



Policy & Planning Advisory Committee Meeting

Hybrid meeting (via Zoom)

10:00 am

October 7, 2024

MVCA Boardroom

AGENDA

ROLL CALL

Declarations of Interest (written)

Adoption of Agenda

MAIN BUSINESS

1. Approval of Minutes: Policy and Planning Advisory Committee Meeting Minutes, June 19, 2024, Page 2
2. Delegation Presentation: Ginawaydaganuc Village - RoxAnne Darling, Community Engagement Officer, Page 7
3. Delegation Presentation: Climate Network Lanark - Gordon Harrison, Advisor & Doreen Donald, Director, Page 8
4. LC&RS Community Surveys & Recreational Study Findings, Report 3444/24, Sally McIntyre, Page 27
5. Draft Land Conservation & Resource Strategy, Report 3445/24, Sally McIntyre, Page 64
6. Portage Routes: History and Use, Report 3446/24, Sally McIntyre & Alex Broadbent, Page 160

ADJOURNMENT



MINUTES

Hybrid Meeting Via Zoom
and at MVCA Office

Policy & Planning Advisory
Committee Meeting

June 19, 2024

MEMBERS PRESENT

Bev Holmes, Chair (Virtual)
Dena Comley, Vice Chair
Cindy Kelsey
Clarke Kelly (Virtual)
Glen Gower (Virtual)
Helen Yanch (Virtual)
Paul Kehoe
Steven Lewis
Taylor Popkie

MEMBERS ABSENT

Jeff Atkinson

STAFF PRESENT

Sally McIntyre, General Manager
Stacy Millard, Treasurer
Alex Broadbent, Manager of IC&T
Juraj Cunderlik, Director of Engineering
Matt Craig, Manager of Planning and Regulations
Bryan Flood, Water Resources Engineer (Virtual)
Kelly Hollington, Recording Secretary

GUESTS

Faith Blacquiere

D. Comley called the meeting to order at 2:01 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

D. Comley noted that there were no additions or amendments to the agenda.

PPAC24/06/19 -1

MOVED BY: G. Gower

SECONDED BY: B. Holmes

Resolved, that the agenda for the June 19, 2024, Policy & Planning Advisory Committee Meeting be adopted as presented.

“CARRIED”

MAIN BUSINESS

1. Approval of Minutes: Policy & Planning Advisory Committee Meeting, November 29, 2023.

D. Comley noted that there were no additions or amendments to the minutes.

PPAC24/06/19 -2

MOVED BY: T. Popkie

SECONDED BY: B. Holmes

Resolved, that the minutes of the Policy & Planning Advisory Committee Meeting held on November 29, 2023 be received and approved as printed.

“CARRIED”

2. Election of Officers, Report 3425/24, (Sally McIntyre)

PPAC24/06/19 -3

MOVED BY: P. Kehoe

SECONDED BY: C. Kelly

Resolved, That Sally McIntyre be appointed as Chair for administering the election of Policy & Planning Advisory Committee Chair for 2024.

“CARRIED”

S. McIntyre declared the positions of Chair and Vice Chair of the Policy & Planning Advisory Committee as vacant. She noted that the election will be carried out in accordance with procedures set out in the MVCA *Administrative Bylaw*, with election of Chair followed by election of the Vice-Chair. She asked members if there are any nominations for the position of Chair. B. Holmes offered to continue for another term as Chair. S. McIntyre asked members if there were any more nominations for the position of Chair, two more times. She declared B. Holmes to be Chair by acclamation. She asked members if there are any nominations for the position of Vice-Chair. D. Comley offered to continue for another term as Vice-Chair. S. McIntyre asked members if there were any more nominations for the position of Vice-Chair, two more times. She asked D. Comley if she accepted the position of Vice-Chair. D. Comley accepted. S. McIntyre declared D. Comley to be Vice-Chair by acclamation.

3. Carp River Floodplain Mapping Update, Report 3427/24, (Juraj Cunderlik)

J. Cunderlik provided background regarding the Carp River Floodplain mapping update. He explained that MVCA completed a flood risk assessment study in 2022 that identified the Carp River as the highest flood risk area in the watershed and the highest priority for updated floodplain mapping. This project mapped the entire 50km of Carp River including flood and erosion hazards. He noted that this is the largest floodplain mapping project that has been completed at MVCA. He outlined MVCA's approach, standards and technical guidelines followed in development of the study. He highlighted that the project was subject to an independent third-party technical review process. Forty-seven high-resolution maps were prepared. And he noted the validation process used that compared modeled results to observed flood extents and elevations. He reviewed the public consultation process. The study will be tabled with the MVCA Board of Directors in July.

B. Holmes commented that members of the agricultural community expressed concerns regarding the floodplain mapping and its implications on farming. C. Kelly commented that he has also had members of the agricultural community express concerns regarding loss of farmable land due to developments in Kanata and Stittsville contributing to an increase in flooding and drainage issues along the Carp River. C. Kelly asked if MVCA would consider a consultation in West Carleton with agricultural groups.

J. Cunderlik explained that the commenting period for the project has ended. He highlighted that MVCA has consulted with land-owners and farmers in the area to address individual concerns. He noted that the most significant changes in mapping from the 1983 data are in the upper portion of the Carp River watershed, minimal changes were noted in the lower part of the watershed. He noted that the majority of concerns received from the agricultural community are related to the perception that they cannot farm if their property lies within the regulation limit. He explained that this is not the case, it has no impact on farming and agricultural use of their lands. S. McIntyre added that MVCA has met 1:1 to address individual, specific concerns from the public.

C. Kelly asked if the increase in flooding is attributable to development in Kanata and Stittsville. J. Cunderlik responded that the Carp River watershed has a very complex hydrological regime. He explained that the upper watershed more susceptible to rain-fall events while the lower watershed is snow-melt event dominated. The water server of Canada monitors at Kinburn, which shows a trend of a decrease in maximum flows.

S. Lewis asked if there have been many changes noted between the 1983 and the new updated floodplain mapping. J. Cunderlik responded that there are very localized changes. S. McIntyre commented that the Carp River location is unique with the majority of the development lying in

the upper portion of the watershed. B. Holmes commented that she has interest in future impact studies and that they would be relevant to the Almonte and Pakenham areas.

S. Lewis asked C. Kelly about the implementation of a special tax on individuals with a high percentage of paved areas on their property. C. Kelly explained that the concept was met with hostility and anger toward the City of Ottawa and that the project is scheduled for completion in 2025. B. Holmes commented that this special tax has raised concerns among the farming and agricultural communities.

G. Gower asked if the results of the new floodplain mapping update differ greatly from the Carp River Restoration Plan. J. Cunderlik responded that the Carp River Restoration Plan enhanced the Carp River corridor and created storage for future development.

G. Gower commented that he attended the Carp River Floodplain open house, with maps of the entire system around the room. He observed that the updated mapping is similar to 1983. He thanked the MVCA staff for their hard work on the project.

4. Land Conservation Strategy Consultation Package, Report 3426/24, (Sally McIntyre)

S. McIntyre presented Land Conservation Strategy consultation materials. She explained that the consultation process will address requirements for both the Land Conservation Strategy and the Watershed-based Resource Management Strategy. She overviewed the MVCA inventory of land, easements, and other properties. She highlighted the 5 key policy questions posed in the Discussion Paper:

1. What role should MVCA play in land conservation within its jurisdiction
2. Should MVCA acquire more land for conservation purposes?
3. What type of facilities should MVCA operate?
4. What type of uses should MVCA permit at its Conservation Areas?
5. How should MVCA approach the acquisition and use of water control structures?

She noted that MVCA's conservation areas are intended for passive recreation or the conservation of land. She explained that cultural heritage facilities/sites are not a Category 1 program or service. Consideration is needed regarding the management of heritage services at the Mill of Kintail Conservation Area.

She noted that consideration is also needed regarding MVCA's role in managing portage routes within the watershed. She reviewed the dams that MVCA owns and operates and their functions, emphasizing that, at the time of acquiring the dams, MVCA received a much greater percentage of funding from the province. She highlighted the importance of considering asset renewal and the long-term life of the dam structures.

S. McIntyre reviewed the public consultation process and the next steps in the engagement process. She explained that draft policies will be tabled with the Board of Directors for review in October and finalized for approval at the December Board meeting.

B. Holmes commented that care needs to be taken in the consideration of the Mill of Kintail museum. She noted that the Mill of Kintail site has potential for national and international tourism. She highlighted the value of the artifacts within the museum and the importance of their preservation.

S. Lewis commented that it is important to consider the costs and liabilities associated with land ownership.

G. Gower asked if MVCA is looking for feedback on the Strategy itself or just the consultation process and package. S. McIntyre responded that she is looking for feedback regarding the consultation process and materials, and whether members are comfortable with the key questions being posed.

D. Comley noted the importance of being clear in the definitions of preservation versus conservation and requested that these concepts be better explained. S. McIntyre agreed.

PPAC24/06/19 -4

MOVED BY: T. Popkie

SECONDED BY: C. Kelsey

Resolved, That the Policy & Planning Advisory Committee recommend that the Board of Directors approve release of the attached documents for public consultation in accordance with the Consultation Plan for Development of a Land Conservation Strategy as set out in Report 3426/24.

“CARRIED”

ADJOURNMENT

PPAC24/06/19 -5

MOVED BY: S. Lewis

SECONDED BY: P. Kehoe

Resolved, That the Policy & Planning Advisory Committee meeting be adjourned.

“CARRIED”

The meeting adjourned at 2:58 p.m.

K. Hollington, Recording Secretary



Building Partnerships, Embracing Heritage, and Leading the Way in Truth and Reconciliation

SEPTEMBER 2024



Grandfather Williams Vision

- This project is dedicated to globally renowned **Algonquin Elder and visionary leader Grandfather William Commanda**.
- His simple but compelling message of **forgiveness, reconciliation,** and **enlightenment** is the foundation on which Ginawaydaganuc is grounded.
- His respect for **Mother Earth, racial harmony, social justice,** **Indigenous knowledge keeping,** and **peace** is in our hearts.



What Have We Accomplished?



Established governance, hired core employees, and created HR policies.



Developed strategic, operational, and fundraising plans.



Created marketing tools, including a website and social media, and secured architectural drawings from internationally renowned Blackfoot Architect Douglas Cardinal.



Established Advisory Circles with 24 of the most spectacular volunteers.



Developed training curricula for Indigenous Tourism and Green Building.



Secured grant funding support for a variety of initiatives.

Building Partnerships, Building Community, Ginawaydaganuc, We are all Connected.

MVCA is committed to honouring the intent of the Truth and Reconciliations Commissions Calls to Action and building respectful, reciprocal relationships with Interested Indigenous Communities and/or groups in the watershed.



Ginawaydaganuc Village is also committed to this initiative!

We want to plant the seeds for the next seven generations!



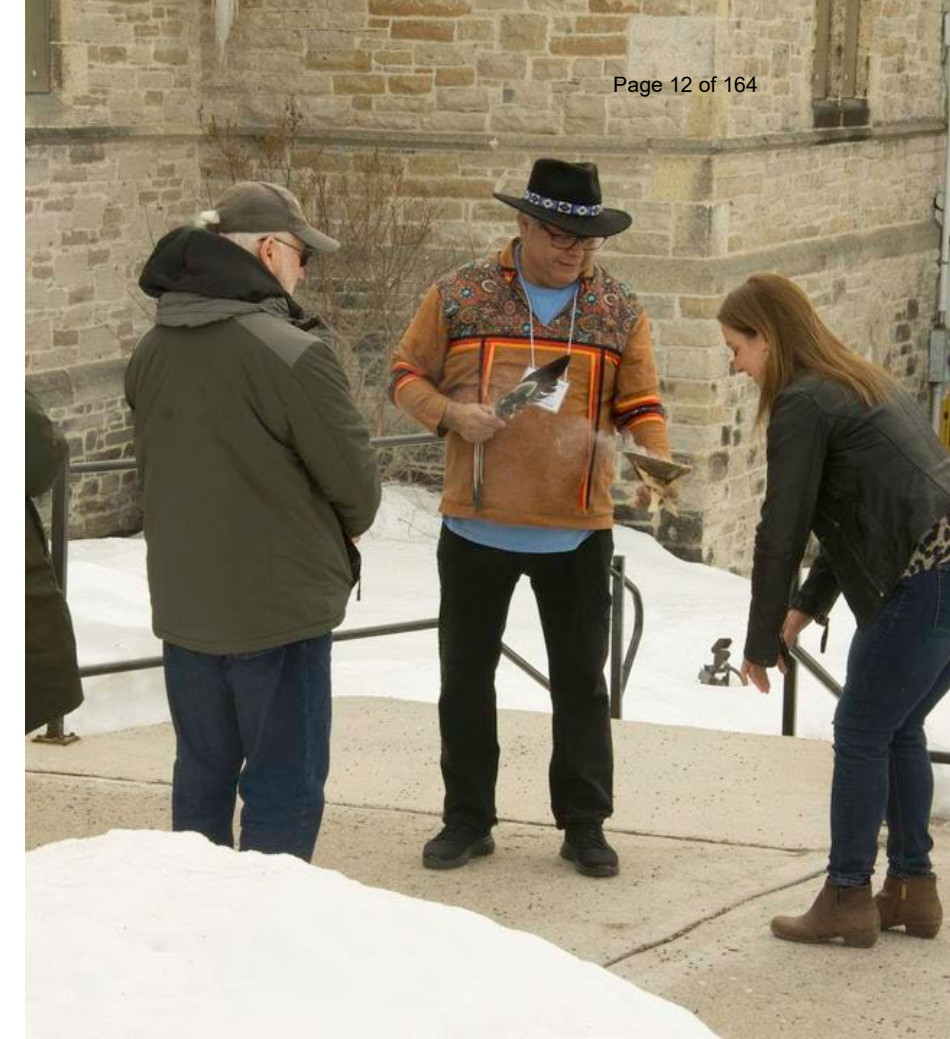


How does GV align with the strategic goals and Indigenous Engagement plan of the MVCA?



1.

