$0	\$0	\$0	\$328,669
<b>Category 3</b>								
Mill of Kintail	\$30,000	<b>\$52,050</b>	\$15,218	\$24,332	\$0	\$0	\$12,500	\$52,050
<b>TOTAL</b>	<b>\$1,789,397</b>	<b>\$1,741,288</b>	<b>\$760,919</b>	<b>\$59,744</b>	<b>\$193,125</b>	<b>\$0</b>	<b>\$727,500</b>	<b>\$1,741,288</b>

#### Water & Erosion Control Infrastructure (WECI) projects:

- Lanark Dam Safety/Condition Improvements
- Kashwakamak Lake Dam Design

#### Conservation Area projects:

- Purdon Boardwalk
- Purdon Stairs
- MOK - Workshop Building
- Morris Island bridge improvements
- Category 3:
  - Condition assessment of MOK buildings (ARO)
  - Accessibility improvements at Education Centre

#### Other projects:

- MVCA FFW System Model
- Water & Sewer connection at HQ

### Details

Refer to sheets 19-24 in Appendix 3.

## Appendix 1: Impact on Reserves

	Dec 31 2023 Balance	2024 Projected Allocations FROM Reserves	2024 Projected Allocations TO Reserves	Projected Dec 31 2024 Balance	2025 Budget Allocations FROM Reserves	2025 Budget Allocations TO Reserves	Projected Dec 31 2025 Balance
<b>Capital Reserves</b>							
Building (HQ) Reserve	\$534,701	\$0		\$534,701			\$534,701
Conservation Areas Reserve	\$185,700		\$0	\$185,700			\$185,700
Information & Communication Technology Res.	\$80,185	\$23,004		\$57,181			\$57,181
Priority Projects (Formerly Glen Cairn)	\$438,836	\$45,000		\$393,836	\$115,000		\$278,836
Sick Pay (STD) Reserve	\$73,843	\$21,086		\$52,757			\$52,757
Vehicles & Equipment Reserve	\$263,537	\$30,000		\$233,537			\$233,537
Water Control Structure Reserve - MVCA	\$514,391	\$65,412		\$448,979	\$35,412	\$25,494	\$439,061
Category 3 Capital Reserve	\$39,000	\$58,165	\$19,165	\$0			\$0
<b>Total</b>	<b>\$2,130,193</b>	<b>\$242,667</b>	<b>\$19,165</b>	<b>\$1,906,691</b>	<b>\$150,412</b>	<b>\$25,494</b>	<b>\$1,781,773</b>
<b>Operating Reserves</b>							
Operating Reserve	\$1,022,526	\$161,239	\$0	\$861,287	\$111,464	\$336	\$840,159
Category 2 Operating Reserve	\$89,000		\$93,774	\$182,774			\$92,774
Category 3 Operating Reserve	\$125,760	\$19,165	\$24,500	\$131,095	\$24,332		\$106,763
<b>Total</b>	<b>\$1,237,286</b>	<b>\$180,404</b>	<b>\$118,274</b>	<b>\$1,175,156</b>	<b>\$135,796</b>	<b>\$336</b>	<b>\$1,039,696</b>
<b>TOTAL</b>	<b>\$3,367,479</b>	<b>\$423,071</b>	<b>\$137,439</b>	<b>\$3,081,847</b>	<b>\$286,208</b>	<b>\$25,830</b>	<b>\$2,821,469</b>

## Appendix 2: 2025 Total Municipal Levy (General Benefiting)

Municipality	2024 Apportionment %	2024 Levy	2025 Apportionment %	2025 Levy	Variance	% Ch.
Addington Highlands	0.1551	\$5,945	0.1535	\$6,299	\$354	5.96%
Beckwith	0.6922	\$26,524	0.6987	\$28,676	\$2,151	8.11%
Carleton Place	2.6709	\$102,347	2.7932	\$114,633	\$12,286	12.00%
Central Frontenac	0.4303	\$16,490	0.4284	\$17,579	\$1,090	6.61%
Drummond/North Elmsley	0.4870	\$18,662	0.4849	\$19,899	\$1,237	6.63%
Greater Madawaska	0.0351	\$1,344	0.0352	\$1,446	\$102	7.59%
Lanark Highlands	1.1084	\$42,473	1.1065	\$45,411	\$2,938	6.92%
Mississippi Mills	2.7838	\$106,674	2.8059	\$115,153	\$8,479	7.95%
North Frontenac	0.9116	\$34,931	0.8997	\$36,925	\$1,994	5.71%
Ottawa*	90.1030	\$3,452,696	89.9756	\$3,692,554	\$239,858	6.95%
Tay Valley	0.6226	\$23,857	0.6183	\$25,374	\$1,517	6.36%
<b>Total</b>	<b>100</b>	<b>\$3,831,942</b>	<b>100</b>	<b>\$4,103,949</b>	<b>\$272,007</b>	<b>7.10%</b>

\* Plus special levy of \$71,000 for City of Ottawa Baseline Monitoring Program



# Appendix 3: Budget Details

### Category 1: Watershed Management - Technical Studies

Expenditures	2024 Budget	2025 Budget
<b>Wages/Benefits</b>	\$21,812	\$22,133
<b>Mileage &amp; General Expenses</b>	\$1,600	\$350
<b>Materials &amp; Supplies</b>	\$2,500	\$350
<b>Ice Monitoring Program Setup</b>	\$5,000	
<b>Technical Studies</b>		
Carp Erosion Control	\$5,000	
WCS Asset Management Plan	\$500	
WCS Operations Plan	\$500	
Carp River Climate Change Study		\$20,000
Mississippi River Climate Change Study		\$20,000
<b>Total</b>	<b>\$36,912</b>	<b>\$62,833</b>
Revenues	2024 Budget	2025 Budget
<b>Municipal Levy - Operating</b>	<b>\$27,912</b>	<b>\$17,833</b>
<b>Reserve Funds</b>	<b>\$0</b>	<b>\$40,000</b>
Special Reserves - Priority Projects (formerly Glen Cairn)		\$40,000
<b>Provincial and Federal Grants</b>	<b>\$0</b>	<b>\$0</b>
<b>Fees for Service</b>	<b>\$5,000</b>	<b>\$5,000</b>
Carp Erosion Control	\$5,000	
Other -Professional Services / Staff Time	\$1,000	\$5,000
<b>Other Revenue</b>	<b>\$4,000</b>	<b>\$0</b>
MVCF - Fundraising		
Other - Deferred Revenue (Poole Creek/ Ottawa FP M&C)	\$3,000	
<b>Total</b>	<b>\$36,912</b>	<b>\$62,833</b>

### Category 1: Watershed Management - Hazard Mapping

Expenditures	2024 Budget	2025 Budget
<b>Wages/Benefits</b>	\$165,768	\$181,357
<b>Mileage &amp; General Expenses</b>	\$1,600	\$500
<b>Materials &amp; Supplies</b>	\$2,500	\$500
<b>Technical Studies</b>		
City of Ottawa Floodplain Mapping Projects	\$22,000	\$10,000
MVCA FPM Projects (Clyde)	\$1,000	\$0
City of Ottawa - Landslide		\$2,000
MVCA FPM Projects (Fall River)		\$150,000
Hazard Identification and Mapping	\$50,000	\$50,000
<b>Total</b>	<b>\$242,868</b>	<b>\$394,357</b>
Revenues	2024 Budget	2025 Budget
<b>Municipal Levy - Operating</b>	<b>\$77,868</b>	<b>\$132,623</b>
<b>Reserve Funds</b>	<b>\$25,000</b>	<b>\$75,000</b>
Special Reserves - Priority Projects (formerly Glen Cairn)	\$25,000	\$75,000
<b>Provincial and Federal Grants</b>	<b>\$5,000</b>	<b>\$85,000</b>
FHIMP - Clyde River FPM	\$5,000	
FHIMP - Fall River FPM		\$85,000
<b>Fees for Service</b>	<b>\$135,000</b>	<b>\$101,734</b>
City of Ottawa Floodplain Mapping Projects	\$105,000	\$66,734
City of Ottawa Landslide Project		\$5,000
Hazard Identification and Mapping	\$30,000	\$30,000
<b>Other Revenue</b>	<b>\$0</b>	<b>\$0</b>
<b>Total</b>	<b>\$242,868</b>	<b>\$394,357</b>

### Category 1: Watershed Management - Technical Studies - Monitoring

<b>Expenditures</b>	<b>2024 Budget</b>	<b>2025 Budget</b>
<b>Wages/Benefits</b>	\$35,594	\$66,795
<b>Mileage &amp; General Expenses</b>	\$5,000	\$5,000
<b>Materials &amp; Supplies</b>	\$1,500	\$1,500
<b>Lab Analysis (throughout watershed)</b>	\$6,000	\$0
<b>Total</b>	<b>\$48,094</b>	<b>\$73,295</b>
<b>Revenues</b>	<b>2024 Budget</b>	<b>2025 Budget</b>
<b>Municipal Levy - Operating</b>	\$48,094	\$60,308
<b>Reserve Funds</b>		
<b>Provincial and Federal Grants</b>		\$12,987
Student Grants		\$12,987
<b>Fees for Service</b>		
<b>Other Revenue</b>		
<b>Total</b>	<b>\$48,094</b>	<b>\$73,295</b>

### Category 1: Watershed Management - Planning & Regulations

Expenditures	2024 Budget	2025 Budget
<b>Wages/Benefits</b>	\$905,875	\$931,178
<b>Mileage &amp; General Expenses</b>	\$8,000	\$8,500
<b>Materials &amp; Supplies</b>	\$1,000	\$1,500
<b>Staff Development &amp; Engagement</b>	\$9,500	\$16,320
<b>Insurance</b>	\$20,000	\$15,193
<b>Legal Fees</b>	\$30,000	\$40,000
<b>Contracted Services</b>	\$15,000	\$15,000
<b>Consulting - Fee Study</b>	\$15,000	\$0
<b>Total</b>	<b>\$1,004,375</b>	<b>\$1,027,691</b>
Revenues	2024 Budget	2025 Budget
<b>Municipal Levy - Operating</b>	<b>\$709,375</b>	<b>\$730,891</b>
<b>Reserve Funds</b>		<b>\$16,800</b>
Operating Reserve (Fee Freeze lost revenues)		\$16,800
<b>Provincial and Federal Grants</b>		
<b>Fees for Service</b>	<b>\$280,000</b>	<b>\$280,000</b>
User Fees - Plan Review	\$190,000	\$180,000
User Fees - Permit Processing Fees	\$90,000	\$100,000
<b>Other Revenue</b>	<b>\$15,000</b>	<b>\$0</b>
MVCF - Wetland Protection Fund	15,000	\$0
<b>Total</b>	<b>\$1,004,375</b>	<b>\$1,027,691</b>

### Category 1: Flood Erosion & Control - Flood Forecasting and Warning

Expenditures	2024 Budget	2025 Budget
Wages/Benefits	\$684,884	\$736,144
Mileage & General Expenses	\$14,400	\$16,500
Materials & Supplies	\$1,000	\$5,000
Staff Development & Engagement	\$21,000	\$21,320
Equip Rent Purchase Repair & Mtce	\$3,500	\$5,500
Utilities - Telephone & Hydro	\$8,500	\$10,500
WISKI-Soda License and Maintenance Fees	\$6,000	
Stream Gauges - minor repairs	\$2,000	
<b>Total</b>	<b>\$741,284</b>	<b>\$794,964</b>
Revenues	2024 Budget	2025 Budget
Municipal Levy - Operating	\$612,848	\$666,528
Reserve Funds		
Provincial and Federal Grants	\$128,436	\$128,436
Provincial Grant - Section 39	\$128,436	\$128,436
Student Grants	\$14,235	\$14,391
Fees for Service		
Other Revenue		
<b>Total</b>	<b>\$741,284</b>	<b>\$794,964</b>

### Category 1: Flood Erosion & Control - Dam Operations & Maintenance

Expenditures	2024 Budget	2025 Budget
Wages/Benefits	\$167,859	\$131,779
Mileage & General Expenses	\$20,000	\$21,000
Materials & Supplies	\$8,000	\$5,000
Taxes/Insurance	\$42,000	\$17,817
Health & Safety Clothing & Equipment	\$1,500	\$2,500
Stop Log Replacement	\$15,000	\$15,000
<b>Total</b>	<b>\$254,359</b>	<b>\$193,095</b>
Revenues	2024 Budget	2025 Budget
Municipal Levy - Operating	\$198,564	\$134,095
Reserve Funds		
Provincial and Federal Grants		
Fees for Service	\$55,795	\$59,000
User Fees - OPG Contract	\$44,000	\$47,000
Other - MNR Kemptville	\$11,795	\$12,000
Other Revenue		
<b>Total</b>	<b>\$254,359</b>	<b>\$193,095</b>

**Category 1: Conservation Areas**

<b>Expenditures</b>	<b>2024 Budget</b>	<b>2025 Budget</b>
<b>Wages/Benefits</b>	\$233,813	\$240,166
<b>Mileage &amp; General Expenses</b>	\$22,000	\$23,500
<b>Materials &amp; Supplies</b>	\$10,000	\$11,000
<b>Staff Development &amp; Engagement</b>	\$3,500	\$6,090
<b>Contractor Services</b>	\$10,000	\$10,000
<b>Service &amp; Maintenance Contracts</b>	\$5,000	\$5,000
<b>Taxes</b>	\$11,000	\$6,500
<b>Insurance</b>	\$1,300	\$1,890
<b>Utilities</b>	\$2,000	\$2,500
<b>Total</b>	<b>\$298,613</b>	<b>\$306,646</b>
<b>Revenues</b>	<b>2024 Budget</b>	<b>2025 Budget</b>
<b>Municipal Levy - Operating</b>	<b>\$235,696</b>	<b>\$266,646</b>
<b>Reserve Funds</b>	<b>\$32,917</b>	<b>\$0</b>
Operating Reserve	\$32,917	
<b>Provincial and Federal Grants</b>		
<b>Fees for Service</b>	<b>\$25,000</b>	<b>\$35,000</b>
Parking Revenue - CAs	\$20,000	\$20,000
Bell Canada - Annual Easement - K&P	\$0	\$2,000
CA Passes	\$5,000	\$13,000
<b>Other Revenue</b>	<b>\$5,000</b>	<b>\$5,000</b>
Donation Boxes - CAs	\$4,000	\$4,000
Charitable Donations	\$1,000	\$1,000
MVCF Contribution		
<b>Total</b>	<b>\$298,613</b>	<b>\$306,646</b>



### Category 1: Conservation Areas - Technical Studies

Expenditures	2024 BUDGET	2025 Budget
<b>Wages/Benefits</b>	\$60,856	\$28,255
<b>Mileage &amp; General Expenses</b>		
<b>Materials &amp; Supplies</b>		
<b>Technical Studies</b>		
Land Inventory	\$8,000	\$0
K&P Ownership Project		\$15,000
Conservation Area Strategy	\$1,500	\$0
Mill of Kintail Masterplan Update	\$1,500	\$1,500
Accessibility Study		\$15,000
<b>Total</b>	<b>\$71,856</b>	<b>\$59,755</b>
Revenues	2024 Budget	2025 Budget
<b>Municipal Levy - Operating</b>	<b>\$71,856</b>	<b>\$44,755</b>
<b>Reserve Funds</b>		<b>\$15,000</b>
Operating Reserve (K&P Ownership project)		\$15,000
<b>Provincial and Federal Grants</b>		
<b>Fees for Service</b>		
<b>Other Revenue</b>		
<b>Total</b>	<b>\$71,856</b>	<b>\$59,755</b>

### Category 1: Corporate Services - Admin

Expenditures	2024 BUDGET	2025 Budget
Wages/Benefits	\$504,048	\$523,434
Mileage & General Expenses	\$9,000	\$5,000
Materials & Supplies	\$11,000	\$11,000
Staff Development & Engagement	\$12,000	\$15,020
Member Expenses & Allowances	\$16,000	\$17,000
Banking and Payroll Fees	\$14,000	\$18,000
Equipment and Telephone	\$16,000	\$16,000
Insurance	\$35,000	\$51,819
Professional Services (Legal, Audit etc.)	\$40,000	\$50,000
Human Resources Services	\$10,000	\$5,000
Conservation Ontario Membership	\$31,500	\$31,500
OH&S-Other Costs	\$4,000	\$3,500
5 Year Strategic Plan Update		\$15,000
Contribution to Operating Reserve		\$336
Watershed-based Resource Mgmt Strategy	\$1,500	\$0
<b>Total</b>	<b>\$704,048</b>	<b>\$762,609</b>
Revenues	2024 Budget	2025 Budget
Municipal Levy - Operating	\$422,679	\$553,445
Reserve Funds	\$138,869	\$79,664
Operating Reserve (WFP Implementation)	\$138,869	\$64,664
Operating Reserve (Strategic Plan Update)		\$15,000
<b>Provincial and Federal Grants</b>		
<b>Fees for Service</b>	<b>\$10,000</b>	<b>\$17,000</b>
Rental Income	\$5,000	\$12,000
Miscellaneous	\$5,000	\$5,000
<b>Other Revenue</b>	<b>\$132,500</b>	<b>\$112,500</b>
Interest	\$130,000	\$110,000
Donations (General)	\$2,500	\$2,500
<b>Total</b>	<b>\$704,048</b>	<b>\$762,609</b>

### Category 1: Corporate Services - Communications & Outreach

Expenditures	2024 BUDGET	2025 Budget
Wages/Benefits	\$28,279	\$45,672
Mileage & General Expenses	\$0	\$250
Materials & Supplies	\$500	\$500
Printing	\$500	\$1,000
Advertising/Education/Promotion (Category 1)	\$1,000	\$10,000
Eko-Trekr App Annual Fee/Support	\$3,500	\$3,500
Comms Shared Services (RVCA)	\$25,000	\$15,000
Website Expenses	\$5,000	\$5,000
<b>Total</b>	<b>\$63,779</b>	<b>\$80,922</b>
Revenues	2024 BUDGET	2025 Budget
Municipal Levy - Operating	\$60,279	\$77,422
Reserve Funds		
Provincial and Federal Grants		
Fees for Service		
Other Revenue	\$3,500	\$3,500
MVCF - Contribution (Eco-Trekr)	\$3,500	\$3,500
<b>Total</b>	<b>\$63,779</b>	<b>\$80,922</b>

### Category 1: Corporate Services - Vehicles & Equipment

<b>Expenditures</b>	<b>2024 BUDGET</b>	<b>2025 Budget</b>
<b>Wages/Benefits</b>	\$18,474	\$32,897
<b>Mileage &amp; General Expenses</b>	\$1,800	\$3,000
<b>Materials &amp; Supplies</b>	\$3,500	\$5,000
<b>Communications - Radios &amp; Pagers</b>	\$4,692	\$4,692
<b>Equipment Purchase - non-capital</b>	\$3,000	\$3,000
<b>Fuel</b>	\$30,000	\$30,000
<b>Maintenance &amp; Repairs</b>	\$29,000	\$29,000
<b>Insurance/Licensing</b>	\$10,000	\$11,007
<b>Vehicle/Equipment Charges</b>	-\$104,000	-\$110,000
<b>Total</b>	<b>-\$8,226</b>	<b>\$8,596</b>
<b>Revenues</b>	<b>2024 BUDGET</b>	<b>2025 Budget</b>
<b>Municipal Levy - Operating</b>	<b>-\$8,226</b>	<b>\$8,596</b>
<b>Reserve Funds</b>		
<b>Provincial and Federal Grants</b>		
<b>Fees for Service</b>		
<b>Other Revenue</b>		
<b>Total</b>	<b>-\$8,226</b>	<b>\$8,596</b>

**Category 1: Corporate Services - Head Office**

<b>Expenditures</b>	<b>2024 BUDGET</b>	<b>2025 Budget</b>
<b>Wages/Benefits</b>	\$87,142	\$104,939
<b>Mileage &amp; General Expenses</b>	\$1,000	\$1,500
<b>Materials &amp; Supplies</b>	\$7,000	\$7,000
<b>Contractor Services</b>	\$17,000	\$18,000
<b>Service &amp; Maintenance Contracts</b>	\$5,000	\$24,500
<b>Taxes</b>	\$1,200	\$1,200
<b>Insurance</b>	\$28,000	\$23,257
<b>Utilities</b>	\$30,000	\$31,000
<b>Total</b>	<b>\$176,342</b>	<b>\$211,396</b>
<b>Revenues</b>	<b>2024 BUDGET</b>	<b>2025 Budget</b>
<b>Municipal Levy - Operating</b>	<b>\$176,342</b>	<b>\$211,396</b>
<b>Reserve Funds</b>		
<b>Provincial and Federal Grants</b>		
<b>Fees for Service</b>		
<b>Other Revenue</b>		
<b>Total</b>	<b>\$176,342</b>	<b>\$211,396</b>

### Category 1: Corporate Services - Information Technology

Expenditures	2024 Budget	2025 Budget
Wages/Benefits	\$83,229	\$86,786
Mileage & General Expenses	\$500	\$1,000
Materials & Supplies	\$1,500	\$1,000
Equipment Purchase, Repair & Mtce	\$10,000	\$10,000
Maintenance/IT Support	\$45,500	\$40,000
Software Licenses	\$35,000	\$45,000
High Speed Internet Access	\$8,100	\$7,000
CADIMS - Contracted Services (CLOCA)	\$10,000	\$10,000
<b>Total</b>	<b>\$193,829</b>	<b>\$200,786</b>
Revenues	2024 Budget	2025 Budget
Municipal Levy - Operating	\$193,829	\$200,786
Reserve Funds		
Provincial and Federal Grants		
Fees for Service		
Other Revenue		
<b>Total</b>	<b>\$193,829</b>	<b>\$200,786</b>

### Category 2: Watershed Management - Technical Studies - Watershed Plan

Expenditures	2024 BUDGET	2025 Budget
<b>Wages/Benefits</b>	\$48,223	\$14,130
<b>Mileage &amp; General Expenses</b>	\$0	\$0
<b>Materials &amp; Supplies</b>	\$10,000	\$10,000
<b>Technical Studies</b>		
Clyde Storage Study	\$10,000	
Poole Creek Wetland Study	\$10,000	
ECC Climate Action Project	\$50,000	
Facilitation of Watershed Park Planning		\$2,500
Indigenous Engagement		\$15,000
<b>Total</b>	<b>\$128,223</b>	<b>\$41,630</b>
Revenues	2024 Budget	2025 Budget
<b>Municipal Levy - Category 2</b>	<b>\$78,223</b>	<b>\$41,630</b>
<b>Reserve Funds</b>		
<b>Provincial and Federal Grants</b>	<b>\$50,000</b>	<b>\$0</b>
ECC Climate Action Project	\$50,000	
<b>Fees for Service</b>		
<b>Other Revenue</b>		
<b>Total</b>	<b>\$128,223</b>	<b>\$41,630</b>

## Category 2: Watershed Management - Technical Studies - Monitoring

Expenditures	2024 BUDGET	2025 Budget
Wages/Benefits	\$96,313	\$82,671
Mileage & General Expenses	\$5,800	\$6,500
Materials & Supplies	\$4,200	\$4,200
Lab Analysis	\$62,000	\$25,000
<b>Total</b>	<b>\$168,313</b>	<b>\$118,371</b>
Revenues	2024 BUDGET	2025 Budget
Municipal Levy - Category 2	\$100,313	\$47,371
Reserve Funds		
Provincial and Federal Grants		
Fees for Service	\$68,000	\$71,000
Special Levy	\$68,000	\$71,000
Other Revenue		
<b>Total</b>	<b>\$168,313</b>	<b>\$118,371</b>



### Category 3: Stewardship Programs

Expenditures	2024 BUDGET	2025 Budget
<b>Wages/Benefits</b>	\$82,571	\$136,325
<b>Mileage &amp; General Expenses</b>	\$2,000	\$2,000
<b>Materials &amp; Supplies</b>	\$2,500	\$2,500
<b>Publicity /Outreach events</b>	\$1,000	\$1,000
<b>Staff Development</b>	\$2,000	\$0
<b>Program Delivery</b>		
County of Lanark Program - Community Forest	\$5,000	\$9,500
Ottawa Clean Water Prog	\$10,750	\$10,000
Shoreline Naturalization	\$14,000	\$14,000
ALUS Project Delivery	\$32,000	\$80,000
City Stream Watch	\$1,200	\$500
Rural Stream Watch	\$1,000	\$4,000
Trees Canada Program (RVCA Partnership)	\$5,500	\$5,500
<b>Total</b>	<b>\$159,521</b>	<b>\$265,325</b>
Revenues	2024 BUDGET	2025 Budget
<b>Municipal Levy - Category 3</b>	<b>\$51,996</b>	<b>\$73,825</b>
<b>Reserve Funds</b>		
<b>Provincial and Federal Grants</b>	<b>\$10,000</b>	<b>\$0</b>
ECCC-CO Grant - ALUS	\$10,000	\$0
<b>Fees for Service</b>	<b>\$97,525</b>	<b>\$135,000</b>
Lanark County - Community Forest	\$7,000	\$13,500
Ottawa Rural Clean Water Program'	\$13,025	\$13,500
Shoreline Naturalization	\$5,500	\$8,000
ALUS - Lanark	\$72,000	\$100,000
<b>Other Revenue</b>		<b>\$56,500</b>
Danbe Foundation		\$50,000
Donations		\$1,500
Microgrants		\$5,000
<b>Total</b>	<b>\$159,521</b>	<b>\$265,325</b>

### Category 3: Education Services

Expenditures	2024 BUDGET	2025 Budget
Wages/Benefits	\$41,470	\$111,807
Mileage & General Expenses	\$200	\$4,000
Materials & Supplies	\$3,000	\$12,500
Publicity	\$1,500	\$5,300
Review of Education Program	\$15,000	\$0
<b>Total</b>	<b>\$61,170</b>	<b>\$133,607</b>
Revenues	2024 BUDGET	2025 Budget
Municipal Levy - Category 3	\$19,970	\$19,282
Reserve Funds		
Provincial and Federal Grants	\$6,000	\$13,000
Summer Student Job Grants	\$6,000	\$13,000
Fees for Service	\$25,200	\$96,325
Camp Fees	\$25,200	\$88,825
Guided Tours		\$2,500
Programs		\$5,000
Other Revenue	\$10,000	\$5,000
Grants	\$5,000	\$5,000
MVCF - Grant /In-Kind	\$5,000	
<b>Total</b>	<b>\$61,170</b>	<b>\$133,607</b>

### Category 3: Visitor Services

Expenditures	2024 BUDGET	2025 Budget
<b>Wages/Benefits</b>	\$146,130	\$107,808
<b>Materials &amp; Supplies</b>	\$1,000	\$1,000
<b>Mileage &amp; General Expenses</b>	\$1,000	\$500
<b>Staff Development</b>	\$300	\$0
<b>Utilities</b>	\$12,709	\$15,000
<b>Insurance &amp; Taxes</b>	\$21,150	\$24,000
<b>Building &amp; Site Maintenance</b>	\$2,500	\$2,500
<b>Special Events</b>	\$7,500	\$7,500
<b>Feasibility Study - Gatehouse Archive</b>		\$5,000
<b>Total</b>	<b>\$192,289</b>	<b>\$163,308</b>
Revenues	2024 BUDGET	2025 Budget
<b>Municipal Levy - Category 3</b>	<b>\$72,623</b>	<b>\$55,598</b>
<b>Reserve Funds</b>		
<b>Provincial and Federal Grants</b>	<b>\$23,445</b>	<b>\$24,989</b>
Student Grants	\$10,000	\$11,544
Special Grant - Provincial Grant	\$13,445	\$13,445
<b>Fees for Service</b>	<b>\$74,000</b>	<b>\$60,500</b>
Special Events	\$12,000	\$15,000
Rentals	\$2,000	\$8,000
Weddings	\$10,000	\$12,500
User Fees - MOK	\$50,000	\$25,000
<b>Other Revenue</b>	<b>\$22,221</b>	<b>\$22,221</b>
Special Grant - Miss Mills Grant - MOK & Naismith	\$12,221	\$12,221
Donations Received	\$10,000	\$10,000
<b>Total</b>	<b>\$192,289</b>	<b>\$163,308</b>

### Category 1 Capital: Water Control Structures

Expenditures	2024 Budget	2025 Budget
Lanark Dam	\$80,000	\$206,000
Farm Lake Dam - Safety Assessment	\$35,000	\$0
Carleton Place Dam	\$0	\$0
Shab Lake Dam Commissioning & Inspections	\$0	\$0
Widow Lake Dam (WECI)	\$80,000	\$0
Kash Lake Dam EA (DMAF/WECI)	\$60,000	
Kash Lake Dam Design	\$40,000	\$128,750
Staff time in budgets	-\$165,551	\$108,789
Staff Allocation	\$165,551	-\$108,789
Contributions to WCS Reserve		\$25,494
<b>Total</b>	<b>\$295,000</b>	<b>\$360,244</b>
Revenues	2024 Budget	2025 Budget
Municipal Levy - Capital	\$98,925	\$167,119
Reserve Funds	\$46,075	\$0
WCS Reserve	\$46,075	\$0
Provincial and Federal Grants	\$150,000	\$193,125
WECI Grant	\$110,000	\$141,625
DMAF Grant	\$40,000	\$51,500
Fees for Service		
Other Revenue		
<b>Total</b>	<b>\$295,000</b>	<b>\$360,244</b>

### Category 1 Capital: Conservation Areas

Expenditures	2024 Budget	2025 Budget
Purdon CA	\$23,250	\$26,000
MOK CA	\$45,000	\$24,100
Morris Island CA	\$10,000	\$11,000
K&P CA		\$17,200
Roy Brown CA		\$0
Staff time in budgets		\$46,429
Staff Allocation		-\$46,429
<b>Total</b>	<b>\$78,250</b>	<b>\$61,100</b>
Revenues	2024 Budget	2025 Budget
<b>Municipal Levy - Capital</b>	<b>\$58,250</b>	<b>\$61,100</b>
<b>Reserve Funds</b>	<b>\$0</b>	<b>\$0</b>
Reserves - Conservation Area	\$0	\$0
<b>Provincial and Federal Grants</b>		
<b>Fees for Service</b>		
<b>Other Revenue</b>	<b>\$20,000</b>	<b>\$0</b>
Other - Def. Revenue - Miss Milll & Naismith (roof)		
Other - Def. Revenue -RBC	\$15,000	
Other - Def. Revenue -Enbridge - Purdon		
Other - Def. Revenue - MOK Washroom		
Other- Grants		
MVCF - Purdon Donation	\$5,000	
<b>Total</b>	<b>\$78,250</b>	<b>\$61,100</b>

### Category 1 Capital: Corporate

Expenditures	2024 Budget	2025 Budget
HQ - Sewer & Water Connection	\$715,000	\$715,000
Vehicles	\$93,450	\$120,000
Equipment	\$8,400	\$0
Computer Hardware	\$50,000	\$25,750
AV Equipment	\$25,000	\$0
<b>Total</b>	<b>\$891,850</b>	<b>\$860,750</b>
Revenues	2024 Budget	2025 Budget
<b>Municipal Levy - Capital</b>	<b>\$86,850</b>	<b>\$145,750</b>
<b>Reserve Funds</b>	<b>\$90,000</b>	<b>\$0</b>
Reserves - Vehicles & Equipment	\$45,000	
Reserves -Information Technology	\$45,000	
Reserves - HQ Building		
<b>Provincial and Federal Grants</b>		
<b>Fees for Service</b>		
<b>Other Revenue</b>	<b>\$715,000</b>	<b>\$715,000</b>
Financing - HQ Sewer	\$715,000	\$715,000
<b>Total</b>	<b>\$891,850</b>	<b>\$860,750</b>

### Category 1 Capital: Tech Studies

<b>Expenditures</b>		
	<b>2024 Budget</b>	<b>2025 Budget</b>
<b>Guage Network</b>	\$36,000	\$33,475
<b>Trimble System</b>	\$20,000	\$0
<b>Flow &amp; Survey Equipment</b>	\$0	\$5,000
<b>MVCA FFW System Model</b>	\$75,000	\$40,000
<b>DRAPE</b>	\$18,375	\$0
<b>Total</b>	<b>\$149,375</b>	<b>\$78,475</b>
<b>Revenues</b>		
	<b>2024 Budget</b>	<b>2025 Budget</b>
<b>Municipal Levy - Capital</b>	<b>\$99,375</b>	<b>\$78,475</b>
<b>Reserve Funds</b>	<b>\$50,000</b>	<b>\$0</b>
Reserves- Priority Projects	\$50,000	
<b>Provincial and Federal Grants</b>		
<b>Fees for Service</b>		
<b>Other Revenue</b>	<b>\$0</b>	<b>\$0</b>
<b>Total</b>	<b>\$149,375</b>	<b>\$78,475</b>

### Category 1 Capital: Debt Repayment

Expenditures	2024 Budget	2025 Budget
HQ Annual Financing Charge	\$277,005	\$277,005
WCS Annual Financing Charge	\$35,412	\$35,412
Water/Sewer Annual Finance Charge	\$32,505	\$16,252
<b>Total</b>	<b>\$344,922</b>	<b>\$328,669</b>
Revenues	2024 Budget	2025 Budget
Municipal Levy - Capital	\$309,510	\$293,257
Reserve Funds	\$35,412	\$35,412
Special Reserve - WCS	\$35,412	\$35,412
Provincial and Federal Grants		
Fees for Service		
Other Revenue		
<b>Total</b>	<b>\$344,922</b>	<b>\$328,669</b>



### Category 3 Capital

Expenditures	2024 Budget	2025 Budget
MOK - Museum	\$25,000	\$27,050
MOK - Gatehouse	\$5,000	
MOK - Ed Centre		\$25,000
Contributions to Category 3 Capital Reserve	\$0	\$0
<b>Total</b>	<b>\$30,000</b>	<b>\$52,050</b>
Revenues	2024 Budget	2025 Budget
Municipal Levy - Capital Category 3	\$13,835	\$15,218
Reserve Funds	\$16,165	\$24,332
Reserves- Category 3 Operating	\$16,165	\$24,332
Provincial and Federal Grants		
Self Generated Revenue		
Other Revenue		\$12,500
Grants/Donations		\$12,500
<b>Total</b>	<b>\$30,000</b>	<b>\$52,050</b>

## REPORT

3455/24

TO:	Chair and Members of the Mississippi Valley Conservation Authority Board of Directors
FROM:	Sally McIntyre, General Manager and Stacy Millard, Treasurer
RE:	<b>10-year Capital Plan and Capital Reserves Update</b>
DATE:	November 25, 2024

**Recommendation:**

**That the Board of Directors approve the *10-year Capital Plan* update and schedule of capital levy increases presented herein.**

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**1. BACKGROUND**

MVCA approved its first *10-year Capital Plan* in 2018.<sup>1</sup> In 2020, an *Interim Financial Plan* (IFP) was approved that provided for \$11.4 million in capital renewal for the period 2021-2030.<sup>2</sup> A capital plan update prepared in Spring 2023<sup>3</sup> identified a further \$5.2 million in budget pressures for the period 2023-2032 arising from construction inflation, updated cost estimates for replacement of the Kashwakamak Lake Dam, and phased acquisition of EVs and installation of a second charging station. The present update to the *10-year Capital Plan* identifies total budget requirements for the period 2025-2034 of \$16,799,291, i.e. no material change in financial demands from the last version. Refer to Attachment 1 for details.

**2. 10-YEAR CAPITAL PROGRAM NEEDS and ASSUMPTIONS**

The following key assumptions were made during update of the *10-Year Capital Plan*:

- i. Capital works will be completed at the following structures in accordance with the recommendations of Dam Safety Reviews (DSRs), and prioritized per the recently approved *Asset Management Plan* for water and erosion control infrastructure (WECI), with an average investment of just under \$1 million per year over the ten years.<sup>4</sup>
  - o Kashwakamak Lake Dam (\$6.014 M)

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<sup>1</sup> Staff Report 2979/18.

<sup>2</sup> Staff Reports 3092/20 and 3095/20.

<sup>3</sup> Staff Report 3301/23.

<sup>4</sup> Staff Report 3450/24.

- Widow Lake Dam (\$805 K)
  - Bennet Lake Dam (\$503 K)
  - Big Gull Lake Dam (\$498 K)
  - Lanark Dam (\$206 K)
  - Mazinaw Lake Dam (\$172 K)
  - Carleton Place Dam (\$104 K)
  - Smaller projects at Mississagagon and Shabomeka valued at <\$40 K each.
  - Annual renewal and some expansion of the gauge network.
- ii. Most water and erosion control infrastructure (WECI) projects will qualify for and receive 50% funding from the province, though the receipt and timing of those funds is not guaranteed. MVCA will proceed with projects as funding becomes available.
  - iii. Fleet will be replaced in accordance with the 2023 *Fleet Management Plan* (avg. \$110K /year over 10 years.)
  - iv. I&CT hardware replacement will occur in accordance with the 2023 *ICT&C Management Plan* (avg. \$33K /year over 10 years.)
  - v. MVCA will continue to implement a Pay As You Go (PAYGO) approach to capital asset replacement, which does not set aside funds for long-term asset replacement, but does allow for debt financing. Per MVCA's *Reserve Policy*<sup>5</sup>:
    - 3b) *Water and erosion control asset reserve funds should have a balance equal to or greater than 50% of the approved 8-year capital program, up to a maximum of \$500,000 per project. For projects greater than \$500,000, add the annual cost to carry 50% of the project cost at 5% interest paid monthly, amortized over 20 years.*
    - 3c) *All other reserve funds established for TCAs should have a balance equal to or greater than the approved 5-year capital program for those assets, or as specified in Table 1.*
  - vi. MVCA will continue to build capital reserves to achieve the above targets.
  - vii. Renewal of Category 1 structures at conservation areas to maintain site safety and usability (e.g. boardwalks, bridges, signs), avg. \$80k/year across all sites over 10-years.
  - viii. Renewal of Category 3 structures at the Mill of Kintail in accordance with the funding limits set by bilateral agreements between MVCA and member municipalities (e.g. Education Centre and Gate House) at an average of \$40K/year over 10-years.)
  - ix. Study and construct accessible features (ramps, washrooms, trails) on a phased basis with the financial support of third-parties.
  - x. Financing of the municipal water and sewer connection to the HQ building.

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<sup>5</sup> Staff Report 3228/22.

- xi. A uniform inflationary rate of 3% per annum to current projected costs.<sup>6</sup>

MVCA will need to begin to set aside additional funds for lifecycle replacement of key components of the HQ building, garage, and works yard as the structure is now 13-years old. A condition assessment will be carried out in 2025 to support the next update of the *10-year Capital Plan*.

### 3. PROJECTED CAPITAL LEVY INCREASES

With the exception of water and erosion control infrastructure, the capital plan assumes that most revenues will be from the municipal capital levy / capital reserves, supplemented by grants and contributions from upper levels of government, charitable organizations, and site fees. Table 1 shows Board-approved (black) and recommended (red) capital levy increases for the next 10-years.<sup>7</sup>

**Table 1: Projected Annual Capital Levy Increases, 2023-2034**

<b>2023</b>	4.5%
<b>2024</b>	7.5%
<b>2025</b>	8.5%
<b>2026</b>	8.5%
<b>2027</b>	7.5%
<b>2028</b>	7.5%
<b>2029</b>	5.5%
<b>2030</b>	5.5%
<b>2031</b>	5.5%
<b>2032</b>	5.5%
<b>2033</b>	3.5%
<b>2034</b>	3.5%

To mitigate increases to the Capital Levy, the updated Plan transfers reserve surpluses (above policy targets) from the Operating Reserve and the Priority Projects Reserve to the Water & Erosion Control Structure Reserve. These internal transfers will total ~\$400,000 at fiscal year-end. As well, the Plan dedicates all annual reserve contributions to the Water & Erosion Control Structure Reserve over the period 2024-2027 making all other programs dependent upon current

<sup>6</sup> For example, dollar amounts shown in 2030 include the application of inflation and compounding thereof to the 2024 cost estimate.

<sup>7</sup> The City of Ottawa's *Long Range Finance Plan* assumed a 12% increase for stormwater infrastructure and programming in 2023, inclusive of COLA, inflation, and growth.

reserve balances and the annual capital levy. For example, if there are insufficient funds to buy a vehicle, the Authority would potentially lease a vehicle until funds become available.

The updated *10-year Capital Plan* assumes continued application of a uniform annual Growth Rate of 1.5% to the Capital Levy. This amount is paid through increased assessment value associated with newly developed lots and their property taxes.

#### 4. RESERVE FUND MANAGEMENT

Continued building of reserves is essential to asset renewal as it allows MVCA to access grants that require at least 50% matching dollars from MVCA; and because not all capital projects are eligible for grants. Implementation of the recommended capital levy increases in Table 1 will enable MVCA to 86% of its target gross reserve balance by 2034. Table 3 shows targeted year-end reserve balances for 2029 (the mid-point of the Updated 10-year Capital Plan), and 2034 (the end of the period.)