Ginawaydaganuc Village aligns seamlessly with the MVCA's commitment to Truth and Reconciliation, promoting respectful, reciprocal relationships with Indigenous groups within the watershed.



2.

Together, we can lead the way in Indigenous engagement, responding to the Truth and Reconciliation Commission's Calls to Action by fostering meaningful partnerships, that honor Indigenous knowledge and stewardship."





3.

Ginawaydaganuc Village offers the MVCA a unique opportunity to set a provincial standard for transformational Indigenous partnerships. Our shared expertise in environmental stewardship can enhance the well-being of all within the watershed.



4.

By uniting our strengths, Ginawaydaganuc and the MVCA can build a foundation of cooperation, utilizing our collective knowledge for the benefit of the land, water, and communities we serve.



[A Word from John Henri Commanda - YouTube](#)



Ginawaydaganuc
V I L L A G E

THANK YOU!

ANY QUESTIONS?



MVCA Planning and Policy Committee

Presentation by Climate Network Lanark
October 7, 2024

Conservation can be contentious...

- the back-off-government sentiment prominent in Lanark County
- the minority but vocal voice that successfully opposed Mississippi Mills' natural heritage systems plan
- the push back by farmers, landowners and municipalities in the jurisdictions of three CAs resulting in the province making changes to the role of the three in protecting wetlands
- Rideau Valley, “we continue to only regulate PSWs and other wetlands identified for protection in municipal OPs and zoning; we cannot proceed with our plan to regulate all wetlands.”



Addressing this—key to *MVCA* Strategy

Addressing this is key to developing and implementing the Land Conservation Strategy—how?

- Engaging people in nature drives conservation understanding and behaviours
- Building bridges, especially with farmers and landowners
- Effective communications from the get-go



Driving conservation

- The MVCA survey presented options with limited or some public use:
 - a) Preserving land ... with limited public use
 - b) Conserving land ... while providing for some public use
 - c) A mix of conservation and preservation properties is appropriate
- Preserve or conserve may depend on the particular land –that said, studies show that public use fosters conservation understanding and behaviours—“public use” must be a central goal (restricted only in sensitive environmental areas)



Pro-conservation behaviours—the research

- *Substantial evidence from observational and intervention studies indicates that overall time spent in nature leads to increased perceived value for connectedness to nature and subsequently, greater pro-environmental attitudes and behaviors. [published by the National Library of Medicine, 2021]*
- *Nature-based citizen science is more than just a way to gather environmental data: it benefits well-being and nature connectedness of participants, and (when in combination with noticing nature activities) pro-nature conservation behaviours. [research published by the British Ecological Society, 2023]*



Building bridges

- Often there is division or push back when CAs or municipal governments talk about protecting lands—we need to do a better job of finding common ground—whether it’s a kayaker, a hunter, a farmer, or a dog-walker, we all depend on nature and value it and need to come together to protect it for its own sake and for the many benefits it provides.
- Given the state of polarization, kitchen-table meetings, listening, and finding common ground to build-on are essential.
- This was echoed in our talks recently with the GMs of Rideau Valley and South Nation on where they’ve had success in working with landowners –kitchen table meetings and listening.



Building bridges, continued

- Friends of Carp Hills: their vision is engaging stakeholders in the protection and stewardship of the ecosystems and biodiversity of the Hills. How: they engage landowners through kitchen-table style meetings,
- Couchiching Conservancy: trained staff work with landowners to implement long-term stewardship projects that are tailored to their environmental goals
- *Local participation in the design and management of protected areas meant that rules and enforcement strategies were tailored to fit the local context.* [from the Conservation Social Science; Understanding People, Conserving Biodiversity,” 2023]



Communications

- Builds awareness and understanding and fosters engagement and conservation
- The report, *Public Understanding of Nature-based Climate Solutions*, provides insights relevant to implementing MVCA's Land Conservation Strategy (Louise Comeau; 2021—electronic copy available from CNL).
- *Seventy-four percent of general population respondents strongly agree or agree with this statement “I support nature-based climate solutions to protect forests, grasslands, or wetlands even if that means some restrictions on how I use the land I own or land that I access.*



Communications, continued

- *Don't assume Nature-based Climate Solutions narratives will work the same way for people less and more engaged on environmental issues. To avoid backfire effects, communicate and engage in ways that meet the needs of differentially engaged audiences. Continuous testing of narratives may identify opportunities to communicate with different audiences using one narrative, and it may be the case that different tactics and frames may be required to effectively communicate Nature-based Climate Solutions.*

Thank you.



REPORT**3444/24**

TO:	The Chair and Members of the Mississippi Valley Conservation Authority Policy & Planning Advisory Committee
FROM:	Sally McIntyre, General Manager
RE:	LC&RS Community Surveys & Recreational Study Findings
DATE:	October 2, 2024

For Information

The purpose of this report is to provide the results of two surveys conducted during the period July-September 2024 to answer the following questions:

- *What direction do people think MVCA should go with future programs and services, particularly in relation to land management?*
 - This survey provided respondents with the *Discussion Paper* and *Current State Report* and asked their thoughts on key issues.
- *What conservation authority-type facilities are available and in use today, are they meeting demand, and what role could MVCA play going forward?*
 - This survey provided respondents with a list of known facilities within MVCA's jurisdiction and asked questions regarding their use, preferred amenities, and demand.
 - This survey was part of a broader review of conservation area-type services available within the watershed and examination of how service levels have changed, and whether current facilities are meeting demand. Note, this is being issued in draft form as there are inconsistencies in some data.

NEXT STEPS

Staff will provide survey results to member municipalities, the counties, Ontario Parks and local recreational tourism groups and initiate discussions on how MVCA may support communities in meeting current and future demand for walking/hiking trail services in the watershed.

CORPORATE STRATEGIC PLAN

Completion of the Land Conservation Strategy will support achievement of:

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

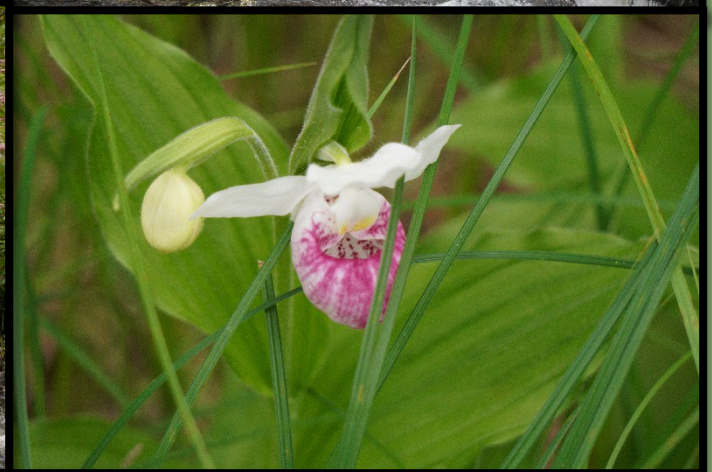
- a) Demonstrate MVCA to be a trusted, client-centered, resourceful, and helpful partner.
- b) Strengthen relationships with municipalities and community stakeholders, First Nations, the agricultural sector, developers, not-for-profits, and academia.

Attachments:

1. *Summary of Discussion Paper Survey Results, October 2024*
2. *DRAFT Recreational Facilities Study: Summary Report, October 2024*

Summary of Discussion Paper Survey Results

Land Conservation and Resource Strategy

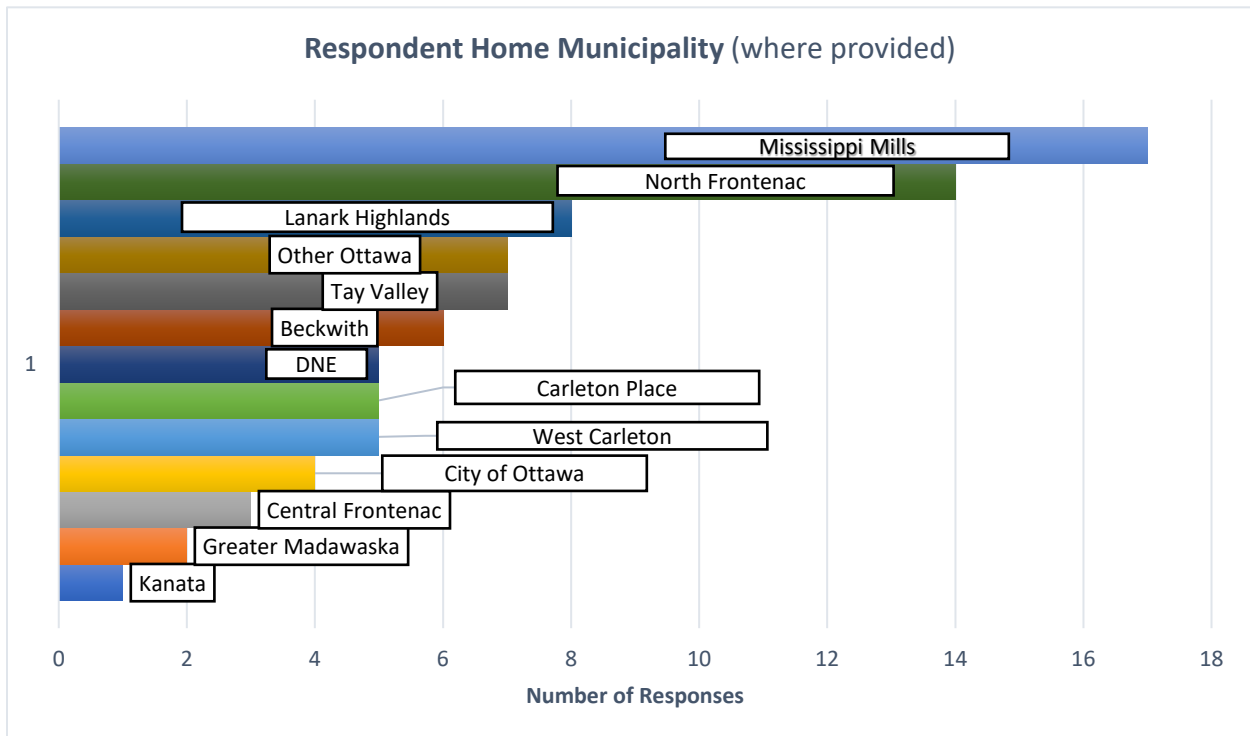


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Overview

1. 84 submissions in total.
2. Surveys were received from the following (where declared):
 - Municipality of Mississippi Mills
 - City of Ottawa
 - Algonquins of Ontario Consultation Office
 - Friends of Lanark Highlands
 - Dalhousie Lake Association
 - National Capital Commission
 - Lanark County Arts & Heritage
 - Middleville & District Museum
 - Smiths Falls Heritage House Museum
 - Lanark Museum
 - Lanark County Museums Association
 - Briarbrook Brookside Morgan’s Grant Community Association
 - NetZeroPLUS Canada
 - Lake Mississagagon Association
 - Heritage Almonte
 - Ennis Maple Products
 - Mississippi Lakes Association
 - Mississippi Valley Field Naturalists
 - Canonto Lake Property Owners Association
 - Climate Network Lanark
 - Ducks Unlimited Canada
 - Ebbs Bay Property Owners Association
 - Landowners, Cottagers, Farmers
3. A majority of respondents were from Mississippi Mills, North Frontenac, and City of Ottawa.



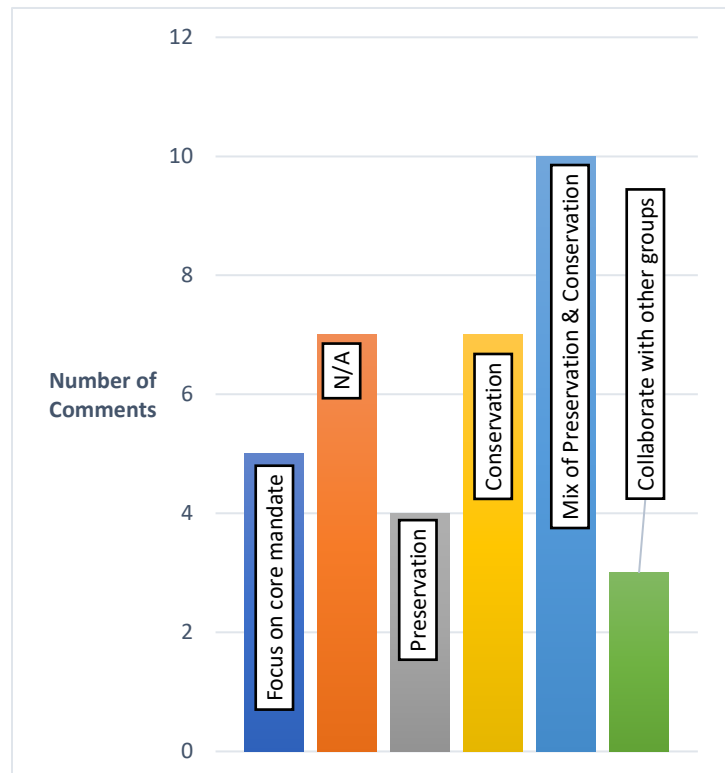
1. Land Conservation

Question: Where do you think MVCA should focus its land conservation efforts?

- a) Preserving land to protect hydrological or ecological functions, with limited public use.
 - b) Conserving land to protect its hydrological or ecological functions, while providing for some public use.
 - c) A mix of conservation and preservation properties is appropriate.
- 52% of respondents felt a mix of conservation and preservation properties is appropriate.
 - 31% respondents felt that MVCA should focus on conserving land to protect its hydrological or ecological functions, while providing for some public use.
 - 11% of respondents felt that MVCA should focus on preserving land to protect hydrological or ecological functions, with limited public use

Comment Trends

- 28% of the comments highlight a mix of conservation and preservation properties.
- 19% of the comments highlight the importance of conserving land to protect its hydrological or ecological functions, while providing for some public use.
- 14% of comments mention focusing on core mandate and/or current properties.