**Table 3: Targeted versus Projected Reserve Balances, 2029 and 2034**

RESERVE FUND	2029 ESTIMATED TARGET RESERVE BALANCE	2029 PROJECTED RESERVE BALANCE	% OF TARGET	2034 PROJECTED RESERVE BALANCE	% OF TARGET
OPERATING RESERVE	\$850,850	\$875,156	103%	\$875,156	103%
HQ BUILDING RESERVE	\$1,717,477	\$634,701	37%	1,158,944	67%
CONSERVATION AREAS	\$312,246	\$185,700	59%	\$260,700	83%
CATEGORY 3 CAPITAL	\$193,507	\$21,095	11%	\$20,808	11%
INFORMATION TECHNOLOGY	\$217,752	\$77,181	35%	\$192,181	88%
VEHICLES & EQUIPMENT RES.	\$442,763	\$283,537	64%	\$450,224	102%
WATER CONTROL STRUCTURES	1,943,102	\$1,250,150	64%	1,911,650	98%
PRIORITY PROJECTS RESERVE	\$170,000	\$178,836	105%	\$178,836	105%
<b>TOTAL</b>	<b>\$5,847,697</b>	<b>\$3,506,356</b>	<b>60%</b>	<b>\$5,048,499</b>	<b>86%</b>

#### 5. CORPORATE STRATEGIC PLAN

Implementation of the 10-year Capital Plan Update aligns with Goal 1: Asset Management – revitalize watershed management activities and invest in our legislated mandate; and objectives:

- a) Implement the five-year capital program
- e) Plan for the next phase of asset development and management.

CAPITAL PLAN SUMMARY											
Water Control Structures	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	10 Yr Total
Shabomeka Lake Dam	-	-	-	-	-	-	-	38,003	-	-	38,003
Mazinaw Lake Dam	-	-	-	-	-	-	-	-	104,382	67,196	171,578
Kashwakamak Lake Dam	128,750	132,613	2,834,261	2,919,288	-	-	-	-	-	-	6,014,912
Big Gull Lake Dam	-	-	-	-	-	89,554	92,241	316,693	-	-	498,487
Mississagagon Lake Dam	-	-	-	-	34,778	-	-	-	-	-	34,778
Farm Lake Dam	-	-	-	-	-	-	-	-	-	-	-
Pine Lake Dam	-	-	-	-	-	-	-	-	-	-	-
Carleton Place Dam	-	-	-	-	-	-	-	-	104,382	-	104,382
Lanark Dam	206,000	-	-	-	-	-	-	-	-	-	206,000
Widow Lake Dam	-	84,872	-	56,275	57,964	298,513	307,468	-	-	-	805,093
Bennett Lake Dam	-	-	-	-	-	-	-	101,342	65,239	335,979	502,559
Glen Cairn Detention Basin	-	-	-	-	-	-	-	-	-	-	-
Proposed Debt Repayment	35,412	35,412	90,412	145,412	145,412	145,412	145,412	145,412	145,412	145,412	1,179,120
<b>Subtotal</b>	<b>370,162</b>	<b>252,897</b>	<b>2,924,673</b>	<b>3,120,976</b>	<b>238,154</b>	<b>533,479</b>	<b>545,121</b>	<b>601,449</b>	<b>419,414</b>	<b>548,587</b>	<b>9,554,912</b>
Watershed Monitoring	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	10 Yr Total
Gauge Network	33,475	34,479	35,514	37,254	36,832	38,807	39,971	41,170	42,405	43,677	383,584
Survey & Flow Equipment	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal</b>	<b>33,475</b>	<b>34,479</b>	<b>35,514</b>	<b>37,254</b>	<b>36,832</b>	<b>38,807</b>	<b>39,971</b>	<b>41,170</b>	<b>42,405</b>	<b>43,677</b>	<b>383,584</b>
Conservation Areas	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	10 Yr Total
Mill of Kintail - Visitor Services	52,050	58,218	98,345	-	-	85,972	55,344	-	52,191	-	402,121
Mill of Kintail CA	24,038	71,688	-	-	-	-	12,299	-	-	-	108,025
Purdon	25,909	67,951	11,866	34,969	6,500	7,000	-	-	-	47,037	201,231
K&P Trail	17,205	12,500	20,464	51,265	20,000	28,470	25,000	27,500	30,000	32,500	264,904
Morris Island	10,763	26,214	40,977	5,628	5,796	14,926	25,335	39,426	-	10,079	179,144
Roy Brown Trail	-	26,523	5,464	5,628	-	6,149	-	6,524	-	-	50,287
<b>Subtotal</b>	<b>129,965</b>	<b>263,093</b>	<b>177,116</b>	<b>97,489</b>	<b>32,296</b>	<b>142,517</b>	<b>117,978</b>	<b>73,450</b>	<b>82,191</b>	<b>89,616</b>	<b>1,205,712</b>
Vehicles & Equipment	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	10 Yr Total
Vehicles	120,000	54,636	106,923	69,556	77,613	77,613	79,942	82,340	84,810	87,355	840,790
Equipment	-	90,177	35,805	67,531	40,575	-	-	19,952	-	10,751	264,790
<b>Subtotal</b>	<b>120,000</b>	<b>144,813</b>	<b>142,729</b>	<b>137,087</b>	<b>118,188</b>	<b>77,613</b>	<b>79,942</b>	<b>102,292</b>	<b>84,810</b>	<b>98,106</b>	<b>1,105,580</b>
HQ Building	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	10 Yr Total
Debt payment	304,755	332,505	332,505	332,505	332,505	332,505	332,505	332,505	332,505	332,505	3,297,300
Sewer and water connection	701,000	-	-	-	-	-	-	-	-	-	701,000
Other	15,450	20,000	81,955	16,883	33,765	34,793	-	-	-	20,159	223,005
<b>Subtotal</b>	<b>1,021,205</b>	<b>352,505</b>	<b>414,460</b>	<b>349,388</b>	<b>366,270</b>	<b>367,298</b>	<b>332,505</b>	<b>332,505</b>	<b>332,505</b>	<b>352,664</b>	<b>4,221,305</b>
Information Technology	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	10 Yr Total
Hardware	25,360	12,731	44,940	13,506	13,911	80,002	14,758	91,207	15,657	16,127	328,200
<b>Subtotal</b>	<b>25,360</b>	<b>12,731</b>	<b>44,940</b>	<b>13,506</b>	<b>13,911</b>	<b>80,002</b>	<b>14,758</b>	<b>91,207</b>	<b>15,657</b>	<b>16,127</b>	<b>328,200</b>
<b>Total</b>	<b>1,700,167</b>	<b>1,060,517</b>	<b>3,739,430</b>	<b>3,755,700</b>	<b>805,652</b>	<b>1,239,716</b>	<b>1,130,276</b>	<b>1,242,073</b>	<b>976,983</b>	<b>1,148,777</b>	<b>16,799,291</b>

## Revenues &amp; Reserves

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Base Capital Levy Increase	6.5%	6.5%	5.5%	5.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Growth Assumption	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
Additional Capital Levy Increase	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%		

Revenue Summary											
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	10 Yr Total
Grants Based on Availability											-
Provincial WECl Grant (50%)	141,625	82,220	850,278	952,007	28,982	149,257	153,734	69,672	137,001	201,587	2,766,363
Federal Grants	51,500	53,045	1,133,704	1,071,551	-	-	-	-	-	-	2,309,800
Municipal Levy - Capital Levy	759,523	835,475	910,668	992,628	1,062,112	1,136,460	1,216,012	1,301,133	1,366,190	1,434,500	11,014,701
Municipal Levy - Category 1 Capital Levy	744,333	818,766	892,455	972,775	1,040,870	1,113,731	1,191,692	1,275,110	1,338,866	1,405,810	10,794,407
Municipal Levy - Category 3 Capital Levy	15,190	16,710	18,213	19,853	21,242	22,729	24,320	26,023	27,324	28,690	220,294
Debt Financing	700,000		850,278	895,731							2,446,009
Other Donations/Grants	46,860	51,509	90,132	(9,853)	(11,242)	73,243	41,024	(16,023)	34,867	(18,690)	443,637
Operating Reserve	300,000										945,000
HQ Building Reserve				(50,000)	(50,000)	(24,243)	(75,000)	(25,000)	(225,000)	(175,000)	(389,243)
Conservation Areas Reserve							(25,000)		(25,000)	(25,000)	(25,000)
Category 3 Operating Reserve				(9,853)	(11,242)	15,000	5,000	(16,023)	15,000	(18,690)	
Information Technology Reserve					(20,000)	(20,000)	(10,000)	(10,000)	(50,000)	(25,000)	(135,000)
Vehicle & Equipment Reserve					(50,000)	(50,000)	(30,000)	(11,687)	(50,000)	(25,000)	(91,687)
Water Control Structure Reserve	(514,341)	38,269	(95,631)	(86,511)	(142,957)	(40,000)	(145,495)	(50,000)	(226,075)	(199,930)	(2,104,727)
Priority Projects Reserve	215,000										503,750
<b>Total</b>	<b>1,700,167</b>	<b>1,060,517</b>	<b>3,739,430</b>	<b>3,755,700</b>	<b>805,653</b>	<b>1,239,716</b>	<b>1,130,275</b>	<b>1,242,073</b>	<b>976,983</b>	<b>1,148,777</b>	<b>17,683,603</b>

Reserve Summary										
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Operating Reserve (Surplus)	875,156	875,156	875,156	875,156	875,156	875,156	875,156	875,156	875,156	875,156
HQ Building Reserve	534,701	534,701	534,701	584,701	634,701	658,944	733,944	758,944	983,944	1,158,944
Conservation Areas Reserve	185,700	185,700	185,700	185,700	185,700	185,700	210,700	210,700	235,700	260,700
Category 3 Capital Reserve	-	-	-	9,853	21,095	6,095	1,095	17,118	2,118	20,808
Information Technology Reserve	57,181	57,181	57,181	57,181	77,181	97,181	107,181	117,181	167,181	192,181
Vehicles & Equipment Reserve	233,537	233,537	233,537	233,537	283,537	333,537	363,537	375,224	425,224	450,224
Water Control Structures Reserve	963,320	925,051	1,020,682	1,107,193	1,250,150	1,290,150	1,435,645	1,485,645	1,711,720	1,911,650
Priority Projects Reserve	178,836	178,836	178,836	178,836	178,836	178,836	178,836	178,836	178,836	178,836
<b>Total</b>	<b>3,028,431</b>	<b>2,990,162</b>	<b>3,085,793</b>	<b>3,232,157</b>	<b>3,506,356</b>	<b>3,625,599</b>	<b>3,906,094</b>	<b>4,018,804</b>	<b>4,579,879</b>	<b>5,048,499</b>

### Water and Erosion Control Structures and Monitoring

#### Water and Erosion Control Structures

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	10 Yr Total
Shabomeka Lake Dam	-		-	-	-			38,003			38,003
Mazinaw Lake Dam	-	-	-	-					104,382	67,196	171,578
Kashwakamak Lake Dam	128,750	132,613	2,834,261	2,919,288	-	-					6,014,912
Big Gull Lake Dam						89,554	92,241	316,693			498,487
Mississagagon Lake Dam	-	-	-		34,778	-					34,778
Farm Lake Dam*				-	-	-					-
Pine Lake Dam*	-				-	-					-
Carleton Place Dam	-	-	-	-	-	-			104,382		104,382
Lanark Dam	206,000		-	-	-	-					206,000
Widow Lake Dam		84,872	-	56,275	57,964	298,513	307,468				805,093
Bennett Lake Dam	-	-	-					101,342	65,239	335,979	502,559
Glen Cairn Detention Basin	-	-	-	-	-	-					-
Proposed Debt Financing	35,412	35,412	90,412	145,412	145,412	145,412	145,412	145,412	145,412	145,412	959,120
<b>Total</b>	<b>370,162</b>	<b>252,897</b>	<b>2,924,673</b>	<b>3,120,976</b>	<b>238,154</b>	<b>533,479</b>	<b>545,121</b>	<b>601,449</b>	<b>419,414</b>	<b>548,587</b>	<b>9,334,912</b>

#### Watershed Monitoring

	2025	2026	2027	2028	2029	2030	2031	2032			10 Yr Total
<b>Gauge Network</b>											
WSC Gauges	7,725	7,957	8,195	9,116	8,695	8,955	9,224	9,501	9,786	10,079	89,233
MVCA Gauges	25,750	26,523	27,318	28,138	28,138	29,851	30,747	31,669	32,619	33,598	294,351
<b>Survey &amp; Flow Equipment</b>											-
<b>Total</b>	<b>33,475</b>	<b>34,479</b>	<b>35,514</b>	<b>37,254</b>	<b>36,832</b>	<b>38,807</b>	<b>39,971</b>	<b>41,170</b>	<b>42,405</b>	<b>43,677</b>	<b>383,584</b>
<b>Total WCS and Monitoring</b>	<b>403,637</b>	<b>287,376</b>	<b>2,960,186</b>	<b>3,158,230</b>	<b>274,986</b>	<b>572,286</b>	<b>585,092</b>	<b>642,619</b>	<b>461,819</b>	<b>592,264</b>	<b>9,718,496</b>



Conservation Areas											
Mill of Kintail Conservation Area	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	10 Yr. Total
Museum											
Balcony repairs		27,318									27,318
Repoint stone work						14,329					14,329
Replace play structure wood chips											-
Replace septic system			54,636								54,636
Museum roadway retaining wall							24,597				24,597
Building Condition Assessment	22,050						30,747				52,797
Gatehouse											
- Repoint stone work											-
- Replace veranda joists and flooring											-
Roof Replacement								52,191			52,191
Accessibility upgrades/Washrooms			43,709								43,709
- Replace windows											-
Septic replacement						71,643					71,643
Ed Center											
Accessibility doors and ramps	15,000										15,000
Internal Upgrades	15,000	10,300									25,300
Replace siding		20,600									20,600
<b>MOK - Visitor Services Subtotal</b>	<b>52,050</b>	<b>58,218</b>	<b>98,345</b>	<b>-</b>	<b>-</b>	<b>85,972</b>	<b>55,344</b>	<b>-</b>	<b>52,191</b>	<b>-</b>	<b>402,121</b>
Site General											
Parking Upgrades											-
Pedestrian bridge deck replacement	16,538										16,538
Resurface roadway and parking lot		21,218					12,299				33,517
Signage		5,150									5,150
Construct flush washrooms											-
Develop site work shop	7,500	45,320									52,820
<b>MOK- CA Subtotal</b>	<b>24,038</b>	<b>71,688</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>12,299</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>108,025</b>
<b>Purdon Conservation Area</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>	<b>2032</b>			<b>10 Yr. Total</b>
Replace sections on Boardwalk	20,396									26,878	47,275
Replace stairs	5,513	5,788	6,078	6,381							23,760
Replace site signage		5,150									5,150
Highland Trail Improvements		5512.5	5,788	6,078	6,500	7,000					30,878
Replace main look-out				22,510							22,510
Replace finger look-out		51,500								20,159	71,659
<b>Subtotal</b>	<b>25,909</b>	<b>67,951</b>	<b>11,866</b>	<b>34,969</b>	<b>6,500</b>	<b>7,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>47,037</b>	<b>201,231</b>
<b>K&amp;P Trail Conservation Area</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>	<b>2032</b>			<b>10 Yr. Total</b>
Trail improvements	12,205	12,500	15,000	17,500	20,000	22,500	25,000	27,500	30,000	32,500	152,205
Condition Assessment			5,464								5,464
Bridge deck & handrail upgrades				33,765							33,765
Signage	5,000					5,970					10,970
<b>Subtotal</b>	<b>17,205</b>	<b>12,500</b>	<b>20,464</b>	<b>51,265</b>	<b>20,000</b>	<b>28,470</b>	<b>25,000</b>	<b>27,500</b>	<b>30,000</b>	<b>32,500</b>	<b>264,904</b>
<b>Morris Island Conservation Area</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>	<b>2032</b>			<b>10 Yr. Total</b>
Trail brushing/improvements	5,513	5,305	5,464								16,281
Washroom Holding Tank Replacement/Upgrades		10,300						31,669			41,969
Picnic Structure			21,855								21,855
Signage		5,305									5,305
Trail Bridge repairs	5,250	5,305	5,464	5,628	5,796	5,970	25,335	7,757			66,504
Road maintenance			8,195			8,955				10,079	27,230
<b>Subtotal</b>	<b>10,763</b>	<b>26,214</b>	<b>40,977</b>	<b>5,628</b>	<b>5,796</b>	<b>14,926</b>	<b>25,335</b>	<b>39,426</b>	<b>-</b>	<b>10,079</b>	<b>179,144</b>
<b>Roy Brown Park (with Carleton Place)</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>	<b>2032</b>			<b>10 Yr. Total</b>
Trail construction		5,305	5,464	5,628	-	-		6,524			22,920
Signage	-	-	-	-	-	-					-
Construct lookout		21,218				6,149					27,367
<b>Subtotal</b>	<b>-</b>	<b>26,523</b>	<b>5,464</b>	<b>5,628</b>	<b>-</b>	<b>6,149</b>	<b>-</b>	<b>6,524</b>	<b>-</b>	<b>-</b>	<b>50,287</b>
<b>Total</b>	<b>77,915</b>	<b>204,875</b>	<b>78,770</b>	<b>97,489</b>	<b>32,296</b>	<b>56,545</b>	<b>62,634</b>	<b>73,450</b>	<b>30,000</b>	<b>89,616</b>	<b>803,591</b>

<b>Vehicles &amp; Equipment Replacement</b>											
<b>Description</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>	<b>2032</b>	<b>2033</b>	<b>2034</b>	<b>10 Yr. Total</b>
Vehicles											
Vehicle purchase	120,000	54,636	106,923	69,556	77,613	77,613	79,942	82,340	84,810	87,355	840,790
Equipment Purchase											
- EV Charging Station		53,045									53,045
- ATV		37,132									37,132
Tracks for ATV			8,487							10,751	19,239
- Tractor				67,531							67,531
- Boat & Motor					40,575						40,575
- Tandem utility trailer								19,952			19,952
Riding Lawn mower			27,318								27,318
<b>Sub-Total Equipment</b>	<b>-</b>	<b>90,177</b>	<b>35,805</b>	<b>67,531</b>	<b>40,575</b>	<b>-</b>	<b>-</b>	<b>19,952</b>	<b>-</b>	<b>10,751</b>	<b>264,790</b>
<b>Total</b>	<b>120,000</b>	<b>144,813</b>	<b>142,729</b>	<b>137,087</b>	<b>118,188</b>	<b>77,613</b>	<b>79,942</b>	<b>102,292</b>	<b>84,810</b>	<b>98,106</b>	<b>1,105,580</b>

<b>Administration Office</b>											
<b>Administration Office</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>	<b>2032</b>	<b>2033</b>	<b>2034</b>	<b>10 Yr Total</b>
Debt payment	304,755	332,505	332,505	332,505	332,505	332,505	332,505	332,505	332,505	332,505	3,297,300
Sewer and water connection	701,000										701,000
OTHER CAPITAL											-
Condition Assessment	15,450					17,911					33,361
Painting and Restoration		20,000	65,564							20,159	105,722
HVAC replacements			16,391	16,883	33,765	16,883					83,921
<b>SUB-TOTAL OTHER CAPITAL</b>	<b>15,450</b>	<b>20,000</b>	<b>81,955</b>	<b>16,883</b>	<b>33,765</b>	<b>34,793</b>	-	-	-	<b>20,159</b>	<b>223,005</b>
Total	#####	352,505	414,460	349,388	366,270	367,298	332,505	332,505	332,505	352,664	4,221,305

<b>Information and Communications Systems</b>											
<b>Description</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>	<b>2032</b>	<b>2033</b>	<b>2034</b>	<b>10 Yr Total</b>
<b>HARDWARE</b>											
Computers/monitors	12,360	12,731	13,113	13,506	13,911	14,329	14,758	15,201	15,657	16,127	141,694
Servers	5000					59,703					64,703
Storage						5,970					5,970
Phone (VOIP)	8000										8,000
Audio Visual/Boardroom			31,827					76,006			107,833
<b>Total</b>	<b>25,360</b>	<b>12,731</b>	<b>44,940</b>	<b>13,506</b>	<b>13,911</b>	<b>80,002</b>	<b>14,758</b>	<b>91,207</b>	<b>15,657</b>	<b>16,127</b>	<b>328,200</b>

**REPORT****3467/24**

<b>TO:</b>	The Chair and Members of the Mississippi Valley Conservation Authority Board of Directors
<b>FROM:</b>	Matt Craig, Manager of Planning and Regulations
<b>RE:</b>	<b>2025 Fee Schedule Update</b>
<b>DATE:</b>	December 4, 2024

**Recommendation:**

**That the Board of Directors approve update of Schedules A through C of MVCA’s Fee Schedule as set out in this report.**

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To support user-pay and full cost recovery principles, the Board of Directors typically approves increases to MVCA’s Fee Schedules on an annual basis to take effect January 1 of the following year. On December 28, 2022, the Minister of Natural Resources and Forestry issued a directive prohibiting conservation authorities from changing the fees they charge for programs and services related to planning, development, and permitting. The provincial freeze was extended to December 31, 2024.

As there has been no word from the province regarding a potential extension of the freeze, staff are tabling proposed updates to Fee Schedules A – C. The proposed increase is 3% across all planning, development, and permitting fees. Staff discussed fee adjustments with conservation authority partners within the City of Ottawa to ensure consistency where possible. Attachment 1 provides the recommended 2025 Fee Schedules A, B, and C.

**CORPORATE STRATEGIC PLAN**

Implementation of this report supports proper resourcing of the organization and achievement of the following corporate goal:

Goal 3: People and Performance – support the operational transformations required to achieve MVCA’s priorities and to address legislative changes.

**ATTACHMENT 1:**

Proposed 2025 Fee Schedules A, B, C.

## MVCA Fee Schedule: 2025

### Schedule "A" Fees – Planning Advisory Program

Planning Application Type	Fee for "natural hazards" & water quality and quantity matters & on-site services review (when required)
<b>Official Plan Amendments (OPA)</b>	
Minor	\$845
Major (private applications associated with urban expansion and/or major development application)	\$4,120
<b>Zoning By-law, Amendments, Minor Variance Applications, Site Plan – Single Residential</b>	\$423
<b>Site Plan</b>	
Minor (Small commercial less than 0.8 ha, additions up to 200 sq. m.)	\$1,154
Major (Multiple Res., Commercial, Industrial, Institutional)	\$2,874
<b>Consent to Sever (per application)</b>	\$515
Clearance of Conditions (Severance or Variance)	\$190

<b>Plan of Subdivision/Condominium</b> (to provision of Conditions of Draft Approval)	\$4,244
<b>Clearance of Conditions for Subdivision Registration</b> (per phase)	\$2,133
<b>Draft Plan Approval Revisions</b> (alterations to site/plan layout)	\$2,133
<b>Draft Plan Extensions</b> (original conditions about to lapse)	\$4,244

Note:

- Reactivation (all application types) – 50% reactivation fee based on the current schedule after two years of dormancy.
- A screening fee of \$130.00 will be charged for written responses to address minor issues.
- All fees are exclusive of the Technical Review Fees (see Schedule C) which are charged on a per issue basis in addition to the fees outlined in Schedule A.
- All fees must be received PRIOR to the release of written comments to an approval authority.
- The CA reserves the right to charge additional fees in the event that the review requires a substantially greater level of effort than normal, additional site visits etc. OR where additional processing past the initial submission period is required.

Schedule "B" – Development, Interference with Wetlands and Alterations to Shorelines and Watercourses

<b>Application Type</b>	<b>Description</b>	<b>Fee</b>
<b>Culvert/Bridge</b> (Water Crossing)	Replacement (same dimension) $\leq 30$ m and $\leq 1$ m diameter	\$289
	Replacement (different dimension) or new $\leq 1$ m diameter	\$685
	1 m diameter - 3 m diameter	\$1,072
	> 3 m diameter	\$2,112
	Infrastructure Modification (bridges with span <25 m)	\$1,072
	Infrastructure Modification (bridges with span >25 m, storm water management pond)	\$2,766
	Resurfacing	\$289
	Superstructure or abutment works	\$685
	New bridge	\$2,766
<b>Directional Drilling</b>	Channel width $\leq 3$ m	\$289
	Channel width > 3 m	\$685
<b>Fill Placement &amp; Grading</b>  Fill Placement (m <sup>3</sup> ) Grading (ha) (including septic beds)	Fill placement < 100 m <sup>3</sup> / Grading $\leq 0.25$ ha	\$289
	Fill placement > 100 m <sup>3</sup> – 500 m <sup>3</sup> /Grading > 0.25 ha – 0.5 ha	\$705
	Fill placement > 500 m <sup>3</sup> – 1000 m <sup>3</sup> /Grading > 0.5 ha – 1.0 ha	\$1,107
	Fill placement > 1000 m <sup>3</sup> – 2000 m <sup>3</sup> /Grading > 1.0 ha – 2.0 ha	\$2,178
<b>Buildings</b>	Auxiliary building/structures and additions with a total gross floor area <20 m <sup>2</sup>	\$289
	Auxiliary buildings/structures and additions with a total gross floor area between 20 m <sup>2</sup> and 100 m <sup>2</sup>	\$705
	Auxiliary buildings/structures and additions with a total gross floor area >100 m <sup>2</sup>	\$1,107
	New residential dwellings	
	New single unit commercial/institutional building	\$2,848
	Multiple Residential units, Institutional, Industrial or Commercial Building	
<b>Shoreline Work &amp; Watercourse Alteration</b>	Shoreline alterations, erosion protection, channelization $\leq 30$ m	\$289
	Shoreline alterations/protection >30m and < 100 m	\$685

## MVCA Fee Schedule: 2025

	Private residential and/or non-municipal agricultural drain cleanout	
	Shoreline alterations/protection, channelization 100 m - 500 m	\$1,072
	Shoreline alterations/protection, channelization > 500 m	\$2,112
<b>Docks</b>	Shoreline disturbance > 2 m and/or total surface > 20 m <sup>2</sup>	\$289
<b>Wetland</b>	Minor Review	\$289
Development /Interference within 30m and 120m of a Provincially Significant Wetland or non-evaluated wetland	Area affected ≤ 0.5 ha	\$685
	Area affected > 0.5 ha and ≤ 1.0 ha	\$1,107
	Area affected > 1.0 ha and ≤ 2.0 ha	\$2,112
<b>Municipal Drain Maintenance (DART Protocol)</b>		\$98
<b>Screening Fee &amp; Written Advice &amp; Letter of Authorization</b> (ex. minor development in regulated area in approved subdivisions)		\$129
<b>Permit Amendment</b> with minor changes to proposal or site conditions		\$129
<b>S. 28 Application Review Hearing</b>		\$412
<b>Major Projects</b> (ex. Minister's Zoning Order, applications that include several technical studies, >500 m shoreline work or watercourse realignment, development or interference with >2 ha wetland, subdivisions over 10 lots, fill placement over > 2000 m <sup>3</sup> / > 2.0 ha) Note: Additional charges for legal or technical peer-review may be applicable.		\$5,691
Issuance of new permit with no changes to proposal or site conditions will be reduced by 50%		



**MVCA Fee Schedule: 2025**

<b>Security Deposit</b>	Minor	\$1,000
	Major	\$2,000
<b>Property Inquiry</b> For written responses to legal, real estate and related financial (including CMHC) inquiries by landowners or others on their behalf for property inquiry letter; includes flood plain map (where applicable) and photocopy costs.	File Search Only (10 business days)	\$299
	Expedited Search (3 business days)	\$397
	With Site Inspection	\$515

**Note:**

- Permit Application fees where the only change in the original application is the time frame will be reduced by 50%.
- Project descriptions are only typical examples. MVCA reserves the right to determine the fee based on each individual project proposal, on a case-by-case basis, at the discretion of the Manager of Planning and Regulations.

**Schedule “C” – Technical Report Review**

Technical reports are routinely prepared by qualified professionals in the fields of water resources engineering, hydro-geological investigation, site servicing, geotechnical engineering, environmental assessments, ecology and planning. Such experts are familiar with profession standards and provincial and local requirements in such matters.

<b>Report Review (1<sup>st</sup> Submission)</b>	<b>Development Type</b>	<b>Fee</b>
<b>Normal Review (20 business days)</b> - Floodplain hydrology analysis - Geotechnical Reports (unstable soils and slopes) - Wetland hydrology impact analysis - Environment impact studies - Stormwater management - Grading and drainage plan - Hydrological assessment - Groundwater and terrain analysis - Headwater Drainage Feature Assessment	Development area <0.5 hectares	\$474
	Development area 0.5 hectares - < 2 hectares	\$927
	Development area > 2 hectares - < 5 hectares	\$1,947
	Development area > than 5 hectares	\$3,034
<b>Major Projects</b>		Hourly
<b>Additional Reviews</b>		Hourly

<b>Aggregate Resources Act Application Reviews</b> (Plus Schedule C fees, as applicable)	\$4,120
<b>Written Technical Response to Inquiry</b> (1 Letter with O. Reg 41/24 Map)	\$31

**Note:**

- Reviews are prepared by ‘qualified professionals’ in the fields of water resources engineering, groundwater science, site servicing, geotechnical engineering, environmental assessments, floodproofing, ecology and planning to support appropriate development. Our reviews involve evaluation of whether the applicable guidelines and legislation have been appropriately addressed.
- Technical report review services are tracked per file on an hourly basis. Where reviews exceed the standard allocation review time, or require multiple submission and re-reviews, MVCA reserves the right to charge an hourly professional rate in addition to the initial fee.
- Major projects are those with a high level of concern about the local environment, complex ecological, ground water and surface water interactions and which may require MVCA staff attendance at multiple meetings with proponents, consultants or public meetings to satisfy regulatory requirements.

## REPORT

3461/24

TO:	The Chair and Members of the Mississippi Valley Conservation Authority Board of Directors
FROM:	Sally McIntyre, General Manager
RE:	<b>2025 Mileage, Per Diem &amp; Honorarium Rates</b>
DATE:	December 6, 2024

**Recommendation:**

**That the Board of Directors approve a 2% increase to Board member per diems, the honorariums paid to the Chair and Vice Chair, and the mileage rates paid to employees and Board members, to take effect January 1, 2025.**

It has been the practice of MVCA to increase mileage rates annually in accordance with a Board approved inflation rate.<sup>1</sup> The Board approved cost of living increase approved for the 2025 budget was 2%; and it is recommended that this increase be applied to the mileage rate.

Increases to Board per diems and honorarium have not increased as consistently. In February 2020, the Board imposed a freeze on Board per diems and honorarium. The freeze was lifted in 2024 when an increase of 3.3% was approved by the Board.<sup>2</sup>

Good governance requires a competent, active, and representative Board. Elected officials are very busy people; and public service volunteers difficult to find. For both these reasons, providing fair compensation helps to attract people to sit on voluntary Boards and supports their participation, particularly when they must attend meetings during normal working hours at personal expense to themselves. Honorariums for the Chair and Vice Chair acknowledge the extra time and effort required to work with the General Manager in the governance of the organization. Per diems and mileage rates should fairly compensate Members for their time and expenses. Accordingly, it is recommended that the Board approve a COLA increase to its per diems and honorariums.

<sup>1</sup> Staff rarely claim mileage as employees are required to use company vehicles wherever possible. In fall 2023, MVCA contacted local municipalities to determine whether the rate paid by the Authority is comparable to municipal mileage rates. Most respondents used CRA approved rates as follow: 68¢ per kilometer for the first 5,000 kilometers driven and 62¢ per kilometer driven after that.

<sup>2</sup> MVCA surveyed other conservation authorities in spring 2022 and determined that Board per diem rates were below average. The 2024 increase brought MVCA's per diems into the average range.

Table 1 sets out the 2024 and proposed 2025 rates.

**Table 1: Existing and Proposed Rates<sup>3</sup>**

	<b>2024</b>	<b>Proposed</b>
<b>Corporate Mileage Rate</b>	\$0.59/km	\$60.18
<b>Board Per Diem</b>	\$75.33/half day	\$76.84
<b>Chair Honorarium</b>	\$1,888.16/year	\$1,925.92
<b>Vice Chair Honorarium<sup>4</sup></b>	\$629.39	\$641.98

## **CORPORATE STRATEGIC PLAN**

Increasing mileage, per diem and honorariums by a cost of living amount supports achievement of the following corporate goals and objectives:

Goal 2: Community Building – engage local partners to foster connections, leverage our resources, and strengthen our “social license” to operate.

- b) Strengthen relationships with municipalities and community stakeholders, First Nations, the agricultural sector, developers, not-for-profits, and academia

Goal 3: People and Performance – support the operational transformations required to achieve MVCA’s priorities and to address legislative changes.

- c) Promote an engaging and inclusive environment that attracts and retains passionate and highly skilled people, and optimizes their expertise and contributions.

<sup>3</sup> The provincially appointed Agricultural Representative is compensated by MNR not MVCA.

<sup>4</sup> In 2023, the Board approved the introduction of an honorarium for the Vice Chair equal to 1/3<sup>rd</sup> the value of the Chair’s honorarium. The Vice Chair participates in agenda review meetings, is a signing officer of the Corporation, and fulfills the responsibilities of the Chair during absences of the Chair. The Vice Chair is also requested to attend one or more quarterly Conservation Ontario meetings.

## REPORT

3462/24

TO:	The Chair and Members of the Mississippi Valley Conservation Authority Board of Directors
FROM:	Juraj Cunderlik, Director, Engineering
RE:	<b>Operational Plan: Water Control Infrastructure</b>
DATE:	December 6, 2024

**Recommendation:**

**That the Board of Directors approve the *Operational Plan: Water Control Infrastructure* attached to this report.**

The purpose of this report is to obtain Board Of Directors approval for the newly developed *Operational Plan: Water Control Infrastructure*. All Conservation Authorities are required to develop and implement an Operational Plan for their water control infrastructure by December 31, 2024. This plan complies with Section 5 of O. Reg 686/21, which outlines the conservation authority's obligations regarding programs and services that support the operation, maintenance, repair and decommissioning of water control infrastructure.<sup>1</sup>

**1.0 MANAGEMENT OF MVCA'S RIVER SYSTEMS**

Operational goals and requirements for dams within the Mississippi River system are set by the provincially mandated Mississippi River Water Management Plan (MRWMP), 2020.<sup>2</sup>

Dam owners on rivers with hydropower facilities are required to develop Water Management Plans and operate their facilities in accordance with the provisions of those plans. The MRWMP sets specific objectives and seasonal minimum and maximum target water levels for all hydro dams and several other structures in the watershed.

Preparation of the MRWMP and periodic reporting under the Plan is a collaborative effort of the major dam owners: OPG, Enerdu, Mississippi River Power Corporation, Canadian Hydro Developers Inc., MVCA, and the Ontario Ministry of Natural Resources, which ultimately approves the Plan, all amendments to the Plan, and Implementation Reports.

<sup>1</sup> The Regulation also requires operational plans for erosion control infrastructure, which MVCA does not own.

<sup>2</sup> Required per Section 23.1 of the *Lakes and Rivers Improvement Act*, RSO 1990.

The MRWMP sets the following guiding principles and objectives for operation of water control structures within the Mississippi River watershed:

**Table 1: MRWMP Guiding Principles and Operational Objectives**

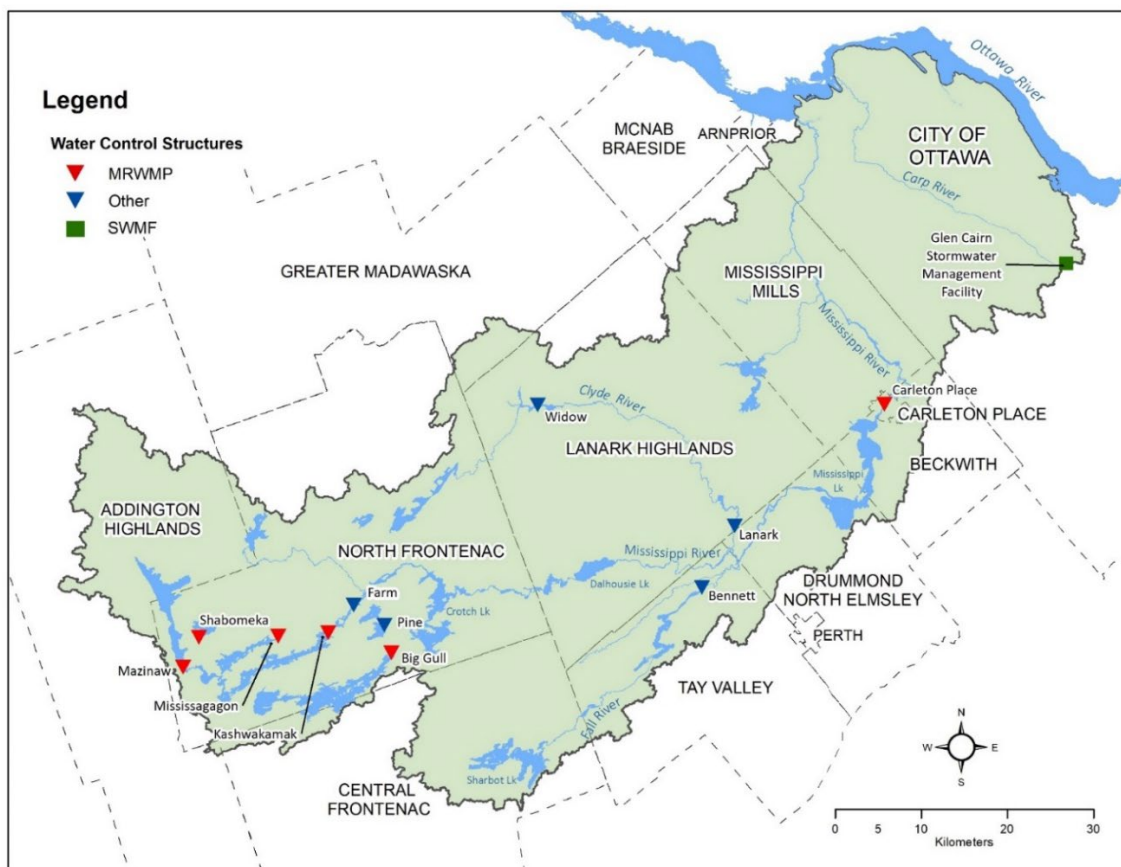
Guiding Principles	Operational Objectives
Maximum net benefit to society	Maintain or improve aquatic ecosystem health throughout the system
Riverine ecosystem sustainability	Address public safety and minimize property damage
Planning based on best available information and establishment of baseline conditions	Maintain water levels throughout the system for navigation, recreation, cultural and social opportunities
Evaluation of the need for changes to the existing water management operations for water level and flow management to address objectives and issues	Recognize power generation values from the system
Planning will be without prejudice to the rights of Aboriginal People and treaty rights	Develop public awareness on current conditions
Public & stakeholder participation – communications and integration are paramount to this planning exercise	
Adaptive management – effectiveness monitoring to assist future planning	

The Carp River system is not subject to water management plan requirements like the Mississippi River because it lacks hydropower generating stations and water control structures that can be operated. The only flood control structure in the watershed is the Glen Cairn Flood Control Facility owned by MVCA and maintained by the City of Ottawa. The facility was constructed in 1979 at the request of the province and the former City of Kanata to address flooding of the Glen Cairn subdivision. The facility is not actively operated by MVCA.

A summary of MVCA-owned water control structures is provided in Table 2 and identified on Figure 1.

**Table 2: MVCA Water Control Structures**

Name	Facility Type	Municipality	MRWMP
Shabomeka	Dam	North Frontenac	✓
Mazinaw	Dam	North Frontenac	✓
Kashwakamak	Dam	North Frontenac	✓
Mississagagon	Dam	North Frontenac	✓
Big Gull	Dam	North Frontenac	✓
Carleton Place	Dam	Carleton Place	✓
Farm	Weir	North Frontenac	✗
Pine	Dam	North Frontenac	✗
Bennett	Dam	Tay Valley	✗
Widow	Dam	Lanark Highlands	✗
Lanark	Dam	Lanark Highlands	✗
Glen Cairn / Carp River	SWM	Ottawa	✗

**Figure 1: Location of MVCA Water Control Structures**

## 2.0 PROVINCIAL AND FEDERAL GUIDELINES

The preparation and implementation of Operations Plans for dams have long been a requirement of dam owners/operators per guidelines and technical bulletins issued by the Ministry of Natural Resources (MNR) and the Canadian Dam Association (CDA).

The Lakes and Rivers Improvement Act (LRIA) provides the MNR with the legislative authority to govern the design, construction, operation, maintenance and safety of dams in Ontario. The LRIA Administrative Guide and supporting technical bulletins provide direction regarding the administration of the Act and the application review and approval process.

At the federal level the CDA technical bulletins provide detailed instructions for developing operations plans for water control structure.

## 3.0 MVCA OPERATIONAL PLAN

The attached *Operational Plan* demonstrates how MVCA operates the Mississippi River system in accordance with the targets set out in the *Mississippi River Water Management Plan* and federal and provincial guidelines. Structures not addressed by the MRWMP continue to be operated per established historical targets.