Snapshot of Comments

1. Conservation purposes to reduce overuse, waste or harm to the natural environment. The MMLT, and NCC own preserved lands throughout area, and Lanark County owns over 11K acres of County forest with public access available to some or most of these lands.
2. Conservation Authorities mandate more aligned with conservation than preservation. Conservation is also more consistent with their status as municipally-funded agencies. If municipalities want to identify preservation as a policy objective, then they have other tools available to them to achieve that objective. Moreover, other agencies and organizations focus on preservation.
3. MVCA lands also preserve/conserves indigenous (Algonquin) unceded territory and cultural resources (such as archeological resources) other values and areas where rights-based harvesting activities are conductive. This should be acknowledged, promoted, and enhanced through direct involvement and participation by indigenous communities/members in decision-making processes.
4. The ecological condition and situation of the land should determine its conservation vs. preservation strategy. Note that MMLT and DUC hold land that serve both functions. Part of a property may have a hiking trail near the road, but the interior is off-limits to the general public.
5. Conservation is a nature-based solution to climate change and serves to reduce biodiversity loss. Community engagement with the natural world offers incredible mental, physical, emotional, intellectual benefits (cultural ecosystem services). Nature engagement is the bedrock of long-term conservation support from the community. Human and planet health are interdependent and it is increasingly important to nurture both. Dr. Dalal Hannah of Carleton's work focuses on freshwater conservation science, a good fit for MVCA's work.
6. Conserving and protecting land within the watershed shall be the key mandate of MVCA. All management strategies shall be based on maintaining the ecological integrity of open lands, forests, water including smallest streams, creeks, wetlands, rivers and lakes, all which hold a natural bearing on the watershed. Establishing regulatory boundaries to define jurisdiction of MVCA, including flood plain mapping based upon a twenty-year outlay, is necessary. Some alterations of this boundary by man-made structures may be permitted for some non-residential development as long as it doesn't impinge upon the natural integrity of the watershed. Within these boundaries are many existing natural and man-made structures which deserve conservation and protection actions. These can be controlled by MVCA in conjunction with other agencies. Therefore, I agree that all three OPTIONS for Land Conservation within the watershed be observed. I think this can be observed with the cooperation of local Land Trusts, municipalities concerned and local and local organizations such as fish and game, Naturalist Clubs and Friends of. MVCA should divest itself of any holdings that are not directly connected to the watershed.
7. The distinction between conservation vs preservation can result from the nature of the property and its geographic context. Urban properties are key for ecosystem services and people's mental health, while upper watershed lands can focus on protecting ecosystem values. I don't think there is a need for a choice. I would none the less invite you to align your definition of conservation and protection of land to those of the Pan Canadian Standard for Protected and Conserved areas, so the lands you secure can be accounted as part of Canada's 30x30 goal.
8. Suggest important to do both since people will support the environment if they can interact with it in an appropriate way. Also need to provide some privacy for nature to do its thing.

2. Acquiring More Land

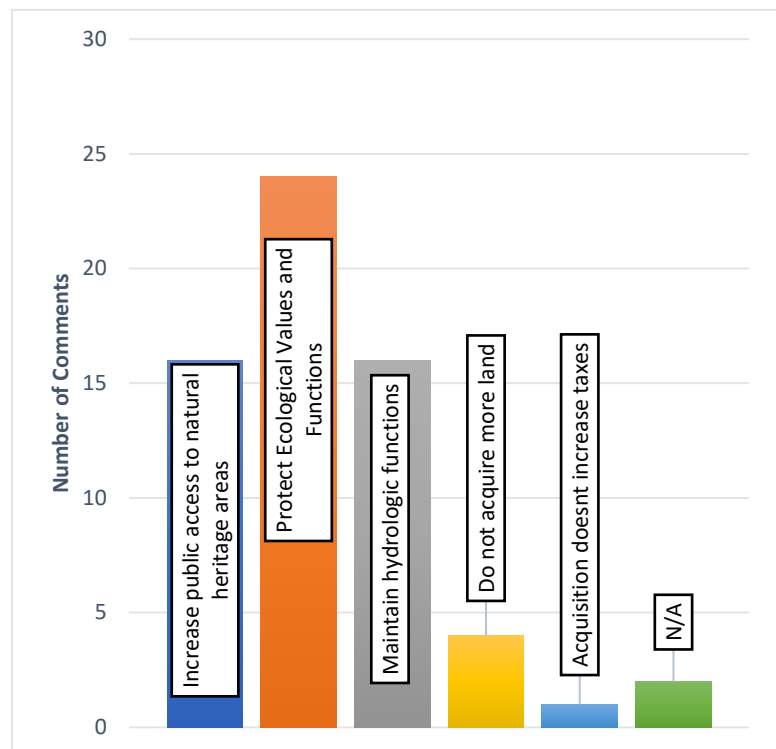
Question: Should MVCA acquire more land or enter into other agreements over the next 20 years to:

- increase public access to natural heritage areas?
- protect ecological values and functions?
- maintain hydrologic functions in the watershed?

- 46% said MVCA should acquire land to protect ecological values and functions.
- 26% said MVCA should acquire land to protect hydrologic functions.
- 20% said MVCA should acquire land to increase public access to natural heritage areas.

Comment Trends

- 38% of comments mention the protection of ecological values and functions.
- 25% of comments mention maintaining hydrologic functions in the watershed.
- 26% of comments mention increasing public access to natural heritage areas.



Snapshot of Comments

1. The CA should not acquire new land through purchase or lease. The CA is not responsible for recreation; suggesting so is inappropriate creep of mandate. Management and or stewardship agreements, conservation easements may be appropriate. With the gap in capital/infrastructure funding currently being navigated by municipalities (AND the MVCA itself), acquiring new lands is inappropriate and cannot be funded by municipalities (paying for acquisition, O&M costs).
2. The options above should not be exclusive. Although maintenance of hydrologic functions is the primary mandate of CAs, they can also play a role in increasing public access and protecting ecological values and functions. Properties that serve all three functions would be a priority. The CAs can play an important role in providing for public access and ecological protection in rural areas where municipalities are limited in their ability to secure parkland by provincial regulations or lack of development that triggers parkland dedication.
3. See comment 1 for reference to protection of Indigenous (Algonquin) values. Increasing access for public should also first be seen as increasing opportunities for Indigenous peoples, who respectfully deserve to be referred to as separate from the general public. Incorporation of and management to enhance Indigenous rights-based activities and access should be a priority for consideration in each area of the discussion paper. Having public access to a large portion of MVCA is important, as long as it does not pose a risk of being detrimental to the values and functions these lands protect.
4. Acquisition via other than purchase agreements recognizing that legal, environmental and operational obligations of MVCA for stewardship and management of assigned lands. Must recognize level of effort for due diligence in acquiring lands and whether approach will be opportunistic/organic growth (as opportunities present themselves) or targeted/active based aligned with MVCA Strategic Plan
5. All of the above depending on the situation. However, I don't believe that MVCA should acquire land, but rather work through other conservation land holders to target certain properties and to support their acquisitions. Using the Morris Island and the CRCA model, MVCA could work with DUC or NCC to acquire and then "manage" one of their properties for public access. This approach makes the best use of each organization's skills and resources.
6. Increasing public access to such sites with a low impact model (Morris Island) allows human enjoyment, preservation of the ecology and watershed systems of the areas acquired
7. MVCA can, or possibly should, strive to acquire any additional lands but only if such lands are directly related to the Mississippi Watershed area and have ecological or hydrologic values. I agree that MVCA can evaluate other offered lands in order to refer the request to other agencies such as LAND Trust, municipalities etc.
8. I consider a balance is necessary between protecting ecological values and services with passive access to green and blue space, which is very relevant in equity purposes as man people and new comers who do not own cottages have limited options to access beaches, water, rivers and forests.
9. Primary focus should be to preserve and protect ecological areas. Hydrologic function can be maintained within current capacity but needs to be planned and operated well, purchasing more land if and when needed due to lack of existing capacity or infrastructure to balance function. Public access should be 3rd priority however natural heritage should be sought for protection if in jeopardy or threatened by loss or integral features.

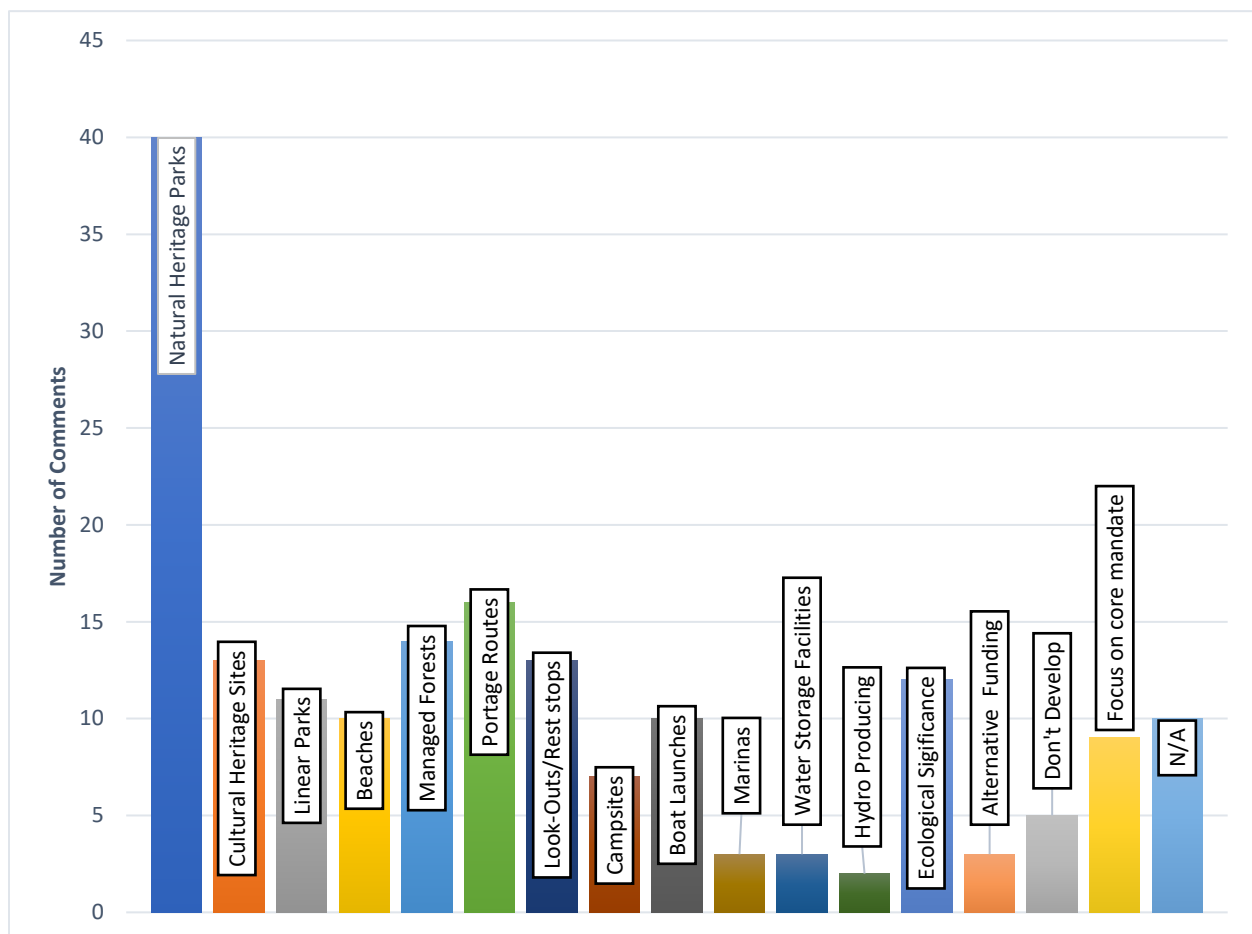
3. Facility Types

Question a) What type of facilities do you think MVCA should develop over the next 10-20 years?

NOTE: This was an open-ended question with no fixed list.

Comment Trends Q. a)

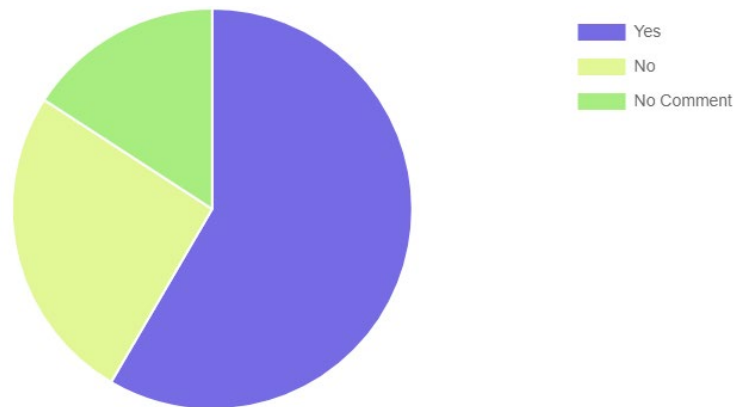
- 22% of comments mention/support Natural Heritage Parks.
- 9% of comments mention portage routes.
- 8% of comments mention managed forests.
- 7% of comments mention properties/facilities with ecological significance for protection and or education purposes
- 7% of comments mention lookouts/rest-stops



Snapshot of Comments Q. a)