### 3.1 Typical Operations

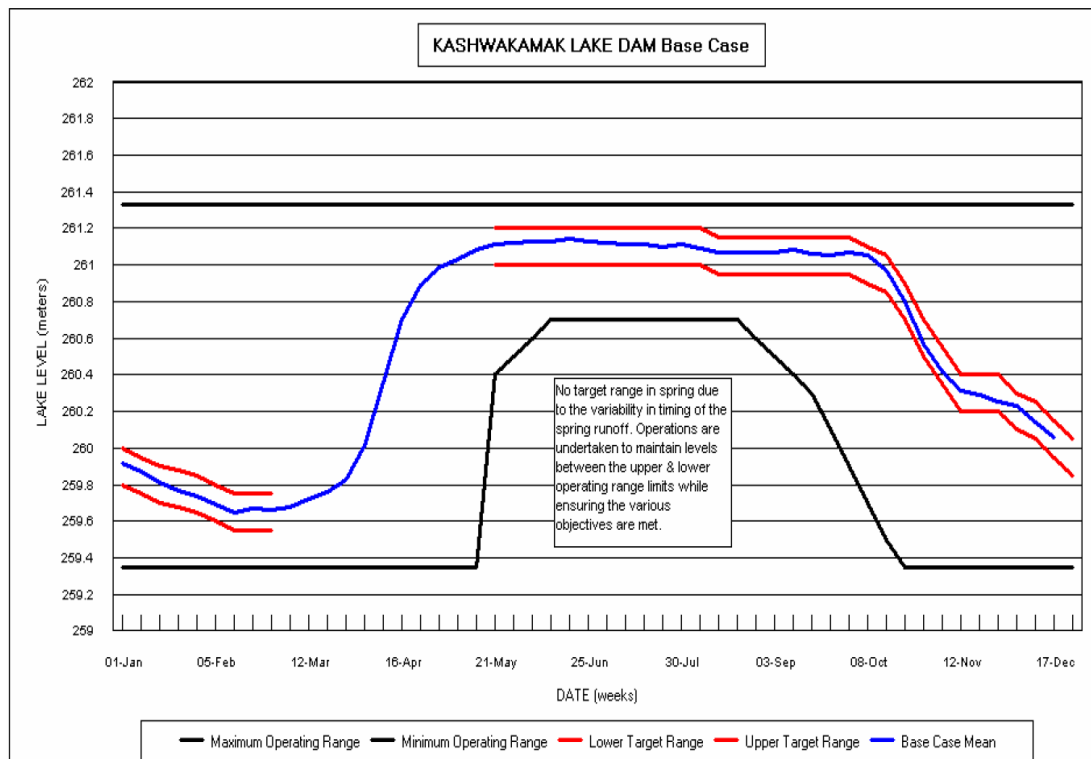
The following is a summary of MVCA's typical seasonal operating cycle, as depicted on Figure 2 and discussed in the *Operational Plan*:

- The dam cycle begins with a fall drawdown, where water levels are lowered to create storage capacity for future water needs, such as handling snowmelt and spring runoff. This drawdown process helps manage flood risks, facilitates infrastructure inspection and maintenance, and can support ecological goals like shoreline restoration.
- As winter progresses, lakes remain at their reduced level, allowing for operational flexibility.
- With the arrival of spring, lakes begin to fill up again, as melting snow and spring rains replenish water levels. The goal during this period is to carefully monitor inflows to ensure lakes rise steadily, avoiding overfilling.
- By late spring lakes reach their target levels, which are maintained throughout the summer to support recreational activities, ensure water availability, and to meet ecological and downstream flow requirements.

This balanced seasonal operation ensures lakes' resources are optimized throughout the year while minimizing environmental impact.



Figure 2: Seasonal Dam Operation Cycle



#### 4.0 CORPORATE STRATEGIC PLAN

Approval and implementation of the *Operational Plan* supports achievement of the following Corporate Strategic goals and objectives.

Goal 1: Asset Management – revitalize watershed management activities and invest in our legislated mandate.

- b) Strengthen our risk analysis and management capacity to include climate change and development impacts.
- e) Plan for the next phase of asset development and management.

Goal 3: People and Performance – support the operational transformations required to achieve MVCA’s priorities and to address legislative changes.

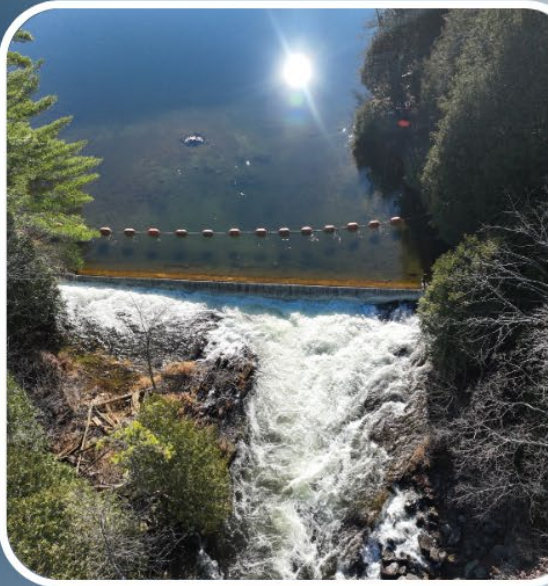
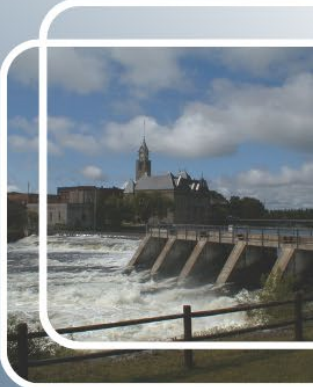
- b) Monitor the quality, efficiency and impact of what we do and modify to improve operational effectiveness.



# OPERATIONAL PLAN

## Water Control Infrastructure

December 2024



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## Abbreviations

CA: Conservation Authority

CDA: Canadian Dam Association

DSR: Dam Safety Review

EPP: Emergency Preparedness Plan

LIRA: Lakes & Rivers Improvement Act

MECP: Ministry of the Environment Conservation and Parks

MNR/MNRF: Ministry of Natural Resources and Forestry

MOU: Memorandum of Understanding

MVCA: Mississippi Valley Conservation Authority

MRWMP: Mississippi River Water Management Plan

PSP: Public Safety Plan

## 1.0 Regulatory Requirement

Preparation of this Operational Plan for Mississippi Valley Conservation Authority (MVCA) water control infrastructure is required per Section 5(2)1. of *Ontario Regulation 686/21* under the *Conservation Authorities Act, RSO 1990*.

## 2.0 Management of the Mississippi River System

System-wide operational goals and requirements for dams within the Mississippi River watershed are set by the provincially mandated [Mississippi River Water Management Plan](#) (MRWMP), 2020.<sup>1</sup>

Dam owners on rivers with hydropower facilities are required to develop Water Management Plans and operate their facilities in accordance with the provisions of those plans. The objective of these plans is to prevent hydropower producers from exploiting water resources for the benefit of meeting an electricity demand at the expense of the environment or some other objective. The MRWMP sets specific objectives and seasonal minimum and maximum target water levels for all hydro dams and several other structures in the watershed.

Preparation of the MRWMP and periodic reporting under the Plan is a collaborative effort of the major dam owners: OPG, Enerdu, Mississippi River Power Corporation, Canadian Hydro Developers Inc., MVCA, and the Ontario Ministry of Natural Resources, which ultimately approves the Plan, all amendments to the Plan, and Implementation Reports.

The first MRWMP was prepared in 2008, and was subsequently updated in 2016 and again in 2020.<sup>2</sup> A joint Implementation Report is required to be submitted to the province every 5 years.

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<sup>1</sup> Required per Section 23.1 of the *Lakes and Rivers Improvement Act, RSO 1990*.

<sup>2</sup> The 2008 plan was developed in accordance with the provincial *Water Management Planning Guidelines for Waterpower, 2002*. The 2016 update was prepared in accordance with the MNR *Technical Bulletin: Maintaining Water Management Plans, 2016*. Initially, a Standing Advisory Committees was established to support guidance and implementation of these Plan, however it was disbanded by the province in 2020.

## 2.1 MRWMP Scope

MVCA owns and operates 11 dams, and a stormwater management (SWM) facility with downstream river corridor that serve as a flood control structure. Table 1 identifies which MVCA's facilities are addressed by the MRWMP.

**Table 1: MVCA Water Control Structures**

Name	Facility Type	Municipality	MRWMP
Shabomeka	Dam	North Frontenac	✓
Mazinaw	Dam	North Frontenac	✓
Kashwakamak	Dam	North Frontenac	✓
Mississagagon	Dam	North Frontenac	✓
Big Gull	Dam	North Frontenac	✓
Carleton Place	Dam	Carleton Place	✓
Farm	Weir	North Frontenac	
Pine	Dam	North Frontenac	
Bennett	Dam	Tay Valley	
Widow	Dam	Lanark Highlands	
Lanark	Dam	Lanark Highlands	
Glen Cairn / Carp River	SWM	Ottawa	

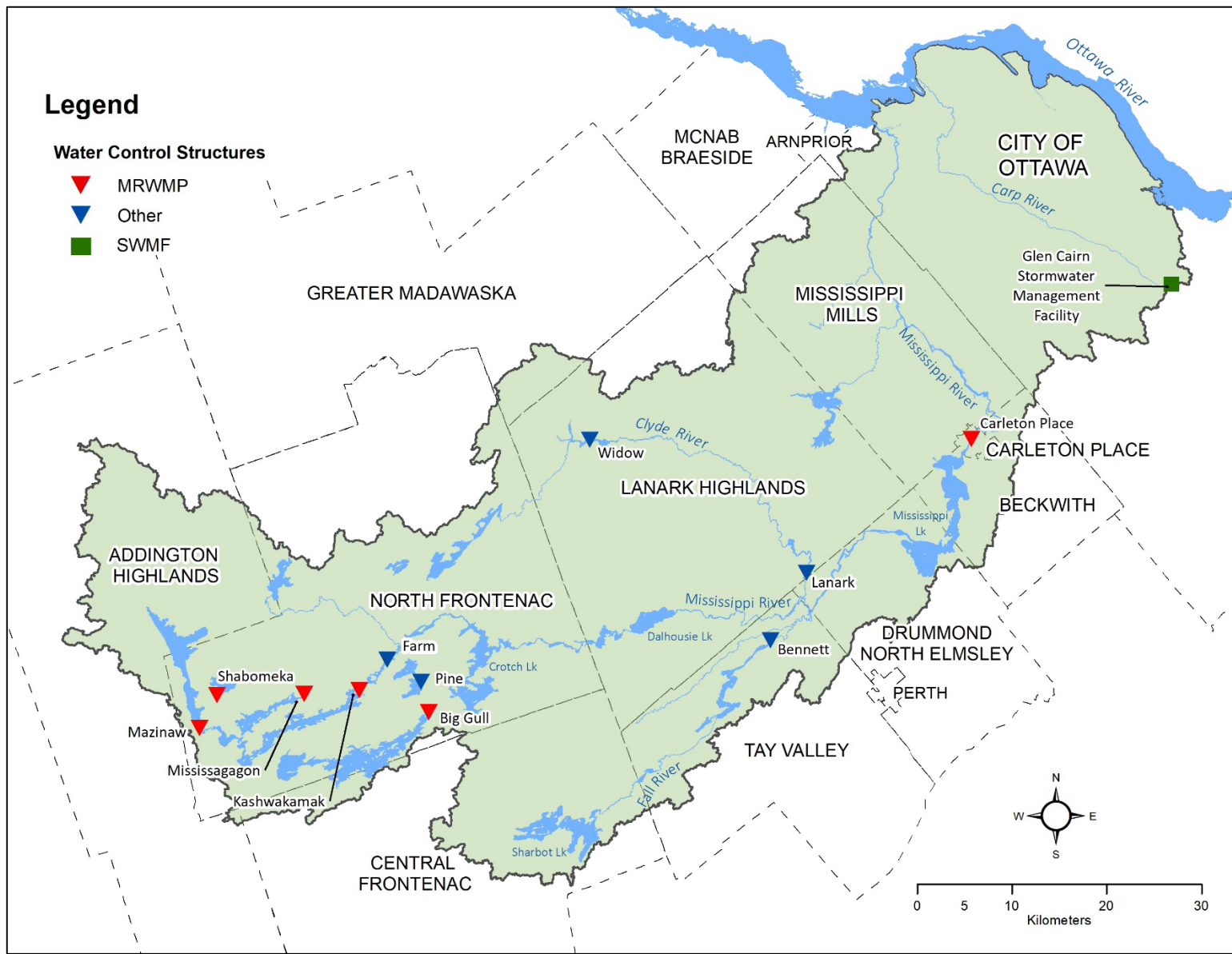
Several other structures are addressed by the MRWMP that are not owned by MVCA.<sup>3</sup>

Figure 1 illustrates the location of MVCA water control structures. Note, MVCA also operates several structures under contract for MNRF and OPG that are not shown on this map.<sup>4</sup>

<sup>3</sup> OPG dams at Crotch Lake and High Falls Generating Station (GS). EO Generation LP (DbA Portage Power) dams at Appleton GS and Galletta GS. And, the Enerdu GS and Mississippi River Power GS located in Almonte.

<sup>4</sup> Dams managed by MNR's Kemptville office: Malcolm, Mosque, Summit, Palmerston, Canonto, and Clayton. MVCA operates these facilities in accordance with an agreement signed Sept 2024. Dams owned by OPG: Crotch Lake and High Falls GS. MVCA operates these facilities in accordance with Contract # 50014173 that expires 12/31/25.

Figure 1: Location of MVCA Water Control Structures



## 2.2 Guiding Principles

The MRWMP sets the following guiding principles for operation of water control structures within the Mississippi River watershed.

- Maximum net benefit to society – maximize net environmental, social and economic benefits derived from operation of water power facilities and associated water level control structures in terms of water flow and levels.
- Riverine ecosystem sustainability
- Planning based on best available information and establishment of baseline conditions
- Evaluation of the need for changes to the existing water management operations for water level and flow management to address objectives and issues.
- Planning will be without prejudice to the rights of Aboriginal People and treaty rights
- Public & stakeholder participation – communications and integration are paramount to this planning exercise
- Adaptive management – effectiveness monitoring to assist future planning.

## 2.3 Objectives

The MRWMP sets the following system operational objectives:

1. Maintain or Improve Aquatic Ecosystem Health throughout the System
  - Improve lake trout spawning success on Shabomoka and Mazinaw Lakes.
  - Maintain spring spawning opportunities for pike, walleye and bass by having steady flows or rising levels.
  - Minimize water level fluctuations as they affect aquatic and riparian wildlife.
  - Where possible, emulate the natural flow regime.
  - Improve aquatic ecosystem health by maintaining flow through the system.
  - Ensure abundance of wild rice is not reduced due to fluctuating water levels.
2. Address Public Safety and Minimize Property Damage
  - Minimize flooding throughout the system.
  - Minimize ice damage throughout the system.
3. Maintain Water Levels throughout the System for Navigation, Recreation, Cultural and Social Opportunities
  - Maintain stable water levels for navigation, including boat access only properties, throughout the recreational season and the entire system.
  - Maintain water levels suitable for access to Twin Islands and Fawn Lakes.
  - Maintain and improve recreation, and access to Wild Rice beds and Pictographs.
4. Recognize Power Generation Values from the System



- Maintain or enhance power generation on a seasonal and daily basis.
5. Develop Public Awareness on Current Conditions
- Explain constraints, objectives and natural processes that are considered in the operation of the Mississippi River system.
  - Foster an understanding of how the system operates.

### 3.0 Management of the Carp River System

The Carp River is a very gently sloping river with a wide flood plain, with only one flood control structure along its length: The Glen Cairn Pond and downstream riverbed owned by MVCA and maintained by the City of Ottawa.

The Glen Cairn Flood Control Facility was constructed in 1979 at the request of the province and the former City of Kanata to address flooding of the Glen Cairn subdivision. This detention basin is not actively operated by MVCA. There is a maintenance agreement in place with the City of Ottawa and MVCA to distinguish responsibility of cost and maintenance of this structure.

The Carp River system is not subject to water management plan requirements like the Mississippi River because it lacks hydro power generating stations and water control structures that can be operated. However, the watershed is subject to flooding and has undergone significant urban growth. Further examination of the river system to understand how best to mitigate flood flows and levels under future development and climate scenarios is required.

### 4.0 The Lakes and Rivers Improvement Act

The Lakes and Rivers Improvement Act (LRIA) provides the MNR with the legislative authority to govern the design, construction, operation, maintenance and safety of dams in Ontario.

The Lakes and Rivers Improvement Act Administrative Guide and supporting technical bulletins provide direction regarding the administration of the LRIA and the application review and approval process. All technical bulletins in this series must be read in conjunction with the LRIA's Administrative Guide (2017) including:

- Alterations, improvements and repairs to existing dams
- Classification and inflow design flood criteria
- Dam decommissioning and removal
- Geotechnical design and factors of safety
- Location approval for dams
- Maintaining water management plans
- Seismic hazard criteria, assessment and considerations
- Spillways and flood control structures
- Structural design and factors of safety

## 5.0 Canadian Dam Association Guidelines

The preparation and implementation of Operations Plans for dams have long been a requirement of dam owners/operators per guidelines and technical bulletins issued by the Canadian Dam Association (CDA), including:

- CDA Dam Safety Guidelines, 2013
- CDA Guidelines for Public Safety Around Dams, 2011
- CDA Technical Bulletins:
  - Dam Safety, 2007
  - Dam Safety Reviews, 2017
  - Environmental Consequences Classification, 2023

Table 2 lists CDA recommended contents for dam operations plan.

**Table 2: CDA Recommended Operations Plan Components**

<p><b>1. Project Description</b></p> <ul style="list-style-type: none"> <li>Overview</li> <li>Infrastructure               <ul style="list-style-type: none"> <li>Communications</li> <li>Access Routes</li> <li>Public Safety</li> <li>Site Security</li> </ul> </li> </ul> <p><b>2. Operation</b></p> <ul style="list-style-type: none"> <li>Roles and Responsibilities</li> <li>Water Management</li> <li>Operating Procedures               <ul style="list-style-type: none"> <li>Normal Operations</li> <li>Flood or Drought Operations</li> <li>Unusual Operations</li> <li>Emergency Operations</li> <li>Records (Logs)</li> </ul> </li> <li>Flow Control               <ul style="list-style-type: none"> <li>Equipment and Facilities</li> <li>Water Level Gauge Systems</li> <li>Supervisory Control Systems</li> <li>Emergency Systems</li> </ul> </li> </ul>	<p><b>3. Maintenance</b></p> <ul style="list-style-type: none"> <li>Maintenance Programs</li> <li>Concrete Structures</li> <li>Embankment Structures</li> <li>Steel Structures</li> <li>Other Dam Structures</li> <li>Spillway Structures</li> <li>Penstocks Tunnels and Pressure Conduits</li> <li>Infrastructure (Access, Utilities)</li> </ul> <p><b>4. Surveillance</b></p> <ul style="list-style-type: none"> <li>Visual Inspections</li> <li>Dam Instrumentation</li> <li>Response to Unusual Conditions</li> <li>Documentation and Follow-ups</li> </ul> <p><b>5. Maintenance and Testing of Flow Control Equipment</b></p>
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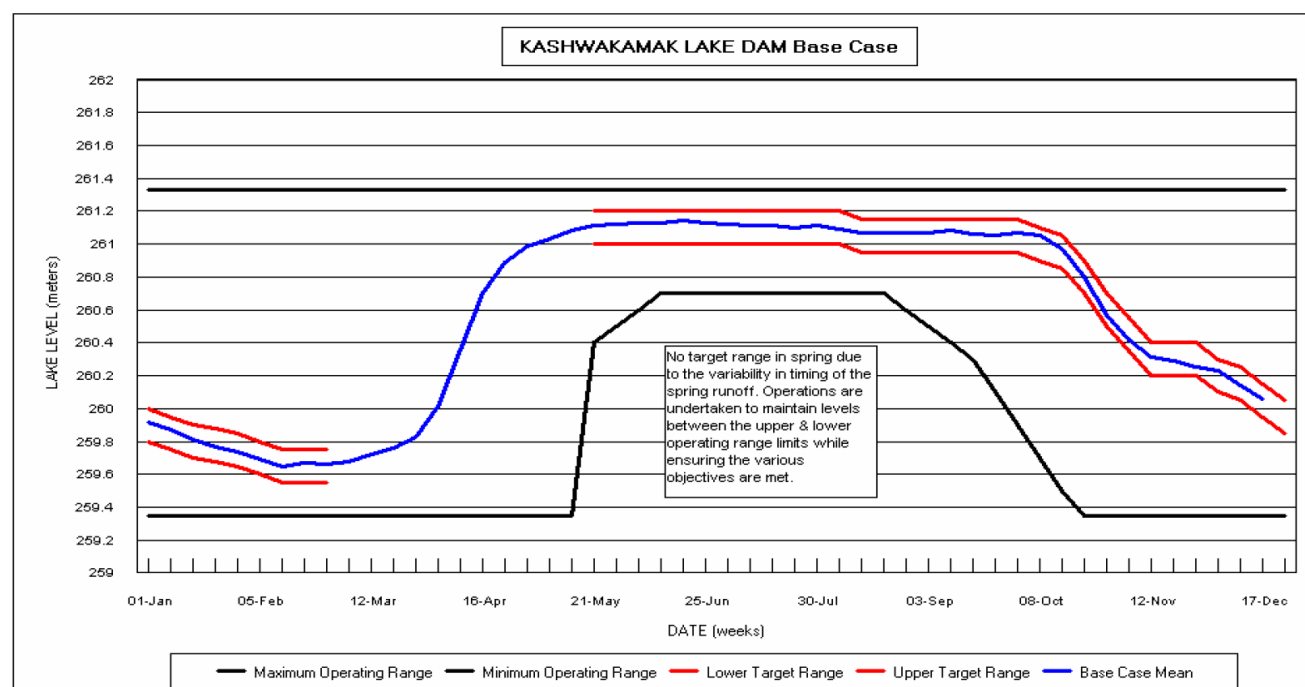
## 6.0 MVCA Dam Operations Plans

Until 2008, MVCA dams were operated within a defined and documented operating range; or according to specific physical landmarks that defined maximum and minimum elevations above the structure. Levels were maintained within these operating ranges as much as possible to fulfill the operating objectives of the individual structures. Many structures also had a narrower target range

representing the ideal levels needed to maximize benefits across the watershed. These limits were generally only exceeded due to intense weather events, which did not necessarily result in flooding, but allowed owners/operators the flexibility required to mitigate potential damages and address competing objectives. Figure 2 provides a sample of the broad and narrow ranges used to operate the Kashwakamak Dam.

All MVCA water control infrastructures have established Operations Plans (see Appendix A). Exceptions are Farm and Glen Cairn which are passive water control structures. Components of individual Operations Plans for each MVCA's structure are listed in Appendix B.

**Figure 2: Example of Historic Operating Range Graph**



Today, dams are operated in accordance with the limits set out in the *Mississippi River Water Management Plan, 2020*. Structures not addressed by the MRWMP continue to be operated per the historical approach.

The following sections summarize the operational approach taken by MVCA within the Mississippi River watershed during each of the four seasons. Details for each structure are contained in individual Operations Plans.

### 6.1 Fall (September to November)

The objectives of fall operations are the following:

- To drawdown water levels on the upper lakes to promote the formation of stable ice conditions, minimize shoreline damage due to ice movement, and create storage capacity within the system for the spring freshet. The goal is to have all lakes at their target winter setting prior to freeze-up.

- To fill Crotch Lake to allow for slow release during the winter months and maintain a minimum average flow of 5-15 cms in the lower system.

Fall drawdown begins mid-September with Pine, Shabomeka and Mississippi lakes. Shabomeka Lake is drawn down earlier so that the winter target level is achieved before the Lake Trout spawn.

Drawdown on Kashwakamak, Big Gull, and Mississagagon Lakes begins immediately after the Thanksgiving weekend which is deemed to be the end of the recreational season.

Draw down on Mazinaw Lake does not begin until after the hunting season (1st week of November) to ensure navigation through the narrows between the upper and lower lake is maintained. Mazinaw usually reaches its target minimum level by mid-January.

During the draw down period, Crotch Lake is refilled from mid-October until late December 1 during which a log is added on average once every 7 to 10 days.

Table 3 provides the drawdown schedule for each structure.

**Table 3: Annual Fall Drawdown Schedule**

Lake	Start Date	End Date
Shabomeka Lake	September 15 <sup>th</sup>	Mid October
Pine Lake	September 10 <sup>th</sup>	Late September
Mississippi Lake	September 15 <sup>th</sup>	Early October
Kashwakamak Lake	After Thanksgiving weekend (Mid Oct.)	Early December
Mississagagon Lake	After Thanksgiving weekend (Mid Oct.)	Early November
Big Gull Lake	After Thanksgiving weekend (Mid Oct.)	Mid November
Summit Lake	After Thanksgiving weekend (Mid Oct.)	Early November
Widow Lake	After Thanksgiving weekend (Mid Oct.)	Early November
Mazinaw Lake	After Hunting season (Mid November)	Mid December
Crotch Lake	Mid January / Early July	Mid March / October

## 6.2 Winter (December to February)

The objectives of winter operations are to:

- mitigate flooding and ice break-up, and damage that may arise due to winter thaws and rain.
- optimize storage capacity in the upper lakes to receive the spring freshet(s)
- provide for sufficient capture of runoff to achieve target summer levels

MVCA does not operate the system to mitigate ice damage to permanent docks and other structures located within the floodplain.

As winter weather conditions vary year over year, operations can also vary considerably. However, in a typical year the following approach is generally followed:

- From January until March, Crotch Lake is drawn down by removing one log every 10-20 days to maintain a minimum flow of 5-15 cms. By mid-March, the maximum amount of storage to reduce flood concerns is usually achieved within the watershed. All other dams are only operated if required to maintain stable ice conditions and prevent shoreline damage.

This approach may be impacted by the following conditions:

High precipitation levels in the fall can result in much higher winter lake levels throughout the system. MVCA must decide how much of that water to store (if any) and how much to release. It can take up to 2-weeks or more to pass water safely from the upper watershed through the system, longer if there is ice covering the lakes.

Low snow water equivalent (SWE). The depth and water content of snow are measured at 16 sites throughout the winter. If the SWE is well below normal, and the weather forecast does not provide for significant precipitation, it may be appropriate to begin to insert stoplogs in some lakes as early as February in order to capture runoff to achieve target summer levels.

Above average SWE. If the snow pack is above average, inserting stoplogs will be delayed in an effort to allow the ice to soften while still ensuring that there is adequate water supply in the snow to refill the lakes, and adequate storage capacity to capture any late season rains.

Other extreme changes. Major weather events can affect winter operations. For example: a cold snap in late winter /early spring can dramatically reduce the rate of runoff, delay spawning, and increasing the risk of quick rapid melting once temperatures return to seasonal normal. Persistent winds and temperatures just above freezing can cause the snowpack to sublimate<sup>5</sup> rather than melt, which reduces the water available to fill the system and achieve target summer lake levels.

Frazil Ice is slush like, has limited structural strength, and builds from the bed of the river upwards, typically on long stretches of open water following a severe and extended cold period. Ice jams can result from frazil ice when lake ice is still solid.

There is no easy way to mitigate the formation of and to control frazil ice. Historically, it occurs on the Mississippi River at Sheridan's Rapids, the Playfairville Rapids, Ferguson's Falls Rapids, the Innisville Rapids, at Glen Isle, the Appleton Rapids, in Almonte and upstream of Pakenham. It also occurs at numerous areas along the smaller tributaries where rapids exist.

Other variables can influence winter operations including the following:

- Fall soil conditions prior to freeze up as this impacts the ability of the soil to store water once the snow melt begins.
- Ice thickness and levels for ice fishing, snowmobiling, etc. as fluctuating water levels could cause unsafe ice conditions as well as create potential shoreline damage.

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<sup>5</sup> Sublimation is the conversion between the solid and the gaseous phases of matter, where snow, ice, and frost change directly to water vapor resulting in no runoff.

- Fish spawning seasons (e.g. Pike in March)
- Time of the year, as the later the snow pack remains on the ground the more likely the temperatures will warm up quickly and generate fast runoff.

### 6.3 Spring (March to May)

The objectives of spring operations are to:

- Mitigate spring flooding,
- Provide suitable conditions for fish spawning,
- Fill the upper lakes to target summer recreational water levels, and
- Fill Crotch Lake to provide for drawdown over the summer in order to maintain base flow downstream.

As the snowpack begins to melt in the spring, logs are installed in the upper lakes to capture melt water and rainfall in order to meet target summer recreational lake levels. Approximately 140 mm of rainfall and snowmelt are required to fill the lakes. Filling of the lakes must be balanced with maintaining sufficient storage in the system to accommodate late spring rainfalls; and with providing sufficient flows and levels for fish spawning (e.g. stable flows for walleye spawning in rapids.)

Filling the upper lakes also reduces the risk of downstream flooding, as the lower watershed receives mostly uncontrolled flows from the tributaries Antoine Creek, Cranberry Creek, Fall River and Clyde River.

Peaking of the spring freshet typically occurs as follows:

- The Indian River typically peaks 2 days prior to the Clyde River at Gordon Rapids.
- Gordon Rapids typically peaks 36 to 48 hours prior to the Clyde River at Lanark.
- Lanark typically peaks 2 to 3 days prior to the lower Mississippi River at Appleton.

Peak levels at Appleton are usually about 2.0 to 2.5 times the flows on the Clyde River (double when flows are <70 cms, and 2.5 times when flows are >70 cms.) These are based upon historic observations, however, MVCA has witnessed significant changes over the past 20-years and this pattern is expected to change.

Areas with a history of flooding are the following:

- Lanark Village
- Cedardale and Clyde River downstream to Lanark
- Snow Road / Dalhousie Lake
- Innisville and Mississippi Lake
- Town of Carleton Place, Glen Isle and Appleton
- Town of Mississippi Mills (Almonte, Pakenham)
- Carp River – mainly villages of Carp and Kinburn
- Ottawa River shoreline – mainly Constance Bay

Though less frequent, there is also potential for substantial flooding to occur on Shabomeka, Mazinaw, Kashwakamak and Big Gull Lakes, primarily during late spring rainfall May/June and during large watershed flooding events (as experienced in in 2024 and 2019, respectively).

Once the spring runoff has subsided, the upper lakes are gradually filled to reach target levels for recreation and tourism. Thereafter, all dams except Crotch Lake are operated to maintain relatively stable water levels during the summer months. Crotch Lake Dam is the only true reservoir in the watershed as it has the greatest capacity for storing spring runoff and is filled and lowered to maintain base flow in the lower system year-round.

#### 6.4 Summer (June to August)

According to the 2008 MRWMP, maintaining an average flow of 5 cms at High Falls GS came from a “gentleman’s agreement” to provide a minimum flow downstream of Crotch Lake throughout the summertime. This “agreement” expanded over the years to become a year-round value.

It is believed that the 5 cms standard came through years of system operation during which it was determined that this flow rate could be maintained by gradually releasing all available storage in Crotch Lake over a 4-month period, assuming average summer rainfall. This flow rate equals ~1/3 the total plant flow capacity of the High Falls G.S., thereby allowing one of the three units to operate at full capacity.

Local runoff from the area between Crotch Lake and High Falls contributes flow to the river and can be used to help achieve the 5 cms baseflow target. However, when Crotch Lake is operated to minimize downstream flooding, flooding may still occur due to uncontrolled runoff from this local drainage area, as occurred in April 1998.

Flows less than 5 cms may occur during drought conditions. In all watercourses, aquatic habitat is affected to some degree depending on the severity and duration of the low water event. Livestock farmers may have difficulty providing water for their animals during drought periods. Other impacts include golf courses, which rely on irrigation from tributary streams, that tend to dry out. Safe boating on the Mississippi River system and uncontrolled lakes can be jeopardized by lower water levels.

Typical impacts from drought in MVCA’s jurisdiction are the following:

- Upper Controlled Lakes (Shabomeka, Mazinaw, Kashwakamak, Malcolm, Big Gull and Mississagagon): lake evaporation during drought conditions makes it difficult to maintain lake levels and downstream flows. When the water level in a lake falls below its target summer operating range, operation of the dam ceases per the MRWMP.
- Mississippi River: when flows from the upper lakes drop or cease, downstream flows can fall significantly resulting in disconnected pools, shoreline mud flats, and the drying out of wetlands, which can affect aquatic and terrestrial species populations (current and future years), and recreational uses and docks.
- Buckshot Creek: low flows can result in exposed streambeds and reduced habitat. Local beaver activity can exacerbate this by further reducing or eliminating flow downstream.

- Clyde River: tributaries and wetlands can dry-up and the main channel can become disconnected pools, affecting aquatic and terrestrial species (current and future years.)
- Fall River: flows can drop to zero leaving an exposed streambed and reduced habitat. Local beaver activity can exacerbate this by further reducing or eliminating flow downstream.
- Carp River: flows can be reduced to zero leaving exposed streambed and reduced habitat – exacerbated by beaver activity. Tributary streams can have no flow – also exacerbated by beaver activity.
- Ottawa River (east from Watts Creek watershed): The Ottawa River is a major system responding mainly to weather conditions in northeastern Ontario and western Quebec. To have a significant impact, dry conditions would have to extend over a very large area. Municipal water supplies taken from the Ottawa River are a small portion of the flow and have not been at risk during low water events in the Mississippi watershed.
- Tributaries to the Ottawa River (Stillwater, Constance, Watts, Shirley’s Brook): All streams can drop to minimal or no flow during drought conditions and severely impact aquatic habitat.

## 7.0 Compliance Monitoring & Updates

Watershed monitoring is necessary to support dam operations and adaptively manage flows and mitigate flooding. MVCA has a diverse network of gauges monitoring levels and flows throughout the system. Precipitation, snow, and ice are tracked throughout the year to determine flood risk. Modeling and forecasting tools are being developed and used to help predict peak flood elevations and flows.

The 2018 MRWMP requires plan proponent(s) to undertake a review of activities under the plan and to prepare and submit an Implementation Report to the MNR after every five years of operation that:<sup>6</sup>

- Summarizes all amendment activity during the term;
- Outlines the results and conclusions of the effectiveness monitoring program (EMP), if applicable; and,
- Reports on the status and results of the data collection program, if applicable, and determine if revisions to the program are required.

MVCA participated in the 2020 and 2024 reviews that were prepared with the hydro co-proponents and submitted to MNR for review and approval.<sup>7</sup> MVCA are not considered to be subject to the compliance and enforcement provisions of the MRWMP plan.

## 8.0 Flood Forecasting & Warning

MVCA must be prepared at all times to activate the Flood Warning System to assist in the prevention of the loss of lives and minimize property damage. Daily monitoring of evolving conditions across the

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<sup>6</sup> Approved in accordance with the MNR 2016 *Maintaining Water Management Plans* Technical Bulletin.

<sup>7</sup> MNR is also a co-proponent under the MRWMP and has reporting obligations under the Plan.



watershed are used to identify areas at potential risk of flooding. Flood risks are classified as set out in Table 4, and used to characterize and notify affected communities.

**Table 4: Flood-risk Classification System & Associated Water Levels**

	<b>Forecasted Impacts</b>	<b>Historical Levels</b>
<b>Nuisance</b>	<ul style="list-style-type: none"> <li>• Flooding low lying areas/docks</li> <li>• No residential flooding</li> <li>• Access routes are not disturbed</li> </ul>	
<b>Minor</b>	<ul style="list-style-type: none"> <li>• Some disruption of roads</li> <li>• No evacuations</li> <li>• Minor residential flooding such as some basement seepage or minor sewer backup</li> </ul>	
<b>Major</b>	<ul style="list-style-type: none"> <li>• Significant road damage</li> <li>• Surface water in basements</li> <li>• 1st floor residential flooding</li> <li>• Potential evacuation due to loss of services</li> </ul>	Dalhousie Lake – 157.40 m or higher Mississippi Lake – 135.50 m or higher Mississippi River – 220 cms at Appleton Clyde River – 110 cms at Herron’s Mills Carp River – 100 cms
<b>Severe</b>	<ul style="list-style-type: none"> <li>• Major disruption to roads and services</li> <li>• Many residences with 1st floor flooding</li> <li>• Houses destroyed</li> <li>• Evacuations</li> <li>• Major risk to loss of life</li> <li>• Industrial, commercial and agricultural damage</li> </ul>	
<b>Catastrophic</b>	<ul style="list-style-type: none"> <li>• Loss of life</li> <li>• Community destruction</li> </ul>	

## Appendix 1: List of MVCA Water Control Infrastructure Operations Plans

The following operations plans are available under separate cover:

- Shabomeka Lake Dam, 2007
- Mazinaw Lake Dam, 2005
- Mississagagon Lake Dam, 2004
- Kashwakamak Lake Dam, 2004
- Big Gull Lake Dam, 2004
- Pine Lake Dam, 2000
- Widow Lake Dam, 2001
- Lanark Dam, 2002
- Bennett Lake Dam, 2000
- Carleton Place Dam, 2002

## Appendix 2: MVCA Operational Plan Components

Table 2: MVCA Operations Plan Components, as of September 2024

Facility	Location Map	Data Sheet	Summary Description	Drawings	Hydraulic Information	Operating Plan	Operator Safety Procedures	Water Levels	Flood Thresholds	Lake Information	Structure Survey	Inspection Reports	Latest DSR	Latest EPP	Latest PSP
Shabomeka	x	x	x	x	x	x	x	x	x	x	x	x	2020	2020	2020
Mazinaw	x	x	x	x	x	x	x	x	x	x	x	x	2006	Draft	Draft
Mississagagon	x	x	x	x		x	x	x	x	x	x	x	N/A	Draft	Draft
Kashwakamak	x	x	x	x	x	x	x	x	x	x	x	x	2021	Draft	Draft
Farm	x	x	x	x				x			x	x	N/A	Draft	Draft
Big Gull	x	x	x	x	x	x	x	x	x	x	x	x	2006	Draft	Draft
Pine	x	x	x	x		x	x	x			x	x	N/A	Draft	Draft
Widow	x	x	x	x		x	x	x		x	x	x	N/A	Draft	Draft
Lanark	x	x	x	x	x	x	x	x	x	x	x	x	2024	Draft	Draft
Bennett	x	x	x	x		x	x	x		x	x	x	N/A	Draft	Draft
Carleton Place	x	x	x	x	x	x	x	x	x	x	x	x	2022	2022	2022

MVCA maintains other information separate from the operational plans such as the legal description, drainage area maps, rule curves and rating tables, hydrographs, bathymetry, and maintenance records. These are being integrated into the operational plans over time as resources allow.

## REPORT

3463/24

TO:	The Chair and Members of the Mississippi Valley Conservation Authority Board of Directors
FROM:	Sally McIntyre, General Manager
RE:	<b>Land Conservation &amp; Resource Strategy</b>
DATE:	December 5, 2024

**RECOMMENDATION**

**That the Board of Directors approve the Land Conservation & Resource Management Strategy.**

In October, staff tabled a *Draft Land Conservation & Resource Strategy* for review by the Board of Directors and release for public consultation.<sup>1</sup> The purpose of this report is to summarize the results of consultation and key amendments, and to table a final draft of the *Land Conservation & Resource Strategy* (LC&RS) for approval.

**1.0 BACKGROUND**

O. Reg. 686/21 under the *Conservation Authorities Act* requires MVCA to prepare the following two strategies by the end of 2024:

- **Conservation Area Strategy** that addresses the acquisition and disposition of CA lands, the programs and services offered on those lands, and how CA lands augment any natural heritage in its jurisdiction and integrates with other provincially or municipally-owned lands.
- **Watershed-based Resource Management Strategy** that provides guiding principles and objectives to inform the design and delivery of CA programs and services, a summary of studies, monitoring and other information used to inform those decision, a compliance review of existing programs and services, and a risk analysis and mitigation plan for those services with cost estimates.

The LC&RS meets the mandatory requirements of both the above strategies.

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<sup>1</sup> Staff Report 3445/24

## 2.0 PUBLIC CONSULTATION

Following tabling of the draft strategy, ads were published and notices sent to member municipalities and key stakeholders announcing release of the document for comment. Social media was used to further promote its release and to encourage comment; and the project web page was updated and the notice published on MVCA's home page.

Meetings were held with MVCA's Mississippi River Watershed Plan Public Advisory Committee (PAC) and Museum Advisory Committee (MAC) to review results of the previous round of consultation as well as the draft strategy.

A Virtual Information Session was held October 29<sup>th</sup>, with 21 participants that included members of First Nation communities, three lake associations, MVCA advisory committee, and local businesses. Participants expressed that the information session helped them to understand the breadth and depth of the responsibilities and functions of the Conservation Authority. A video of the session was posted on the project web page along with a link to the presentation.

Relatively few comments were received regarding the Draft Strategy compared to the feedback received during the Discussion Paper phase. Comments and suggested edits were received from 4 people/organizations, all of which were supportive. Key themes were the following:

- Care needs to be taken to clearly distinguish MVCA's conservation area mandate from broader passive recreation objectives for the watershed.
- While generally supportive of MVCA divesting itself from management of the museum collection, most want to see it remain at the Mill of Kintail.
- There is a desire that MVCA demonstrate leadership with respect to the Mississippi River Canoe Route without assuming a financial burden.
- First Nations participants and representatives expressed interest in collaborating on MVCA's stewardship activities, the promotion of First Nation knowledge at MVCA's conservation areas, and other matters.

The following feedback from Kashwakamak Lake Association encapsulates how useful and appreciated the LC&RS planning process was by those who participated:

*"This document and the various background papers have provided a comprehensive look at the assets and operations of the MVCA. The proposed policies are, in our view, consistent with its mandate and realistic under current circumstances. As a result, we do not have any specific comments or suggestions at this time, other than to say – keep up the good work!"*

The Strategy also underwent further critical internal review and the resulting document reflects editorial and content changes received from both staff and the public. No comments were received from MVCA's eleven municipalities on the draft strategy.

### 3.0 KEY AMENDMENTS

The final Strategy contains a multitude of minor editorial changes. All changes with policy implications or made to address matters raised by Board members have been made in RED for easy review.

An Implementation section has been added that illustrates how the LC&RS will inform all other documents of the Conservation Authority; and that prescribes a process for periodic review and update of the Strategy.

### 4.0 NEXT STEPS

Following Board approval, the Strategy will:

- be posted to the Governance section of MVCA’s website,
- inform update of the *Corporate Needs Assessment* tool that is used for short and mid-term planning
- inform update of the *Corporate Strategic Plan*, and
- guide staff implementation of Board direction.

### 5.0 CORPORATE STRATEGIC PLAN

Approval of the Land Conservation & Resource Strategy will support achievement of:

Goal 1: Asset Management – revitalize watershed management activities and invest in our legislated mandate; and objectives:

- b) Strengthen our risk analysis and management capacity to include climate change and development impacts.
- c) Implement priority actions identified in the *Mississippi River Watershed Plan*.
- e) Plan for the next phase of asset development and management.

Goal 2: Community Building – engage local partners to foster connections, leverage our resources, and strengthen our “social license” to operate.

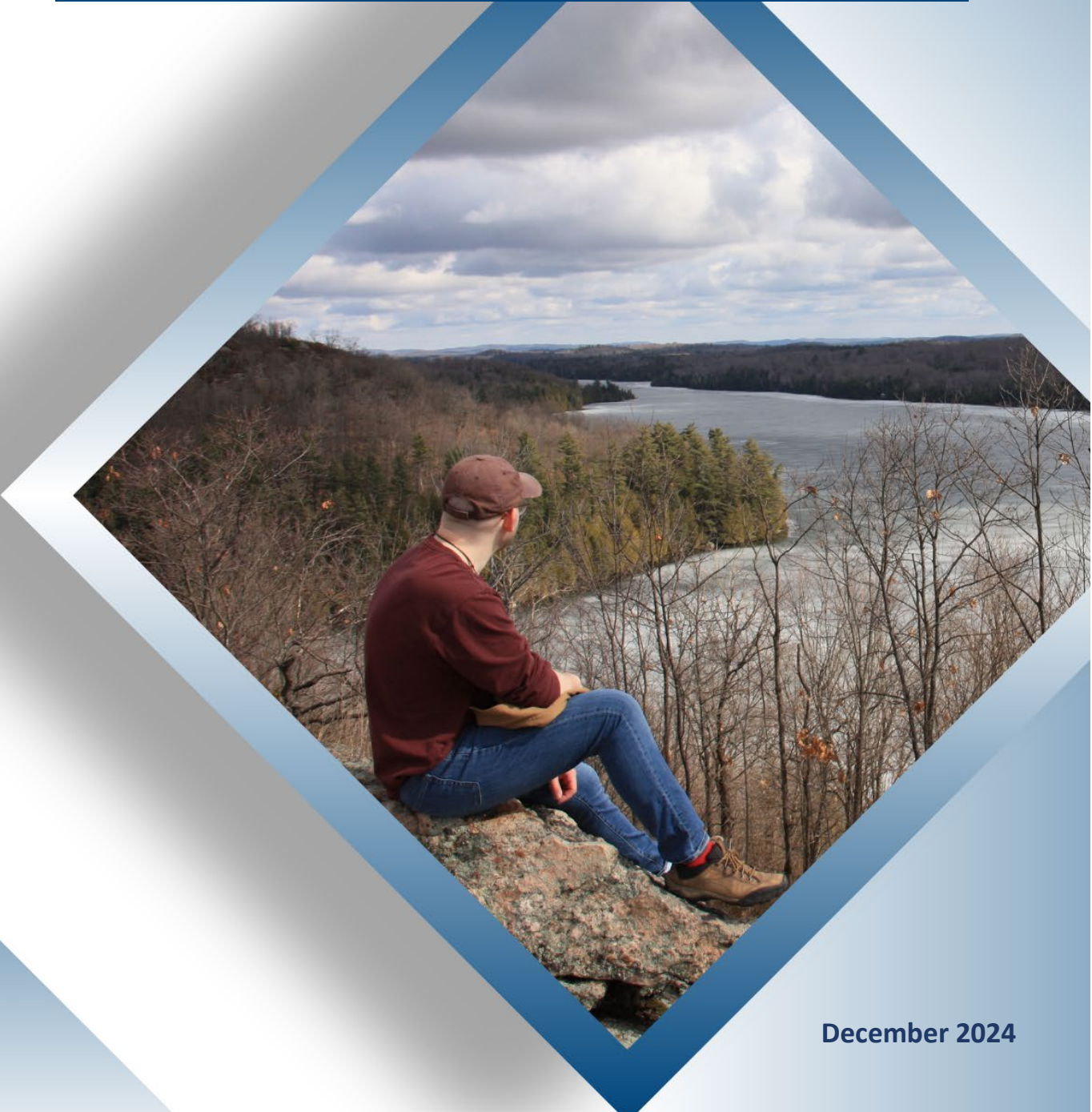
- a) Demonstrate MVCA to be a trusted, client-centered, resourceful, and helpful partner.
- b) Strengthen relationships with municipalities and community stakeholders, First Nations, the agricultural sector, developers, not-for-profits, and academia.

#### Attachment:

1. Land Conservation & Resource Strategy, December 2024



# Land Conservation & Resource Strategy



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# Executive Summary

This Strategy was prepared to meet the requirements of Sections 10 and 12(4) of *Ontario Regulation 686/21*, which requires Mississippi Valley Conservation Authority (MVCA) to document its guiding principles, the objectives of its programs and services, gaps in those programs, risks and mitigating measures, and to prepare policies regarding the acquisition and disposal of land (where acquisition includes the leasing and licencing of land from others). The regulation also requires the Strategy to list background studies, and to clearly distinguish how MVCA assets and programs and services integrate with those provided by other organizations in its jurisdiction.

## Background

Several projects were undertaken over the period 2019-2024 to enable preparation of this Strategy including completion of the *Mississippi River Watershed Plan*, reviews of the Monitoring & Reporting and the Stewardship programs, review of the Education program, inventory and analysis of MVCA assets and preparation of the Land Inventory, preparation of the business case for Category 2 and 3 programs and services, and evaluation of the gaps and risks associated with each program. As well, MVCA engaged a variety of community partners to determine the extent to which they provide similar programs and services to enable MVCA to define its niche.

## Context

The follow key variables and trends influenced the drafting of this Strategy:

- Many MVCA assets are aged and need renewal or replacement and projected costs are significant;
- All levels of government are facing financial constraints, in particular our municipal partners;
- Large areas of our jurisdiction are subject to natural hazards;
- Growth can exacerbate natural hazards and impact natural heritage resources;
- Climate change is affecting the risk of natural hazards and impacting natural heritage resources;
- Climate change is also affecting how we design and operate water control infrastructure;
- The nature and extent of wetlands within the lower watershed are at risk;
- MVCA shares responsibility for natural heritage resources protection and management;
- MVCA has seen significant changes in its regulatory powers and responsibilities; and
- There are limits on the cost-recovery mechanisms of conservation authorities.

## Vision

This Strategy was drafted based upon the following vision:

*Watershed stakeholders working together to foster a sustainable landscape where ecological integrity is maintained, natural hazards are mitigated, and nature can be enjoyed and appreciated by all.*

## Program Goals

MVCA delivers ten programs to the municipalities and residents within its jurisdiction. The following goals are proposed for each program.

### Flood Forecasting & Warning

- Watershed users receive timely and accurate information and warnings regarding watershed conditions and how to protect themselves and their property.

### Regulatory Mapping & Program Administration

- Development does not occur in regulated areas unless properly assessed and permitted.
- MVCA is considered to be a fair and responsive regulator.

### Assets & Operations

- Water management activities consistently mitigate the impacts of natural hazards.
- MVCA is a trusted asset manager and operator of the Mississippi River system.

### Land Management

- The natural resources of the Mississippi, Carp, and Ottawa river watersheds are managed sustainably for the enjoyment and welfare of current and future generations.
- Land ownership and management are used as **opportunities** for reconciliation with First Nations.

### Conservation Areas

- Conservation areas provide opportunities for walking, hiking, and solitude in a natural setting and contribute to the quality of life and sustainability of the watershed.
- Conservation areas are accessible to all.

### Conservation Preserves

- Eliminate risk of future losses in areas at high risk of natural hazards.
- No net loss of ecological and hydrological services in the watershed.

## Source Water Protection & Monitoring

- MVCA collects water environment data and conducts long-term trend analysis to support informed and sustainable land use, infrastructure, and resource planning.
- MVCA demonstrates value for money in delivering system monitoring and resource management services to the province and municipalities.

## Education and Outreach

- Watershed residents and users:
  - a. understand how the watershed functions and their role in it, and the role of MVCA.
  - b. make informed decisions that mitigate risks and support resource sustainability.
- MVCA is a partner of choice for education and community engagement.

## Stewardship

- The protection of water quality, wetland cover, forest cover, and other environmental features by working with watershed landowners to make meaningful improvements to their properties and practices.

## Visitor Services (at Mill of Kintail)

- Sustainable management of the property, buildings, and heritage features for current and future generations.
- The Mill of Kintail is a top-10 destination in Lanark County.

## Program Risks

The following is a summary of key risks that could impact the ability of MVCA to achieve the goals and objectives of this Strategy:

### Flood Forecasting & Warning

- Large areas of the Mississippi watershed have yet to be studied and modeled, which limits forecast accuracy and the ability to optimize system operations.
- There is insufficient public understanding of how the watershed functions and the limits of watershed infrastructure and operations.
- Federal and provincial grant programs are inconsistent in focus, value, and timing.
- Communities need to be regularly reminded of natural hazards and how to mitigate them.
- Accelerated rate of climate change and increased frequency of extreme events.

### Regulatory Mapping & Program Administration

- MVCA's regulatory responsibilities are unknown or misunderstood by many.
- Regulations governing floodplain mapping and regulatory limits have not been updated to consider the aggregated impacts of watershed development and climate change.

## Assets & Operations

- Funding of Ontario's Water & Erosion Control Infrastructure (WECI) grant program has not increased in ~20 years and provides insufficient time to tender and implement projects.
- There is an affordability gap that limits the building of capital reserves to deliver more than the current 10-year capital plan, and only with the support of long-term loans.

## Land Management

- Most land transfers, documents, and surveys predate and are not registered in the Ontario Land Titles System (OLTS).
- Some property boundaries provided by the province are inconsistent with MVCA's records.

## Conservation Areas

- None of the conservation areas have a verified accessible trail per the AODA.
- There is no accessible toilet serving the Education Centre, Picnic Shelter and Cloister at the Mill of Kintail; only seasonal accessible toilets are available at Morris Island CA and Purdon CA.
- Unmet demand for hiking and walking trails and campsites is evident across the jurisdiction.
- Prohibitive cost of land acquisition to establish new conservation areas.

## Conservation Preserves

- Buy-out programs do not exist for primary-residence dwellings located within the floodplain.
- Affordable sites are unavailable in the lower watershed to accommodate offsetting and support ecological restoration.

## Source Water Protection & Monitoring

- Most municipalities in the watershed do not receive support in protecting water supplies under the *Clean Water Act*. CA regulations prevent use of Category 1 revenues to investigate and support municipalities in protecting water supplies at a watershed level.
- There is a lack of awareness of the cumulative and downstream effect of leaking septic facilities on drinking water quality, the health of the river system, and recreational tourism.

## Category 3 Programs

Funding of the Education & Outreach, Stewardship, and Visitor Service programs are all inherently at risk due to variable grant availability and success, and the affordability limits of both program users and funders.

## Policy Direction

This Strategy contains a variety of policies to direct how MVCA will manage its assets and program delivery. The following is a selection of key policies, with a focus on land management and financial matters:

### **Flood Forecasting & Warning**

- A System Surveillance Strategy should be developed to guide the design and management of the monitoring network, update facility benchmark information, and prioritize future investments.

### **Regulatory Mapping & Program Administration**

- A Hazard Mapping Strategy should be prepared to inform short and mid-term studies, confirm mapping priorities, and support annual regulatory reporting requirements.
- Planning and permit application fees should cost recover a minimum of 90% of development review and associated administrative costs.

### **Assets & Operations**

- The *10-year Capital Plan* will be updated annually, and the *Schedule of Municipal Capital Levy Increases* updated at least once every four years.
- Where the primary purpose of the structure is to maintain recreational water levels, land acquisition and other capital costs should not be borne by MVCA; administrative costs such as legal fees and taxes and operating costs may be funded using revenues obtained via the Municipal Levy.

### **Land & Resource Conservation**

- A plan will be prepared and implemented to address gaps in legal surveys and legal titles, including easements, and to register such in the Land Registry or Land Titles office.
- MVCA shall not enter into Conservation Easement agreements except as a condition of a Board-approved stewardship program, with the easement not to exceed 10-years.
- MVCA may enter into Partial Takings or Direct Conveyance where deemed by the Board of Directors to be in the interest of the Authority.
- MVCA may enter into service agreements to deliver conservation land management services to other public and conservation organizations as follows:
  - Municipal: via the Programs & Services Agreement and a Special Levy.
  - Other Public or Conservation Organization: via Stewardship Agreement, Forest Management Agreement, or other contract that shall not exceed 5-years.

### **Conservation Areas**

- The Mill of Kintail Museum is a community asset and cultural attraction. MVCA will operate the museum while seeking another organization to assume management of collections.
- Acquisition of lands (including lease and license agreements) from the province and local municipalities and counties will be prioritized over land donations for the establishment of new conservation areas.
- Funding Operating:
  - Education & Outreach Program, which is a combination of Category 1 and 3 programming, via the Municipal Operating Levy and Other Sources with a target

revenue ratio of 15:85 on an annualized basis. (Some program elements will be profit-making while other elements may be delivered at a loss).

- Visitor Services: via the Municipal Operating Levy, user fees, and grants and donations with a target revenue ratio of 20:50:30 on an annualized basis.
- Funding of capital works of existing Category 3 structures will be in accordance with municipal Programs & Services Agreements.
- Land acquisitions will require Board approval and a business case, market valuation, title search, legal survey, completion of an Environmental Site Assessment (ESA), and grant approvals prior to execution.

### **Conservation Preserves**

- MVCA will continue to manage existing conservation preserves that provide flood and erosion control or natural heritage conservation located at:
  - Cedardale on the Clyde River;
  - Glen Cairn on the Carp River; and
  - Appleton on the Mississippi River.
- MVCA should work with local municipalities to identify and assess existing publicly owned land for the purpose of providing suitable hydrological and ecological offsetting opportunities.
- MVCA should explore opportunities under the Canadian GHG Offset Credit System and other mechanisms to secure revenues to protect or enhance natural carbon sinks within the watershed.
- The acquisition of Conservation Preserves for Stewardship, Wetland Offsetting or Carbon Offsetting purposes will be done on a 100% cost-recovery basis.

### **Source Water Protection & Monitoring**

- Provincial monitoring programs will serve as the platform upon which local monitoring objectives are met in accordance with Category 2 Programs & Services Agreements.

### **Category 3 Programs**

In summary, Category 3 programs (Education & Outreach, Stewardship, and Visitor Services/Mill of Kintail CA) are to have an up to date plan that is delivered in accordance with Category 3 PSAs.

The Strategy expands on all of these matters, and includes program objectives, measures for mitigating risks, and appendices that illustrate how MVCA works with partners to minimize overlap and gaps in the delivery of programs and services within our jurisdiction.

# Purpose and Background





The *MVCA Land Conservation & Resource Strategy* documents the Vision, Guiding Principles, Objectives and the Programs & Services Policies of Mississippi Valley Conservation Authority. It is intended to guide decisions by staff and the Board of Directors; and provide transparency to the work of the Authority. It is also designed to meet mandatory content requirements of O. Reg. 686/21 of a Watershed-based Resource Management Strategy and Conservation Area Strategy.

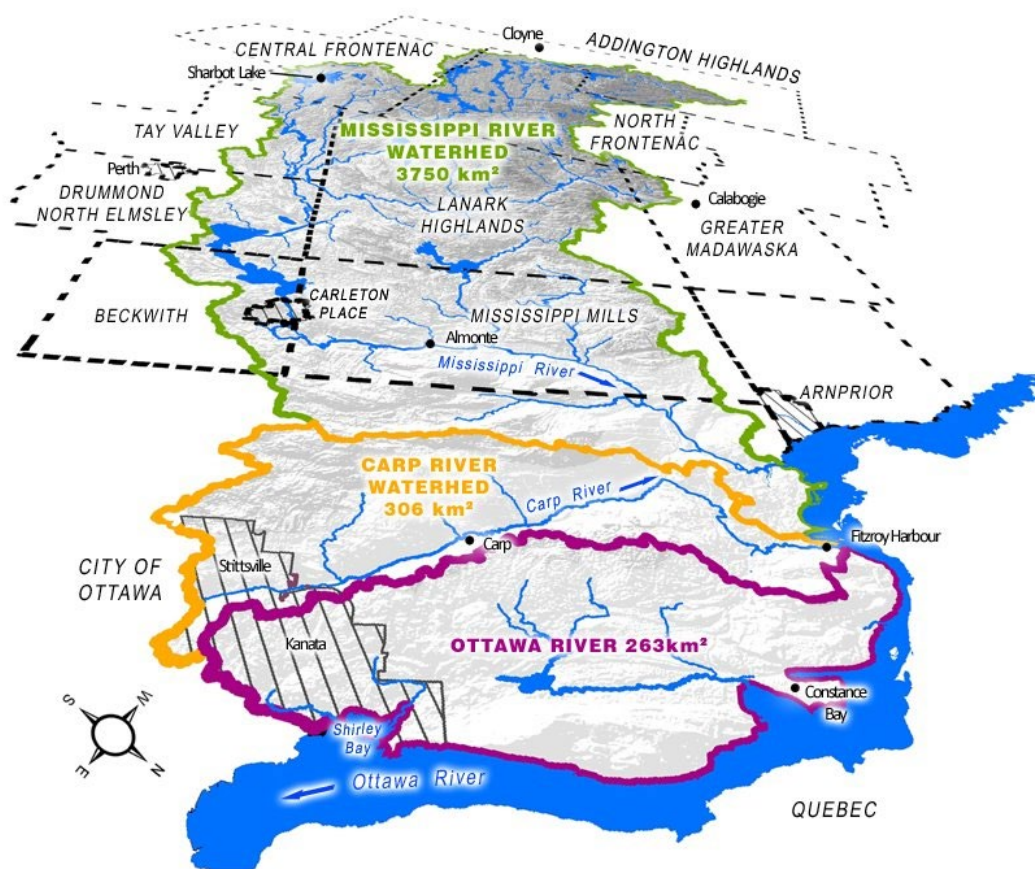
The *Land Conservation & Resource Strategy* is based upon the findings and recommendations of several studies, surveys, and reports completed since amendment of the *Conservation Authorities Act* in 2019, including:

- Implementation Report under the *Mississippi River Water Management Plan*, 2019
- Dam Safety Reviews, Condition Assessment Reports, and updated Hazard Classification studies carried out at one or more of MVCA's 11 water and erosion control structures
- *Backgrounders 1-4 on MVCA's Physical Environment, People and Property, Natural Systems, and Asset Management, 2019-2020*
- *Discussion Papers* focused on: *Agriculture, Forestry, Growth & Development, Municipal Infrastructure, Natural Systems, Tourism, Water Management and Waterfronts*, 2021
- *Mississippi River Watershed Plan*, 2021
- *Corporate Strategic Plan and Implementation Plan*, 2021
- *Carp River Conservation Area Background Report*, 2023
- *Carp Action Plan*, Prepared by MVCA, May 2015
- *Upper Poole Creek Restoration Plan*, Prepared by MVCA, December 2019
- *Upper Poole Creek Subwatershed Study*, Marshall, Macklin, Monaghan, 2000
- *Land Conservation Strategy: Results of Consultation*, 2024
- *2024 Recreational Survey Results*, 2024
- *Local Portages: Their History, Use, and Potential*, 2024
- *Stewardship Plan, 2021 and 2021-2023 pilot*
- *Natural Systems Monitoring & Reporting: Program Review and Update*, 2023
- *Review of Natural Heritage Values, 2022-24*
- *Municipal Category 2 & 3 Business Case*, 2023
- *Municipal Program and Services Agreements*, January 1, 2024
- *Review of Regional Outdoor Recreational Facilities*, 2024
- *Current State Report*, 2024
- *Discussion Paper: Land Conservation Strategy*, 2024
- *Review of the Education Program*, 2024
- *Registry of Hazardous Events*, 2024
- *Technical Memo on History of Flood, Drought, and Erosion Events*, 2024
- *Technical Memo on Portage Routes within MVCA's Jurisdiction*, 2024
- *Implementation of an Indigenous Engagement Plan, 2020-2022*
- *Implementation of public engagement plans that included briefings of municipal and county councils, public notices, virtual information sessions, social media campaigns, and outreach to various stakeholders, and online surveys over the period 2019-2024.*

# Mississippi Valley Conservation Authority (MVCA)



Mississippi Valley Conservation Authority  
 is a public agency established by the Province of Ontario in 1968.  
 Our purpose is to “further the conservation, restoration, development  
 and management of natural resources” in the Mississippi and Carp  
 watersheds, and portions of the Ottawa River watershed. Our  
 programs and services are delivered in accordance with the  
[Conservation Authorities Act, RSO 1990 \(CA Act\)](#).



**MVCA is governed** by a Board of Directors consisting of representatives from the eleven municipalities we serve, and a provincially appointed Agricultural Representative. Municipalities fund MVCA based upon their assessed property value within the watershed, with the City of Ottawa the largest contributor. MVCA charges fees for facility rentals, permits, and other services; and applies for grants from upper tier governments and charitable organizations to support program delivery.<sup>1</sup>

<sup>1</sup> Visit [www.mvc.on.ca](http://www.mvc.on.ca) for more information on Mississippi Valley Conservation Authority.

# Vision

**Watershed stakeholders working together to foster a sustainable landscape where ecological integrity is maintained, natural hazards are mitigated, and nature can be enjoyed and appreciated by all.**



# I. A Shared Understanding

This document is founded on the following guiding principles:

- 1) **Watersheds are a shared resource.** The management and use of natural resources in one part of the watershed impacts others in terms of flooding and erosion, drought management, the health and abundance of flora and fauna, and water quality.
- 2) **Climate change is real.** We must adapt, and mitigate it where possible.
- 3) **Collaboration is necessary** to ensure the wise management of natural resources and to mitigate and adapt to the impacts of climate change.
- 4) **Coordination is necessary** to ensure that priorities are addressed, avoid duplication of effort, and ensure the wise use of technical expertise and financial resources.
- 5) **Informed decision-making requires quality information, business processes, and governance.** The collection, analysis, and sharing of information and effective community engagement are fundamental to hazard management and sustainable natural resource management.
- 6) **Decisions taken today should be sustainable for seven generations.** This ancient Haudenosaunee (Iroquois) philosophy says that the decisions we make today should result in a sustainable world seven generations into the future.<sup>2</sup> Where good data does not exist, a cautionary approach should be taken.
- 7) **MVCA has regulatory obligations.** The Province of Ontario requires MVCA to administer a permitting system to protect people and property from natural hazards, to act on its behalf in the review of planning applications, to support municipalities in the protection of drinking water supplies and drought response, and to provide flood forecasting and warning to the communities it serves.
- 8) **MVCA facilities provide local economic benefits.** Facilities managed by MVCA help to protect the community from natural hazards and attract people to the region. Investment in these assets, programs, and services benefits local municipalities and residents.
- 9) **MVCA is a community partner.** MVCA supports land stewardship and community recreation and education in the watershed by managing lands for conservation and delivering community-based programs and services in partnership with others.
- 10) **MVCA is accountable to the communities it serves.** Decisions regarding the scope of MVCA programs and services and the methods used to fund them must be done in consultation with member municipalities, First Nations, and benefiting communities.

MVCA works with and depends upon many other organizations. See [Appendix 1](#) for details.

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<sup>2</sup> Source: <https://www.ictinc.ca> "What is the Seventh Generation Principle?" accessed September 10, 2024.

## 2. Context

**This section describes key conditions and influences on the landscape and the scope of MVCA's assets and jurisdiction.**



## Natural Hazards

When European settlement began west of Ottawa in the early 1800s, surveyors and settlers made observations about the land, forests, and rivers. Their comments<sup>3</sup> reflect the natural landscape of the watershed and the conditions under which we continue to use and develop land.

- 1817 re: Beckwith – clay, sand, gravel and rock; re: Drummond – swampy
- 1820 re: Lavant – rocky hills terminate in swamp and marsh, but grow good ash and cedar
- 1822 re: Fitzroy – more good land than poor; re: Mississippi and Clyde rivers – provide ideal mill sites; re: Torbolton – very fine land
- 1857 re: Mississippi River – drownings and dam failure at Cross Lake<sup>4</sup> due to flooding
- 1864 re: Addington and Frontenac Roads – spots of arable soil are not numerous
- 1870 re: Mississippi River – drownings and bridges destroyed near Lanark and Almonte by flooding

Major **flooding** continues to occur at increasing frequency, with flood damage closely aligned to the degree of development within flood plains:

- Mississippi River: 1929, 1960, 1963, 1998, 2002, 2014, 2019
- Clyde River: 1947, 1960, 1998, 2014, 2019
- Ottawa River: 1974, 1975, 1976, 2017, 2019
- Carp River: 2014, 2019

**Erosion** associated with the natural dynamics of riverine systems, soil and bedrock conditions, and land management practices are concentrated along Cody Creek, Indian Creek and the lower portions of both the Carp River and the Mississippi River.

**Droughts** can have a dramatic effect on the watershed and were most recently experienced in 1998-1999, 2011-2012, 2016 and 2018. Such events can deplete groundwater resources, leave some tributaries dry such as Constance Creek, Shirley's Brook, can compromise the quantity and quality of water available for the Town of Carleton Place, and impact irrigation systems of farmers and other local businesses.

A *Registry of Hazard Events* can be found in [Appendix 2](#).

MVCA has prepared floodplain mapping for the Ottawa River, the Carp River and its tributaries, the Indian River, the Clyde River downstream of Joes Lake, the Constance Creek and its tributaries, and the Mississippi River downstream of Innisville and at Dalhousie Lake. Other areas are unstudied and further work is needed to delineate areas of unstable slopes and soils. In most areas of the watershed, work proceeds as grants becomes available from the federal government. The City of Ottawa has supported floodplain and erosion mapping work in its jurisdiction since 2012. MVCA recently entered into a third agreement with the City to prepare flood and erosion mapping.

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<sup>3</sup> [MNR. MVC Report History, 1970](#); and [MNR. MVC Report Volume 1, 1970](#).

<sup>4</sup> Now known as Crotch Lake.

## Assets & Operations

MVCA owns and operates:

- four conservation areas,
- twelve water control structures,
- a variety of properties that were acquired to mitigate flood and erosion losses,
- an extensive monitoring network to collect and transmit weather, soil, and riverine and lake conditions to fulfill its flood forecasting and warning responsibilities and to inform system operations, planning and design; and
- its headquarters on Hwy. #7 that houses offices, a garage, laboratories, and a work yard.

The replacement value of MVCA assets is in the order of \$75-100 million.<sup>5</sup> Most water control structures are in fair to good condition but require ongoing maintenance and upgrades to meet current provincial and federal standards. Significant work was carried out at Shabomeka Lake Dam in 2021-22, major public safety improvements were made at Carleton Place Dam in 2023, improvements at Lanark Dam are planned for 2025, and the replacement of Kashwakamak Lake Dam is planned for 2026-27. Most conservation area assets are in good condition, with notable exceptions along the K&P Trail due to funding cuts shortly after its acquisition.

MVCA also:

- has two conservation areas on properties owned by the City of Ottawa,
- operates six water control structures on behalf of the Ministry of Natural Resources,
- operates two water control structures on behalf of Ontario Power Generation (OPG),
- manages county forests on behalf of the County of Lanark,
- has a Stewardship Agreement with Ontario Heritage Trust to manage a portion of the Appleton Wetland; and
- maintains the forest walk at Roy Brown Park on behalf of the Town of Carleton Place.

MVCA delivers several programs under delegated authority from the province including:

- Provincial groundwater monitoring,
- Provincial surface water monitoring,
- Permitting under Section 28 of the *Conservation Authorities Act*; and
- Planning development reviews on behalf of the Ministry of Natural Resources.

Lastly, MVCA provides stewardship and education programming, and owns and operates the Mill of Kintail Museum that houses exhibits of doctors James Naismith and R. Tait McKenzie. Public concerns around the operation of MVCA water control structures have increased over time as the population of the watershed has increased and those affected by riverine environments and the impacts of development have grown; and as funding models have changed that support program delivery. See Figures 1, 2, and 3 that show the location of key assets within the watershed.

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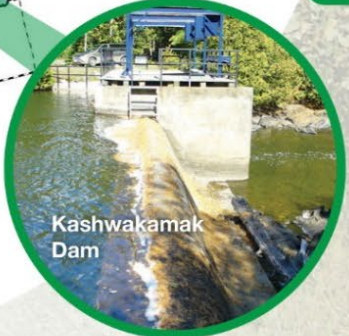
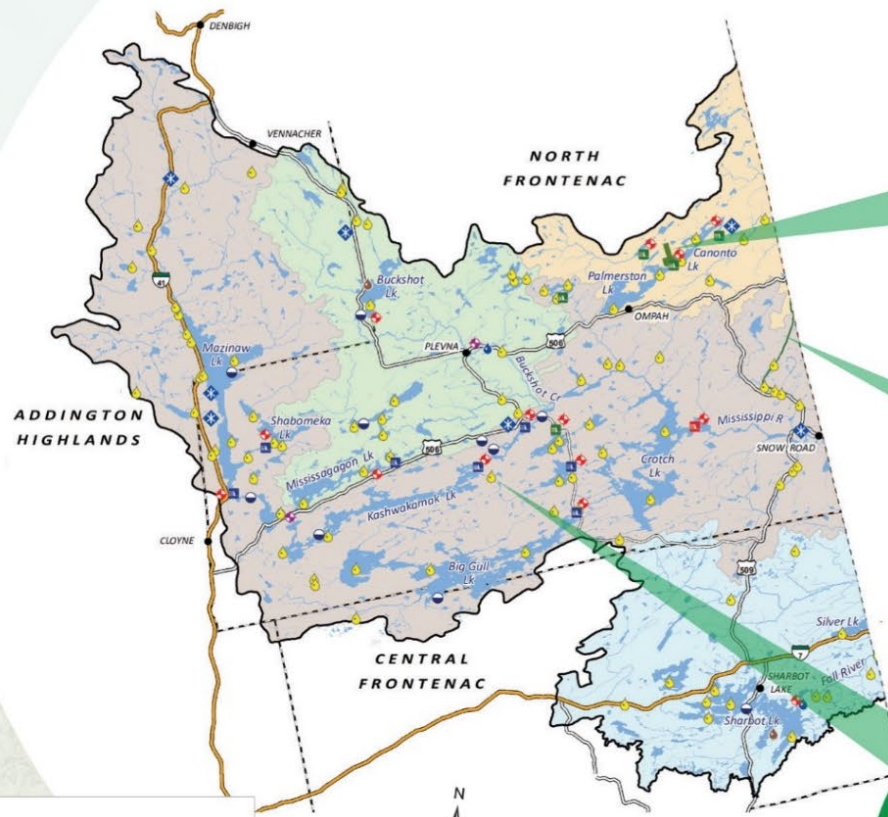
<sup>5</sup> High level estimate excludes property value. Heritage structures are irreplaceable, therefore, this estimate assumed like for like floor space built to current standards.



# The Upper Watershed

## WOODED UPLANDS

The upper watershed has picturesque Canadian Shield and mixed forests that contain deep clear cold water lakes and a network of wetlands. This area is home to cold water fish, turtles, loons, moose and many more sensitive species.



### Legend

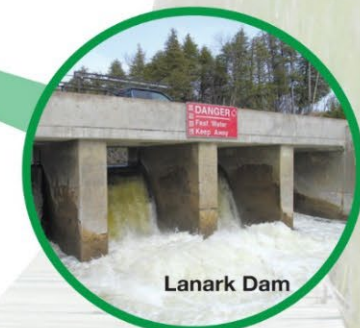
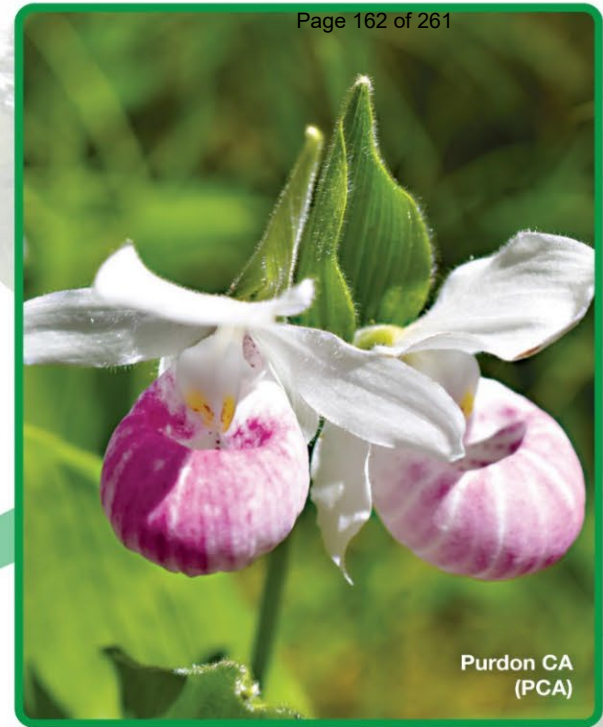
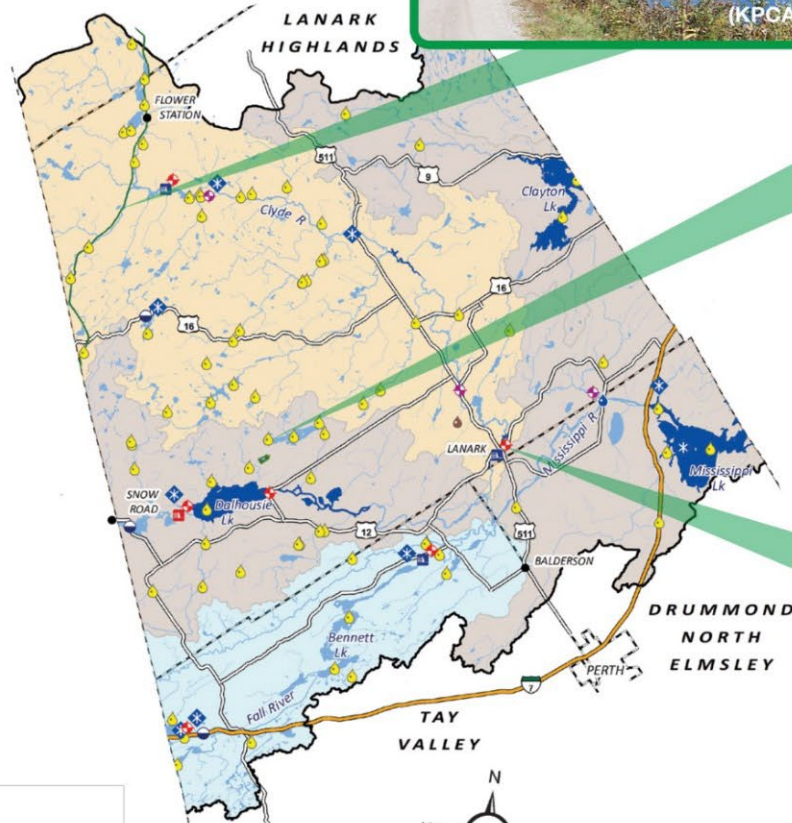
- MVCA Dam
- MNR Dam
- OPG / Private Hydro Dam
- MVCA Snow / Ice Monitoring Sites
- Federal Stream Gauge
- MVCA Automatic Gauge
- MVCA Manual Gauge
- MVCA Monitoring Sites
- Provincial Ground Water Monitoring Network
- Provincial Water Quality Monitoring Network

Figure 1

# The Middle Watershed

## TRANSITION ZONE

The Fall River and Clyde River subwatersheds transition from the Canadian Shield to lowland environments. Areas of glacial till provide groundwater springs that supply cold water lakes and creeks. Warm water lakes support sport fishing; and large wetlands provide nesting and resting habitat for migrating waterfowl.



### Legend

- MVCA Dam
- MNR Dam
- OPG / Private Hydro Dam
- MVCA Snow / Ice Monitoring Sites
- Federal Stream Gauge
- MVCA Automatic Gauge
- MVCA Manual Gauge
- MVCA Monitoring Sites
- Provincial Ground Water Monitoring Network
- Provincial Water Quality Monitoring Network
- Regulatory Flood Plain

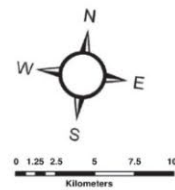
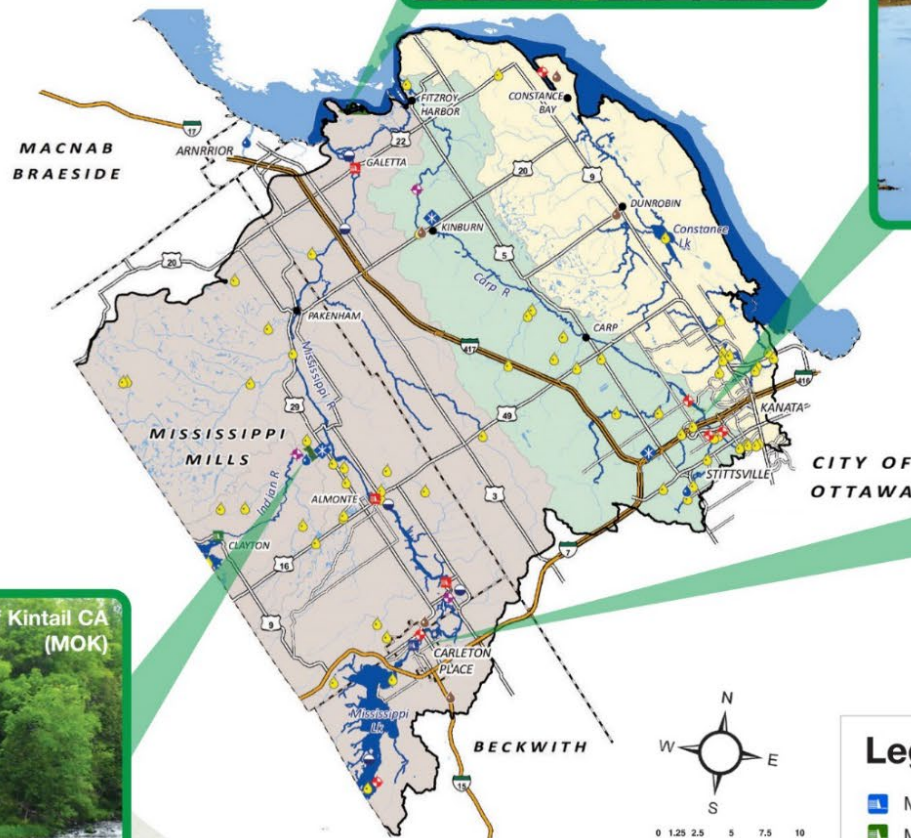
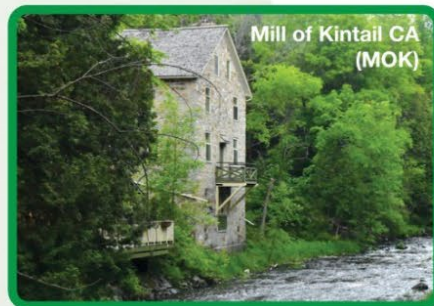


Figure 2

# The Lower Watershed

## AGRICULTURAL / URBAN

This area is characterized by farmland that is gradually being consolidated, or developed for residential settlement. Remnant wetlands and upland forests provide critical habitat for song birds and amphibians, while also providing base water flow to local creeks and rivers.



### Legend

- MVCA Dam
- MNR Dam
- OPG / Private Hydro Dam
- MVCA Snow / Ice Monitoring Sites
- Federal Stream Gauge
- MVCA Automatic Gauge
- MVCA Manual Gauge
- MVCA Monitoring Sites
- Provincial Ground Water Monitoring Network
- Provincial Water Quality Monitoring Network
- Regulatory Flood Plain

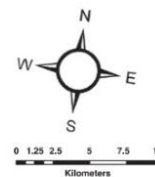


Figure 3

## Wetlands

*“Some of the ecosystem services provided by wetlands include water filtration, flood mitigation, erosion reduction, nutrient cycling, groundwater recharge/discharge...”<sup>6</sup>*

MVCA’s jurisdiction is approximately 4,345 km<sup>2</sup> of which 568 km<sup>2</sup> or 13% is considered to be wetland (marshes, swamps, bogs, and fens)<sup>7</sup>. Table 1 shows the distribution of wetlands amongst our eleven municipalities and the percentage of wetlands subject to regulation. Regulated wetlands in the watershed can be viewed by visiting our website<sup>8</sup>.

**Table 1: Total Wetlands and Percentage Regulated  
in MVCA’s Jurisdiction**

Municipality	Total Wetlands within MVCA (ha.)	% Subject to Regulation
Addington Highlands	3,160	28%
Beckwith	1,860	95%
Carleton Place	30	95%
Central Frontenac	5,455	87%
Drummond North Elmsley	4,040	97%
Greater Madawaska	395	30%
Lanark Highlands	15,730	92%
Ottawa	9,450	95%
Mississippi Mills	3,570	90%
North Frontenac	9,605	60%
Tay Valley	3,485	93%
<b>TOTAL</b>	<b>56,780</b>	-

Conservation authorities were delegated responsibility for regulating the development of wetlands in 2006. MVCA commenced regulation of Provincially Significant Wetlands (PSWs) in 2006, and in 2017 extended regulations to include wetlands “greater than 0.5 ha that are hydraulically connected.”

Since assuming regulatory responsibilities in 2006, the most significant enforcement expenditures have been to prevent the destruction of wetlands in close proximity to urban areas and along highway corridors. Most landowners have no intention of draining and filling their wetlands, but may if the perceived commercial value of the land is great enough.