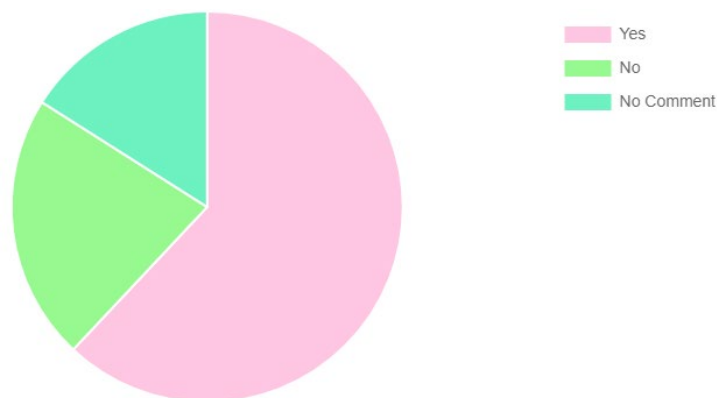
1. The CA should not develop new facilities of the next 10-20 years, unless they generate revenue. The CA should focus on core responsibilities and work in partnership with organizations on anything they take on to ensure proper financial strategies are in place
2. Assuming that the restriction on use of staff for "programming" does not include maintenance, the MVCA could continue to develop and operate passive use facilities that do not require continuous staffing. This could include natural heritage parks, some cultural heritage sites, scenic lookouts, rest stops, boat launches, etc....
3. On their trails open up washroom facilities, open for winter sport, warm up huts or ability to camp all year round.
4. Portage trails, and easement to provide access to water bodies and water routes, campsites and increased camping opportunities. Signage/information kiosks sites at access points should be established and maintained and include and promote Algonquin history within the information.
5. Low-impact trails, lookouts, and water access sites. Anything more ambitious should be undertaken in collaboration with Townships or Counties so that costs, risks and benefits are shared.
6. Given the current crises facing our health system and the potentially powerful therapy Nature offers, MVCA is encouraged play an important role in offering nature experiences, educational opportunities etc. with a mix of sites from interior forest to look-outs and rest stops, urban and rural, recreational and contemplative. All the while ensuring diverse habitat is well stewarded.
7. More natural heritage parks where suitable and where adds to developing public understanding and buy-in for the role of MVCA and protection.
8. Lands in the watershed that are worthy of preservation because of unique ecological and environmental habitat as well as service to wetlands. Some lands should be protected, not logged or used for regular public access. 2. More lands for educational use with public access
9. These are broad categories, but the development of sites that can also be used to generate income to support the MVCA operations would seems to be progressive process. This could wed a positive mix with the operation of low impact sites as well.
10. Linear parks, managed forests, natural heritage parks. As a rule I am not sure CA should be in the business of cultural heritage - except where there are exceptional structures or historic features - Mill of Kintail is a good example, Crawford Lake in Halton is another. In a perfect world a partnership with the province/municipality would be ideal to run these - but I recognize no one really has \$\$ to pay. CAs should not be in the business of marinas, beaches, camp sites etc.
11. Natural Heritage Parks in conjunction with property acquisition and re-naturalization with access to the public where sustainable.
12. With climate change, hydrological infrastructure to maintain, support, enhance/monitor volume is key for all. Community relies on CA for this role. Priority should be given to capacity followed by environmental and ecological preservation, protection, enhancement. Human use of CA land is lowest priority.

Question b) Do you think MVCA should transfer the museum collection and its management to a heritage organization?



54% of respondents support the transfer of the museum collection and its management to a heritage organization. 27% disagree.

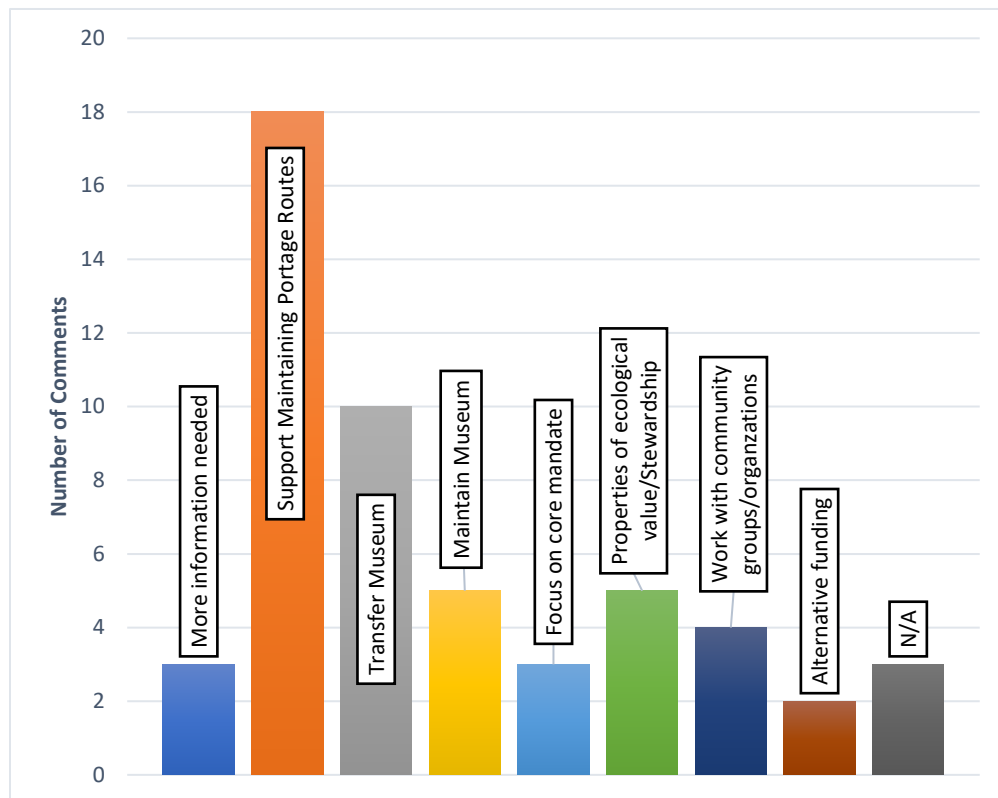
Question c) Do you think there is a role for MVCA in managing portage routes?



60% of respondents feel that there is a role for MVCA in managing portage groups. 25% disagree.

Comment Trends Qs. b) and c)

- 34% of comments support MVCA maintaining portage routes.
- 19% of comments mention support in transferring the museum collection.
- 9% of comments support MVCA maintaining museum collection.
- 9% of comments mention a focus on stewardship and/or protection of properties with ecological value.
- 7% of comments mention cultural heritage sites.



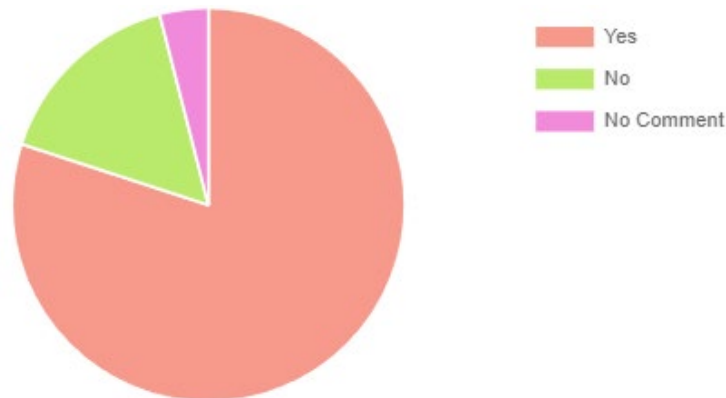
Snapshot of Comments Qs. b) and c)

1. Management of portage routes could fall within the MVCA portfolio because these routes can have impacts in regulated areas equivalent to some forms of development. A badly situated or managed portage route can result in substantial ecological degradation.
2. Indigenous artifacts should be curated by indigenous peoples if repositories and capacity in available within communities to curate these resources. If not, the most local museums should be utilized or partnered with to manage the museum collections. Portage routes are part of the cultural identity of the landscape and promote the human functional element of lands managed and operated by MVCA. It makes sense that portage values within the MVCA lands/jurisdictional areas are managed by MVCA.
3. divesting/transfer of cultural assets is appropriate but will be a challenge without a source of funding for recipient organization to manage/maintain the asset. Portage routes between waterways within MVCA jurisdiction makes great sense.
4. Lanark County Arts & Heritage urges MVCA to invest in Mill of Kintail Museum and the associated the R. Tait McKenzie and Dr. James Naismith Museum and collections. They are vital to preserving the history of this area, and on top of that, they are vital to the tourism industry in Lanark County. Having them located in the park creates a true destination.

5. I think the Mill and collection is the main tent pole in MVCA outreach and education and profile in the community—so retaining control of that is key. Canoe routes: if MVCA didn't manage, would they cease to be suitable for use—if so, maybe MVCA to manage; if not....
6. Type of facilities MVCA should own, or manage or have jurisdiction of in conjunction with other jurisdictions, listed sites, as long as they are connected to our watershed. Questionable are Purdon, K&P, camp grounds, marinas, supervised beaches, look-outs and rest stops outside the watershed MVCA should maintain property of Mill of Kintail but must seek other agencies to manage it. Canoeing is a most valuable asset for the municipalities. It would be great if MVCA or the relevant municipalities owned the properties where portages are necessary, but they don't.
7. I think with the terrible cuts to CAs you need to put your money into conserving as much accessible land as possible, not improving accessibility. If funding improves, sure portage routes would be nice
8. It is very difficult for anyone but the MVCA to develop boat & canoe launches on the sides of rivers and lakes. Volunteer groups could be used to manage & maintain the routes, with MVCA oversight & funding.
9. Yes, museums should be under the purview of museum, archives, and library professionals. I would recommend for the transfer of these responsibilities to another organization. This would enable MVCA to focus on conservation-oriented mandates.
10. No individual municipality in the rural areas would be willing to spend the money needed for a museum, cultural site. Especially as visitors would come from many different areas. The Mill of Kintail would probably be in private hands. Re canoe routes. Needs a coordinated approach which means ca is best suited to do this.

4: Permitted Uses

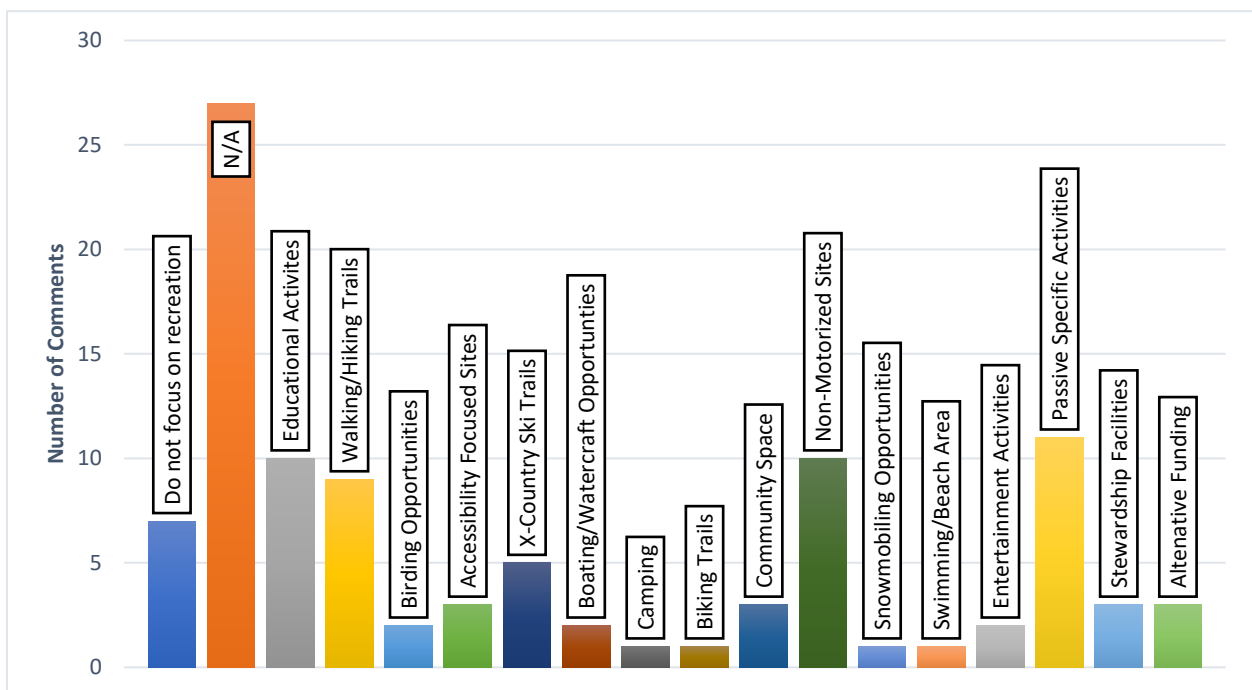
Question a) Are you supportive of the current mix of passive and active recreational activities at MVCA sites?



84% of respondents are supportive of the current mix of passive and active recreational activities at MVCA sites. 12% are not supportive of the current mix.

Question b) Are there specific passive or active recreational activities you think MVCA should investigate at one or more of its existing sites?

NOTE: This was an open-ended question with no fixed list.



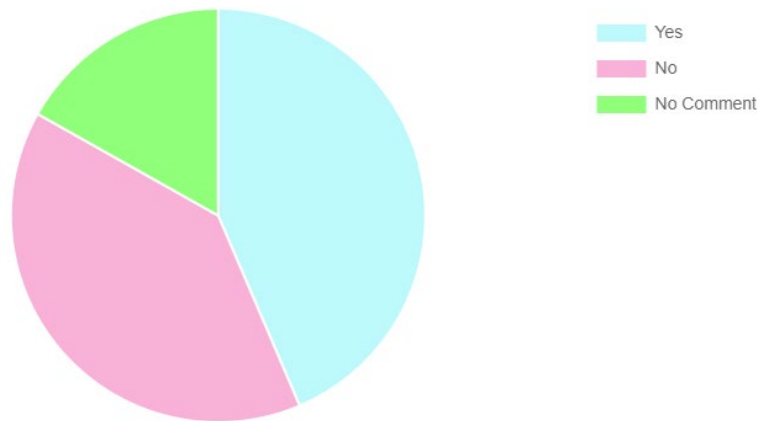
Comment Trends Qs. a) and b)

- 11% of comments mention specifically passive recreational activities.
- 10% of comments mention prohibiting motorized vehicles (i.e. no snowmobiles, no boat motors, no dirt bikes).
- 10% of comments mention educational opportunities & activities.
- 27% of comments are no comment/not applicable/unclear.
- 9% of comments mention walking/hiking trails.

Snapshot of Comments Qs. a) and b)

1. With any activities there should be consideration given to means of generating income from activities to be at least revenue neutral should be strongly encouraged.
2. Not for motorized vehicles and events that require parking for large groups as many locations require drive in access. Winter activities for Snowshoeing and skiing would help get people outside to enjoy the four seasons. Partnerships with groups and businesses for rentals, amenities and complimentary services are needed. Do what you do well and let others support the MVCA
3. Any activities that support active mobility, provide opportunities to connect with nature and/or have a low environmental impact.
4. MVCA should provide walking trails suitable to all level of walkers simply to aid people in living healthy lifestyles. MVCA should provide activities that suit both individuals and groups wanting more active and competitive. MVCA should be promoting greater outdoor activity year around for all ages from young children to seniors.
5. The above list is excellent. MVCA could concentrate on the passive side with private partnerships leading on the active recreation. An open mind to opportunities that present themselves would be most appropriate. There is local interest in trails for horseback riding and it can be managed to minimize habitat damage.
6. Except for motorized uses such as ATVs and snowmobiles and motor boats. Also, very careful prescribed guidelines for non-conservation facilities that emphasize their connection to nature. Basketball courts and summer camps etc. should ideally be on municipal or private property not MVCA land, but current facilities should continue with a focus on connecting them to the land and providing nature
7. Perhaps a biological history booklet of the current hiking trails at the conservation areas. including facts about how the land was shaped and what can be found there now.
8. Mostly passive with some centers for learning if we don't teach the importance it will not last over the next generations.

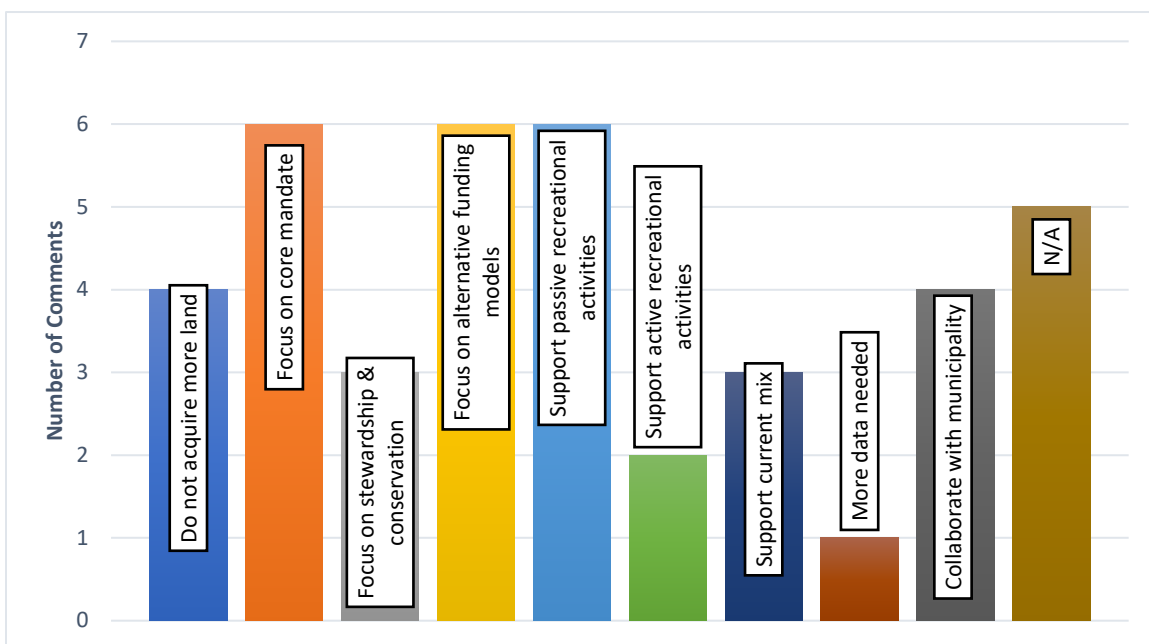
Question c) Do you think MVCA should consider acquiring one or more properties where a broader range of active recreational activities could be provided?



37% of respondents believe that MVCA should consider acquiring one or more properties where a broader range of active recreational activities could be provided. 48% disagree.

Comment Trends for Q. c)

- 15% of comments mention supporting alternative funding models
- 16% of comments mention supporting passive recreational activities
- 15% of comments mention that MVCA should focus on core mandate.
- 13% of comments are no comment/unclear/not applicable

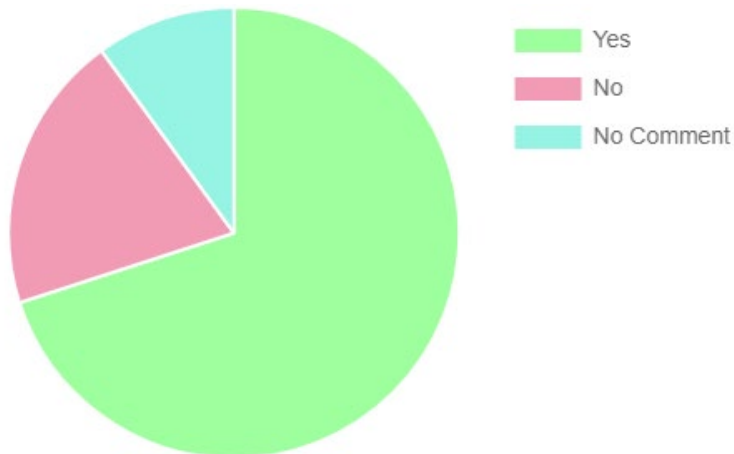


Snapshot of Comments Q. c)

1. In general, the acquisition of properties for active recreational activities (i.e. programmed activities or activities requiring continuous, direct staff oversight) appears inconsistent with the mandate for the CAs established by the Province. However, such acquisitions and activities might be appropriate on a cost-recovery basis where municipal services are not available.
2. But it would have to be an exceptional/unique opportunity due to its natural assets. Collaboration with Townships or Counties should be considered so that costs, risks and benefits are shared, and that continuing operational costs and benefits are shared.
3. That is a qualified "no" as I think MVCA should play to their strengths (natural heritage, biodiversity etc) but using active recreation as a lure to get individuals out into nature and away from their screens could be beneficial - a way to get individuals to love nature and in turn support your conservation work.
4. I support the current use of passive and active recreational activities providing financial support from MVCA is kept to a minimum. Support will include safety, grass cutting where relevant. I don't support MVCA doing ice rinks, grooming cross-country trails and other specialized activities unless such activities are revenue neutral. In fact, with careful planning, all facilities could be operated on a revenue neutral basis. MVCA's core mandate should be care and control of the watershed.

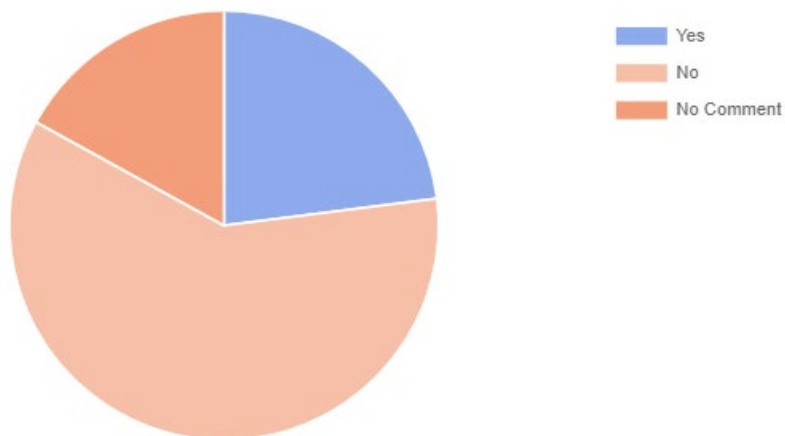
5: Dam Properties

Question a) Should MVCA permit hydro development at a dam where feasible and cost effective?



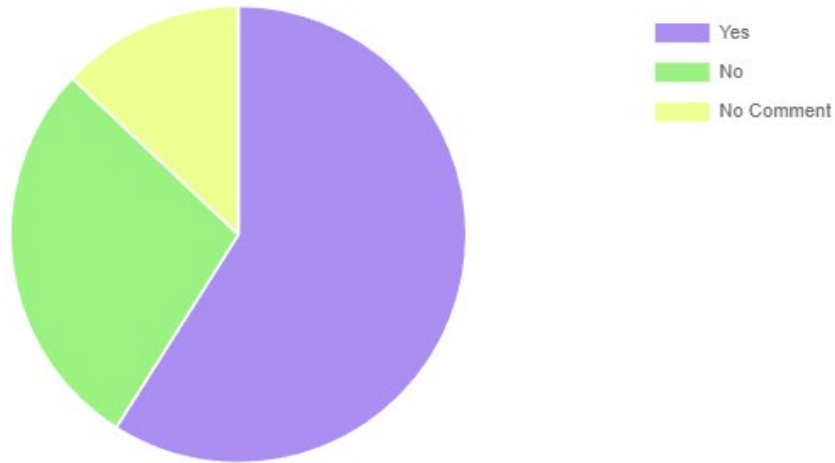
70% of respondents believe that MVCA should permit hydro development at a dam where feasible and cost effective. 20% disagree

Question b) Should MVCA build or assume ownership of facilities whose primary purpose is hydro power generation?



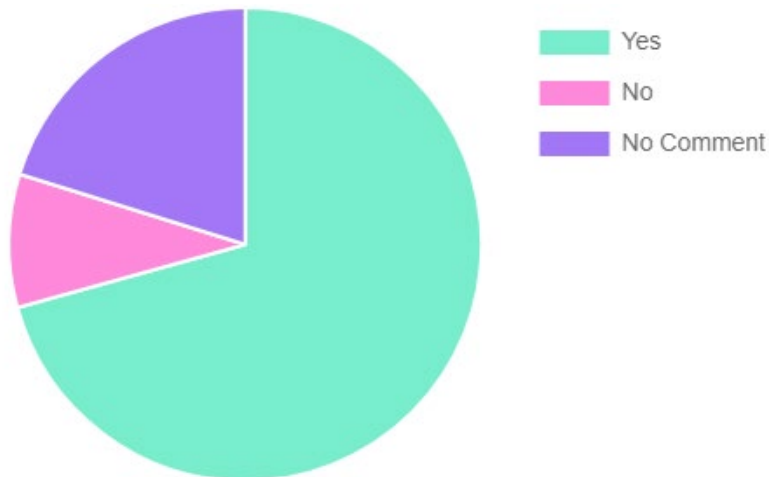
18% of respondents support building or assuming ownership of facilities with the primary purpose of hydro power generation. 64% disagree.

Question c) Should MVCA build or assume ownership of facilities whose primary purpose is to maintain recreational water levels?



57% of respondents believe that MVCA should build or assume ownership of facilities whose primary purpose is to maintain recreational water levels. 30% disagree.

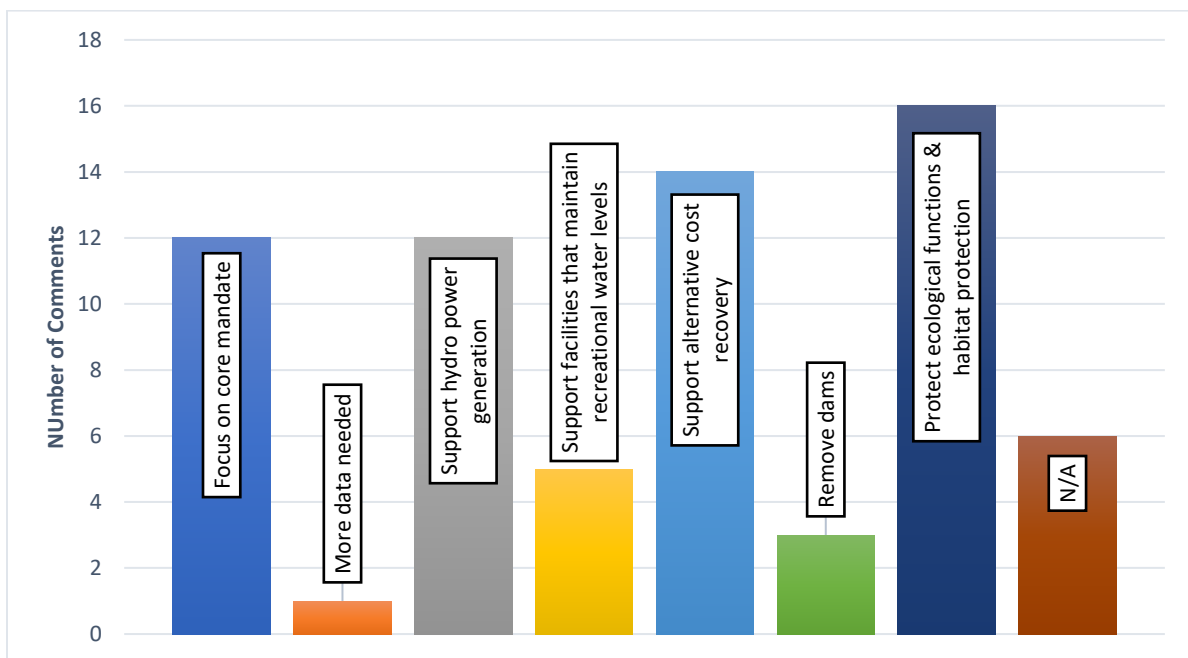
Question d) Should MVCA have different management and cost recovery approaches depending on the primary function of a dam?



73% of respondents believe that MVCA should have different management and cost recovery approaches depending on the primary function of a dam. 8% disagree. 19% had no comment.