<sup>6</sup> Province of Ontario, MNRF. 2017. [A Wetland Conservation Strategy for Ontario 2017-2030](#)

<sup>7</sup> To learn the differences in wetland types, refer to: <https://www.ontario.ca/page/wetland-conservation>

<sup>8</sup> <https://camaps.maps.arcgis.com/apps/webappviewer/index.html?id=70831905961e470988262c7a703a56af>

## Natural Resource Management

Natural resource management occurs at all levels of government. A key resource management tool used by conservation authorities is the Watershed Plan. The plan identifies local natural resources, their value, and how they should be managed. As well, it identifies existing and projected threats and how they can be mitigated. The following watershed plans have been prepared within MVCA's jurisdiction:

- *Carp River Subwatershed/Watershed Plan, 2004*
  - *Carp Action Plan, May 2015*
- *Upper Poole Creek Subwatershed Plan, 2000*
- *Watts Creek/ Shirley's Brook Subwatershed Plan, 1999*
- *Mississippi River Watershed Plan, 2021*

MVCA conducted a review in 2024 to determine the extent to which these watershed plans had been implemented.<sup>9</sup> As well, MVCA runs an annual lake monitoring program, and produces a watershed report card every five years that summarizes how the health of natural resources within the watershed is changing over time.<sup>10</sup> As of the 2023, no directional trends had been observed within the watershed. Monitoring results indicate consistently good to excellent grades for surface and ground water quality, and forest and wetland cover. The following are findings from the 2023 Report Card.

- **Water Quality:** parameters have fluctuated higher or lower than thresholds but there are no discernable trends.
  - **Surface Water:**
    - A (Excellent) grade in the west and central areas of our jurisdiction.
    - B (Good) in the lower reaches on the Indian River and the Mississippi River.
    - D (Poor) in the urban and agricultural areas of the Carp River watershed and tributaries of the Ottawa River.
  - **Groundwater:**
    - The Dunrobin site has an F (Poor) grade due to elevated chloride caused by the geologic history of the area rather than due to modern contamination.
- **Forest Cover and Wetland Cover:** Most destruction occurred pre-regulation and changes at the subwatershed level are not statistically significant.
  - **Forest Cover** grades range from A (Excellent) in the west, to a B around Mississippi Lakes, to C grades for the lower Mississippi River, the Carp River, and the Ottawa Tributaries.
  - **Wetland Cover** varies from A grades in the west, The Indian River, and the Ottawa Tributaries, to B grades in the Clyde subwatershed, the lower Mississippi River, and the Carp River.

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<sup>9</sup> Refer to [Appendix 3](#) for detail.

<sup>10</sup> Visit our website to view recent Report Cards and Lake Monitoring reports: <https://mvc.on.ca/reports/>

## Growth

When MVCA was established in 1968 the population of the watershed was ~31,600. By 1988, the population had more than doubled to ~80,000.<sup>11</sup> As of 2023, the watershed population was just under 264,000<sup>12</sup>—tripling in 40 years, largely due to expansion and extension of highways 417 and 7, and municipal water and sewer systems. Considerable land was drained and filled to enable this development with consequent impacts on natural resources and riverine environments.

Pressures from population growth will continue. From 2018 to 2046, Ottawa is projected to increase by 402,000 persons for a population of almost 1,410,000 persons by 2046.<sup>13</sup> An estimated 10-15% of that growth will occur within MVCA's jurisdiction for upwards of 40,000-60,000 people. Similarly, Beckwith Township, Mississippi Mills, and the Town of Carleton Place have seen fantastic growth in recent years. Population projections published by the County of Lanark County in 2018 predict significant growth within the watershed.

**Table 2: Historical and Projected Population by Municipality to the Year 2038<sup>14</sup>**

Municipality	2016 Census	2038 County Council	Increase
<b>Beckwith</b>	7,644	14,262	87%
<b>Carleton Place</b>	10,644	20,964	97%
<b>Drummond North Elmsley</b>	7,773	12,549	61%
<b>Mississippi Mills</b>	13,163	21,122	60%
<b>Lanark Highlands</b>	5,338	7,507	41%
<b>Tay Valley</b>	5,665	7,097	25%

For MVCA, consideration must be given to the potential impact of growth on the following:

- Pressures to build within or adjacent to natural hazards and wetlands and evolving drainage and hydrological conditions;
- Pressures on surface water as a drinking water source and impacts on dam operations;
- Pressures on existing conservation areas with impacts on both natural and built assets; and
- Pressures on natural systems and for MVCA to assist in their protection.

It remains to be seen whether population growth or climate change have the greater impact on local water resources and management. However, it is already clear that population growth is having an impact on the demand for passive recreational space, and that there is continued need to protect natural assets that provide ecological and hydrological services.<sup>15</sup>

<sup>11</sup> MVCA Annual General Reports for the years 1968 and 1988.

<sup>12</sup> MNR Development and Hazard Policy Branch. *Apportionment Data for 2025*. August 2024.

<sup>13</sup> <https://ottawa.ca/en/living-ottawa/statistics-and-demographics/growth-projections-ottawa-2018-2046#section-26e79cf6-0a3c-4ab0-92fe-6a0c44150b93>

<sup>14</sup> OPA#8 - Population projections for the County of Lanark and allocations to local municipalities to the year 2038.

<sup>15</sup> Findings of the Recreation Survey and the Land Conservation Survey conducted in Q3 2024.

## Climate Change

Studies conducted by MVCA have identified the following risks from the impacts of climate change within our jurisdiction:

- Increased risk of flooding due to more frequent and/or intense rainfall events and extra-tropical storms. These events cause saturation of soils and plants and the inability of natural and manmade systems to uptake and store surplus moisture.
- Increased risk of earlier or multiple spring thaws that could:
  - destabilize winter ice and poses risk to winter recreation activities (ice fishing, skating etc.)
  - increase shoreline erosion/damage
  - prevent achievement of target water levels on lakes that could undermine individual surface water intakes of waterfront properties
- Increased risk of low flow periods and droughts that could undermine:
  - water quality and quantity available to Carleton Place
  - individual surface water intakes of waterfront properties
  - lake levels and recreational tourism
  - groundwater recharge
  - irrigation systems used by farmers and golf courses
- Increased risk of hazardous and nuisance algae blooms due to changes in water temperatures and levels which may increase:
  - risks to water quality
  - risk to boating and swimming activities
- Increased risk of frazil ice formation clogging municipal and private surface water intakes and water control structures.
- Increased risk of forest cover loss due to invasive species. Depending on scope and location this could exacerbate heating effect, reduce shade access, increase wet weather run-off and soil erosion.
- Increased risk of forest fires with potential loss of private and public assets, and increased run-off and risk of localized flooding.

Predictive models developed by MVCA allow for greater extremes in weather, however, floodplain mapping is still required to delineate the floodplain and regulatory setbacks based upon the historical 1:100-year event. MVCA is working with federal and provincial agencies to update regulatory standards to reflect future as opposed to past conditions.

## Regulatory Powers & Limitations

MVCA has two main regulatory powers<sup>16</sup> under the *Conservation Authorities Act* to:

- **Restrict land development** in and adjacent to regulated natural hazards, streams and rivers, and wetlands, and to issue permits where safe to do so (Section 28)
- **Appoint officers and enforce** requirements of the *Conservation Authorities Act* (Section 30)

**28.1** (1) An authority may issue a permit to a person to engage in an activity specified in the permit that would otherwise be prohibited (if):

- (a) the activity is not likely to affect the control of flooding, erosion, dynamic beaches or unstable soil or bedrock;
- (b) the activity is not likely to create conditions or circumstances that, in the event of a natural hazard, might jeopardize the health or safety of persons or result in the damage or destruction of property; and
- (c) any other requirements that may be prescribed by the regulations (i.e. wetlands)

**30.1** An authority may appoint officers to ensure compliance...

**30.2** (1) An officer...may enter any land situated in the authority's area of jurisdiction...

(2) The power to enter land under subsection (1) ...does not authorize the entry into a dwelling or other building situated on the land....

(4) An officer who enters land...may...

1. Inspect any thing that is relevant...
2. Conduct any tests, take any measurements, take any specimens or samples...
3. Ask any questions that are relevant to the inspection to the occupant...

(6) An officer who enters land under this section may be accompanied and assisted by any person with such knowledge, skills or expertise as may be required for the purposes of the inspection.

**30.3** (1) An officer may obtain a search warrant under Part VIII of the *Provincial Offences Act* in respect of an offence under this Act.

**30.4** (1) An officer appointed under section 30.1 may make an order requiring a person to stop engaging in or not to engage in an activity...

Every conservation authority is required to identify, map and develop policies to guide permitting activities based upon local conditions and risks. Permit decisions may be appealed to the Regulations Committee of MVCA's Board of Directors. Ministerial Zoning Orders (MZOs) can be used by the province to direct conservation authorities on permitting matters where a development is deemed to be of provincial interest.

<sup>16</sup> These powers relate to the "permitting" function of conservation authorities. CAs have several other regulatory powers set out in Section 21 of the CA Act.



## Financial Limitations

MVCA is primarily funded by municipalities, secondarily by grants and contributions, and lastly by user fees and interest earned. The 2024 Budget forecasted that municipal levies would cover approximately 69% of the annual operating budget and 50% of the capital budget. MVCA must respect the financial constraints facing its municipal funders in developing and implementing programs and services.

This is achieved, in part, through recent provincial regulations that divide conservation authority programs and services into three categories:<sup>17</sup>

**Category 1: Mandatory programs and services**, e.g. dam operations, hazard mapping and regulatory services, provincial water quality monitoring, commenting on planning applications on behalf of the province.

**Category 2: Municipal programs and services**, e.g. septic approvals/inspections, natural systems monitoring and planning.

**Category 3: Programs and services that further the purposes of the Act**, e.g. lake and property stewardship programs, citizen science and education programs.

Municipalities are only required to financially support Category 1 programs and services. This is done via an annual Municipal Levy.

If a municipality wants MVCA to deliver a service on its behalf (Category 2), or to contribute to a program that benefit its residents (Category 3), it can do so either through a fee-for-service contract, or a Programs & Services Agreement (PSA).

All eleven municipalities in the watershed agreed to support the following programs for the period January 1, 2024 to December 31, 2028, and signed PSAs with MVCA:

- Category 2: Natural System Monitoring and Watershed Planning
- Category 3: Stewardship Program, Education Program, and Visitor Services at the Mill of Kintail

The 5-year PSAs prescribe that no greater than 14% of MVCA's Operating Levy and 2% of the annual Capital Levy be allocated towards the delivery of these programs. Some municipalities opted to also enter into individual contracts with MVCA to deliver programs in their specific jurisdiction.

Within each program there is a need to optimize resource use and to focus on achieving corporate objectives. This Land Conservation & Resource Strategy is designed to document program objectives, current gaps and risks, and policies governing future actions so that limited funds can be targeted to address matters of greatest value to MVCA and the communities it serves.

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<sup>17</sup> Refer to [O.Reg. 402/22](#)

# 3. Programs & Services

**Mississippi Valley Conservation Authority manages properties and facilities that serve multiple generations. The programs and services we deliver must consider the short and long-term requirements of the assets and the communities we serve.**

**This section of the report:**

- **outlines current legislative and regulatory requirements,**
- **set goals and program objectives,**
- **identifies service delivery gaps and risks,**
- **lists actions to mitigate gaps and risk, and**
- **provides policies to guide short and mid-range planning and service delivery.**



# 3.1. Hazard Management



## Hazard Management

**Mandate:** *Programs and services related to the risk of natural hazards*

Section 21.1 of *Conservation Authorities Act*.

### **Mandatory Programs & Services per O. Reg. 686/21:**

- Identify wetlands, river and stream valleys, unstable soils and bedrock.
- Assess, manage and mitigate risks and study the potential impacts of climate change.
- Study, map, and educate public on the risks.
- Provide flood forecasting and timely warning services, document flood events, and provide support services.
- Maintain a stream flow monitoring network that, at a minimum, includes stream flow gauges available as part of the provincial-federal hydrometric network.
- Ensure that the authority satisfies its duties, functions and responsibilities to administer and enforce the provisions of Parts VI and VII of the Act.

**Part VI:** No person shall carry on the following:

- Activities to straighten, change, divert or interfere in any way with the existing channel of a river, creek, stream or watercourse or to change or interfere in any way with a wetland.
- Development activities in areas that are within the authority's area of jurisdiction and are: hazardous lands, wetlands, river or stream valleys.

**Part VII:** Appoint officers for the purposes of ensuring compliance with this Act and the regulations.

MVCA water management assets are generally classified as follows:

- **Dams:** barrier of flow that can be operated to raise and lower water levels.
- **Weirs:** barrier of flow with a fixed elevation that cannot be actively operated.
- **Reservoirs:** a large natural or artificial lake used as a source of water supply.
- **Gauge station:** equipment used to measure and transmit water levels, flows, soil and weather conditions.
- **Models:** tools used to calculate runoff and predict water levels and flows.

Related assets include:

- **Federal gauge stations:** equipment used by Environment & Climate Change Canada (ECCC) to measure and transmit water levels, flows, and weather conditions.
- **MNR facilities:** structures owned by the Ontario Ministry of Natural Resources.
- **OPG facilities:** structures owned by Ontario Power Generation (crown corporation).
- **Private power generation facilities:** weirs and dams operated by other hydro power generators.

## Flood Forecasting & Warning (FFW)

### Goal

1. Watershed users receive timely and accurate information and warnings regarding watershed conditions and how to protect themselves and their property.

### Objectives

2. The gauge network is reliable and provides accurate real-time data regarding conditions at key locations across MVCA's jurisdiction.
3. Data meets industry quality standards, allows for short and long-term analysis, and is easy to access, use, and share.
4. Watershed models allow for reliable predictive analysis and optimal system operation.
5. Municipalities receive quality drought response coordination and emergency planning support.
6. Local communities understand how their watershed functions, systemic risks, how they can be mitigated, and how to prepare for and respond to natural hazards including drought.
7. Queries are responded to in accordance with MVCA's *Customer Service* policy.

### Gaps & Risks

8. There are insufficient gauge stations in the upper Mississippi River watershed with additional work also required in the Carp River watershed.
9. Not all existing gauge stations and structures have accurate vertical elevation benchmarks.
10. Large areas of the Mississippi watershed have yet to be studied and modeled, which limits the accuracy of MVCA's watershed model as a predictive tool for operational and warning purposes.
11. Federal and provincial grant programs to support field investigations, model development, and mapping are not available every year and often change in focus, value, and duration, which interferes with work and resource planning.
12. Greater consistency is needed in the implementation of business processes for:
  - a. the production and release of water condition advisories and warnings.
  - b. tracking and analysis of public queries regarding water levels and conditions.
  - c. annual outreach to municipalities regarding flood and drought conditions and preparedness.
13. There is an ongoing need to educate people about systemic risks and the importance of mitigating them and being prepared.

## Actions to Mitigate

14. Continue to improve and expand the gauge network as resources allow.
15. Continue to undertake bathymetric and other field surveys of priority areas as internal resources allow to enhance application success where grant project-delivery timelines are tight.
16. Continue to apply for funding to improve the watershed model.
17. Continue to undertake bathymetric and other field surveys of priority areas as internal resources allow to enhance application and project delivery success where grant project-delivery timelines are tight.
18. Enhance public education and outreach (see Section 4).

## Policies

19. A minimum of two staff members shall be capable of monitoring the system and issuing notices at all times.
20. A System Surveillance Strategy will be developed to guide the design and management of the monitoring network, update facility benchmark information, and prioritize future investments.
21. QA/QC procedures will be documented and reviewed and audited periodically to ensure consistent implementation and currency with industry standards.
22. All new or updated watershed models used for regulatory purposes shall undergo third-party review.
23. Annual updates should be provided to municipal partners every winter regarding the short and long-term forecast in preparation for the freshet and projected summer conditions.
24. Public queries shall be tracked and regularly analyzed to identify trends and inform remedial action.
25. An Education Plan will be developed and implemented to increase awareness and understanding of how watersheds function, water management, natural hazards and how to mitigate them, **and the role of MVCA.**

## Regulatory Mapping & Program Administration

### Goals

1. Development does not occur in regulated areas unless properly assessed and permitted.
2. MVCA is considered to be a fair and responsive regulator.

### Objectives

3. Regulatory maps are prepared in accordance with provincial requirements and updated in response to development pressures, changes in regulations, land use and the impacts of climate change.
4. Regulatory maps are updated annually and published on MVCA's website.
5. Historical data is readily available to support discussions with applicants and decision-making.
6. Site specific information and permits are used to adjust regulatory mapping where warranted.
7. The review of planning and permit applications consistently meet regulated timelines and industry standards.
8. Policy guidelines are kept current to address regulatory changes, and evolving watershed conditions and industry practices.
9. Queries are responded to in accordance with MVCA's *Customer Service* policy.
10. Complaints and reports of infractions are managed in a fair and transparent manner.
11. Compliance promotion and enforcement activities are timely, effective, and affordable.

### Gaps & Risks

12. Many do not know or misunderstand the responsibility of MVCA **and other public agencies**.
13. There is ongoing risk of gaps between regulatory agencies in the application of development controls in wetlands and areas of natural hazards.
14. There is a lack of corporate knowledge on some matters due to staff turn-over and because many studies and permit and planning files exist in hard copy only, or are filed inconsistently.
15. Regulations governing the preparation of floodplain mapping and regulatory limits have yet to be updated to consider the aggregated impacts of watershed development and climate change.



## Actions to Mitigate

16. Continue to work with land use planning and watershed partners to clarify roles and responsibilities and to adapt business processes and policies to new regulations, legislation, and changes to Ontario's Wetland Evaluation System (OWES).
17. Continue to expand and update hazard mapping and the watershed model as resources allow.
18. Continue to prepare maps that illustrate future climate scenarios and future watershed development.
19. Share climate scenario mapping with municipal planning, water and wastewater, roads, and emergency services departments to support infrastructure and land use planning and emergency preparedness.
20. Continue to advise provincial and federal governments on how regulations could be adapted.
21. Enhance public education and outreach (see Section 4).

## Policies

22. All studies, permits, as-builts, and compliance and enforcement records should be digitized and managed for easy retrieval to support discussions with applicants, longitudinal studies, and assessment of program effectiveness.
23. Field data shall be collected during unusual events and findings documented in accordance with MVCA's Flood Manual to support communications, model calibration and mapping updates.
24. A Hazard Mapping Strategy should be prepared to inform short and mid-term studies, confirm mapping priorities, and support annual regulatory reporting requirements.
25. All property owners affected by new or expanded regulatory limits on hazard maps shall receive direct mail notification during the public comment period.
26. The Registry of Natural Hazards should be updated annually to capture mid to large events and their impacts to support risk communications and corporate knowledge continuity.
27. Planning and permit application fees should cost recover a minimum of 90% of development review and associated administrative costs.
28. The cost of modeling and mapping studies should be recovered from users where feasible.
29. Compliance monitoring and enforcement are Category 1 costs that should be cost recovered where possible.

## Assets & Operations

### Goal

1. Water management activities consistently mitigate the impacts of natural hazards.
2. MVCA is a trusted asset manager and operator of the Mississippi River system.

### Objectives

3. Water management assets are operated and maintained in accordance with provincial and federal regulations, the *Mississippi River Water Management Plan*, and MVCA's *Asset Management Plan and Operations, Maintenance & Surveillance (OMS)* manuals.
4. The *10-year Capital Plan*, municipal levies, and upper-tier government grants allow for timely development, renewal and replacement of water management assets, and the development and update of watershed models.
5. Asset renewal considers the impacts of development, climate change, environmental, social and financial impacts, and the historical rights and the current and future needs of First Nations and others.
6. MNR and OPG view MVCA as the operator of choice for their assets within the Mississippi River watershed.

### Gaps & Risks

7. Funding of Ontario's Water & Erosion Control Infrastructure (WECI) grant program has not increased in ~20 years and provides insufficient time to tender and implement projects.
8. There is an affordability ceiling on municipal levies that limits the building of capital reserves to deliver more than the current 10-year capital plan, and only with the support of long-term loans.
9. There is insufficient understanding by the general public of how the watershed functions and the limits of MVCA's ability to provide ideal conditions across the watershed.
10. Interagency communications amongst MVCA and MNR, OPG, and private power generators are inconsistent.

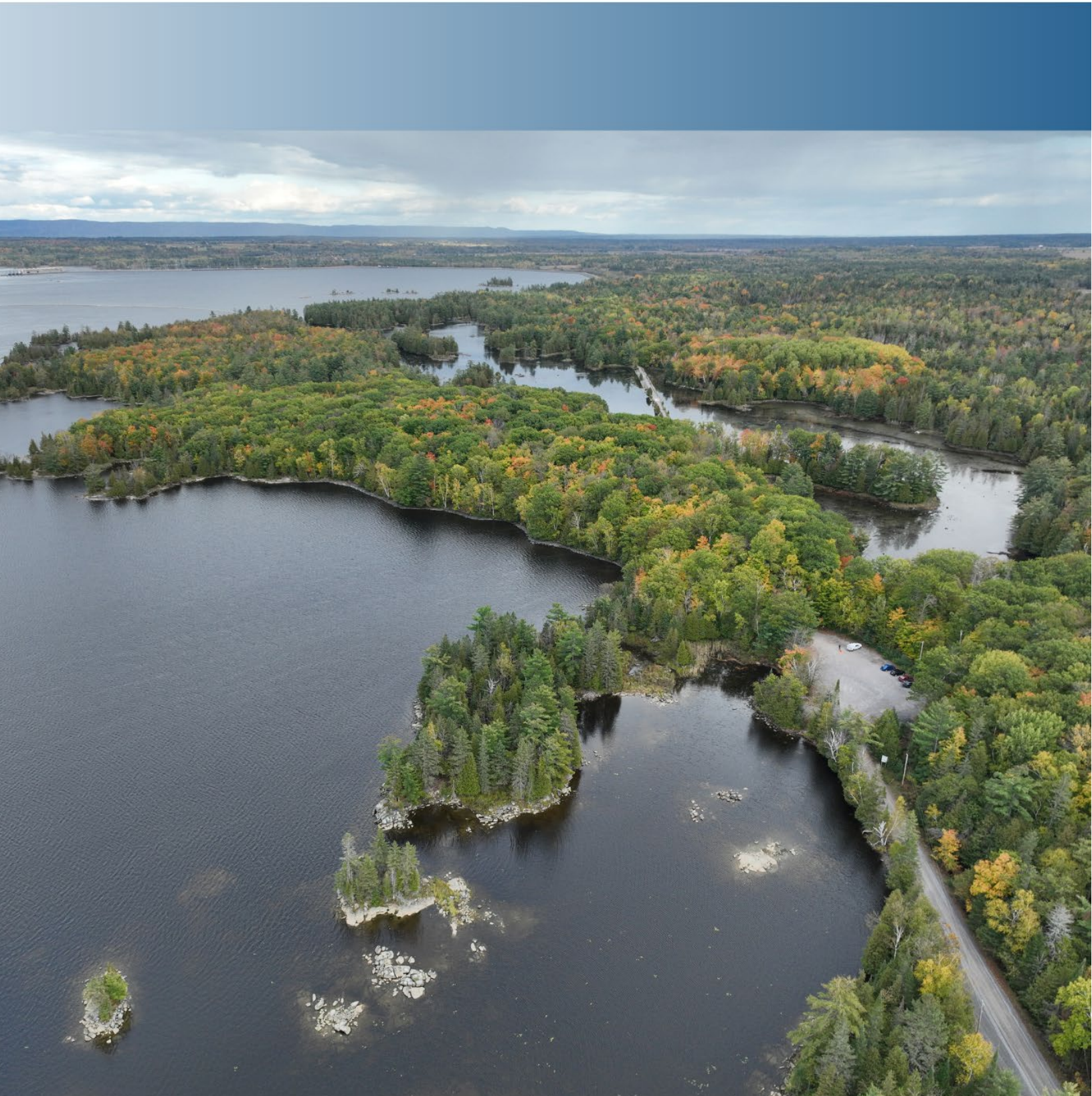
### Actions to Mitigate

11. Continue to monitor asset conditions, prioritize needs, and undertake corrective works as resources allow.
12. Continue to petition federal and provincial decision-makers for more consistent and user-friendly grant programs that allow for reliable funding streams and realistic implementation timelines.
13. Enhance public education and outreach (see Section 3.4).
14. Implement enhanced communications and reporting protocols with MNR, OPG, and private power generators.

## Policies

16. The OMS manual for an asset shall be updated at least annually to document inspection findings, operational incidents, and changes arising from capital improvements or procedural changes.
17. The *10-year Capital Plan* will be updated annually, and the *Schedule of Municipal Capital Levy Increases* updated at least once every four years.
18. Communication and reporting expectations will be documented and monitored to ensure timely sharing of information and coordinated planning between MVCA and its service delivery partners.

## 3.2. Land & Resource Conservation



## Land & Resource Conservation

**Mandate:** *Programs and services related to the conservation and management of lands owned or controlled by the authority, including any interests in land registered on title.*

Section 21.1 of *Conservation Authorities Act*.

### **Mandatory Programs & Services per O. Reg. 686/21:**

- Conserve, protect, rehabilitate, establish, and manage natural heritage located within the lands owned or controlled by the authority.
- Maintain any facilities, trails or other amenities that support public access and recreational activities in conservation areas and that can be provided without the direct support or supervision of staff.
- Provide for fencing, signage, patrolling and any other measures to prevent unlawful entry.
- Prepare and update a Conservation Area Strategy.
- Prepare and maintain a Land Inventory.

Land owned, leased, or subject to other legal agreement by MVCA is classified as follows:

- **Conservation Area:** sites used for primarily for passive recreation.
- **Conservation Preserve:** sites managed for natural hazard or natural heritage protection.
- **Water & Erosion Control Sites:** land used to mitigate flooding or erosion including dams, ponds, shorelines and wetlands, easements, and monitoring stations.
- **Administrative:** primary purpose is for offices, works yard, garage, or material stores.

Within a property, land use is classified as follows:

- **Passive use:** includes trails, parking lots and other basic park infrastructure.
- **Cultural use:** includes buildings and other facilities used by MVCA for a variety of uses, and includes the Mill of Kintail Museum.
- **Natural area:** areas left largely in a natural state that may also be managed for maple syrup, forestry, or GHG mitigation purposes.
- **Enhancement area:** land managed to offset damage elsewhere in MVCA's jurisdiction.
- **Water management:** includes structures, access easements, boom anchor sites, parking and staging areas, and upstream safety signage.
- **Portage:** area designated to provide safe passage around a dam or weir.

Other land is classified as follows:

- **Public:** land owned by the Crown, a crown corporation, a county or municipality.
- **Private:** land owned by others, even if in public use, e.g. Land Trust property.

## General

### Goal

1. The natural resources of the Mississippi, Carp, and Ottawa river watersheds are managed sustainably for the enjoyment and welfare of current and future generations.
2. Land ownership and management are used as **opportunities** for reconciliation with First Nations.

### Objectives

3. MVCA's *Land Inventory* is current and meets regulatory requirements.
4. MVCA's land holdings meet the evolving mandate and needs of the organization.
5. MVCA has free and clear title or legal agreements for all properties owned or used by the Authority for the delivery of programs and services.
6. Every property owned by or under agreement with MVCA has a board-approved plan.
7. The influence and participation of First Nations is evident at all MVCA properties.

### Gaps & Risks

8. There are gaps in corporate knowledge regarding historical purchases, agreements, and contractual obligations. In some cases, there are no documented agreements.
9. Most land transfers, documents, and surveys predate and are not registered in the Ontario Land Titles System (OLTS). Meets and bounds descriptions are in some cases no longer relevant due to subsequent land development.
10. In some cases, property boundaries provided by Teranet and Ontario's Crown Land Policy Atlas are inconsistent with MVCA's R-Plan records.

### Actions to Mitigate

11. Continue research to identify and understand rationale for historical purchases, and obligations under current agreements.
12. Continue the review of land transfer documents and related drawings to clarify and register land titles.
13. There is no Master Plan for the Palmerston-Canonto and Carp River conservation areas or any of the conservation preserves; and all other master plans are at least 10 years old.

## Policies

14. MVCA will work with First Nations to understand historical land uses and injustices and ecological and hydrological processes; and to identify opportunities for reconciliation.
15. A plan will be prepared and implemented to address gaps in legal surveys and legal titles, including easements, and to register such in the Land Registry or Land Titles office.
16. Land holdings will be **reviewed and the need for land acquisition or disposal considered** at least once every four years.
17. All land disposals and acquisitions shall occur in accordance with the *Forestry Act*, the *Conservation Authorities Act*, regulations and guidelines, and in accordance with the policies of this Strategy.
18. Revenues derived from land disposals shall be managed and used in accordance with the *Conservation Authorities Act* and regulations and guidelines thereunder.
19. MVCA shall not expend greater than market value for the acquisition of any property.
20. MVCA will review property Master Plans at least once every ten years, and update them as needed.
21. MVCA shall not enter into Conservation Easement agreements except as a condition of a Board-approved stewardship program, with the easement not to exceed 10-years.
22. MVCA may enter into Partial Takings or Direct Conveyance where deemed by the Board of Directors to be in the interest of the Authority.<sup>18</sup>
23. Changes in ownership and easements shall be surveyed and registered on title within 1-year.
24. MVCA will report on changes to the *Land Inventory* at the Annual General Meeting.
25. MVCA may enter into service agreements to deliver conservation land management services to other public and conservation organizations as follows:
  - a. Municipal: via the Programs & Services Agreement and a Special Levy.
  - b. Other Public or Conservation Organization: via Stewardship Agreement, Forest Management Agreement, or other contract that shall not exceed 5-years.

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<sup>18</sup> For more information visit: <https://www.orlandconservation.ca/video-partial-taking-or-conservation-severance>

## Conservation Areas

A summary of the attributes, gaps and use of existing conservation areas is provided in [Appendix 5](#).

### Goal

1. Conservation areas provide opportunities for walking, hiking, and solitude in a natural setting and contribute to the quality of life and sustainability of the watershed.
2. Conservation areas are accessible to all.

### Objectives

3. MVCA Conservation Areas:
  - a. are large natural spaces with walking/hiking trails of varying length and difficulty that allow for at least 1-hour's passive recreation.<sup>19</sup>
  - b. are attractive, affordable and safe.
  - c. provide parking, comfort stations, rest spots/shelters, and waste facilities.
  - d. provide at least one wheelchair accessible trail and comfort station.
  - e. provide excellent directional and interpretive signage that includes local cultural, Indigenous, and scientific information.
  - f. reserve at least 90% of the property as a natural area.
4. **MVCA facilitates inter-agency planning of Conservation Parklands in the watershed to support achievement of 15 ha for every 1,000 residents and the provision of Conservation Parkland within a 30-minute drive of all watershed residents.**<sup>20,21,22</sup>
5. **MVCA optimizes use of employee expertise and equipment by working with other public agencies and conservation organizations in the watershed to develop and maintain Conservation Parklands.**

### Gaps & Risks

6. Sustainable funding for continued operation of the Mill of Kintail Museum.
7. The Mill structure cannot provide a climate-controlled environment for sensitive museum artifacts.
8. It is cost prohibitive to maintain the K&P Trail to the same standard found elsewhere on the trail.
9. Directional and interpretive signage is of variable quality amongst conservation areas.
10. Some sites have components that meet current accessibility design standards, but none of the conservation areas have a verified accessible route for visitors with mobility issues.

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<sup>19</sup> A brisk walk is 4-5km/hour. Source: <https://www.ccohs.ca/oshanswers/psychosocial/walking.html>

<sup>20</sup> **In this Strategy, Conservation Parkland means a large property in primarily a natural state with walking/hiking trails available for public use. Conservation Parkland acquired or developed by MVCA are called Conservation Areas.**

<sup>21</sup> The average amount of large parklands (min. 50 ha.) accessible to residents in the GTA (excluding Toronto) is ~10.8 ha./1,000 people with a high of 18.4 ha/1,000 persons in Durham County. Source: [Greenbelt Foundation Large Parks Community Needs Analysis & Planned Parkland Inventory: Technical Report](#). January 2022.

<sup>22</sup> **Section 10 (1) 3 of O. Reg. 686/21 requires MVCA to take an integrated approach with other levels of government.**



11. There is no accessible toilet serving the Education Centre, Picnic Shelter and Cloister at the Mill of Kintail; Morris Island CA and Purdon accessible toilets are only available seasonally.
12. Unmet demand for passive recreational space as evidenced by heavily used and impacted greenspaces and crown lands with overflowing parking; and recreational survey results.
13. Prohibitive cost of land acquisition to establish new conservation areas.

## Actions to Mitigate

14. Transfer sensitive artifacts to the Gate House climate-controlled archive on a permanent basis.
15. Continue to investigate opportunities to transfer management of the museum collections to another organization.
16. Proceed with transfer of the K&P Trail to local counties.

## Policies

17. The Mill of Kintail Museum is a community asset and cultural attraction. MVCA will operate the museum while seeking another organization to assume management of collections.
18. MVCA will seek funding and work with the accessibility community to review and improve site accessibility at its conservation areas.
19. Signage standards will be developed, and implemented as resources allow.
20. Master Plans will be developed for all sites, and reviewed at least once every 10 years.
21. In addition to the basic amenities set out in the Conservation Area Objectives, Table 3 identifies the land uses and Programs & Services that may be offered at MVCA conservation areas.
22. Privately-run special events that exceed 1-days' duration and any activity not identified in Table 3 shall require General Manager approval prior to contract execution.
23. Any new third-party easement on MVCA land shall be approved by the Board of Directors and should not exceed 5-years. Easement renewals may be approved by the General Manager.
24. A demand analysis will be undertaken to identify existing and projected areas of the watershed requiring additional conservation areas.
25. Acquisition **or management** of lands owned by the province and, local municipalities and counties will be prioritized over land donations for the establishment of new conservation areas.
26. MVCA may support conservation organizations in its jurisdiction by assisting with trail maintenance on a **full-cost** recovery basis.
27. New sites will be developed as grants become available to support installation of accessible washrooms, with a minimum grant level of 50% of projected costs.

<b>Table 3: Permitted Land Uses and Programs &amp; Services at MVCA Conservation Areas</b>	Carp River	K&P	Mill of Kintail	Morris Island	Palmerston- Canonto	Purdon
<i>Category 1</i>						
Geocaching and orienteering <sup>23</sup>		X	X	X	X	
Snowshoeing	X	X	X	X	X	X
Self-directed educational facilities and demonstration sites	X	X	X	X	X	X
Habitat enhancements	X	X	X	X	X	X
Hydrological and ecosystem monitoring	X	X	X	X	X	X
On-leash dog walking	X	X	X	X	X	X
Off-leash dog run (future potential, not now)			X	X		
Cross country skiing	X	X	X	X	X	
Mountain biking	X	X				
Snowmobiling		X				
ATVing		X				
Canoe/kayak/boat launch		X		X	X	
Unsupervised swimming		X		X	X	
Forest management			X	X	X	X
Native plant/tree nursery			X			
Sap and fruit collection			X			
<i>Category 3</i>						
Education programs incl. seasonal camps	X		X			
MVCA-led special events <sup>24</sup>	X	X	X	X	X	X
Other special events <sup>23</sup>		X	X	X	X	
Education Center and Gate House rentals <sup>25</sup>			X			
Cloister and Picnic Shelter rentals <sup>24</sup>			X			
Museum			X			
Observatory <sup>24</sup>			X			
Community workshop <sup>24</sup>			X			
Heavy vehicle use for forest extraction <sup>24</sup>		X				

<sup>23</sup> With restrictions to limit impacts on natural areas.

<sup>24</sup> An “event” is an activity that requires significant staff time to deliver or supervise and that could cause significant damage to the site or cause significant discomfort to adjacent landowners if not managed appropriately.

<sup>25</sup> By license agreement only.

28. MVCA Conservation Areas will be funded as follows:

a. Operations:

- i. Category 1: via the Municipal Operating Levy and user fees with a target revenue ratio of 90:10.
- ii. Education & Outreach Program, which is a combination of Category 1 and 3 programming, via the Municipal Operating Levy and Other Sources with a target revenue ratio of 15:85 on an annualized basis. (See Section 4 for details).
- iii. Category 3: via the Municipal Operating Levy, user fees, and grants and donations with a target revenue ratio of 20:50:30 on an annualized basis.
- iv. Revenues from Annual Passes should be allocated to support delivery of Category 1 programs and services.
- v. Day-pass revenues at the Mill of Kintail should be allocated to support delivery of Category 3 programs and services at the Mill of Kintail. All other Day Pass revenues should be allocated to support delivery of Category 1 programs and services.

b. Capital Works:

- i. Category 1 assets: via the Municipal Capital Levy.
- ii. Existing Category 3 assets: will be maintained and renewed to ensure their structural integrity and allow for safe occupation and use with no greater than 2% of the annual Municipal Capital Levy allocated to this purpose unless permitted by a Programs & Services Agreement.
- iii. New Category 3 assets: will be commissioned at the discretion of the Board in consultation with member municipalities, with future revenue streams confirmed in contracts executed in advance of construction.

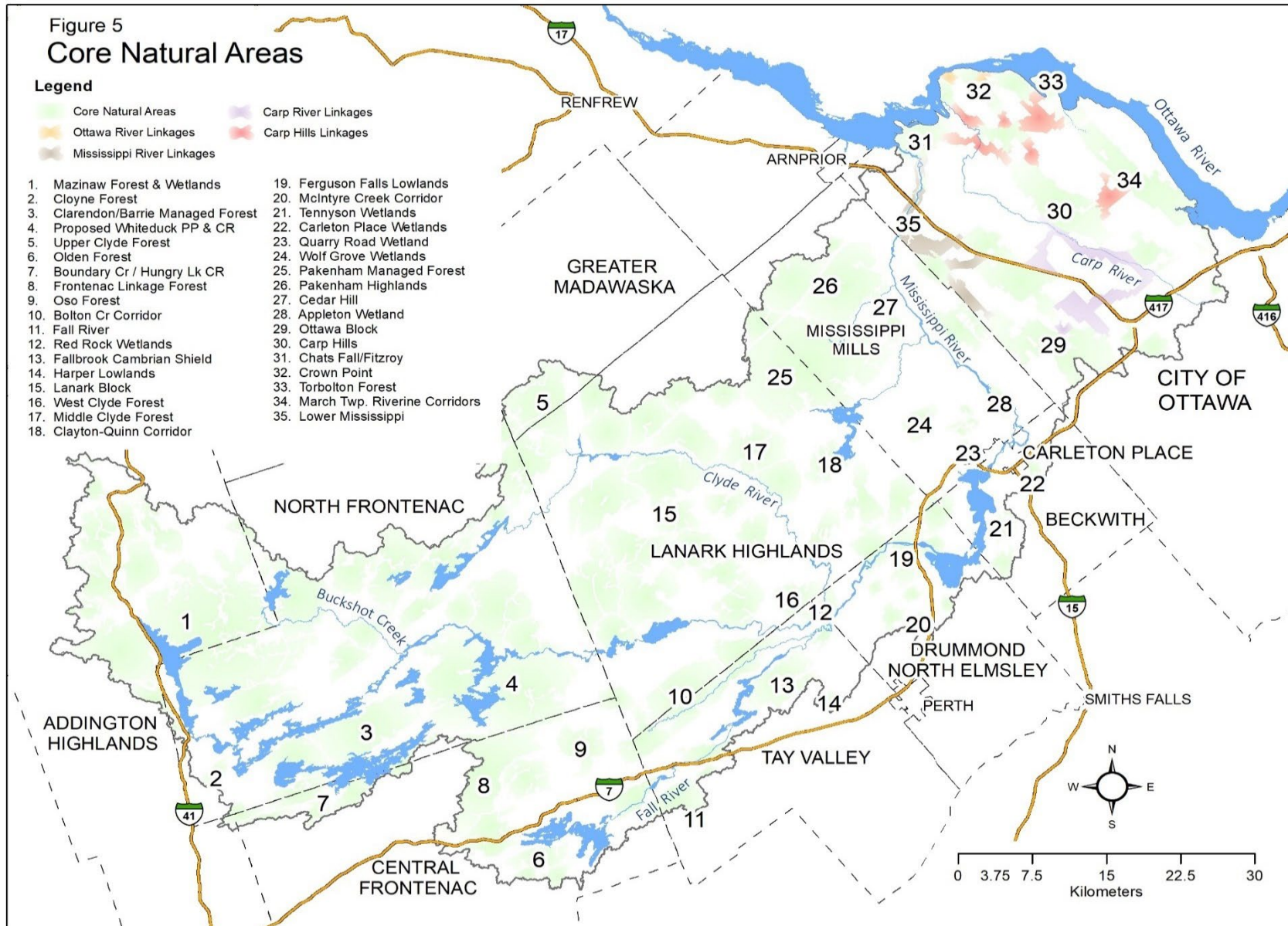
c. Land acquisition:

- i. Via Lease, License of Occupancy, or other agreement with the Crown, municipal or county partner, or other conservation or public organization at a cost not be onerous (e.g. \$5/year) and be payable via Category 1 revenues.
- ii. Via Fee Simple:
  1. Land costs shall be covered using cash donations, grants, the donation of land, or a combination of these. Where deemed to be in the interest of the Authority, the Board of Directors may allocate Category 1 funds towards land costs, which shall not exceed 25% of the appraised market value.
  2. Administrative costs such as legal fees and taxes will be paid via Category 1 revenues.

29. New conservation areas should meet all the following criteria:

- a. Lie within one of the Core Natural Areas (CNA) or Linkages identified on Figure 5.
- b. Be a minimum of 40 ha. of primarily mature habitat.
- c. Be accessible via a road that receives year-round maintenance.