Comment Trends Regarding Dam Properties

- 23% of comments mention protection of ecological functions/features and/or habitat protection
- 20% of comments mention support of alternative cost recovery approaches regarding dam properties
- 18% mention that MVCA should focus on core mandate.
- 17% support hydro power generation



Snapshot Comments Regarding Dams

1. Before hydroelectric generation is being considered as a revenues generation to support MVCA ownership, operation, and maintenance of its dam facilities, MVCA should first consider the removal of dams whose primary role is to support recreation and where invasive species management will not be affected. Hydroelectric generation and the damming of rivers within Algonquin Territory is the prime reason why the American eel are almost all but extirpated. If fish safe small-scale hydroelectric opportunities are desired, or inevitable, then revenue-sharing partnerships with Algonquin communities will be required for these hydro-producing dams.
2. Hydro, only if it causes no, or manageable, ecological damage. Loss of a natural asset would require careful consideration and community support in light of the economic benefit; b) Only if it is profitable, same as 4b), i.e. income should be used to support activities considered appropriate by the Board and communities that are not funded by the Province; c) Only if a suitable arrangement can be made with the Township benefiting due to sustained property values and taxation; and, d) Where the purpose is flood and flow control that is in MVCA's remit it should largely carry the cost from Provincial funding, where the purpose is power generation costs should be recovered.
3. Hydro is green so hydro dams, managed with water levels in mind is a good thing. But maybe MVCA would best be as a supporting partner or owner. Managing water levels should not just be for recreation but to address needs of a healthy watershed. And then of course there is the role dams can play is flood relief, a growing and recurring climate change issue.
4. I don't agree that primary purpose of dams should be for recreational levels, even though political aspects such as recreation and personal property designs have been the driving force for dam controls over the years. I know that this political control comes about because your Board is made up of politically elected councilors. I feel strongly that MVCA's primary purpose should be watershed management for safety and security RE: Hydro Development - yes, providing dam is feasible, cost effective and environmentally sound. There are several commercial models of small hydro generators which can be built to add power to our Provincial grid. Perhaps MVCA could invest in this type of development as a fund raiser. Public input is necessary here. Points in a) apply here. Same with assuming ownership of a currently operating facility. I would not suggest this type of activity should be very high on your priority list.
5. While I'm all for a re-naturalization of waterbodies, watersheds etc. the reality is that some of these dams have created enhanced or additional fish and wildlife areas. Raising of water levels is NOT only for recreational use. Many shallow water spawning areas would not exist if it wasn't for the dam controlling levels. Where a benefit is joint: fish - wildlife – man, these structures should be maintained. I believe most of these existing ones would fit that.
6. With climate change flood mitigation is even more important. Recreation levels or a constant water level are important for both aquatic life and cottagers. Who knows and can manage the watershed better than the CA?
7. Suggest enable hydro where feasible with focus on wildlife e.g., eel ladders, fish ladders, etc. Suggest low impact hydro could provide funding to be used by the CA.
8. Focus on core responsibility but partner with energy generating and renewable energy agencies wherever possible as an economic driver for CA that can provide funding for core services. Absolutely this should be a key partnership for MVCA.

Written Submissions

Detailed comments were received from the following individuals:

- Lucy Carleton, Member of the Mill of Kintail Museum Advisory Committee
- Kathryn Jamieson, Chairperson, Lanark County Arts & Heritage
- Gray Merriam, PhD, Professor Emeritus (Landscape Ecology)
- Tom Cowie, Hiawatha First Nation
- Benjamin Labbe, Nation Huronne-Wendat

Key Comments:

- Support MVCA maintaining the Mill of Kintail museum collection
 - The museum is an important community asset.
 - Public/community space for recreational activities
 - Increases tourism
- Consider partnering, collaborating and consulting with other organizations within the watershed.
- Stewardship and educational opportunities at the Mill of Kintail and MVCA's other Conservation
- Focus on the sustainability of lands and waters

DRAFT
Recreational
Facilities Study:
Summary Report

Land Conservation and Resource Strategy



BACKGROUND

Provincial regulations require MVCA to plan and develop its properties while considering the lands, programs and services available from other organizations within our jurisdiction.

...how the lands owned and controlled by the authority may,

- i. augment any natural heritage located within the authority's area of jurisdiction, and*
- ii. integrate with other provincially or municipally owned lands or other publicly accessible lands and trails within the authority's area of jurisdiction.*

Section 10. (1) 3. of O. Reg. 686/21

This study was carried out to answer the following questions:

- What walking/hiking, camping, and boat launch facilities are available in the watershed?
- What amenities do those sites provide?
- Which properties are getting used the most?
- Are the popular facilities meeting the needs of the community?
- What do people value about those sites?
- Are more conservation area "type" facilities needed, and if so what should they focus on?

The study had three components:

1. Desktop review of existing hiking, camping, and boat launch facilities in the watershed.
2. Comparison of current facility availability versus data collected by MVCA in 1982, and Master Plans carried out between 1972 and 1989.
3. Survey of the public regarding their hiking, camping and boat launch use.

The following sections summarize the findings of this study.

NOTE: there are inconsistencies in some data that are being reviewed. The document and analyses will be finalized once data inconsistencies are resolved.

Table 3: Linear Trails	Walking Trail	Parking	Washrooms	Signage	Fees	Camping	Boat Launch	Museum	Accessible Area	Rentals	Dogs Allowed	Picnic Areas	Biking Trail	ATV Trail	Education	Fishing	Lookout	Boardwalk	Canoeing	Playground	Beach	Hunting	
Trans Canada Trail - Ottawa Valley Recreation Trail	Y								Y		Y		Y	Y									
Trans Canada Trail - Lanark Link	Y								Y		Y												
Trans Canada Trail - Carleton Place Trailway	Y								Y		Y												
Trans Canada Trail - Ottawa Carleton Trailway	Y										Y												
Trans Canada Trail - Capital Pathway	Y								Y		Y												
Tay Havelock Trail	Y	Y									Y		Y	Y									
Ottawa Valley Rail Trail	Y							Y			Y		Y	Y									
Riverside Trail, Almonte	Y	Y	Y	Y							Y		Y										
Riverwalk Trail, CP	Y	Y	Y								Y												
Riverside Park Trail, CP	Y	Y					Y	Y			Y		Y			Y				Y			

1982 to 2024 Comparison

Tables 5 provides DRAFT 2024 metrics where data was available.

Table 5: Key Metrics of Recreation Facilities, 2024	Trails (km)	Area (ha)	Camping Sites
Mill of Kintail CA	7.55	62	
Morris Island CA	6	73	
Purdon CA	1.655	26	
Palmerston-Canonto CA	4.395	95.7	
Carp River CA	4	32	
K&P Trail CA	40	95	
Blueberry Mountain	4.7	506	
High Lonesome Nature Reserve	8.53	85	
Marble Woodlands	3.7	80	
Poole Family Nature Sanctuary	2	44	
Trans Canada Trail - Ottawa Valley Recreation Trail	28.7		
Trans Canada Trail - Lanark Link	4.2		
Trans Canada Trail - Carleton Place Trailway	6.8		
Trans Canada Trail - Ottawa Carleton Trailway	23.3		
Trans Canada Trail - Capital Pathway (not in watershed)	25.7		
Tay Havelock Trail	22		
Ottawa Valley Rail Trail	62.46		
Riverside Trail, Almonte	7.5		
Riverwalk Trail, CP	1.89		
Riverside Park Trail, CP	0.5		
Pinhey's Point	3.5	33	
Carp Hills	10	1000	
Sheila McKee Park	2	47	
South March Highlands Conservation Forest	15.2	450	
Kizell Pond Natural Reserve	3	19	
NCC Greenbelt	17	862	
Mississippi Lake National Wildlife Area/Bird Sanctuary	3	300	
Bon Echo Provincial Park	17	8294	623
Fitzroy Harbour Provincial Park	3	173.1	406
Silver Lake Provincial Park / Marsh Trail,	0.5	48.8	148
Sharbot Lake Provincial Park	1.7	82.0	194
Roy Brown Park Trail, CP	2.1	10.6	
North Frontenac Parklands / Crotch Lake Trail and Schooner Trail	14.2654	tbc	tbc
Torbolton Forest	30	260	
	400.4454	12765.42	1371

Population Change

The following population assumptions were made to allow for the comparison of current versus historical levels of services:

- 1988 population: 80,000¹
- 2023 population: 264,000²

This represents a population growth rate of approximately 228% over 35 years, or an average of 5% per year.

DRAFT Analysis

Tables 6-10 compare current facility data against data collected by MVCA in 1982 and for Master Plans completed between 1972 and 1989. For each metric, a service level is provided based upon the estimated population of the watershed at the time the data was collected.

Table 6: Provincial Parks - campsites	Bon Echo	Sharbot Lake	Silver Lake	Fitzroy
1982-1989	530 ³	185 ⁴	170 ⁵	251 ⁵
2024	623 ⁶	194 ⁷	148 ⁸	406 ⁹

Total Campsites 1989 = 1,136 or 70 persons/campsite

Total Campsites 2024 = 1,371 or 192 persons/campsite

Table 7: Provincial Parks - area (ha)	Bon Echo	Sharbot Lake	Silver Lake	Fitzroy	Pinhey's Point
1977-1989	6,644 ³	68.5 ⁴	32 ⁵	185 ¹⁰	31 ¹¹
2024	8,294 ⁶	81 ⁷	43 ⁸	198 ⁹	35

Total Ha. Provincial Parks 1989 = 6,960.5 or 11.8 persons/ha.

Total Ha. Provincial Parks 2024 = 8,651 or 30.5 persons/ha.

¹MVCA Annual General Reports for 1988.

² MNR Development and Hazard Policy Branch. Apportionment Data for 2025. August 2024.

³ Bon Echo Provincial Park Management Planning Background Information & Issues. 1988.

⁴ Sharbot Lake Provincial Park Management Plan. November 1988

⁵ MVCA Recreation Study, 1982.

⁶ Ontario Parks, Bon Echo Provincial Park, 2024.

⁷ Ontario Parks, Sharbot Lake Provincial Park, 2024.

⁸ Ontario Parks, Silver Lake Provincial Park, 2024.

⁹ Ontario Parks, Fitzroy Provincial Park, 2024.

¹⁰ Fitzroy Provincial Park Management Plan, 1984.

¹¹ Pinhey Heritage Park Master Plan Study, 1977.

Table 8: Conservation Areas - area (ha)	Mill of Kintail	Morris Island	Purdon	Carp River	Palmerston- Canonto
1979-1986	62	73	26	-	104
2024	62	73	26	32	95.7

Total Ha. Conservation Areas 1989 = 265 or 302 persons/ha.

Total Ha. Conservation Areas 2024 = 289 or 913 persons/ha.

Table 9: Conservation Areas - trails (km)	Mill of Kintail	Morris Island	Purdon	Carp River	Palmerston- Canonto	K&P
1982-1987	7	1.8	1.2	-		
2024	6	6	1.7	4	4	35

Total Km. of CA Trails 1988 = 10 or 8,000 persons/km.

Total Km. of CA Trails 2024 = 56.7 or 4,656 persons/km.

Table 10: Trails in watershed (km)	Total	Snowmobile	Groomed
1982	353	553	353
2024	400		

Total KM of Trails 1982 = 353 or 226 persons/ha.

Total KM of Trails 2024 = 400 or 538 persons/ha.

Existing “Conservation Area-Type” Land in the Watershed, 2024

The following DRAFT estimates are based upon available GIS data for sites with known hiking/walking trails.

Conservation Area-type Lands in Jurisdiction	Ha
Provincial Parks and Conservation Reserves	19,543
MVCA	401
MMLT	1,266
Baird Trail	36
Greenbelt and Ottawa Land	2,392
Total	23,638
Watershed size	435,322
% of jurisdiction	5%
2023 Population	264,000
Population/ha.	11 per/ha.

Recreational Facilities Survey

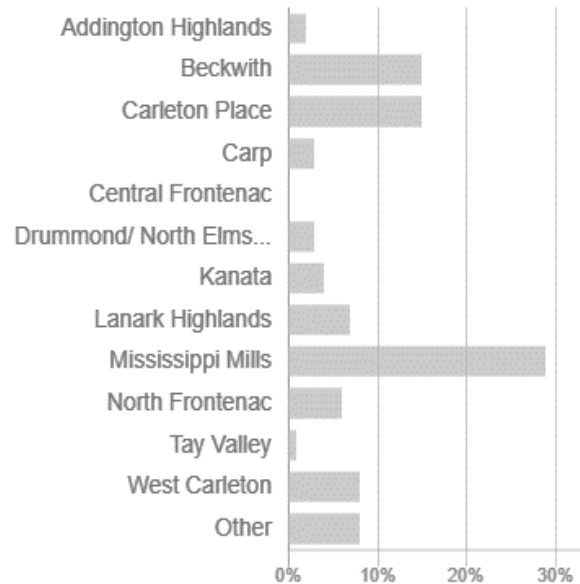
Overview

MVCA developed and distributed a survey to gain an understanding of the recreational facility needs within the Mississippi River watershed. The survey included a list of 34 local sites and asked questions about individual's use, favourite features and satisfaction.

A total of 198 surveys were completed. Results were analyzed where a minimum of 25 responses were received to a question.

Who participated?

- 29% were from Mississippi Mills
- 15% were from Carleton Place
- 15% were from Beckwith Township



1 Survey Demographics Chart

- 47% were born between 1946-1964 (Boomer),
- 33% were born between 1965-1967 (Gen. X)
- 14% were born between 1980-1994 (Millennial).

Highlights: Recreational Habits & Needs

Respondents throughout the watershed participate in walking/hiking activities more often than boating/watercraft activities and tent camping. The survey results showed that in the past 5-years:

- 92% of respondents have been walking/hiking
- 82% of respondents have participated in boating/watercraft activities
- 32% of respondents have participated in tent camping

Regarding their usage:

- 87% of respondents do not belong to a club or group that organizes activities.
- 98% have easy access to a car for outdoor recreation activities.

Regarding the need for more facilities:

- 53% of respondents agreed and 35% disagree that more facilities are needed in the watershed to support walking/hiking activities.
- 44% of respondents agree and 41% disagree that more facilities are needed in the watershed to support boating and other watercraft activities.
- 57% of respondents agree and 28% disagree that more facilities are needed in the watershed to support tent camping.

Comments Received

Improve accessibility.

- Public washroom facilities needed.
- Increased and updated signage needed.
- Parking access.
- Improved access to trails.
- Seating/Rest Areas.
- Lighting on trails.

Partner with other organizations.

Dog Policies.

- There are mixed opinions on dog policies, with some wanting more off-leash areas and others emphasizing the need for dogs to be on-leash for safety.