- d. Have power supply at the property line.
  - e. The location and site conditions allow for achievement of Objectives 3, 4 and 5.
30. Desirable attributes that would enhance the attractiveness of a site are the following:
- a. Lake or river access.
  - b. Scenic views.
  - c. Unique ecological feature(s) within the watershed.
  - d. Availability of existing amenities in good condition.
  - e. Proximity to an existing MVCA property, or land designated for conservation or park purposes by the Crown, crown corporation, public entity or conservation organization.
  - f. Proximity to a public trail and the Eastern Ontario trail network.
  - g. Land provides erosion control or serves a hydrological function.
31. Proposed acquisitions shall be considered as follows:
- a. Staff identify the need for additional conservation lands and receive Board direction to identify acquisition opportunities and/or grants for that purpose.
  - b. Staff assess a proposed site(s) against the above mandatory criteria and desired attributes.
  - c. Where a site is deemed suitable by staff, a business case is submitted to the Board of Directors In-Camera that includes a concept plan that demonstrates how the site can meet Conservation Area Objectives and identifies notable attributes.
  - d. The Board of Directors either denies or approves the acquisition in-principle, or provides other direction to staff.
  - e. Prior to execution of an acquisition agreement, staff will secure the following:
    - iii. Market valuation
    - iv. Title search
    - v. Legal survey
    - vi. Environmental Site Assessment (ESA) for hazardous materials, and
    - vii. Grant and other funding agreements.
  - f. Where the Board of Directors has approved in-principle the acquisition of a property, and staff have secured the above documents, the Executive Committee may approve the acquisition agreement where time constraints do not allow for approval by the full Board.
32. Prior to undertaking works at a new conservation area, staff shall:
- a. conduct a survey of the natural resources and features on the site;
  - b. prepare a report delineating areas to be protected;
  - c. prepare a detailed site plan and implementation schedule; and
  - d. obtain approval to proceed from the Board.
33. All conservation area objectives shall be met at a new conservation area before it is opened to the public.



## Conservation Preserves

### Goals

1. Eliminate risk of future losses in areas at high risk of natural hazards.
2. No net loss of ecological and hydrological services in the watershed.

### Objectives

3. MVCA conservation preserves:
  - a. **Prevent redevelopment** of land that is at known risk of future flood and erosion damage and losses; or
  - b. Manage an area of natural heritage value on behalf of a third-party; or
  - c. Mitigate the impacts of land development elsewhere in the watershed; or
  - d. Protect or develop natural carbon sinks using GHG-reduction funding mechanisms.

### Gaps & Risks

4. Buy-out programs do not exist for primary residential dwellings located within the floodplain.
5. Regulation policies require wetland offsetting agreements where applicable. Offsetting is best undertaken relatively close to the site of ecological/hydrological impact. Sites will most likely be required in the lower watershed to accommodate offsetting and support ecological restoration. However, there is limited affordable land available for offsetting in the lower watershed. There are carbon-rich areas of ecological and hydrologic significance under threat of degradation and development in the lower watershed.

### Actions to Mitigate

6. Continue to encourage upper-tier governments to supplement “like for like” funding with “buy-out” grants for those with four-season homes within the floodplain or high erosion areas.
7. Continue to discuss opportunities for establishing offsetting sites with the City of Ottawa.
8. Continue to review GHG funding mechanisms and implementation models being used by other conservation authorities.

### Policies

9. MVCA will continue to manage existing conservation preserves that provide flood and erosion control or natural heritage conservation located at:
  - a. Cedardale on the Clyde River;
  - b. Glen Cairn on the Carp River; and
  - c. Appleton on the Mississippi River.

10. MVCA should work with local municipalities to identify and assess existing publicly owned land for the purpose of providing suitable hydrological and ecological offsetting opportunities.
11. MVCA should explore opportunities under the Canadian GHG Offset Credit System and other mechanisms to secure revenues to protect or enhance natural carbon sinks within the watershed.
12. The acquisition of Conservation Preserves will be funded as follows:
  - a. For Flood and Erosion Control:
    - i. Land costs shall be borne by upper levels of government and/or insurers.
    - ii. Administrative costs such as legal fees and taxes may be funded using Category 1 revenues.
  - b. Stewardship: on a 100% cost-recovery basis via a Stewardship Agreement not to exceed 5-years duration; or a cost-recovery model approved by the Board of Directors.
  - c. Wetland Offsetting: on a 100% cost-recovery basis under an approved Offsetting Agreement that shall be no less than 5-years duration; or other cost-recovery model approved by the Board of Directors.
  - d. Carbon Offsetting: on a 100% cost-recovery basis under an agreement executed in accordance with federal regulations; or other cost recovery model approved by the Board of Directors.
13. Programs and services delivered at Conservation Preserves shall be in accordance with funding programs, site specific agreements, and the policies of this Strategy.

## Water & Erosion Control Infrastructure Land Objectives

1. Water and Erosion Control Infrastructure (WECI) lands allow for:
  - a. The construction, maintenance, operation, and renewal of water and erosion control structures such as dams and weirs and include parking and materials storage.
  - b. The installation and maintenance of booms, fencing, signage and other safety measures.
  - c. Safe passage around a structure, which may include a portage route.
  - d. The installation and maintenance of monitoring and communication devices to support weather, soil, snow and ice, and riverine system monitoring and remote data access.
  - e. Unfettered legal access to all the above.

## Policies

2. Land for MVCA Water and Erosion Control Infrastructure may be acquired as follows:
  - a. Land Use permit from the Crown in accordance with provincial fees that may be paid using the Municipal Levy;
  - b. Easements secured from public entities that should not exceed \$5/year and may be paid using the Municipal Levy.
  - c. Easements secured from private entities that shall be fair and reasonable, approved by the Board, and may be paid using the Municipal Levy.
  - d. Fee Simple:
    - i. Where the primary purpose of the structure is for flood or erosion control or natural resource protection:
      1. Land costs should be borne 50% by the Municipal Capital Levy or Reserve, and 50% by the Province.
      2. Administrative costs such as legal fees and taxes may be funded using revenues obtained via the Municipal Levy.
    - ii. Where the primary purpose of the structure is to maintain recreational water levels:
      1. Land acquisition costs should not be borne by MVCA.
      2. Administrative costs such as legal fees and taxes may be funded using revenues obtained via the Municipal Levy.
3. MVCA will seek to secure and register easements agreements at all existing WECI sites.
4. MVCA will confirm and register legal boundaries of existing WECI properties.
5. Changes in ownership and easements shall be surveyed and registered on title.



## Administrative Land

### Objective

1. Administrative lands provide space for conducting the business of the Authority and include: offices, meeting space, a boardroom, workshop and works yard, garage, material stores, parking and picnic areas, stormwater, water and wastewater facilities, and site security and fire protection systems.

### Policies

2. MVCA's administrative building on Highway 7 was secured through a loan from the Town of Carleton Place that will be paid in full by 2040 via the Municipal Levy.
3. The property is currently on private services and will be connected to public water and wastewater systems when they become available.
4. MVCA may allow others to share tenancy of the site or building for a fee or in exchange for a service of equivalent or greater value. Tenancy agreements shall not exceed 5-years and may be executed at the discretion of the General Manager.
5. Tenancy agreements in excess of 5-years require approval by the Board of Directors.
6. Tenants may use MVCA office equipment on a cost recovery basis only.
7. Rental of the Boardroom, washrooms, and kitchenette will be at the discretion of the General Manager **and occur on a cost recovery basis only.**

## 3.3. Source Water Protection



## Source Water Protection & Monitoring

Conservation authorities support municipalities and the province in monitoring and protecting drinking water supplies. MVCA is part of the Mississippi-Rideau Source Protection Region, which is administered on a day-to-day basis by the Rideau Valley Conservation Authority.

### **Mandate:**

*Programs and services related to the authority's duties, functions and responsibilities:*

- *as a source protection authority under the Clean Water Act, 2006; and*
- *under an Act prescribed by the regulations (specifically):*
  - *implementation and enhancement of the provincial groundwater monitoring program*
  - *implementation and enhancement of the provincial stream monitoring program*
  - *development and implementation of a watershed-based resource management strategy*

Section 21.1 of *Conservation Authorities Act*  
and Section 12 of *O. Reg. 686/21*

## Goals

1. **MVCA collects water environment data and conducts long-term trend analysis to support informed and sustainable land use, resource, and infrastructure planning.**
2. MVCA demonstrates value for money in delivering system monitoring and resource management services to the province and municipalities.

## Objectives

3. Samples are collected, handled, and shipped in accordance with required procedures.
4. Provincial monitoring activities are leveraged to support local municipal monitoring objectives.
5. Provincial resource management work is leveraged to support local municipal watershed management objectives.
6. **Data and analytical results are shared in ways that meet the needs of different users.**
7. The Board of Directors understands its separate and distinct role as a Source Protection Authority.

## Gaps & Risks

8. Most municipalities within the watershed do not have municipal drinking water supplies and do not receive the same level of support in protecting their water supplies as those that are subject to the *Clean Water Act*.
9. CA regulations prevent use of Category 1 revenues to investigate and support municipalities in protecting surface and groundwater supplies at a watershed level.
10. There is a lack of awareness of the cumulative and downstream effect of leaking septic facilities on drinking water quality, the health of the river system, and recreational tourism.
11. There are concerns regarding the limited number and suitability of existing provincial groundwater monitoring stations in MVCA's jurisdiction.

## Actions to Mitigate

12. Continue to support municipalities by sampling a wider range of monitoring sites and for a broader spectrum of variables in accordance with Category 2 Program & Services Agreements (PSAs).
13. Continue to support municipalities with administration of Section 8 of the *Ontario Building Code* in accordance with Category 2 PSAs.
14. Continue to publish and share monitoring results with municipalities and the public.

## Policies

15. Provincial monitoring programs will serve as the platform upon which local monitoring objectives are met in accordance with Category 2 PSAs.
16. Monitoring program results shall be published annually.
17. The *Natural Systems Monitoring & Reporting* program should be reviewed and updated at least once every five years.
18. Watershed and subwatershed plans and background studies will be pursued as resources permit.
19. A *State of the Watershed Report Card* should be produced at least once every 5 years.
20. MVCA should proactively share monitoring and watershed information with First Nations.

# 3.4. Category 3 Programs & Services



## Education & Outreach

As noted in previous sections, MVCA is required to deliver education and outreach on:

- natural hazard risks
- operation of our facilities, and
- permitting requirements within regulated areas.

Common messages underlying these matters are the following:

- rivers and dams are parts of a watershed
- watersheds have dynamic ecosystems and hydrological processes
- what we do on the land can alter those processes, and
- those changes can impact the safety and welfare of ourselves and others.

A comprehensive Education and Outreach Program is needed that achieves public awareness of mandatory messages within a broader understanding of watersheds and how they function. All 11 municipalities have signed a Category 3 Programs & Services Agreement (PSA) to support a more comprehensive education program within the financial limits of the agreement.

## Goals

1. Watershed residents and users:
  - a. understand how the watershed functions and their role in it, **and the role of MVCA.**
  - b. make informed decisions that mitigate risks and support resource sustainability.
2. MVCA is a partner of choice for education and community engagement.

## Objectives

3. Locally relevant, useful, and accessible by all.
4. Targeted by audience and location.
5. Engaging, hands-on, and fun.

## Gaps & Risks

6. Insufficient effective communications regarding natural hazards and MVCA's mandate.
7. Unmet demand for school age education on natural hazard and natural heritage matters.

## Policies

8. MVCA will develop and deliver an Education & Outreach Plan.
9. The Education & Outreach Plan will be reviewed at least once every four years.
10. Services should be funded in accordance policy 2. B 29. a. ii.

## Stewardship

Stewardship programs support landowners and residents in making changes on the land that improve natural resource management. MVCA began to deliver stewardship services in 1983 with delivery of a reforestation program for private landowners. Today, our 2021 *Stewardship Plan*<sup>26</sup> divides MVCA's jurisdiction into three geographic areas, each with specific objectives and focus. The following are current services offered under this program:

- ALUS Mississippi-Rideau
- Shoreline Naturalization Program
- City Stream Watch Program
- Green Acres Program
- Ottawa Rural Clean Water Program
- Support to lake associations

All 11 municipalities have signed a Category 3 Programs & Services Agreement (PSA) to support continuation of the stewardship program within the financial limits of the agreement.

## Goals

1. The protection of water quality, wetland cover, forest cover, and other environmental features by working with watershed landowners to make meaningful improvements to their properties and practices.

## Objectives

2. Shoreline habitat enhancement
3. Stream and river restoration
4. Wetland protection and recovery
5. Enhanced forest management
6. Increased public knowledge of land management practices for watershed health
7. Community engagement in ecosystem monitoring and reporting
8. Invasive species identification and removal
9. Continuation of the Mississippi River Canoe Route for future generations

## Gaps & Risks

10. Demand exceeds funding for several stewardship programs.
11. Demand exceeds resource capacity for community engagement and invasive species removal.
12. There is no leadership in the maintenance of the Mississippi River Canoe Route.

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<sup>26</sup> View details: [https://mvc.on.ca/wp-content/uploads/2021/11/2021-10-25-2021\\_Stewardship\\_Plan\\_FINAL.pdf](https://mvc.on.ca/wp-content/uploads/2021/11/2021-10-25-2021_Stewardship_Plan_FINAL.pdf)

## Policies

13. The *Stewardship Plan* will be reviewed at least once every four years.
14. Stewardship program results should be published annually.
15. Services will be delivered in accordance with Category 3 Programs and Services Agreements and any ancillary contract agreements.
16. MVCA will continue to promote the Mississippi River Canoe Route and advocate for its maintenance and protection.

## Visitor Services

This program is unique to the Mill of Kintail Conservation Area, which was purchased and developed because of the cultural values at the property. The site is home to the following:

- Mill of Kintail Museum that celebrates the lives of R. Tait McKenzie and James Naismith and is host to “Tea on the Lawn” organized each summer by the Ramsay Women’s Institute.
- Fred Lossing Observatory with programs run by the Royal Astronomical Society of Canada.
- A workshop operated by the Naismith Men’s Shed.
- The Gate House that houses meeting space and is used by local community groups such as the Mississippi Valley Field Naturalists, local scouts and guiding groups, artists, and others. The Gate House also has a climate-controlled room for storage of museum artifacts.
- The “Cloister” and Picnic Shelter that are rented for weddings and other special events.
- The Education Centre that was purpose-built in the early 1970s for MVCA’s education program.
- Playground for tots and youth
- Basketball court
- Hiking trails and other areas for leisure and nature appreciation

All 11 municipalities have signed a Category 3 Programs & Services Agreement (PSA) to support continued visitor services within the financial limits of the agreement.

## Goals

1. Sustainable management of the property, buildings, and heritage features for current and future generations.
2. The Mill of Kintail is a top-10 destination in Lanark County.

## Objectives

3. Increase all-season level of service, including education, cultural appreciation, and both guided and self-guided outdoor recreation opportunities, for local residents and visitors to the region.
4. Encourage the appreciation of local cultural history through programming and activities.



5. Broaden the sources and amounts of revenue from activities that complement the primary functions of the site to financially support core programs.
6. Strengthen relationships with the community at large.

## Gaps & Risks

7. Some archival material and exhibits require special care that cannot be accommodated within the Mill building, which is a heritage structure and requires special care itself.
8. Dogs off-leash are a perennial problem that requires periodic education and enforcement.
9. As an ungated unsupervised site, there are challenges with unpaid parking/user fees.
10. Revenue sources for the Museum are unreliable and do not provide for capital renewal.
11. Most museum exhibits are dated and require update.
12. WIFI at the Cloister, Education Centre and Picnic Shelter are limited.
13. There are no accessible and year-round washrooms serving the Cloister, Education Centre and Picnic Shelter, which limits the type and size of events that can be hosted at the site.

## Policies

14. Update the *Mill of Kintail Master Plan*.
15. Visitor Services program results should be published annually.
16. Services will be delivered in accordance with Category 3 Programs and Services Agreements and any ancillary contract agreements.

# Implementation

The LC&RS is the highest-level policy document of the Authority and is designed to guide short, mid, and long-term planning (see Figure 6.) As such, it needs to filter down into all activities of the Authority and reviewed at intervals to ensure it remains current, relevant, and useful.<sup>27</sup>

## Integration into Business Practices

1. The Strategy will be used to update the following documents:
  - a. MVCA's *Corporate Strategic Plan and Implementation Plan*
  - b. MVCA's *Corporate Needs Assessment*
  - c. Other policy and planning documents as appropriate.
2. Tables 4 and 5 summary reporting requirements and targets contained in the Strategy to support monitoring and reporting to the Board.
3. Staff activities will be required to align with the direction of the Strategy and comply with its policies.
4. New employees will be briefed on the Strategy and sections relevant to their work.

**Table 4: Summary of Minimum Reporting Requirements**

<b>Report</b>	<b>Update Frequency</b>
Land Conservation & Resource Strategy	Once every 10 years
Natural Systems Monitoring & Reporting program	Once every 5 years
Watershed Report Card	Once every 5 years
Schedule of Municipal Capital Levy Increases	Once every 4 years
Land Holdings	Once every 4 years
Land Acquisition/Disposal Needs	Once every 4 years
10-Year Capital Plan	Annually
Regulatory Maps	Annually
Registry of Natural Hazards	Annually
Operations, Maintenance & Surveillance (OMS) manuals	Annually
Property Master Plans	As needed
Registry of Hazard Events	As needed
Hazard Mapping Strategy	As needed
System Surveillance Strategy	As needed

<sup>27</sup> Periodic review and updating the LC&RS is also required per O. Reg. 686/21.

**Table 5: Summary of Program Funding Targets**

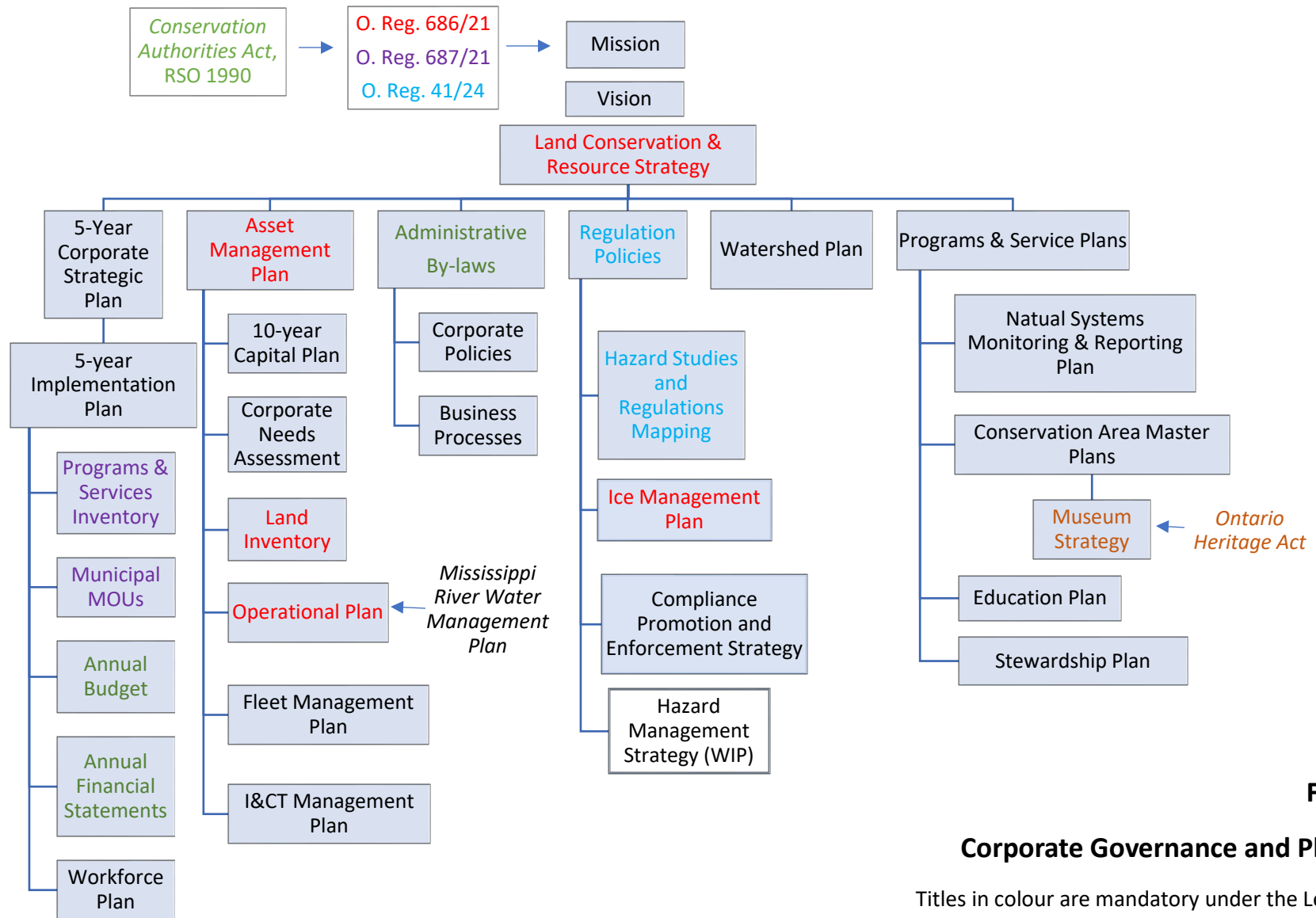
Item	Target Revenue Ratio	Funding Source(s)
Conservation Area Operations: Category 1	90:10	<ul style="list-style-type: none"> <li>• Municipal Operating Levy</li> <li>• User Fees</li> </ul>
Conservation Area Operations: Category 3	20:50:30	<ul style="list-style-type: none"> <li>• Municipal Operating Levy</li> <li>• User Fees</li> <li>• Grants &amp; Donations</li> </ul>
Education and Outreach Program	15:85	<ul style="list-style-type: none"> <li>• Municipal Operating Levy</li> <li>• Other Sources</li> </ul>
Visitor Services	20:50:40	<ul style="list-style-type: none"> <li>• Municipal Operating Levy</li> <li>• User Fees</li> <li>• Grants &amp; Donations</li> </ul>

## Review & Update of the Strategy

5. The Strategy shall undergo formal review and update at least once every 10 years.
6. The review will include consideration of significant trends or changes in the following matters:
  - a. Legislative/regulatory context
  - b. Property acquisitions<sup>28</sup> and disposals
  - c. MVCA property land use
  - d. MVCA programs and services
  - e. Funding
  - f. Socio-economic conditions
  - g. The watershed resulting from land development and climate change
7. During the review, the public shall be notified and provided a minimum of 30 days to comment on the above matters; and on any proposed changes to the *Land Conservation & Resource Strategy*.

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<sup>28</sup> As defined by regulation.



**Figure 6**

**Corporate Governance and Planning**

Titles in colour are mandatory under the Legislation or Regulation of the same colour.

# Appendices



## Appendix I: Watershed Partners

### First Nations

MVCA's jurisdiction includes land subject to treaties with Indigenous peoples: Treaty 27, the Williams Treaty, and the Crawford purchases of 1783. Our jurisdiction also includes traditional and unceded territory of the Algonquin Anishinaabeg people. "First Nations have a special relationship with the earth and all living things in it. This relationship is based on a profound spiritual connection and inherent responsibility to Mother Earth that guides First Nations Peoples to practice reverence, humility, and reciprocity."<sup>29</sup> MVCA is committed to working with First Nations for the health and betterment of all.

### Flood Forecasting & Water Management

- Water management along the Mississippi River and its tributaries is a collaborative effort of MVCA, the Ministry of Natural Resources, Ontario Power Generation, Enerdu Power, Mississippi River Power Corporation, and Portage Power.
- Environment & Climate Change Canada coordinates water management on the Ottawa River and has gauge stations at various locations within MVCA's jurisdiction.
- The province uses data supplied by MVCA and other organizations to forecast snow run-off and short to mid-term weather conditions.
- Municipalities manage local stormwater quality and quantity through planning approvals and the design and maintenance of municipal drains.

### Hazards Management

- Federal and provincial ministries have baseline surficial geology maps and similar resources that are used by MVCA where more detailed local studies have not been carried out.
- Municipal Official Plans and Zoning-laws and the consideration of applications under the *Planning Act* are to be consistent with the *Provincial Planning Statement, 2024* that directs development away from natural hazards.
- Municipalities circulate planning applications to MVCA for review of potential hazards; and notify landowners when a permit may be required from the Authority. Municipalities collaborate with MVCA by requiring applicants to complete technical studies that will support both planning and permit reviews and mitigate delays in approval processes.

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<sup>29</sup> <https://afn.ca/environment/environmental-protection-climate-action>

## Protection and Management of Wetlands & Other Natural Resources

- Legislation is in place at the provincial and federal level for the protection of species at risk, and both levels of government have processes for studying and listing/delisting species. Both operate species recovery plans and stocking programs. The province also manages natural resources through the monitoring of forests and species, the administration of forestry and pits and quarry licenses, and hunting and fishing licenses.
- The province maintains a database of Provincially Significant Wetlands (PSWs), but no longer makes final determinations regarding a wetland's significance. Municipalities are responsible for reviewing and either accepting or challenging wetland assessments completed under *Ontario's Wetland Evaluation System (OWES)*, 2022. The current edition of OWES does not award points based upon the presence of species at risk.
- Municipal Official Plans and Zoning-laws and the consideration of applications under the *Planning Act* are to be consistent with the *Provincial Planning Statement, 2024* that directs development away from wetlands and significant natural resources.
- Several organizations have acquired wetlands and other land of ecological or hydrologic value, with the following operating within MVCA's jurisdiction: the National Capital Commission, Canadian Wildlife Service, Ducks Unlimited Canada, Mississippi Madawaska Land Trust, and the Nature Conservancy of Canada, and the County of Lanark through its county forest program.
- Several organizations conduct species inventories and habitat surveys to support local land use planning and scientific studies or work with decision-makers for habitat protection including: Friends of the Carp River, Friends of Carp Hills, Friends of Stittsville Wetlands, Climate Network Lanark, Mississippi Field Naturalists, and the Madawaska Field Naturalists.

## Drinking Water Source Protection

- Municipalities have lead responsibility for the protection of municipal drinking water supplies. This includes administration of the *Ontario Building Code* for the prevention of ground and surface water contamination from municipal and individual wastewater systems.
- Local health units test public beaches and issue warnings regarding unsafe bacterial levels; and provide water testing services for those on private well systems.
- The provincial Ministry of Environment Conservation and Parks monitors trends in surface water quality and responds to spills and hazardous algae blooms.

## Outdoor Recreation

- Federal and provincial crown land, parks, and greenbelt comprise approximately 25% of MVCA's jurisdiction. Both levels of government also operate boat launches, and the province approximately 748 camp sites.

- Municipalities own and manage local linear pathways and active recreational facilities such as sports fields. Municipalities also operate and maintain boat launches, and in some cases manage camp sites. The County of Lanark has mostly unmaintained trails on its properties.
- The for-profit sector provides camp sites, trailer parks, and cottage rentals, boat launches, rentals, and marinas, and outdoor recreation opportunities, mostly on a season basis.
- The not-for-profit sector primarily operate as clubs to facilitate activities like snowmobiling, ATVing, and mountain biking. Both the Snow Road Snowmobile Club and the Ottawa Valley ATV Club have assisted MVCA with maintenance of the K&P Trail.
- Individual land owners support some activities through short-term agreements that allow limited access and use of their properties by club members.

## Stewardship and Education

- MVCA's stewardship program-delivery costs are almost entirely funded by grants from the City of Ottawa, ALUS Canada, private companies, and philanthropic organizations.
- RVCA has been a long-term partner that delivers large-scale tree-planting in MVCA's jurisdiction.
- Lake Associations are MVCA's eyes and ears regarding local conditions, and help to communicate information to their membership.
- **Members of the Carp River Living Classroom Committee and Friends of the Carp River**, school boards and individual schools and teachers (including retirees) have volunteered their time to support development of the Carp River Conservation Area signage, a mobile learning app, and to help rebuild MVCA's education program.
- Our Watershed Plan Public Advisory Committee comprises people from across the watershed interested in achieving improvements through stewardship and education.

## Visitor Services

- As noted previously, several organizations make regular use of the Mill of Kintail Conservation Area and, in some cases, help with upkeep of the property.
- Our Museum Advisory Committee is comprised of people knowledgeable in the history of the Mill of Kintail property and lives of R. Tait McKenzie and James Naismith and are looked to help support continued operation of the museum and its artifacts.



## Appendix 2: Registry of Hazard Events

DRAFT September 2024

Research into historic events, their timing, scope and impacts is ongoing. This Registry will be updated as more information is collected and details confirmed.

### Flooding

The flood of 2019 was one of the largest floods recorded on the Mississippi River. The flood affected almost every watercourse within the Mississippi River watershed from the headwaters of the system in Addington Highlands Township to the outlet of the river into the Ottawa River at Galetta.

The Clyde River is a major tributary of the Mississippi River and was identified as one of MVCA's highest flood risk areas in the 2022 [Flood Risk Assessment Study](#). The Clyde River has experienced many flood events in recent years including 1998, 2005, 2008, 2014, 2017 and 2019. Because major rainfall during the 2019 event was concentrated in the upper watershed of the Mississippi River, the Carp River experienced less severe flooding.

The flood of 1998 was the most significant for the MVCA in terms of directing and coordinating flood response for the local municipalities.

Event	Flood Damage Centre	Key Impacts
2019, Mississippi River, Ottawa River	Most of the watershed. Disruptions from Dalhousie to Mississippi Lake - Communities of Almonte, Pakenham Fitzroy Harbour, and Constance Bay.  Mazinaw Dam spillway washout	<b>Mississippi River-</b> The 2019 flood was similar to the 1998 flood event, although the extremes were more extreme in the western portion of the watershed than in 1998. In particular, the Mazinaw Dam spillway washed-out and had to be repaired. <b>Ottawa River-</b> Water levels reached 30 cm higher than the 2017 flood event. Ottawa called a state of Emergency for the Ottawa River. There were two deaths, and 6,000 homes were flooded or in

Event	Flood Damage Centre	Key Impacts
		imminent danger. <sup>30</sup> Transportation infrastructure closed. As a result of province-wide impacts, there was an investigation that led to development of the provincial <a href="#">Ontario's Flooding Strategy</a> in 2020.
2017 Ottawa River	Constance and Buckham's Bay	Prolonged periods of rain coupled with snowmelt. Considered the 'Flood of the Century' only to be surpassed two years later. Not as severe flooding along the Mississippi river as it peaks earlier than the Ottawa River.
2017 summer Mississippi River (Dalhousie Lake)	Dalhousie Lake to Sheridans Rapids – Mississippi Lake to some extent	Intense rainfall coupled with upper reservoirs at storage capacity resulting in flooding.
2014 Mississippi & Clyde Rivers	Typical flood prone areas	Above average snow pack into the month of April followed by above average rainfall caused significant flooding throughout the watershed. Event did not reach records hit in 1998 or 2002.
2009 Carp River	Suburban Glen Cairn -stormwater backup leading to flooding basements	Under design/capacity of stormwater collection system – Described as 1:100-year storm. Glen Cairn community has experienced two floods prior to this event.
2002 – Mississippi River	Upper Watershed to Dalhousie Lake Shabomeka Dam embankment overtopped Mazinaw Dam Spillway washout.	June 2002, severe storm over 4 days produced 140 - 200 mm rain in western portion of watershed. Almost every log in every dam was removed over the course of a week to deal with the excess water and caused record high levels in most of the upper lakes.

<sup>30</sup> Source: [Ottawa River reached peak level in 2019 — a look back - The Weather Network](#)

<b>Event</b>	<b>Flood Damage Centre</b>	<b>Key Impacts</b>
1998 Clyde River - Mississippi River	Communities of Cedardale and Lanark Village, Dalhousie Lake, Mississippi Lake, Almonte, Pakenham  Widow Lake Dam overtopped  Lanark Dam and High Falls Dam had extensive washouts.	Intense rainfall coupled with snow melt – resulted in state of Emergency for Lanark Village and Mississippi Lake – numerous road closures, evacuations, military aid. The significant ice storm earlier in the year left massive amounts of ice on ground and deforestation impacting the severity of the flooding.
1974 - 1976	Ottawa River nears historic peaks.	1976 - maximum daily discharge at Appleton reported at 236 CMS – This is approaching 100-year flood event, fifth highest recorded flow
1960 Clyde River Mississippi River	Ottawa Citizen article - Description rivals the 1998 event road washouts topping of Lanark village bridge	Sixth highest recorded flow at Appleton.
1929 Mississippi River	Southern Ontario, April 5-9, 1929. Widespread flooding caused damages and flooded roads and railways	Maximum daily discharge at Appleton reported at 260 CMS

## Drought

In all watercourses, aquatic habitat is affected to some degree depending on the severity and duration of the drought event. Other impacts include groundwater levels that are dependent on recharge from infiltration of precipitation. Droughts can impact the water levels in many local aquifers, especially those that don't have abundant recharge rates which can deplete groundwater being pumped out of local wells. Livestock farmers can have difficulty providing water for their animals, and crop farmers and golf courses that rely on streams, ponds, and ground sources may be unable to provide adequate irrigation. Safe boating on the Mississippi River system, as well as on uncontrolled lakes, can be jeopardized by lower water levels.

### **Mississippi River**

- In the river below Crotch Lake to Galetta Crotch Lake, our largest reservoir is used to augment flows downstream during the summer months. In drought conditions, normally 90% of the water in the lower reach of the system comes from Crotch Lake during the summer months.
- Flow out of Mississippi Lake is reduced which can affect the quality and quantity of the water supply for the Town of Carleton Place.

### **Clyde River**

- Tributaries can have no flow and main channel can be reduced to disconnected pools, wetlands can dry up - all of these can negatively affect aquatic and terrestrial species' populations, potentially for years to come.

### **Small Tributaries to the Mississippi River (including Buckshot creek, Fall River, Indian River)**

- Flows can be reduced leaving exposed streambed and reduced habitat – exacerbated by beaver dam construction where a dam creates a pond but reduces or eliminates flow downstream.

### **Carp River**

- flows can be reduced to zero leaving exposed streambed and reduced habitat – exacerbated by beaver activity.
- Tributary streams can have no flow – also exacerbated by beaver activity.

### **Ottawa River**

- The Ottawa River is a major system responding mainly to climatic conditions in northeastern Ontario and western Quebec. To have a significant impact, dry conditions would have to extend over a very large area. Municipal water supplies taken from the Ottawa River are a small portion of the flow and have not been at risk during previous drought events in the Mississippi watershed.

### **Tributaries to the Ottawa River**

- All of these streams can be reduced to minimal to no flow and aquatic habitat can be severely limited.

Event	Duration	Key Impacts
2018	<p>04-07-18 - Watershed Conditions statement - low water</p> <p>19-07-18 – Level I Minor Drought declaration</p> <p>03-12-18 conditions return to normal</p>	<p>The watershed received average rainfall for the month of August and September and more than 50 mm across the watershed in early October. This has resulted in the precipitation indicator for drought to be now out of a drought status. Due to temperatures still being above average however, and soil moisture conditions still appearing to be in a deficit, the flows in the smaller tributaries (Buckshot Creek, Clyde, Indian and Fall Rivers) have not responded to the rainfall. Based on the flows in those tributaries and along the Mississippi River itself, Level I / Minor drought conditions still persisted into Dec.</p>
2016	<p>26-May-16 Watershed Conditions statement - low water</p> <p>20-Jun-16 – Level I Minor Drought declaration</p> <p>30-Jun-16- Level I Minor Drought upgraded to Level II Moderate Drought</p> <p>11-Aug-16- Level II Moderate Drought upgraded to Level III Severe Drought</p> <p>14-Dec-16- Drought downgraded from Severe to Moderate</p> <p>Jan 2017- conditions return to normal</p>	<p><b>Watershed Conditions</b></p> <ul style="list-style-type: none"> <li>• Virtually all smaller tributaries dried up.</li> <li>• Most swamps were completely dry.</li> <li>• Multiple reports of dry wells.</li> <li>• Most municipalities had water bans in place except the City of Ottawa.</li> </ul> <p><b>Municipal systems</b></p> <p>CA's and Municipal water users (i.e. Town of Perth, Smiths Falls and Carleton Place) met to discuss current conditions and what potential impacts / concerns there may be if this progresses into next year.</p> <p>Mississippi Mills had sediment issues with some of their wells.</p> <p>Carleton Place had seen an increase in organics (sediment) in their water. More algae were observed in 2016 due to higher water temperatures. Due to the lack of water more backwashes of the system are needed, using the already low water supply. It was also noted that low flows bring a higher amount of beaver activity, causing disruptions in water supply.</p>

Event	Duration	Key Impacts
		<p><b>Power producers</b></p> <p>The Mississippi River Power Company indicated that their Almonte generating station has been shut down the past 3 months and producing no power.</p> <p>Continuing Level 3 status could impact ecological factors such as, amphibians and fish shortages from going into the winter months with dry streambeds.</p>
2012	<ul style="list-style-type: none"> <li>• Low water conditions began the middle of July, 2011.</li> <li>• First declared Low Water Condition Level I June 1, 2012</li> <li>• Declared Level II on July 17, 2012 and remain there until Nov 15, 2012.</li> </ul>	<p><b>Watershed Conditions</b></p> <ul style="list-style-type: none"> <li>• Virtually all smaller tributaries dried up.</li> <li>• Most swamps were completely dry.</li> <li>• One reported dry well, no reported fish kills.</li> <li>• Mississippi Mills issued a water ban for July and August.</li> </ul>
1998/99	In the fall of 1998 to the summer of 1999.	Southwestern and parts of eastern Ontario experienced an extended period of low rainfall and high temperatures. These were the lowest water levels and driest soil conditions recorded for several decades. The Ontario Low Water Response Plan (OLWRP, 2001) was prepared in response to deal with low water conditions.

## Erosion

Most erosion occurs in deeply defined stream channels characterized by the Champlain Sea Clay deposits (glaciomarine, clayey silt, silty clay and clay), which are found in tributaries of the lower Mississippi River (between Almonte and Pakenham), the Carp River and the Ottawa river. Many creeks/rivers are actively meandering and this hazard is regulated where flood plain mapping exists.

Event	Erosion	Key Locations
August 2024	Carp River	Washed out culverts in Carp watershed due to the large rain event from the remnants of Hurricane Debby.
1980	Ottawa River	McLaren's Landing - A landslide occurred resulting in the loss of a dwelling and a major portion of a residential lot. The Township of West Carleton requested the MVCA to assess the conditions of the slope and determine possible remedial action.

MVCA is also aware of land slides on the lower Indian and Lower Cody Creeks only as a result of landowner reporting, with limited impacts reported on the properties from slumping or undercutting.

Cattle erosion exists in many areas of the lower Mississippi and lower Carp River watersheds. This was abated in some areas under the provincial cost share program *Clean Up Rural Beaches*, managed by the Conservation Authority.

## Appendix 3: Status of Watershed and Subwatershed Plans, 2024

DRAFT February 14, 2024

Activity / Recommendation	Status				Comments	Category		
	Compl	WIP	On Hold	Cancel		1	2	3
<b>Carp River Subwatershed/Watershed Plan, 2004</b>								
Assess impacts of floodplain modifications resulting from stream restoration works along upper Carp from Glen Cairn Pond to Richardson Side Road	X				MVCA completed an update to the Carp River floodplain mapping in July 2024. There has been limited monitoring on restoration works in regard to habitat enhancements. During the surveying process for the floodplain mapping update, some siltation around crossings was observed.	X		
Undertake Floodplain Mapping for Carp River, Poole Creek, and Feedmill Creek downstream of Highway 417	X				Floodplain mapping updates were completed in 2024 for the Carp River, 2017 for Feedmill Creek, and 2015 for Poole Creek.	X		
Carp River Corridor Plan: Restore upper Carp River to riverine wetland with floodplain features and recreational trail system (approximately 5000 m)	X				The Carp River Corridor Restoration Plan, per the Carp River Subwatershed/Watershed Plan notes the Carp River Corridor is located between Hazelden Road and Richardson Side Road. This work has been completed as part of the restoration works and permitted by MVCA under W15/55 and W16/137. The Carp River Conservation Area provides a trail system	X		
Protect stream corridors along Carp (100 m), Poole (80 m) (downstream of Hazeldean Road) and Feedmill (70 m) downstream of Queensway	X				Protection through land ownership by MVCA and the City of Ottawa in areas of Poole Creek from Hazeldean Road at Sweetnam Drive to Maple Grove Road. The City of Ottawa owns portions of Feedmill Creek adjacent to Minto's Arcadia Development and the Tanger Outlets. The City of Ottawa and MVCA both own portions of the Carp River from the Glen Carin Detention Basin to the 417.	X		
Restore lower reaches of Poole and Feedmill Creek to riparian wetland systems contiguous with Carp River Corridor plan (approximately 1000 m)		X			Plans exist in the Carp River Restoration Plan for the restoration of the lower reaches of Poole and Feedmill Creeks. Some work identified in the Feedmill Creek Stormwater Management Criteria Study, Prepared by JFSA in association with Coldwater Consulting Ltd., dated April 30, 2018, which is a City of Ottawa initiative.			X
Conduct EIS on all Category 2 features (see detailed description in Section 8.4.3) - woodlands contiguous with Level 1/2 riparian corridors, features in low/moderate recharge,				X	Implemented through development review, or other relevant studies as administered by the City of Ottawa.			X



Activity / Recommendation	Status				Comments	Category		
	Compl	WIP	On Hold	Cancel		1	2	3
adjacent lands (30 or 120 m setbacks) - applies only to development applications								
A stewardship/education program to promote protection and regeneration of Category 3 areas (see detailed description in Section 8.4.3) to a natural state. A stewardship/education program to promote protection and enhancement of Category 1 areas (see detailed description in Section 8.4.3)		X			MVCA rotates monitoring through all the sub-watersheds within the City of Ottawa boundaries. MVCA produces a report on each subwatershed identifying opportunities for stewardship through the <a href="#">City Stream Watch Program</a> . The Feedmill Creek Stormwater Management Criteria Study, Prepared by JFSA in association with Coldwater Consulting Ltd., dated April 30, 2018 provides additional stewardship initiatives.			X
Review current aggregate operations in Feedmill headwaters and review opportunities to augment baseflows in both Feedmill and Poole. Confirm that rehabilitation plan devotes restoring significant lands to natural state		X			Work in progress related to the expansion of the floodplain mapping update for Feedmill Creek.		X	
Protect valley and stream corridors along upper Carp, Poole and Feedmill Creeks (See Section 8.2)		X			Work is being completed as funds are available, some work completed to date along Upper Poole Creek.			X
Maintain key functions of valley and stream corridors in Hazeldean and Unnamed Tributaries		X				X		
Program emphasis on reducing flooding impacts on agricultural lands through stream restoration, wetland/forest protection measures as described below		X			Carp River Floodplain Mapping was updated in July 2024, Carp River Restoration works completed between Hazeldean Road and Richardson Side Road.	X		
Stream restoration using natural channel design and engineered natural channel measures along 15.4 km of priority 1 tributaries and 13 km of priority 1 Carp River segments		X			Carp River Restoration Project included the re-alignment and restoration of the mainstream between Hazeldean Road and Richardson Side Road (approx. 5.5 km) and the construction of seven off-line habitat ponds within the Carp River corridor.	X		
Control livestock access restrictions and installation of alternate watering sources on livestock operations in priority 1 subwatersheds and along priority 1 Carp River segments		X			To date, one farm along the Carp River, one farm along Huntley Creek (Priority 1) and one farm along a Priority 2 Creek, have been provided funding through the Rural Clean Water Program to restrict livestock from water and to provide them with an alternative watering source. Still many active farms along the Carp River and Priority 1 and 2 Creeks that need to be targeted with this program. Rural Clean Water Program initiatives can continue move this recommendation forward.			X

Activity / Recommendation	Status				Comments	Category		
	Compl	WIP	On Hold	Cancel		1	2	3
Riparian zone plantings along 24.2 km of priority 1 tributaries and 9 km of priority 1 Carp River segments		X			16 landowners along the Carp River have participated in a planting program (Rural Clean Water Program, Private Land Forestry Program or MVCA Shoreline Naturalization program) involving planting along the shoreline (3.1 km on west side of river, 2.5 km planted on east side of river). 12 landowners along a Priority 1 Creek have participated in a planting program, of the 12, 9 have had some planted along the shoreline (app. 4.1 km of shoreline has been planted on the west side of creeks and 4.6 km has been planted on the east side of creeks). TOTAL: Carp River: approx. 2.8 km/9 km planted, Priority 1 tributaries: app. 4 km/24.2 km planted.			X
Riparian plantings along 18.2 km of priority 2 streams		X			Private Land Forestry Program - one landowner along Priority 2 creek nearest the Ottawa River, planted 500 trees, but only 200 m of their 550 m shoreline is planted. TOTAL: 0.2 km/18.2 km planted.			X
Implement conservation land management practices on about 4500 ha of priority 1 and about 2500 ha of priority 2 agricultural lands to reduce soil erosion		X			Three landowners (one on Carp River and two on Unnamed Priority 1 Creek C) have participated in the Rural Clean Water Program to reduce soil erosion on farms (cropping practices, erosion control, fragile land retirement).			X
Site specific erosion control measures (livestock access control, instream/roadside grade controls, streambank stabilization) in priority 2 streams		X			One landowner on Priority 2 stream beside Corkery Creek has participated In the Rural Clean Water Program to restrict livestock from water.			X
Implement non -structural BMP's on all farmsteads on priority 1 and 2 agricultural lands, beginning with those operations contributing directly to priority 1 and 2 tributaries and priority 1 Carp River segments (approximately 50 farms)		X			Options available through Rural Clean Water program.			X
Implement structural BMP's on all farmsteads contributing directly to priority 1 tributaries and priority 1 Carp River segments (approximately 20 farms)		X			According to Carp River Watershed Study these are what need to be implemented: Structural manure/feedlot storage and handling BMPs such as: covered storage facilities solid and liquid storage facilities, runoff storage facilities. One landowner on Priority 2 subwatershed participated in Rural Clean Water program and improved manure storage/ wastewater/ treatment in 2009-2010, OMAF Ministry Strategies and Priorities is to provide technical support to help farmers addressing problems before they are			X

Activity / Recommendation	Status				Comments	Category		
	Compl	WIP	On Hold	Cancel		1	2	3
					regulated under the Nutrient Management Act. Options available through Rural Clean Water.			
Implement the eight elements of the City's Groundwater Management Strategy		X			Source Protection administered by the City of Ottawa.	X		
Develop the groundwater management strategy to address potential contaminant sources and source protection.		X			As outlined in the Carp River Watershed Study: initiate a septic system inspection program and repair/replace faulty systems (covered under groundwater program). This has been completed with Rural Clean Water Program; 19 landowners have had a septic system repair/replacement since the Carp River Watershed Plan was created in 2006.	X		
Implement Rural BMP's on agricultural lands in high/moderate recharge (priority 1 and 2 agricultural areas)				X	According to the Carp River Watershed Study some examples are: Municipal source control practices, infiltration facilities, urban retrofitting, buffer zones, aquatic habitat restoration, stream restoration/natural channel design, terrestrial habitat restoration/reforestation, wetland creation, public education, erosion and sediment control during construction, groundwater recharge and baseflow protection, source protection plans, livestock access control, fertilizer/manure management (on-field measures), fertilizer/manure management (streamside measures), manure/feedlot storage and handling (structural and non- structural), fragile land management, road side ditch and drain maintenance using natural channel design principles, milkhouse waste management, pesticide storage and management, irrigation management replace fault septic systems.			X
Develop a more detailed record of actual water takings from surface and groundwater supplies	X				MOE partnered with Conservation Ontario and provided actual water taking statistics (per annum), as available on OPEN PORTAL (Ontario Partner Environmental Network) (as of 2013).	X		
Require hydrogeological investigations for land development proposals (MOE Guideline D5-5)				X	Implemented through City of Ottawa Development Review.	X		
Protect Category 1 Areas (see detailed description in Section 9.2.3.2) - Centres of Ecological Significance, candidate ANSI's, High NESS Areas, natural features in high recharge areas, wetlands, riparian corridors.		X			Implemented through City of Ottawa Development Review. Protected under Greenspace Master Plan: High NESS significant wetlands are protected, high ANSI and NESS areas are protected (Carp River, Feedmill Creek and Poole Creek riparian corridor). These areas are considered under land use designations that are Natural Environment Area and Significant Wetlands South and East of the Canadian Shield in the Greenbelt, plus Urban Natural Features and Major Open Space elsewhere in the urban area.			X

Activity / Recommendation	Status				Comments	Category		
	Compl	WIP	On Hold	Cancel		1	2	3
					Lands designated Significant Wetlands and Natural Environment Area are publicly owned. Most of the lands designated as Urban Natural Features and Major Open Space are publicly owned and the designation restricts development. Area protected under Official Plan: Hazeldean Road to Richardson side road under Carp River Restoration Policy. Nothing on Centres of Ecological Significance or 'Category 1 areas'.			
Conduct EIS on all Category 2 features (see detailed description in Section 9.2.3.2) - woodlands contiguous with Level 1/2 riparian corridors, features in low/moderate recharge, adjacent lands (30 or 120 m setbacks) - applies only to development applications				X	Implemented through City of Ottawa Development Review.	X		
Undertake a stewardship/education program to promote protection and regeneration of Category 1 areas to a natural state (see detailed description of Category 3 areas in 9.2.3.2)		X			Implement programs through Rural Clean Water and Shoreline Naturalization and Tree Planting Program.			X
Identify and protect valley and stream corridors adjacent to all classified streams in Municipal planning and/or zoning schedules to ensure their protection as land use change occurs		X			Implemented through City of Ottawa Development Review.	X		
Implement a stewardship program to encourage buffer plantings adjacent to all classified streams to reduce sediment loadings to streams		X			Shoreline Naturalization Program exists and is available to landowners. Need to increase awareness of these programs as many areas would benefit from riparian plantings.			X
Recreational trail system				X	Future Plans: Carp River Remediation Project has 1.4 km of trails planned. Identified in City of Ottawa Official Plan and the Greenspace Master Plan.			X
Environmental Monitoring Program		X			MVCA monitors the water levels and rainfall recordings of Carp River. City of Ottawa monitors water quality, MVCA completes baseline monitoring on selected sites in partnership with the City of Ottawa. City Stream Watch program for Carp River. Ottawa Riverkeeper now monitors the Carp River as of 2013; volunteers are testing for phosphate, nitrate, nitrite, pH levels and dissolved oxygen each month. E-fishing, benthics, etc. completed for Carp River.		X	
Carp Action Plan, May 2015								

Activity / Recommendation	Status				Comments	Category		
	Compl	WIP	On Hold	Cancel		1	2	3
The Action Plan was developed to support the findings of the Carp River Subwatershed Study.	X				As identified in the Carp River Subwatershed Watershed Study, most of the recommendations of the Subwatershed Plan must take into consideration the cooperation, consent and environmental stewardship of the landowner.  Additional funding is required to move forward with initiatives of the Carp Action Plan. The Shell grant which funded the initial works completed under the Carp Action Plan, expired in 2015.	X		
Blockage Removal	X				Two high and one medium priority blockages completed in the fall of 2019, funded by a DFO grant. Three medium priority blockages addressed by the Friends of the Carp River in winter 2015. A low priority blockage was partially removed in winter 2014 by the Friends of the Carp River. MVCA completed a low priority blockage removal in fall of 2013.			X
Shoreline Plantings		X			High priority planting completed as part of DFO funding on Diefenbunker site spring 2014. Three low priority plantings completed on the west bank, in spring 2014. One low priority planting completed with the Kinburn Community Association and West Carleton Scouts in the fall of 2014.			X
City Stream Watch		X			Ongoing through annual rotation.			X
<b>Upper Poole Creek Subwatershed Plan, 2000</b>								
Continue reviewing and approving stormwater management plans for development proposals.		X			Review of stormwater management plans is implemented through development review, by both the City of Ottawa and MVCA.	X		
Endorse the Upper Poole Creek Subwatershed Plan	X				The Upper Poole Creek Subwatershed Study, prepared by Marshall, Macklin, and Monaghan, was approved by Council in 2000.	X		
Complete riparian/buffer plantings and encourage landowners to leave uncut strip along the creek.		X			Six public sites have been planted with 286 trees and shrubs by MVCA staff since 2013. MVCA partnered with TD Friends of the Environment to plant an additional public site with 150 trees and shrubs using the help of 25 volunteers. Additionally, 75 plants were given away to 20 participating private landowners along UPC in 2020.			X
Place in-stream habitat structures to create fish habitat in areas that are deficient.	X				Two existing lunkers were fixed and four half-log structures were installed in 2015. A new lunker was installed in 2019.			X
Review and approve Environmental Impact Statements, which should be submitted for any		X			Implemented through City of Ottawa development review. Permitting, permission is required from MVCA and potential review of technical studies.	X		

Activity / Recommendation	Status				Comments	Category		
	Compl	WIP	On Hold	Cancel		1	2	3
proposed development within 120 m of the boundary of Upper Poole Creek Wetland.								
Extend regulatory fill line mapping to include the Upper Poole Creek Wetland based on the need to preserve the hydrologic function of the wetland.	X				MVCA regulatory fill line mapping was updated in 2015.	x		
Establish a pilot program to monitor effectiveness of differing Glossy Buckthorn control methods.		X			Several events have been held by MVCA staff with volunteers to remove invasive species, focusing on Glossy Buckthorn, Multiflora Rose, and Garlic Mustard. Staff will continue hosting volunteer removals over the coming years. No pilot program focused on testing and monitoring different Glossy Buckthorn control methods has been launched.			x
Control beaver activity in reaches below the Upper Poole Creek Wetland.		X			Two beaver dams causing flow issues were removed in 2014. No deterrents have been implemented by MVCA.			x
Implement a monitoring program to assess the abundance or location of cold-water indicator species.		X			Several sites along Poole Creek have been electro-fished in 2009, 2014, 2018, 2019, 2021, and 2023. There is a need for more consistent sampling, based on staff and funding availabilities.			X
Implement a benthic monitoring program.		X			Benthic monitoring along UPC has taken place in 2018, 2019, 2020, 2022, and 2023. Sampling will continue on a yearly basis when possible.			X
Implement a water quality and temperature monitoring program.		X			In typical years, 3-4 sites are sampled each ice-free month through the City Baseline monitoring program. Temperature loggers are launched at three sites and record temperatures at 15 minutes intervals in June, July, and August. Further monitoring takes place on a rotational basis through the City Stream Watch Program (CSW). Upper Poole Creek was last monitored through CSW in 2018 and will be on the rotation again in 2024.		X	
Implement volunteer-led programs to engage the public.		X			Several volunteer events have taken place at Poole Creek, including volunteer clean-up events in 2022 and 2023 and invasive species removals in 2019, 2020, and 2023. City Stream Watch has also operated with the assistance of volunteers. City Stream Watch and other volunteer events will continue to run over the coming years.			X
Educate local landowners on best management practices.		X			Education has been provided through various outreach efforts, such as City Stream Watch, tree giveaways, and other volunteer events. MVCA also partnered with EnviroCentre to set up booths on stormwater management for Poole Creek residents in 2019.			X

Activity / Recommendation	Status				Comments	Category		
	Compl	WIP	On Hold	Cancel		1	2	3
<b>Watts Creek / Shirley's Brook Subwatershed Plan, 1999</b>								
Regeneration and management plans prepared to target priority areas. Planting to be coordinated by MVCA/MNR programs emphasizing landowner, community group and associations, involvement and participation. Education campaigns and tax incentives for improved forest management		X			MVCA's stewardship programs include Shoreline Planting Program, Green Acres, City Stream Watch, Ottawa Rural Clean Water Program - supporting Forest Management Plans, Watercourse Buffers, Windbreaks, etc. Shirley's Brook Tributary 2 realignment, habitat enhancements and plantings completed in accordance with the Kanata North Environmental Management Plan/Community Design Plan/Master Servicing Study. Tax incentive for forest management through City of Ottawa.			X
Rehabilitation plans prepared to target priority areas. Channel stabilization and planting to be coordinated by MVCA/MNR programs emphasizing landowner, community group and associations, involvement and participation.		X			MVCA's stewardship programs include Shoreline Planting Program, Green Acres, City Stream Watch, ORCWP- supporting Forest Management Plans, Watercourse Buffers, Windbreaks, etc. Tributary 2, Realignment, habitat enhancements and plantings completed in accordance with the Kanata North Environmental Management Plan/Community Design Plan/Master Servicing Study.			X
Revise and/or update previous flood line mapping Identify hazardous lands as Hazard Prone Areas within OP land use schedules. Define erosion hazards (i.e., slope stability).	X				Floodplain mapping was updated for Shirley's Brook in 2017. Tributary 2 has been realigned to a 40m corridor and is to be zoned EP though realignment areas in Kanata North, in accordance with the Kanata North Environmental Management Plan. Shirley's brook to be re-mapped in accordance with holding provision conditions in Kanata North (realignment completion, pond construction, etc.).	X		
Protect groundwater recharge zones. Subwatershed watch programs coordinated by Kanata and MVCA that emphasize landowner, community groups and associations involvement, participation and incorporation of urban/rural BMPs.		X			MVCA's stewardship programs include Ottawa Rural Clean Water Program - supporting Well Decommissioning, Manure Storage and Treatment, Nutrient management plan/precision farming, etc.			X
OMAFRA/MVCA/MNR staff to provide educational, technical assistance to farmers and rural community emphasizing principles of land stewardship. Landowners to be responsible for initiatives.		X			MVCA's stewardship programs include Shoreline Planting Program, Green Acres, City Stream Watch, Ottawa Rural Clean Water Program - supporting Forest Management Plans, Watercourse Buffers, Windbreaks, etc. Other provincial programs such as the Canadian Agricultural Partnership.			X
Preparation and submission of Storm Water Management Plans by Developers in conformance with Subwatershed Planning		X			Implemented through development review by City of Ottawa and MVCA. 80% TSS removal required. MVCA previously reviewed water quality requirements during development review but, given	X		

Activity / Recommendation	Status				Comments	Category		
	Compl	WIP	On Hold	Cancel		1	2	3
study. SWM Plans to adhere to MOE/MNR manual of practice, Municipal and MVCA standards and guideline requirements. Subwatershed Monitoring					Bill 23 this review has since been transferred to City's scope of review. Subwatershed monitoring through City Stream Watch and PWQMN.			
Municipally driven initiatives to retrofit existing urban areas with SWMPS. Restrict/regulate surface water withdrawals (e.g. for golf courses). Prepare an inventory of the existing urban storm drainage system to identify the "micro-drainage" system associated with existing development areas. Improve storm water management in existing developed areas where existing controls are inadequate. Promote source control for storm water management. Update municipal Design Manual and standards pertaining to drainage. Review existing municipal maintenance programs.		X			MVCA supports municipalities through the development review and Section 28 permitting. MVCA's scope of review now focuses on stormwater quantity matters. MVCA provided input to City's Stormwater Management Strategy.		X	



## Appendix 4: Inventory of MVCA Programs and Services & Funding, 2024 Budget

### Operating Summary: Category 1

Category 1	BUDGET		2024 REVENUE (Draft Proposed)					
	2023 (Approved)	2024 (Draft Proposed)	Municipal Levy	Reserve Fund	Provincial/Federal Grants	Fee for Service	Other Revenue	Total Revenue
<b>Watershed Management</b>								
Technical Studies	\$1,010,463	\$847,078	\$529,907	\$25,000	\$147,671	\$140,500	\$4,000	\$847,078
Planning & Regulations	\$1,090,109	\$1,003,375	\$708,375	\$0	\$0	\$280,000	\$15,000	\$1,003,375
<b>Subtotal</b>	<b>\$2,100,573</b>	<b>1,850,453</b>	<b>\$1,238,282</b>	<b>\$25,000</b>	<b>\$147,671</b>	<b>\$420,500</b>	<b>\$19,000</b>	<b>\$1,850,453</b>
<b>Flood and Erosion Control</b>								
Flood Forecasting & Warning	\$247,357	\$224,771	\$224,771	\$0	\$0	\$0	\$0	\$224,771
Dam Operations & Maintenance	\$260,809	\$257,359	\$201,564	\$0	\$0	\$55,795	\$0	\$257,359
<b>Subtotal</b>	<b>\$508,166</b>	<b>\$482,130</b>	<b>\$426,335</b>	<b>\$0</b>	<b>\$0</b>	<b>\$55,795</b>	<b>\$0</b>	<b>\$482,130</b>
<b>Conservation Areas</b>								
Conservation Areas	\$416,511	\$298,613	\$235,696	\$32,917	\$0	\$25,000	\$5,000	\$298,613
Technical Studies	\$0	\$71,856	\$71,856	\$0	\$0	\$0	\$0	\$71,856
<b>Subtotal</b>	<b>\$416,511</b>	<b>\$370,468</b>	<b>\$307,551</b>	<b>\$32,917</b>	<b>\$0</b>	<b>\$25,000</b>	<b>\$5,000</b>	<b>\$370,468</b>
<b>General/Corporate Services</b>								
<b>Subtotal</b>	<b>\$1,108,512</b>	<b>\$1,129,772</b>	<b>\$844,903</b>	<b>\$138,869</b>	<b>\$0</b>	<b>\$10,000</b>	<b>\$136,000</b>	<b>\$1,129,772</b>
<b>TOTAL</b>	<b>\$4,133,762</b>	<b>\$3,832,823</b>	<b>\$2,817,071</b>	<b>\$196,786</b>	<b>\$147,671</b>	<b>\$511,295</b>	<b>\$160,000</b>	<b>\$3,832,823</b>

O.Reg. 686/21 defines mandatory Category 1 programs and services, and O.Reg. 402/22 sets out how they and corporate (general) services are to be recovered.

## Operating Summary: Category 2 & 3

Category 2	BUDGET		2024 REVENUE (Draft Proposed)					
	2023 (Approved)	2024 (Draft Proposed)	Municipal Levy	Reserve Fund	Provincial/ Federal Grants	Fee for Service	Other Revenue	Total Revenue
<b>Watershed Management</b>								
Monitoring & Watershed Planning	\$0	\$296,536	\$178,536	\$0	\$50,000	\$68,000	\$0	\$296,536
<b>Subtotal</b>	<b>\$0</b>	<b>\$296,536</b>	<b>178,536</b>	<b>\$0</b>	<b>\$50,000</b>	<b>\$68,000</b>	<b>\$0</b>	<b>\$296,536</b>

Category 3	BUDGET		2024 REVENUE (Draft Proposed)					
	2023 (Approved)	2024 (Draft Proposed)	Municipal Levy	Reserve Fund	Provincial/ Federal Grants	Fee for Service	Other Revenue	Total Revenue
<b>Stewardship</b>								
Stewardship	\$213,078	\$159,521	\$51,996	\$0	\$10,000	\$97,525	\$0	\$159,521
<b>Education</b>								
Education	\$15,000	\$61,170	\$19,970	\$0	\$6,000	\$25,200	\$10,000	\$61,170
<b>Visitor Services</b>								
Visitor Services	\$163,121	\$192,289	\$72,623	\$0	\$23,445	\$74,000	\$22,221	\$192,289
<b>TOTAL</b>	<b>\$391,199</b>	<b>\$412,981</b>	<b>\$144,590</b>	<b>\$0</b>	<b>\$39,445</b>	<b>\$196,725</b>	<b>\$32,221</b>	<b>\$412,981</b>

O. Reg. 687/21 defines Category 2 programs and services and sets out how they and Category 3 programs and services are to be cost recovered.

Capital Budget	BUDGET		2024 REVENUE (Draft Proposed)					
	2023 (Approved)	2024 (Draft Proposed)	Municipal Levy	Reserve Fund	Provincial/ Federal Grants	Fee for Service	Other Revenue	Total Revenue
<b>Capital Budget</b>								
<b>Category 1</b>								
WECI Capital Projects	\$327,160	\$295,000	\$98,925	\$36,075	\$150,000	\$0	\$0	\$285,000
Conservation Areas	\$231,000	\$78,250	\$58,250	\$0	\$0	\$0	\$20,000	\$78,250
Corporate Projects	\$470,000	\$891,850	\$86,850	\$90,000	\$0	\$0	\$715,000	\$891,850
Tech. Studies - Capital	\$97,750	\$149,375	\$124,375	\$50,000	\$0	\$0	\$0	\$174,375
Debt Repayment	\$312,417	\$344,922	\$309,510	\$35,412	\$0	\$0	\$0	\$344,922
<b>Category 3</b>								
Mill of Kintail	\$0	\$30,000	\$13,835	\$16,165	\$0	\$0	\$0	\$30,000
<b>TOTAL</b>	<b>\$1,438,327</b>	<b>\$1,789,397</b>	<b>\$691,745</b>	<b>\$212,652</b>	<b>\$150,000</b>	<b>\$0</b>	<b>\$735,000</b>	<b>\$1,789,397</b>

#### Water & Erosion Control Infrastructure (WECI) projects:

- Lanark Dam Safety Review (DSR)
- Farm Lake Dam – Condition Assessment
- Widow Lake Dam Safety Review (DSR)
- Kashwakamak Lake Dam Class EA (DMAF/WECI)

#### Conservation Area projects:

- Purdon Boardwalk
- Purdon Stairs
- Mill of Kintail – Workshop Building
- Mill of Kintail Washrooms
- Morris Island Improvements
- Category 3:
  - Mill of Kintail Museum & Gatehouse stonework
  - Gatehouse – veranda joists & flooring

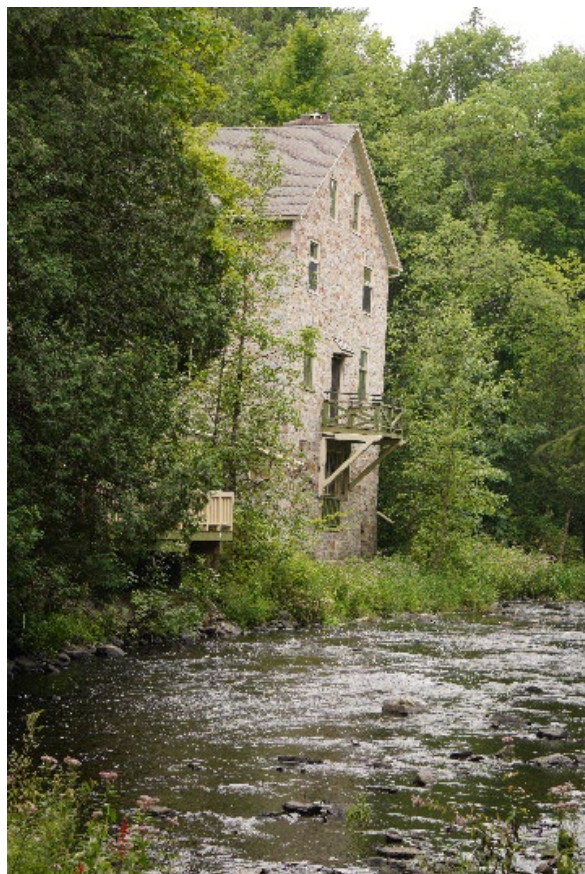
#### Other projects:

- Gauge network
- Trimble system
- MVCA FFW System model
- DRAPE data purchase
- AV equipment purchase

## Appendix 5: MVCA Conservation Areas – Summary Review

### Mill of Kintail Conservation Area (MOK)

Municipality of Mississippi Mills



**Size:** 62 ha

**Tenure:** Purchased 1972

**Master Plan:** 2008

**Other:**

- *Museum Strategic Plan, 2019*
- Lease agreement with Fred Lossing Observatory, operated by the Ottawa chapter of the Royal Astronomical Society of Canada
- Lease agreement with Men’s Shed

**Site Features**

- Hiking/snowshoe trails (6 km)
- Bike trail, fitness trail, forest hike, snowshoe trail
- Forest Hike Trail (2.9km), Secrete Snow Loop (2.6km), Trillium Trail (0.75km), Indian Riverside Trail (0.6km), Old Road Trail (0.4km) and Conservation Way (0.3km)  
Elevation as high as 150 m
- R. Tait McKenzie and Dr. James Naismith Museum
- Education programs/ Summer day camps  
Wheelchair accessible half basketball court
- Covered shelter

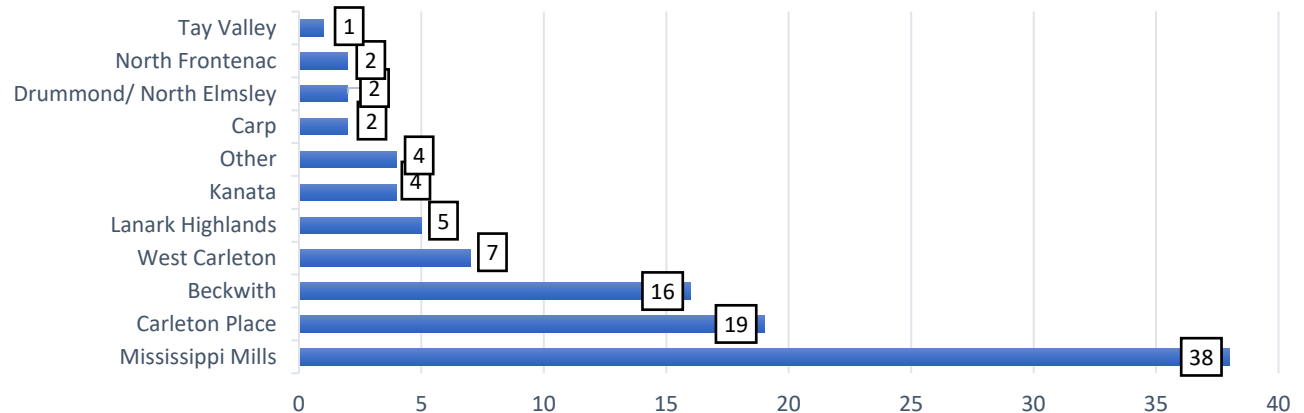
- Playground
- Facility rentals
- Washrooms
- Picnic areas
- Dogs allowed - on leash
- Paid Parking

	Walking Trail	Parking	Washrooms	Signage	Fees	Camping	Boat Launch	Museum	Accessible	Rentals	Dogs Allowed	Picnic Areas	Biking Trail	ATV Trail	Education	Fishing	Lookout	Boardwalk	Canoeing	Playground	Beach	Hunting
<b>Mill of Kintail</b>	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y		Y					Y		

## RECREATIONAL FACILITIES SURVEY FINDINGS

- 134 of 210 survey respondents said they had gone walking/hiking at the Mill of Kintail Conservation Areas in the past five years. The following chart shows where site visitors lived (when provided).

### Recreational Facilities Survey - Mill of Kintail Visitors by Municipality



- Most respondents use the Mill of Kintail 2-6 times per year for walking/hiking activities.
- Most respondents believe that public use of the Mill of Kintail has stayed the same or increased in the past 5 years.
- All respondents said they were either satisfied or very satisfied with the Mill of Kintail; and that their satisfaction level had stayed the same over the past 5 years.
- The most common valued attributes identified for walking and hiking at the MOK were:
  - less than 30-minute drive from home
  - presence of water features
  - quiet/seclusion/privacy
  - easy parking access
- Other Survey Comments:
  - Dogs should be on leash / lots of off-leash dogs
  - Continued maintenance appreciated

## REVIEWS FROM TRIP ADVISOR AND ALL TRAILS:

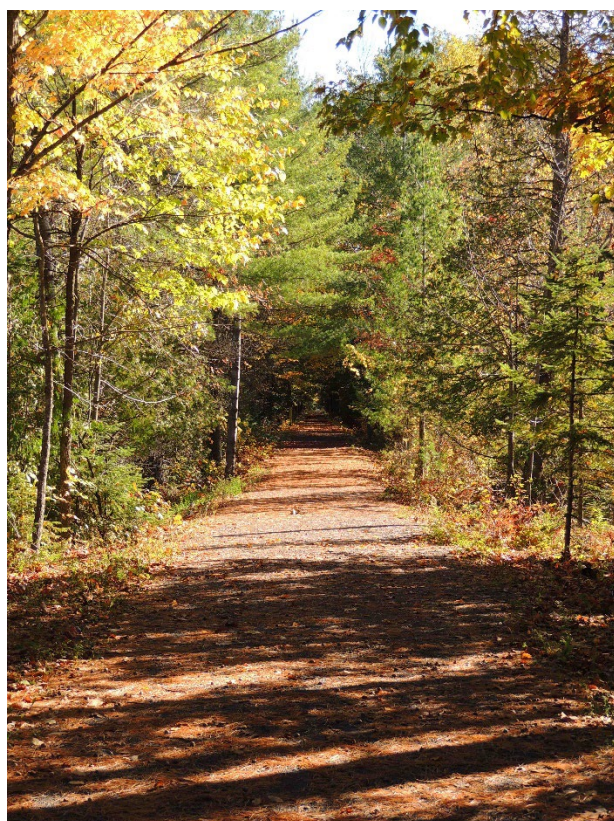
- Average 4.6/5
- Well maintained
- No phone reception, download maps
- Easy terrain
- Slippery in winter
- Quiet
- Negative views on parking/entrance fee
- Trails sometimes closed
- Often dogs off leash

## STAFF SWOB ANALYSIS: Mill OF KINTAIL CA

Strengths	Weaknesses	Opportunities	Barriers
<ul style="list-style-type: none"> <li>• Historic site/buildings</li> <li>• R. Tait McKenzie and Dr. James Naismith Museum</li> <li>• Extensive hiking/snowshoeing trail network</li> <li>• Popular with the public</li> <li>• Established facilities to host events</li> <li>• Playground &amp; Half Basketball Court</li> <li>• Proximity to populated area</li> <li>• Many site amenities to cater to multiple uses</li> <li>• Intersected by watercourse</li> <li>• Fully operational and staffed</li> </ul>	<ul style="list-style-type: none"> <li>• Small Parking lot</li> <li>• Overflow parking, weather dependent</li> <li>• Lack of modern washroom facilities</li> <li>• Lack of maintenance facilities/storage for larger events</li> <li>• Security gaps for certain buildings and site locations</li> <li>• Enforcement of site rules</li> <li>• Largest use is over a two-week period</li> </ul>	<ul style="list-style-type: none"> <li>• Potential for hosting more/larger scale events</li> <li>• Available space for more parking</li> <li>• Available space for sports/recreation</li> <li>• Camp sites</li> <li>• Trail grooming for increased winter usage</li> <li>• Potential for volunteer involvement</li> <li>• Potential for more educational programs</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of accessible trails</li> <li>• Terrain limits accessibility to certain areas for maintenance</li> <li>• Accessibility issues within the buildings</li> <li>• Numerous community stakeholders with differing opinions and priorities when it comes to the property</li> </ul>

## Morris Island Conservation Area

City of Ottawa



**Size:** 47 ha

**Tenure:** 10-year lease agreement with City of Ottawa and OPG

**Master Plan:** 1987

**Other:**

*Capital Improvement Plan 2007-2009*

### Site Features

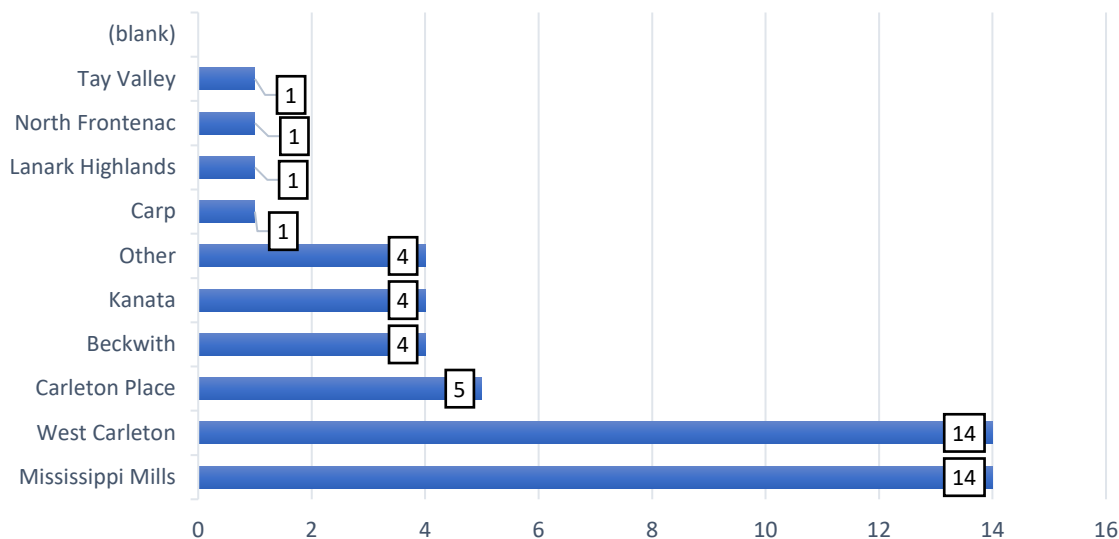
- 6 km of Nature trails (6)
- Includes boardwalk
- Paddle routes
- Wheelchair accessible facilities
- Fishing platforms
- Washrooms
- Picnic areas
- Canoe launch
- Scenic lookout
- Rest area
- Dogs allowed - on leash
- Paid parking
- Signage

	Walking Trail	Parking	Washrooms	Signage	Fees	Camping	Canoe Launch	Museum	Accessible	Rentals	Dogs Allowed	Picnic Areas	Biking Trail	ATV Trail	Education	Fishing	Lookout	Boardwalk	Canoeing	Playground	Beach	Hunting
Morris Island	Y	Y	Y	Y	Y		Y		Y		Y	Y				Y	Y	Y	Y			

## RECREATIONAL FACILITIES SURVEY FINDINGS

- 66 of the 210 survey respondents said they had gone walking/hiking at Morris Island Conservation Areas in the past five years. The following chart shows where site visitors lived (when provided).

**Recreational Facilities Survey - Morris Island Visitors by Municipality**



- Most respondents use Morris Island 2-6 times per year for walking/hiking activities.
- Most respondents believe that public use of Morris Island has increased over the past five years.
- Common features that are valued when using Morris Island for walking/hiking activities include:
  - presence of water features,
  - less than 30-minute drive from home,
  - a variety of trail routes and distances; and
  - easy parking access.
- All respondents said they were either satisfied or very satisfied with Morris Island CA; and most said that their satisfaction level had stayed the same over the past 5 years.

### Other Survey Comments:

- Crowded/Busy
- Garbage left behind
  - Off-leash dogs; suggestion for fenced off-leash area



## REVIEWS FROM TRIP ADVISOR AND ALL TRAILS:

- Average 4.5/5
- Some say not totally accessible
- Liked causeway and saw otters
- Trails shaded by trees
- Big parking lot
- Easy trails
- Well maintained, marked trails
- #2 of 2 things to do in Fitzroy Harbour

## STAFF SWOB ANALYSIS: MORRIS ISLAND CA

Strengths	Weaknesses	Opportunities	Barriers
<ul style="list-style-type: none"> <li>• 6 km of multi-use trails with varied difficulty</li> <li>• Accessible portion of trail</li> <li>• Canoe Launches</li> <li>• Proximity to large population</li> <li>• Proximity to large body of water</li> <li>• Wildlife</li> <li>• Fishing platform</li> <li>• Picnic areas</li> <li>• Good washroom facilities</li> <li>• Accessible washroom facility</li> </ul>	<ul style="list-style-type: none"> <li>• High cost of infrastructure</li> <li>• No public drinking sources</li> <li>• No septic (holding tank only)</li> <li>• Lack of security infrastructure</li> <li>• Outdated entrance signage</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to expand trail network</li> <li>• Available boat/canoe launch</li> <li>• Available picnic areas</li> <li>• Possible site for educational programming</li> <li>• Trail grooming for increased winter usage</li> </ul>	<ul style="list-style-type: none"> <li>• No room for septic/seasonal washrooms</li> <li>• Unable to expand parking lot</li> <li>• Narrow entrance roadway</li> <li>• Leased property limits possible major projects</li> <li>• Majority of landscape not conducive to accessibility</li> <li>• Lack of presence to enforce site rules</li> </ul>

## Purdon Conservation Area

Township of Lanark Highlands



**Size:** 25.7 ha

**Tenure:** Purchased 1988

**Master Plan:** 1986

**Other:**

MNR Approved Managed Forest Plan 2006

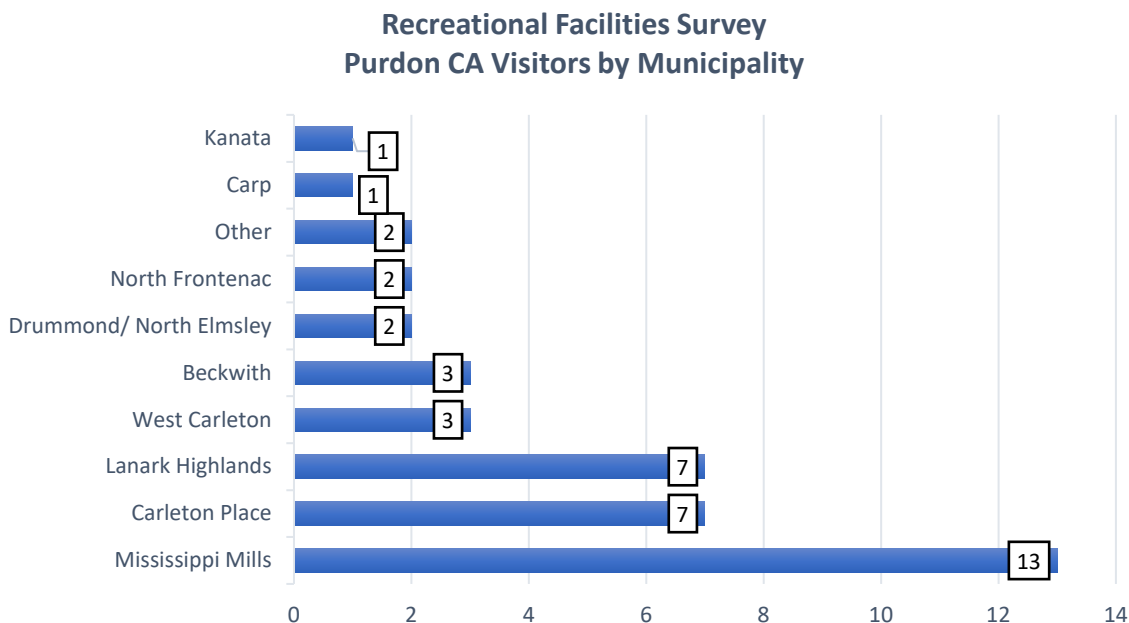
### Site Features

- Trails:
  - 415 m Orchid Trail (accessible boardwalk)
  - 1.3 km Ted Mosquin Highland Trail Loop (not accessible)
- Wheelchair accessible outhouse
- Donations accepted
- Parking
- Scenic lookout
- Rest area
- Dogs allowed - on leash

	Walking Trail	Parking	Washrooms	Signage	Fees	Camping	Boat Launch	Museum	Accessible	Rentals	Dogs	Picnic Areas	Biking Trail	ATV Trail	Education	Fishing	Lookout	Boardwalk	Canoeing	Playground	Beach	Hunting
Purdon CA	Y	Y	Y	Y					Y		Y	Y					Y	Y				

## RECREATIONAL FACILITIES SURVEY FINDINGS

- 60 of the 210 survey respondents said they had gone walking/hiking at Purdon Conservation Areas in the past five years. The following chart shows where site visitors lived (when provided).