Facilities and Maintenance

- More staff/funds required for increased maintenance (hazard removal)

Recreational Opportunities

- More walking/hiking trails.
- Extend and improve current trails.
- Need for boat launches/access points for kayaks/canoes.
- Better upkeep of the current launches

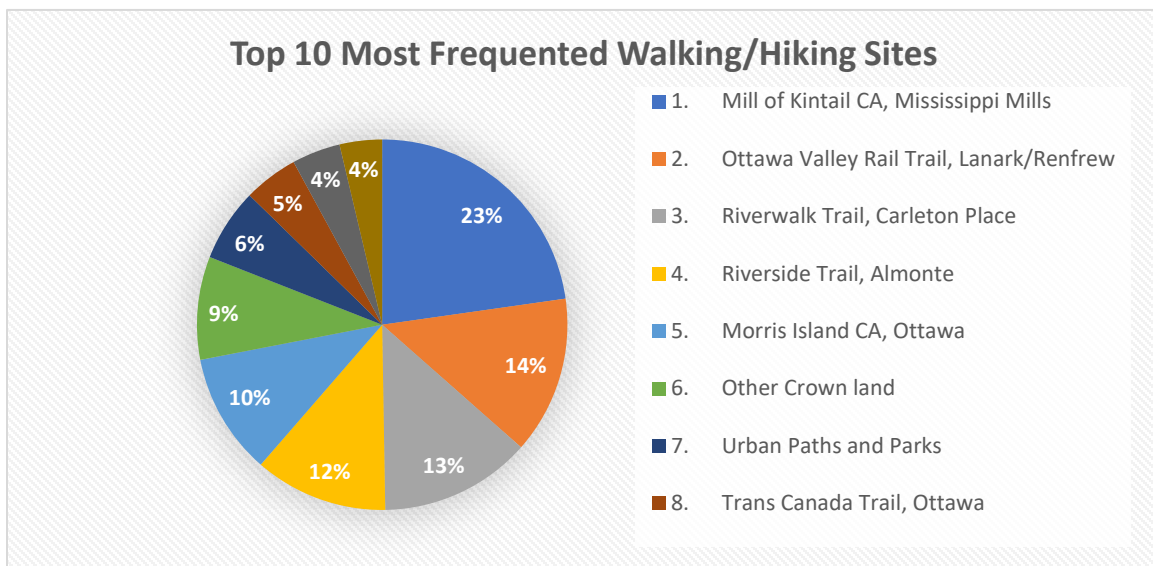
Non-motorized craft/activities with low impact on the environment.

Tent camping facilities need better upkeep

- Litter/Garbage issues.

Highlights: Walking/Hiking Sites

The most popular sites for walking/hiking activities were the Mill of Kintail Conservation Area, the Riverwalk Trail in Carleton Place, the Ottawa Valley Rail Trail and Riverside Trail in Almonte.



The sites most frequently identified as a “top-three most frequented” property for walking and hiking activities were:

1. Mill of Kintail Conservation Area
2. Ottawa Valley Rail Trail
3. Riverwalk Trail in Carleton Place
4. Riverside Trail in Almonte
5. Morris Island Conservation Area
6. Crown land
7. Urban paths/parks.

The majority of respondents use these sites 2-6 times per year with the exception of the Ottawa Valley Rail Trail (OVRT) and Urban Paths/Parks that are used multiple times per week.

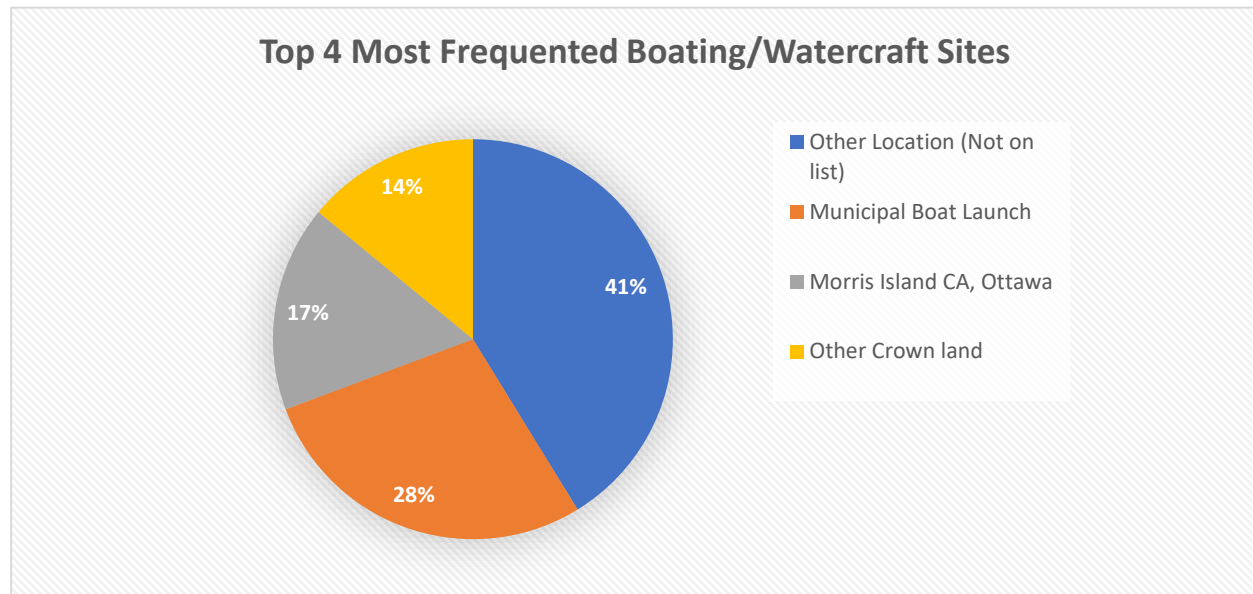
Respondents believe that public use of the top 10 walking/hiking sites has increased over the past five years.

Features that respondent identified as most important at the top 10 walking/hiking sites were:

- Drive from home less than 30 minutes,
- Presence of water features
- Quiet/seclusion/privacy
- Variety of trail routes and distances
- Easy parking access
- One or more vistas/look-outs
- Dogs on leash permitted on the trails
- Wildlife viewing opportunities
- Trails with challenging terrain

Top 10 walking/hiking sites have a high level of satisfaction with the majority of respondents. The majority of respondent's satisfaction with these sites has stayed the same (pre and post COVID-19) over the past five years.

Highlights Boating/Watercraft Sites



The most popular sites for boating and watercraft activities were Crown Land, Morris Island, various municipal boat launches, and numerous other locations throughout the watershed that included private docks at cottages.

The most popular locations identified for boating and watercraft activities were:

- | | |
|--------------------------|-----------------|
| 1. The Mississippi River | 4. Clayton Lake |
| 2. Mississippi Lake | 5. Clyde River |
| 3. The Ottawa River | 6. Tay River |

The most popular locations of municipal boat launches were:

- | | |
|------------------------------------|---------------------|
| 1. Mississippi Lake, | 4. Almonte |
| 2. Mississippi River | 5. Kashwakamak Lake |
| 3. Locations within Carleton Place | |

Crown Land most often used by respondents for boating/watercraft activities is within Lanark County, followed closely by North Frontenac Parklands. For water access:

- Many sites “not listed” in the survey were used more than 10 times per year
- Municipal boat launches were typically used 4-9 times per year
- Morris Island and Crown Land are typically used less than 4 times per year

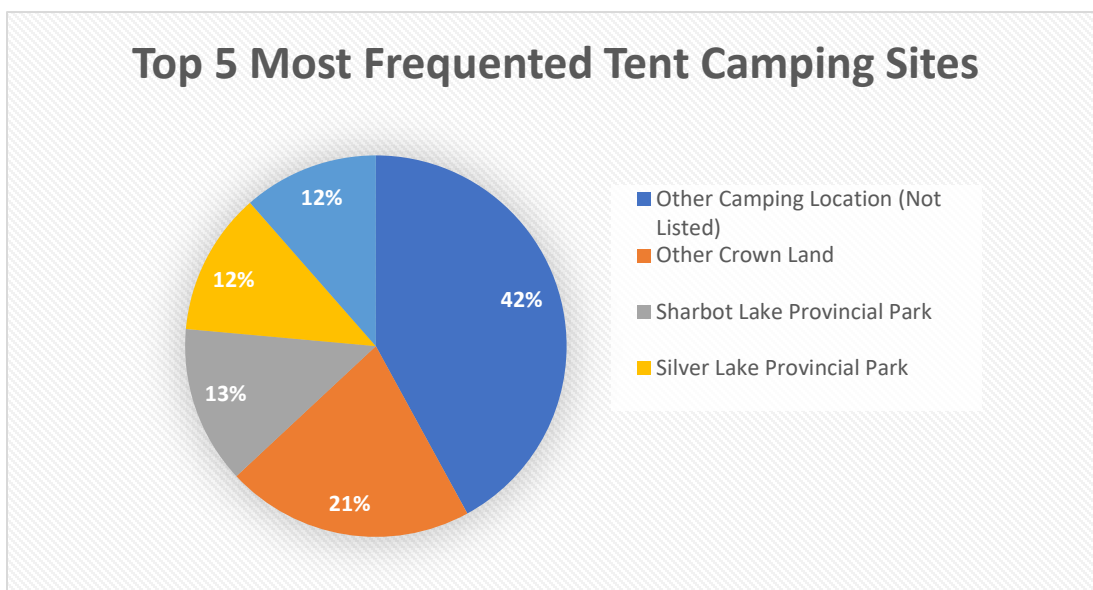
Respondents believe that public use of these most frequented sites has increased over the past five years.

Common important features identified by respondents for the top 4 boating/watercraft sites were:

1. The waterbody is not overused,
2. The waterbody has islands or other interesting landscapes,
3. The waterbody is easily navigated,
4. Drive from home less than 30 minutes; and
5. Limited shoreline development of the waterbody.

Respondents are either satisfied or very satisfied with the top 4 boating/watercraft sites. Their level of satisfaction has stayed the same (pre and post COVID-19) over the past five years.

Tent Camping Sites



The most popular sites for tent camping were:

1. Locations “not listed” in the survey,
2. Crown land,
3. Sharbot Lake Provincial Park,
4. Silver Lake Provincial Park; and
5. Fitzroy Harbour Provincial Park.

Other popular sites identified by respondents were:

- Bon Echo Provincial Park
- Algonquin National Park
- North Frontenac Parklands
- Charleston Lake

On average, respondents use the top 5 tent camping sites less than 4 days per year. However, those using Crown Land tend to stay more than 8 days per year during the open season.

The majority of respondents believe that public use has increased at camping sites over the past five years.

Common important features identified by respondents for the top 5 most frequented tent camping sites include:

1. The property has affordable campsites,
2. The property has well defined campsites,
3. Drive from home less than 90 minutes; and
4. The property is largely in a natural state.

The top 5 tent camping sites have a high level of satisfaction, with the majority of respondents being either satisfied or very satisfied. The majority of respondent's stated that their level of satisfaction has stayed the same over the past five years (pre and post COVID-19).

REPORT

3445/24

TO:	The Chair and Members of the Mississippi Valley Conservation Authority Policy & Planning Advisory Committee
FROM:	Sally McIntyre, General Manager
RE:	DRAFT Land Conservation & Resource Strategy
DATE:	October 2, 2024

RECOMMENDATION

That the Policy & Planning Advisory Committee recommend that the Board of Directors receive the Draft Land Conservation & Resource Management Strategy.

1.0 PURPOSE

The purpose of this report is to table the *DRAFT Land Conservation & Resource Strategy* so that it may undergo mandatory public review and be considered and approved by the Board of Directors before the end of 2024.

2.0 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.

Because these two matters cannot be looked at in isolation, staff have prepared a consolidated document called a *Land Conservation & Resource Strategy* (LC&RS.) The document meets the mandatory requirements of both the above strategies.

3.0 DRAFT STRATEGY

The *LC&RS* is intended to guide the work of MVCA for the next 10-20 years, but will require the Board to approve strategic plans each term of council to set short-term objectives and priorities.

The *LC&RS* is structured as follows:

- List of Background Studies and Reports
- Background on MVCA
- Vision
- Guiding Principles
- Discussion of local and regulatory context and trends
- Discussion and policies for each program area, including:
 - Regulatory requirements informing program design and delivery
 - Goals for the Authority in delivering each program
 - Objectives on how to achieve those goals
 - Gaps & Risks to meeting those objectives
 - Mitigating Measures being undertaken or that could be pursued
 - Implementation policies to guide future activities
- Appended to meet mandatory requirements are the following:
 - List of partners and services they provide
 - Registry of Hazard events that demonstrate risk and areas of focus
 - Implementation Status of various watershed and subwatershed plans
 - Current Inventory of Programs and Services and how they are funded from the 2024 Budget
 - Summary Review of MVCA Conservation Areas

The Strategy builds on the work done in support of the 2021-2025 *Corporate Strategy Plan*, and has been under development since our legislation change and regulations were released in 2021. Specifically, staff completed the *Mississippi River Watershed Plan* and reviews of the Stewardship and Monitoring programs, with review of the Education Program drawing to a close as well as an update of the Museum Strategic Plan.

More recently, a review was completed of all watershed plans within our jurisdiction to determine the extent to which they have been implemented to enable consideration of gaps and potential risks. And, since the summer, two surveys were carried out to solicit public feedback on key issues and to better understand the current state of and demand for “conservation authority-type” services in our jurisdiction.

4.0 NEXT STEPS

Upon publication of this agenda package, the draft document will be considered “public” and the comment period can begin. Staff have meetings planned with MVCA’s Mississippi River Watershed Plan Public Advisory Committee (PAC) and Museum Advisory Committee (MAC) for the second week of October, and a Virtual Information Session is planned for October 29th. Notices will be circulated to key stakeholders, published, and promoted on social media.

The comment period will end November 22, after which staff will made edits and return to the P&P Advisory Committee for review of the final draft before it is elevated to the Board on December 9, 2024.

5.0 CORPORATE STRATEGIC PLAN

Completion of the Land Conservation 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.

Attachments:

1. DRAFT Land Conservation & Resource Strategy

DRAFT Land Conservation & Resource Strategy



For Public Comment

10/1/2024

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Purpose and Background

This document is **DRAFT** and has been released for your review and comment.