- Only 6 respondents identified Purdon Conservation Area as one of the 3 sites they frequented the most in the past 5 years, therefore survey findings regarding satisfaction etc. are not considered statistically reliable.

## REVIEWS FROM TRIP ADVISOR AND ALL TRAILS:

- Average 4.5/5
- Well maintained and signposted
- Lady slippers were beautiful
- Longer trail is not accessible for strollers
- Stairs to lookout

## STAFF SWOB ANALYSIS: PURDON CA

Strengths	Weaknesses	Opportunities	Barriers
<ul style="list-style-type: none"> <li>• Renowned colony of the Showy Lady Slipper (Cypripedium reginae)</li> <li>• 1.7 km of trails of varied terrain and skill levels</li> <li>• 345 m of recently widened boardwalk with side barrier to enhance accessibility</li> <li>• Wheelchair accessible outhouse</li> <li>• 2 scenic lookouts</li> <li>• 2 parking lots</li> <li>• Picnic area</li> <li>• Interpretive signage</li> <li>• Wetland with characteristics of a swamp, fen and a bog</li> </ul>	<ul style="list-style-type: none"> <li>• Smaller parking lots</li> <li>• Aging interpretive signage</li> <li>• Corduroy portion to Highland Trail in poor condition</li> <li>• Entrance/site signage in need of updating</li> <li>• Largest use is over a two-week period in mid-June</li> </ul>	<ul style="list-style-type: none"> <li>• Extend boardwalk</li> <li>• Expand lower parking lot</li> <li>• Make finger lookout more accessible</li> <li>• Upgrade signage</li> <li>• Partner with Orchid Society to increase amount of orchids</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of modern washroom facilities</li> <li>• No winter maintenance</li> <li>• Ability to get equipment into trail network</li> <li>• Terrain and site conditions make trail creation tough</li> </ul>

## Palmerston-Canonto Conservation Area

Township of North Frontenac



**Size:** 103 ha

**Tenure:** Purchased 1971

**Master Plan:** n/a

**Other**

O&M lease agreement with North Frontenac  
*Capital Improvement Plan 2007-2009*

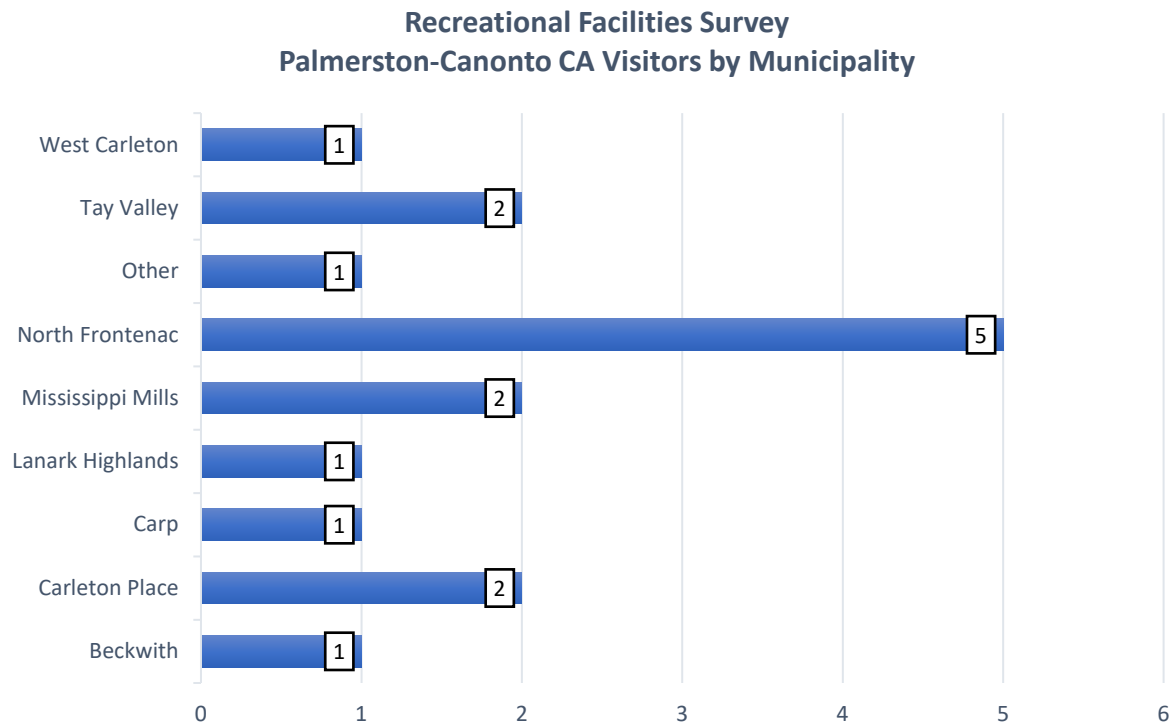
**Site Features**

- 7 Hiking trails (300 m to 1 km in length)
- Parking
- Outhouse
- Beach
- Rest building
- Lakeview and Vista Lookouts

	Walking Trail	Parking	Washrooms	Signage	Fees	Camping	Boat Launch	Museum	Accessible	Rentals	Dogs Allowed	Picnic Areas	Biking Trail	ATV Trail	Education	Fishing	Lookout	Boardwalk	Canoeing	Playground	Beach	Hunting
Palmerston-Canonto CA	Y	Y	Y	Y													Y				Y	

## RECREATIONAL FACILITIES SURVEY FINDINGS

- 31 of the 210 survey respondents said they had gone walking/hiking at Palmerston-Canonto Conservation Areas in the past five years. The following chart shows where site visitors lived (when provided).



- Only 10 respondents identified Palmerston-Canonto Conservation Area as one of the 3 sites they frequented the most in the past 5 years, therefore survey findings regarding satisfaction etc. are not considered statistically reliable.

## REVIEWS FROM ALL TRAILS:

- Average 4.5/5
- Well-marked
- Nice lookout
- Some rocky and muddy parts
- Fall is the best time to visit

## STAFF SWOB ANALYSIS: PALMERSTON-CANONTO CA

Strengths	Weaknesses	Opportunities	Barriers
<ul style="list-style-type: none"> <li>• 5 km of extensive hiking trail network</li> <li>• Beautiful lookouts and scenery</li> <li>• Variety of amenities onsite and close by (beach, boat launch, municipal camp sites)</li> <li>• Strong relationship with township for maintenance and operation</li> </ul>	<ul style="list-style-type: none"> <li>• Poor washroom facilities</li> <li>• Limited parking and access to trails</li> <li>• Remote area (not close to populated centre)</li> <li>• MVCA lack of involvement in active management</li> <li>• Poor site and directional signage</li> <li>• Poor trail base (rough terrain)</li> </ul>	<ul style="list-style-type: none"> <li>• Portage trail to Canonto</li> <li>• Rock Climbing</li> <li>• Camp sites</li> <li>• Room for expansion of trail network and amenities</li> <li>• Partnership with N. Frontenac to enhance site</li> </ul>	<ul style="list-style-type: none"> <li>• Remote</li> <li>• Terrain restricts ability to maintain site</li> <li>• Room to expand parking is limited</li> <li>• Fair distance from MVCA Office</li> </ul>

# Carp River Conservation Area

City of Ottawa



**Size:** 31.4 ha

**Tenure:** Licence of Occupancy with City of Ottawa, 2020

**Master Plan:** n/a

**Other:**

CRCA Background Report, 2021

**Site Features**

- Paved walking trails (4 km)
- Bridges over water
- Benches
- Habitat pond
- Signage
- Osprey nest tower
- EcoTrekr interactive learning app

	Walking Trail	Parking	Washrooms	Signage	Fees	Camping	Boat Launch	Museum	Accessible	Rentals	Dogs Allowed	Picnic Areas	Biking Trail	ATV Trail	Education	Fishing	Lookout	Boardwalk	Canoeing	Playground	Beach	Hunting	
Carp River CA	Y			Y					Y		Y	Y			Y								



## RECREATIONAL FACILITIES SURVEY RESULTS

- 25 of the 210 survey respondents said they had gone walking/hiking at Carp River Conservation Areas in the past five years. The following chart shows where site visitors lived (when provided).



- Only 6 respondents identified Palmerston-Canonto Conservation Area as one of the 3 sites they frequented the most in the past 5 years, therefore survey findings regarding satisfaction etc. are not considered statistically reliable.

### Reviews from All Trails:

- Average 3.9/5
- Local traffic
- Mostly paved
- Good for birding

## STAFF SWOB ANALYSIS: CARP RIVER CA

Strengths	Weaknesses	Opportunities	Barriers
<ul style="list-style-type: none"> <li>• 4 km paved pathway encircling naturalized areas of the Carp and stormwater facility.</li> <li>• Located near large population base</li> <li>• City maintains day-to-day O&amp;M responsibilities</li> <li>• Excellent trail base</li> <li>• Interpretative signage highlights unique development and MVCA partnership</li> </ul>	<ul style="list-style-type: none"> <li>• No on-site or dedicated parking</li> <li>• No washrooms</li> <li>• Lack of trees</li> <li>• Lack of shelter and other amenities</li> </ul>	<ul style="list-style-type: none"> <li>• Close to schools for educational components</li> <li>• Could expand south of current location</li> <li>• Large population base for increased foot traffic</li> <li>• Provides recreation in otherwise urban centre</li> <li>• Potential addition of amenities/ facilities</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of Masterplan leads to ambiguity of MVCA involvement</li> <li>• Potential of annual flooding in the Spring</li> <li>• Land is not owned by MVCA which could make investment in the property tougher</li> </ul>

## K&P Trail Conservation Area

Greater Madawaska, Lanark Highlands, North Frontenac and Central Frontenac



**Size:** 3540 km (Snow Road to Barryvale)

**Tenure:** Purchased 1990

**Master Plan:** 1991

**Other:**

Seasonal lease agreement with Snow Road Snowmobile Club

**Site Features**

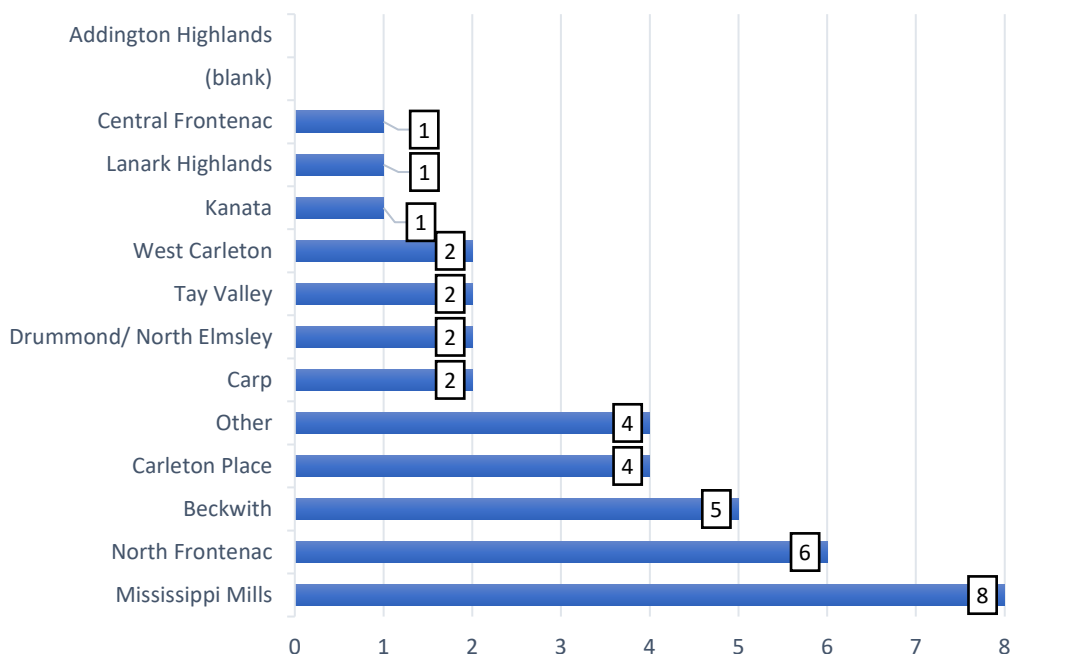
- No fees
- 40 km multi-use trail (incl. snowmobile and ATV)
- Multiple access points
- Links to larger K&P Trail network

	Walking Trail	Parking	Washrooms	Signage	Fees	Camping	Boat Launch	Museum	Accessible	Rentals	Dogs Allowed	Picnic Areas	Biking Trail	ATV Trail	Education	Fishing	Lookout	Boardwalk	Canoeing	Playground	Beach	Hunting	
K&P Trail	Y			Y							Y		Y	Y	Y								

## RECREATIONAL FACILITIES SURVEY FINDINGS

- 52 of the 210 survey respondents said they had gone walking/hiking at K&P Trail Conservation Areas in the past five years. The following chart shows where site visitors lived (when provided).
- The Lanark Highlands segment was the most often used for walking/hiking and boating/watercraft activities, followed by Frontenac portions, and then Renfrew

**Recreational Facility's survey  
K&P Trail Visitors by municipality**



portions.

- Only 16 respondents identified K&P Trail Conservation Area as one of the 3 sites they frequented the most in the past 5 years, therefore survey findings regarding satisfaction etc. are not considered statistically reliable.

## REVIEWS FROM ALL TRAILS AND ONTARIO BIKE TRAILS:

- Average 4.4/5
- Toward Kingston, not well maintained
- Easy paved sections, some gravel
- Lots of wildlife
- Good for biking

## STAFF SWOB ANALYSIS: K&P TRAIL CONSERVATION AREA

Strengths	Weaknesses	Opportunities	Barriers
<ul style="list-style-type: none"> <li>• Multi-use recreational trail used for hiking, biking, ATVing, and snowmobiling</li> <li>• Incredible scenery/variety of scenery</li> <li>• Allows access to public properties</li> <li>• Access to various communities</li> <li>• Excellent recreational trail</li> <li>• Partnering organizations help with work/maintenance</li> </ul>	<ul style="list-style-type: none"> <li>• Some sections in poor condition</li> <li>• Limited/No parking</li> <li>• No washroom facilities</li> <li>• No rest area</li> <li>• Rules and regulations tough to enforce</li> <li>• Speed and weight limits in effect pending further improvements to Clyde River Bridge</li> </ul>	<ul style="list-style-type: none"> <li>• Transfer to counties as part of their trail network</li> <li>• Work with local partnering organizations to improve trail conditions</li> <li>• Local landowners could help maintain sections</li> </ul>	<ul style="list-style-type: none"> <li>• Expensive upkeep</li> <li>• Non-recreational vehicle use</li> <li>• Flooding in low lying areas</li> <li>• Most of the trail is a fair distance from MVCA office</li> <li>• Resources make it impossible to properly supervise/maintain the trail</li> </ul>

**REPORT****3464/24**

TO:	The Chair and Members of the Mississippi Valley Conservation Authority Board of Directors
FROM:	Sally McIntyre, General Manager
RE:	<b>Licence Renewal – Carp River Conservation Area</b>
DATE:	November 25, 2024

**Recommendation:**

**That the Board of Directors approve renewal of the Licence of Occupancy for the Carp River Conservation Area.**

---

**1. BACKGROUND**

In 2018, MVCA entered into a Licence of Occupancy agreement with the City of Ottawa to name the Carp River Restoration Project lands the “Carp River Conservation Area”; and that permits MVCA to make enhancements to the property to enable and use the property as an educational facility.

The agreement was updated in 2020, and it will be eligible for a 5-year renewal in 2025. The purpose of this report is to seek approval to renew the licence.

**2. CORPORATE STRATEGIC PLAN**

Implementation of the 10-year Capital Plan Update supports achievement of the following corporate goal and objectives:

Goal 1: Asset Management – revitalize watershed management activities and invest in our legislated mandate; and objectives:

- a) Implement the five-year capital program
- e) Plan for the next phase of asset development and management.

---

**REPORT**

3465/24

TO:	The Chair and Members of the Mississippi Valley Conservation Authority Board of Directors
FROM:	Will Ernewein, Regulations Officer
RE:	<b>Regulatory Enforcement Strategy</b>
DATE:	December 3, 2024

**Recommendation:**

**That the Board of Directors approve the attached Regulatory Enforcement Strategy.**

---

**BACKGROUND**

The Mississippi Valley Conservation Authority (MVCA) is responsible for enforcing regulations made under Sections 28 and 29 of the *Conservation Authorities Act*.

- Section 28 governs development in regulated areas defined as river and stream valleys, hazardous lands, alterations to shorelines and watercourses, and interference with wetlands. Regulations under the Act extend to other areas where development could interfere with the hydrologic function of a wetland, such as areas within 30 metres of wetlands.
- Section 29 and regulations under the Act govern activities within areas and land parcels that are officially owned by Conservation Authorities.

In order to provide for a fair, predictable, and transparent enforcement approach, MVCA has documented current practice in a Regulatory Enforcement Strategy (refer to Attachment 1.)

**DISCUSSION**

A principal mandate of the Conservation Authority is to protect life and property from natural hazards such as flooding and erosion. Enforcement activities play a pivotal role in achieving this goal by ensuring that works throughout the MVCA's jurisdiction adhere to legislative requirements under the *Conservation Authorities Act*. Effective enforcement prevents unauthorized works from occurring and ensures that contraventions are dealt with accordingly in order to prevent impacts to natural hazard lands, wetlands or watercourses within the Mississippi Valley watershed.

The attached Regulatory Enforcement Strategy provides the framework for enforcement of Sections 28 & 29 of the Act. The approach and current practices that are documented in the strategy are the following:

- Background on the compliance promotion – enforcement continuum
- Roles and responsibilities of staff, applicants, and municipal partners
- Enforcement approach to section 28 and 29
- Enforcement decision support tools
- Legal Proceedings
- Implementation monitoring

This document will be updated as required to reflect changes in both policies and legislation.

### **CORPORATE STRATEGIC PLAN**

Implementation of the Regulatory Enforcement Strategy supports achievement of the following corporate goal and objectives:

Goal 2: Community Building – engage local partners to foster connections, leverage our resources, and strengthen our “social license” to operate.

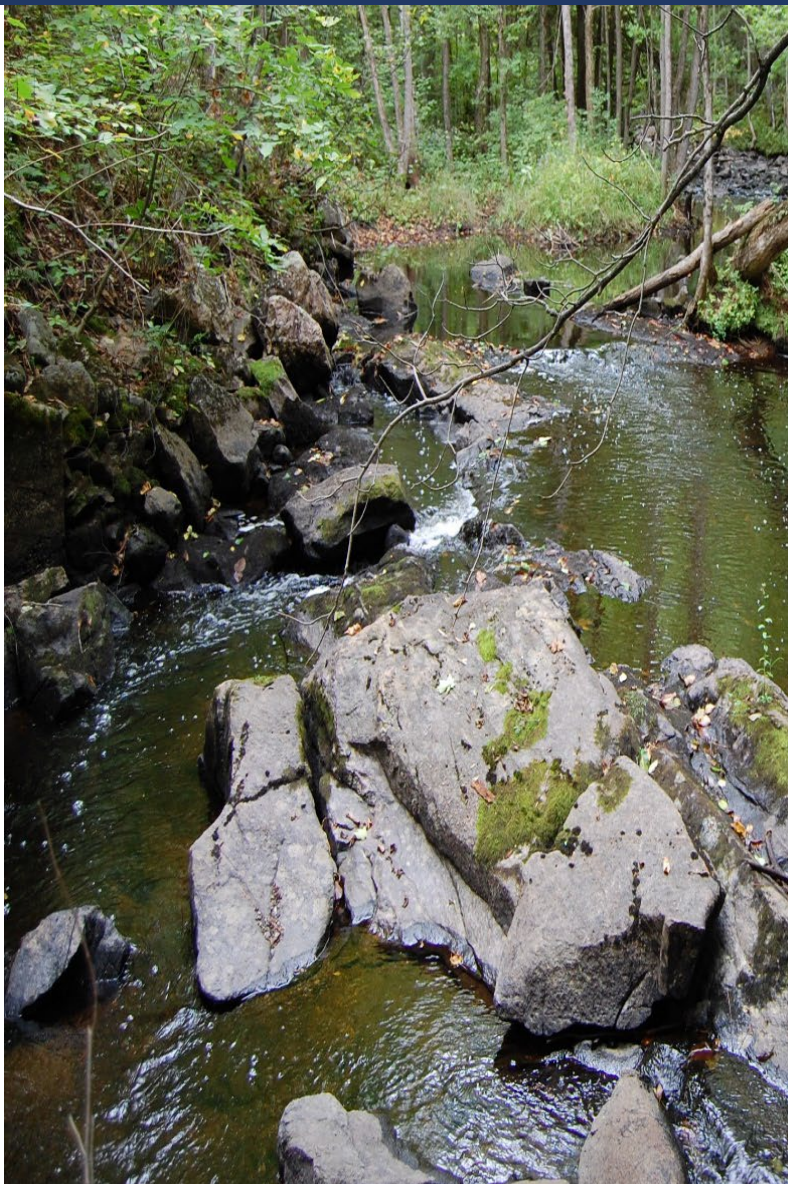
- a) Demonstrate MVCA to be a trusted, client-centered, resourceful, and helpful partner
- b) Strengthen relationships with municipalities and community stakeholders, First Nations, the agricultural sector, developers, not-for-profits, and academia.

Attachment 1: Regulatory Enforcement Strategy





# Enforcement Strategy



# Regulatory Enforcement Strategy

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- 1.0 Background
- 2.0 Roles & Responsibilities
  - 2.1 MVCA Staff
  - 2.2 Municipal Staff
  - 2.3 Public
- 3.0 Enforcement
  - 3.1 Section 29 Violations – MVCA land regulations
  - 3.2 Section 28 Violations – Development & Interference Regulations
- 4.0 Legal Proceedings
- 5.0 Implementation

## 1.0 BACKGROUND

Conservation Authorities (CA) are required to administer a permit system for regulated areas within their jurisdiction, promote compliance, and enforce regulations made under Section 28 and 29 of the *Conservation Authorities Act* R.S.O. (1990) (CAA.)

- Section 28 activities govern development in regulated areas defined as river and stream valleys, hazardous lands, alterations to shorelines and watercourses, and interference with wetlands. The regulations also extend to other areas where development could interfere with the hydrologic function of a wetland, such as areas within 30 metres of wetlands.
- Section 29 regulations govern activities within areas and land parcels that are officially owned by Conservation Authorities.

The following regulations under the Act provide further direction on these matters:

- O. Reg. 686/21 establishes mandatory programs and services to be administered by conservation authorities.
- O. Reg. 41/24 establishes limits to development in regulated areas, as well as the permitting and appeal processes.
- O. Reg. 688/21 establishes the regulated directives to be enforced on lands owned by conservation authorities.

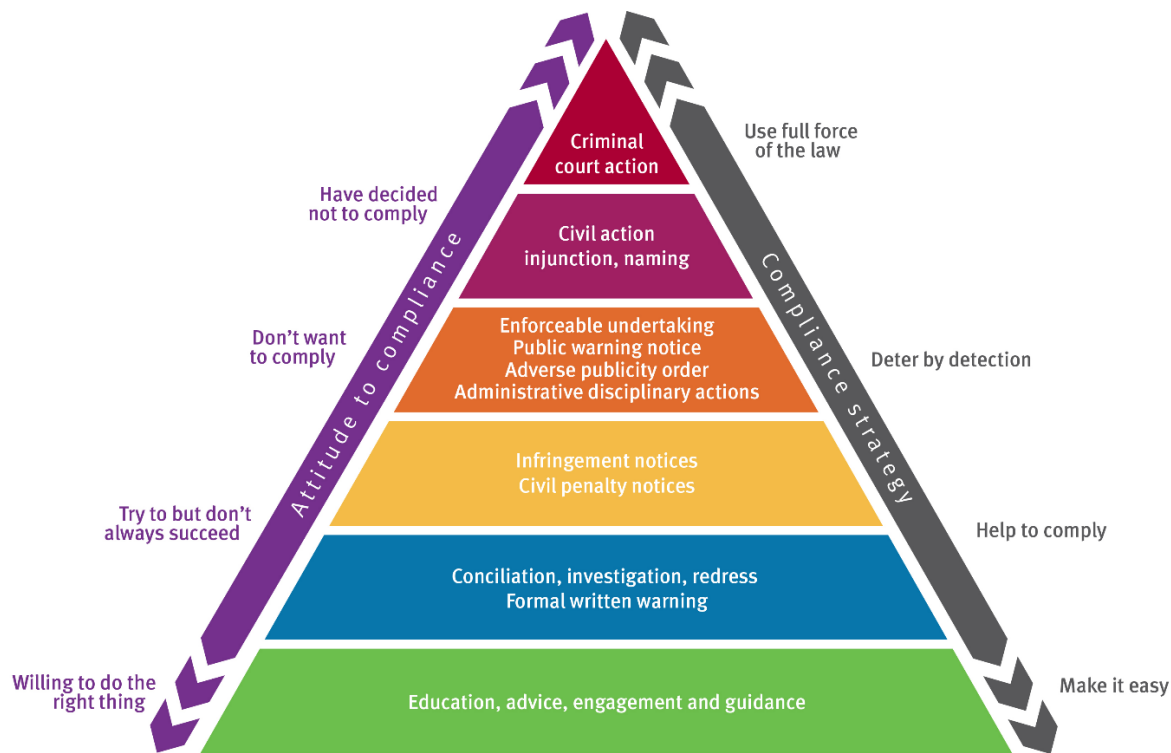
The purpose of this strategy is to enhance transparency, fairness and predictability in the enforcement of these regulations by providing clear guidance to MVCA staff in fulfilling their enforcement responsibilities. Specifically, this Strategy sets out the approach to be used to enforce CAA legislation and regulations within the jurisdiction of Mississippi Valley Conservation Authority (MVCA), and builds on the *Compliance Strategy* approved by MVCA's Board of Directors in 2023.

Both this Enforcement Strategy and the Compliance Strategy are based upon the enforcement continuum approach shown in Figure 1.<sup>1</sup>

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<sup>1</sup> Source: <https://www.qld.gov.au/law/laws-regulated-industries-and-accountability>

**Figure 1: Enforcement Continuum**



## 2.0 ROLES & RESPONSIBILITIES

### 2.1 MVCA Staff

MVCA's regulations team is comprised of a Regulations Officer and a Regulations Technician and are responsible for the following activities:

- Provide information regarding regulations and development restrictions within the watershed;
- Process permit applications to ensure compliance with policy and regulations;
- Liaise with contractors on approved work sites;
- Undertake inspections and investigations of potential violations on regulated sites (as a preventative measure and in response to any complaints received);
- Regularly inspect approved permits for compliance with permit terms and conditions;
- Resolve minor infractions in cooperation with landowners;
- Resolve violations through discussions, removal, restoration and/or the permit process where possible; and
- Initiate legal proceedings when necessary to resolve offences.

## **2.2 Municipal Staff**

While municipal staff are not responsible for administering CA permits, they screen and circulate planning applications that may be subject to CAA permits to MVCA for comment. Similarly, when building permits are initiated, municipal staff are in a position to flag potential permit requirements and to advise applicants. The screening and advisory services provided by municipalities are important to ensuring that CAA regulatory matters are identified and addressed early in the planning process.

Municipalities within the watershed are not exempt from regulations under the CAA and work with MVCA to obtain permits where required.

Lastly, as partners within the watershed, municipalities will report concerns regarding activities observed by staff or reported by the public that may fall within the jurisdiction of MVCA.

## **2.3 Public**

As with all provincial legislation, it is the responsibility of individuals and organizations to inform themselves of the laws and regulations that their works are subject to. To ease that process, MVCA has extensive information on its website, promotes awareness through social media, and periodically delivers information sessions on regulatory requirements to landowners, developers, real estate agents, lawyers, and municipal partners.

MVCA also encourages landowners to participate in a “pre-consultation” meeting before submitting their application to help them understand potential constraints, options, and study requirements. This process typically results in reduced time and costs to applicants as they can tailor their application and any studies to meet the specific requirements of their property.

Watershed residents are also actively involved in the enforcement process by reporting activities that may not have been approved, or are in non-compliance with their permit. Individuals can submit concerns via phone, mail, in person, and MVCA’s website. All concerns received by MVCA are reviewed and triaged by regulations staff.

## **3.0 ENFORCEMENT**

Enforcement activities are key to ensuring compliance is achieved, regulations under the Act are upheld, and that MVCA’s mandate is fulfilled.

### **3.1 Section 29 Violations – MVCA land regulations**

Section 29 allows MVCA to make regulations governing access and use of its lands. An Officer appointed under this section has the authority to write Part I offence notices under the *Provincial Offences Act*. Officers may also ban individual(s) from a Conservation Area for repeated offences, and disregard for orders or warnings to comply with applicable regulations.

MVCA staff use a “Three Strike System” approach for minor offences such as User Fee Violations, as outlined in Table 1.

**Table 1. Three Strike System for handling minor offences**

Stage/ Strike	Recommended Action
1 <sup>st</sup>	Verbal Warning & Education of Regulations enforced within the CA.
2 <sup>nd</sup>	Provision of Ticket using Set Fines established by Schedule 2 of the <i>Provincial Offences Act</i> & Notice of Violation
3 <sup>rd</sup>	Banishment of the offending Individual(s) from Conservation Authority Owned Lands

### 3.2 Section 28 Violations – Development & Interference Regulations

Violations are typically defined as development or interference being undertaken within an area that is regulated by the Authority without the written permission (permit) of the MVCA. Due to the complex nature of section 28 offences, and lack of short form wording within the legislative text (CAA), proceedings for these violations are commenced under Part III of the *Provincial Offences Act* by way of an Information.

#### Informed Judgement Matrix (IJM)

MVCA staff use an IJM to deal with potential and observed violations, as shown in the following tables. Table 2 aids staff in assessing the significance of a violation through consideration of:

- the likelihood of cooperation and compliance (from an offender), and
- the environmental/public safety/flood or other natural hazard risk/impact that may or has already resulted from the violation.

Table 3 sets out the recommended enforcement action for each of the four levels of violation.

Using an IJM facilitates consistency amongst enforcement staff and enhances predictability by the public. As a decision-making support tool, the IJM does not override an officer’s or MVCA’s authority on a matter and to deviate from the matrix where deemed appropriate.

Most enforcement files at MVCA fall within levels 1 and 2 shown in Table 3.

**Table 2: Assessing the Significance of a Violation**

		Environmental / Public Safety /Flood Risk or Natural Hazard Impact				
		Not Anticipated	Low	Moderate	High	Critical
<b>Likelihood of Cooperation &amp; Compliance</b>	Demonstrated Willingness AND Good Compliance History	1	1	2	3	4
	Demonstrated Willingness AND No or Some Compliance History	1	1	2	3	4
	Willingness to Achieve Compliance is Uncertain	2	2	3	3	4
	Unwillingness to Comply or Take Corrective Actions	2	3	3	4	4
	Wilful Violation of Conservation Authority Regulations	3	4	4	4	4

**Table 3: Determining the Course of Action**

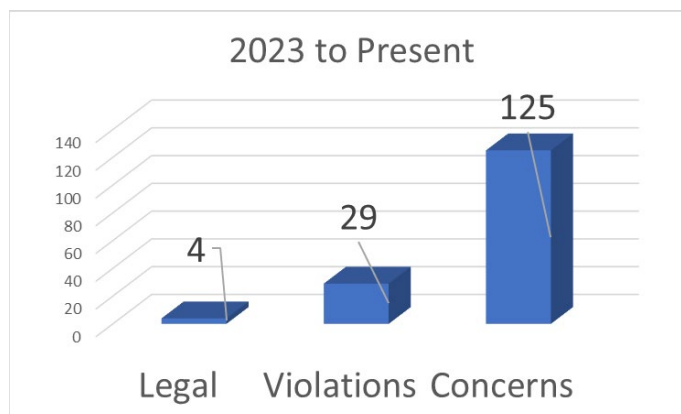
Colour of Category	Violation Category
1	<b>Violation Category 1 (Minor Offences w/ No Perceived Impacts)</b> <u>Recommended Action:</u> Notice of Violation, Retroactive Application, depending on nature of violation either conduct inspection once remedial action completed or receive photographic submission and proof of remedial action.
2	<b>Violation Category 2 (Subject Works Do Not Comply with Current Policies)</b> <u>Recommended Action:</u> Notice of Violation, speak to owner/offender to gain further details and understanding of works. If work can easily be brought into compliance with policies, then move forward with retroactive application (+ 100% surcharge). If work cannot be brought into compliance, then promote violation to category 3.
3	<b>Violation Category 3</b> <u>Recommended Action:</u> Notice of Violation, order removal/remedial works by fixed date. Conduct follow-up inspection to ensure remedial action taken and violation resolved. If offender still uncooperative, then promote violation to Category 4.
4	<b>Violation Category 4</b> <u>Recommended Action:</u> Notice of Violation, acquire warrants if needed, move forward with laying charges under the Conservation Authorities Act.

Officers use a variety of enforcement tools to bring people into regulatory compliance, including:

- **Letter of Concern (LOC):** A letter issued when an officer suspects that a violation has or will occur. The LOC is intended to advise property owners of MVCA’s regulations that apply to their properties.
- **Notice of Violation (NOV):** Once an officer establishes reasonable grounds to believe that an offence has occurred, an NOV is issued. An NOV outlines potential penalties for contravening the Act along with next steps to resolve a violation. Officers work to meet with those issued an NOV within 14 days of the letter being sent.
- **Remediation Agreement (RA):** Depending on the nature of a violation or non-compliance, a remediation agreement may be agreed upon between the MVCA and landowner. A remediation agreement is used in such cases where works would have not been permitted by MVCA’s regulation policies.

#### 4.0 LEGAL PROCEEDINGS

Every effort is made by officers to facilitate a cooperative working relationship with those in contravention of the Act. Only in egregious cases does MVCA pursue legal action to resolve enforcement files. The following is a breakdown of files from 2023 to November 2024, statistics related to submitted concerns include any instance where a potential violation may have occurred and where there is a perception of an infraction.



Over the course of investigations and file follow-up, Officers make use of statute authority, owner consent, and judicial authorization when accessing private property, and collect evidence in accordance with standard operating procedures set out by Conservation Ontario.

#### 5.0 IMPLEMENTATION

Staff are updating internal processes and procedures to ensure that the approaches set out in this Strategy are implemented, which includes training of staff and collaboration on and escalation of more challenging files.



## REPORT

3466/24

TO:	The Chair and Members of the Mississippi Valley Conservation Authority Board of Directors
FROM:	Sally McIntyre, General Manager
RE:	<b>Corporate Strategic Plan Update</b>
DATE:	December 2, 2024

**Recommendation:**

**That the Board of Directors approve the methodology for updating the Corporate Strategic Plan and Implementation Plan as set out in this report.**

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In May 2021, the Board approved a *Corporate Strategic Plan* for the period 2021-2025. In March 2022, an *Implementation Plan* was approved that set out Priority Projects to act as indicators of progress towards achievement of strategic goals and objectives. Attachment 1 provides an update on the status of the 27 strategic initiatives to be carried out during the 2021-2025 period. The purpose of this report is to propose a methodology for updating the Strategy in 2025 for the period 2026-2030.

**1.0 METHODOLOGY**

Work carried out in 2020-2021 to update the previous Strategic Plan took place during a time of significant change and uncertainty and, for that reason, involved internal and external consultations, workshops and interviews with Board members and others. A more modest approach is recommended for the 2026-2030 update, particularly given the significant amount of consultation completed this year to develop the *Land Conservation & Resource Strategy*, which sets the long-term direction for the organization.

**Table 1: Draft Work Plan**

<b>Timing</b>	<b>Activity</b>	<b>Audience</b>	<b>Purpose</b>
Jan.-Feb.	1. Questionnaires	Board and Employees	ID needs/opportunities to pivot on main goals, ID key trends/risks/concerns.
	2. Work Unit Workshops	Employees	ID needs/opportunities to add and delete objectives; and potential priority projects for next period.
March	3. Board meeting	Board	Present and discuss findings.
April-May	4. Draft Strategy	Employees	Internal circulation/comment.
July	5. Board meeting	Board	Table Draft Strategy.
August-September	6. Draft Implementation Plan	Employees	Internal circulation/comment
October	7. Board Meeting	Board	Table Implementation Plan

## 2.0 CORPORATE STRATEGIC PLAN

Updating the *Corporate Strategic Plan* aligns with the following corporate goals and objectives:

Goal 2: Community Building – engage local partners to foster connections, leverage our resources, and strengthen our “social license” to operate.

a) Demonstrate MVCA to be a trusted, client-centered, resourceful, and helpful partner.

Goal 3: People and Performance – support the operational transformations required to achieve MVCA’s priorities and to address legislative changes,

b) Monitor the quality, efficiency and impact of what we do and modify to improve operational effectiveness.

## Attachment 1: Implementation Status

Strategic Goals and Objectives	#	Priority Projects/Initiatives	Status Update
<b>1. Asset Management - Revitalize Watershed Management Activities and invest in our Legislated Mandate</b>			
a) Implement the five-year capital program.	1	Phase 1 of Shabomeka Lake Dam rehabilitation	COMPLETED: fully operational.
	2	MOK Riverside Lookout Restoration	COMPLETED: now in use.
	3	Purdon CA interpretive signage	WIP: structure installed. New sign to designed, manufactured and installed.
b) Strengthen our risk analysis and management capacity to include climate change and development impacts.	4	Lower Mississippi flood plain mapping	COMPLETED: approved by the Board.
	5	Watershed LiDAR acquisition	COMPLETED: now in use.
	6	Flood risk assessment study	COMPLETED: presented to Board at December 7, 2022.
	7	Carp River flood plain mapping	COMPLETED: approved by the Board
	8	Phase 1 of watershed model development	COMPLETE: ongoing work to integrate subwatershed models into larger system as they are prepared
c) Implement priority actions identified in the Mississippi River Watershed Plan.	9	Land Conservation Plan	COMPLETED: Rising to Board in Dec.
	10	Wetland inventory	COMPLETED: Areas under pressure identified; results to be incl. in #9.
d) Work with the City of Ottawa towards update of the Carp River Watershed Plan.	11	Carp Subwatershed Plan Update	DEFFERED: City has indicated that this will <u>not</u> be completed during the 2022-2026 term of council
e) Plan for the next phase of asset development and management.	12	Dam Safety Reviews (DSR)*	COMPLETED: CP in 2023; Lanark in 2024; future DSRs per 10-yr Cap. Plan
	13	Asset Risk Analysis	COMPLETED: Updated annually
	14	10-year Capital Plan	COMPLETED: Updated annually
<b>2. Community Building - Engage local partners to foster connections, leverage our resources, and strengthen our "Social License" to operate</b>			
a) Demonstrate MVCA to be a trusted, client-	15	Website	COMPLETED: Updates on-going
	16	Gatehouse Door Upgrade	COMPLETED: installed

Strategic Goals and Objectives	#	Priority Projects/Initiatives	Status Update
centered, resourceful, and helpful partner.	17	Open Data Plan	WIP: policy drafted; further analysis required regarding data set security and use, and cost recovery.
	18	Transition Plan	COMPLETED and implemented
b) Strengthen relationships with municipalities and community stakeholders, First Nations, the agricultural sector, developers, not-for-profits, and academia.	19	Indigenous Engagement Plan (IEP)	ONGOING: many outreach attempts made over three years; current focus on engaging re active projects
	20	ALUS program	COMPLETED 3-year project. ONGOING implementation.
c) Rejuvenate the Mississippi Valley Conservation Foundation (MVCF) into a highly functional and effective fundraising organization.	21	Governance Review	WIP: Focus pivoted to improving fund raising. Piloted 50/50 in 2023; larger campaign planned for 2025. Website, and online and e-tools have been improved incl. donation top-up at CA parking meters signage required.
<b>3. People and Performance - Support the operational transformations required to achieve MVCA's priorities and to address legislative changes</b>			
a) Staff the organization to allow for: delivery of mandatory programs and services, priority projects, and fulfillment of commitments made under memoranda of understanding (MOUs) and other agreements	22	Staffing	COMPLETED: All positions filled except those deferred due to Bill 23. ONGOING: Operating Reserves updated to provide greater flexibility to address peaks in future years.
	23	Job Evaluation - Phase 2	ONGOING: Most Job descriptions updated and evaluated; evaluating new and updated JDs as needed.
	24	Wages	ONGOING: most positions market assessed and wage changes being phased-in; will update as needed.
b) Monitor the quality, efficiency and impact of what we do and modify to improve operational effectiveness.	25	Permit and planning timeline tracking	COMPLETED: Now report bi-annually to Board with results.
c) Promote an engaging and inclusive environment that attracts and retains passionate and highly skilled people, and optimizes their expertise and contributions	26	Workplace Psycho-social Health	COMPLETED: second survey completed and third check-in planned for 2026.
	27	Automated Timesheets	COMPLETED: automated sheets went live in 2023. Updating system in Q4 2024.

**REPORT****3468/24**

TO:	The Chair and Members of the Mississippi Valley Conservation Authority Board of Directors
FROM:	Sally McIntyre, General Manager
RE:	<b>2025 Board Meeting Schedule</b>
DATE:	December 9, 2024

**Recommendation:**

**That the Board of Directors approve the proposed 2025 meeting schedule.**

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**1.0 MEETING SCHEDULE**

Meetings of the Board of Directors are held the second Monday of the month at 1:00 pm (with the exception of the June, October, and December meetings), as follows:

February 10, 2024

March 10, 2024

April 14, 2024 – 57<sup>th</sup> Annual General Meeting

May 12, 2024

June 9, 2024 – Watershed Tour (9:00 am - 3:30 pm)

July 14, 2024

September 8, 2024

October 20, 2024

December 8, 2024 – 10:00 am meeting followed by Christmas luncheon

No Board meetings are scheduled for January, August or November.