Send your comments to info@mvc.on.ca by **November 22, 2024**.



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.

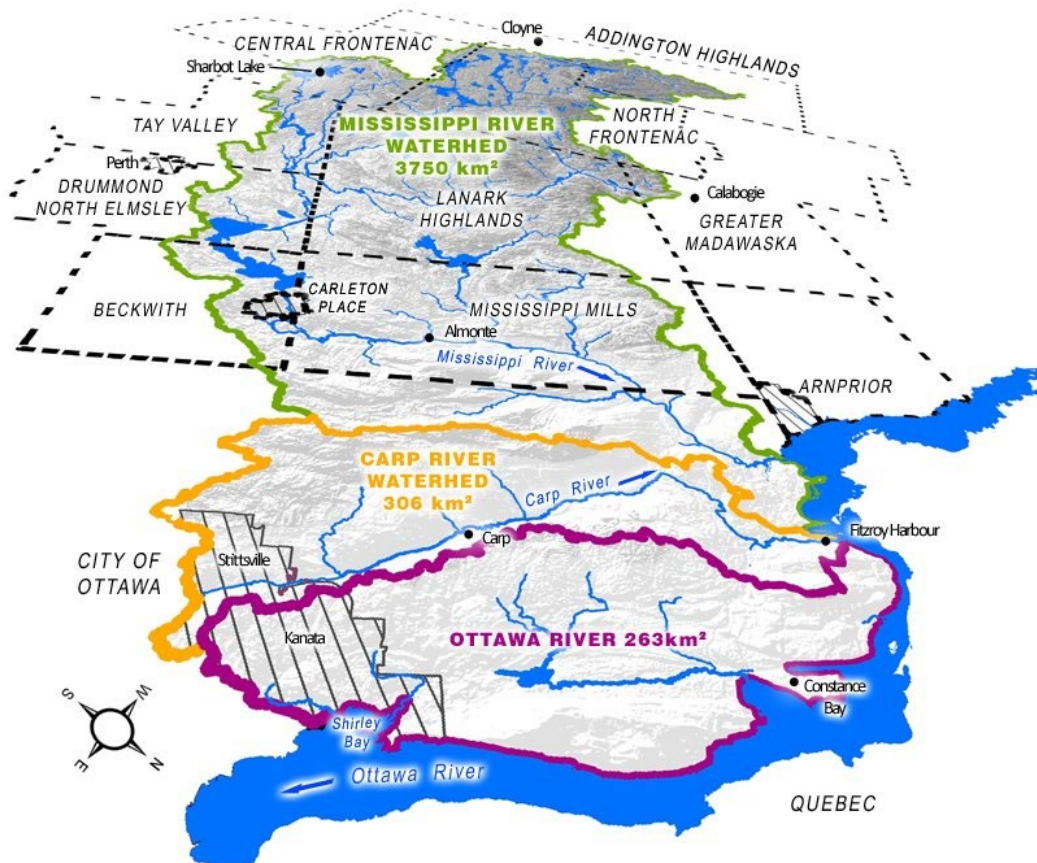
The *Land Conservation & Resource Strategy* is based upon the findings and recommendations of several studies, surveys, and reports completed since amendment of the *Conservation Authorities Act* in 2019, including:

- 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 12 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.¹

¹ Visit 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.



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.² 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 achievement of local land stewardship, and community recreational and educational needs 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.

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

Context

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



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 comments³ 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: Tolbolton – very fine land
- 1857 re: Mississippi River – drownings and dam failure at Cross Lake⁴ 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.

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

⁴ 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.⁵ 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
- 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.

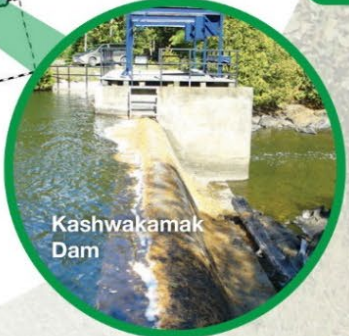
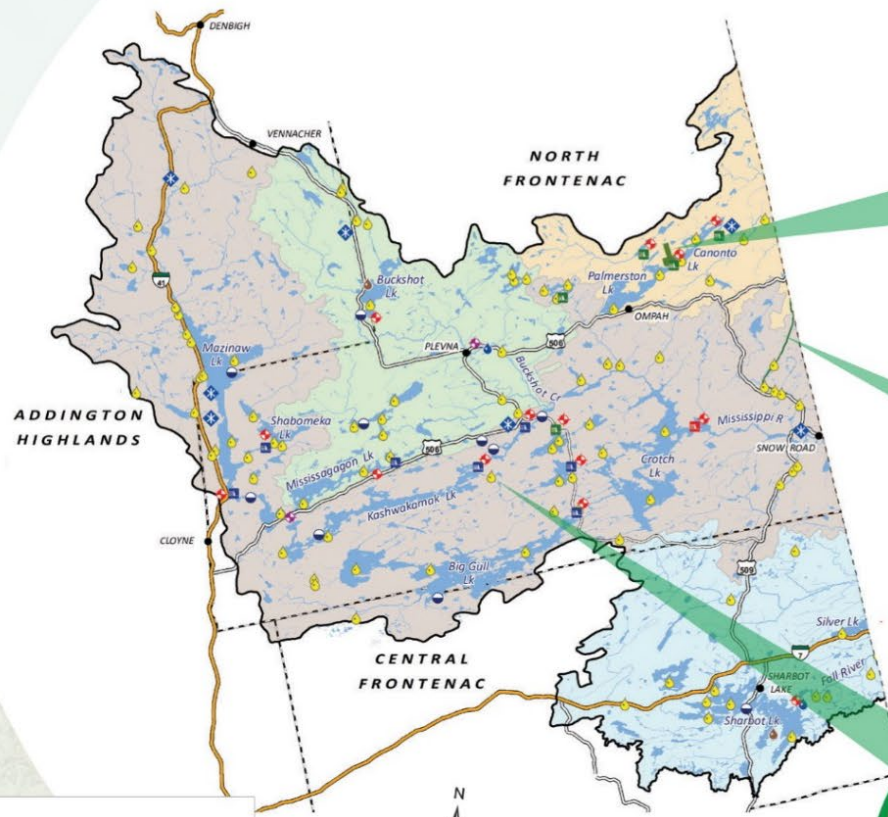
Lastly, MVCA provides stewardship and education programming, and owns and operates the Mill of Kintail Museum that houses exhibits of doctors James Naismith and R. Tait McKenzie. Public concerns around the operation of MVCA facilities have increased over time as the population of the watershed has increased 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

⁵ 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

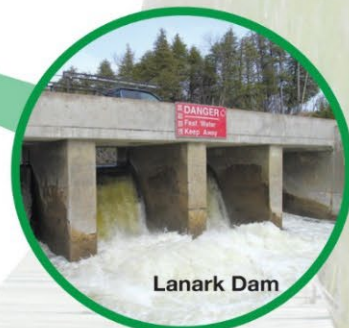
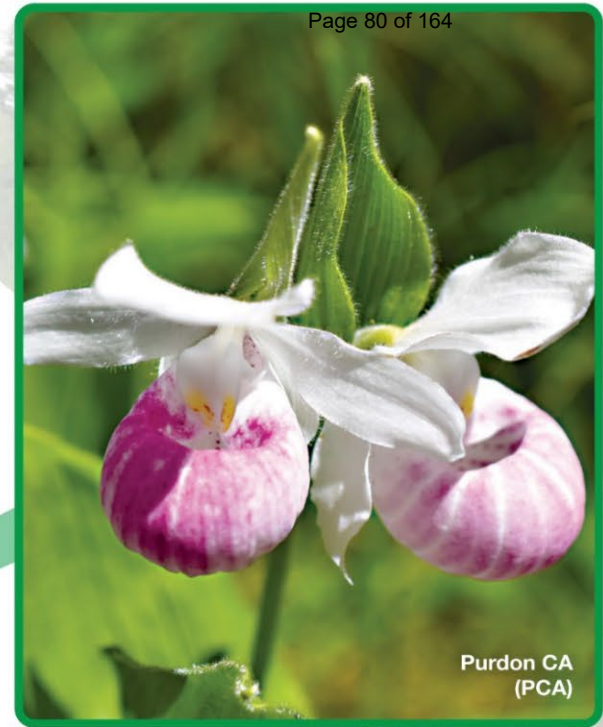
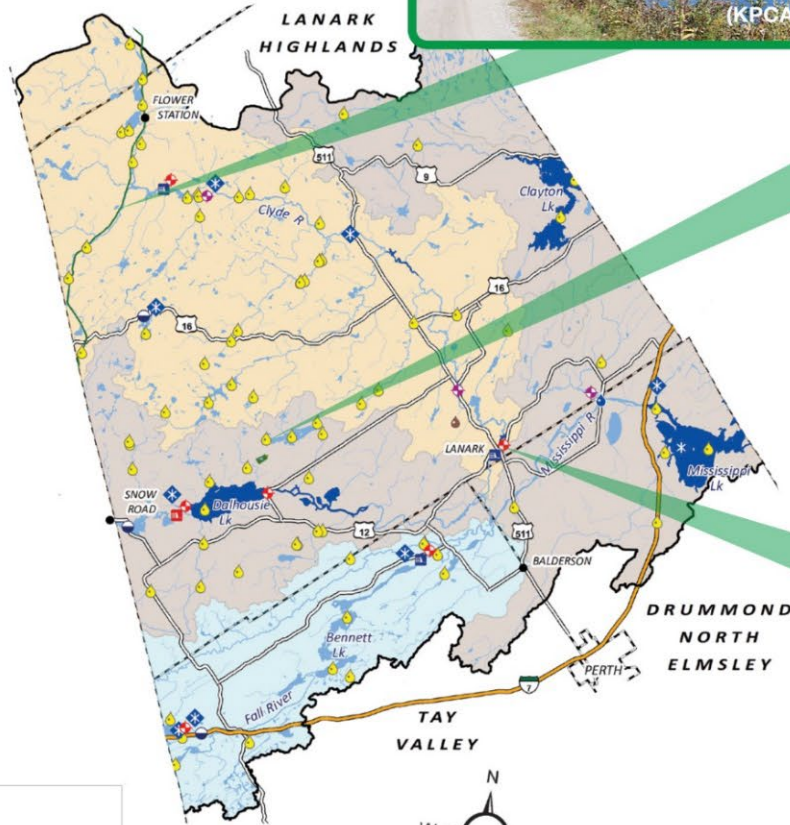
MVCA Dam	MVCA Manual Gauge
MNR Dam	MVCA Monitoring Sites
OPG / Private Hydro Dam	Provincial Ground Water Monitoring Network
MVCA Snow / Ice Monitoring Sites	Provincial Water Quality Monitoring Network
Federal Stream Gauge	
MVCA Automatic Gauge	

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

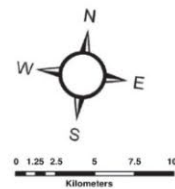
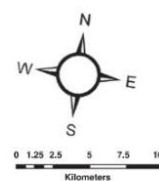
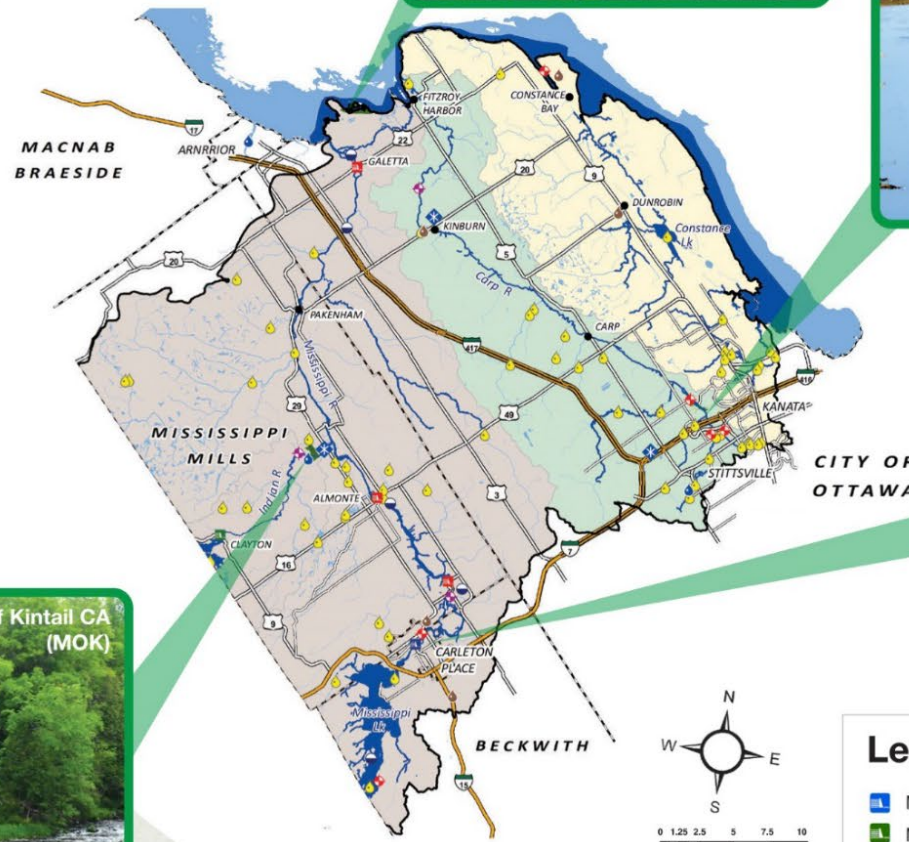
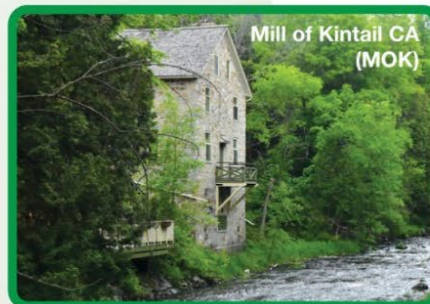


Figure 2

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

Figure 3

Wetlands

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

MVCA’s jurisdiction is approximately 4,345 km² of which 568 km² or 13% is considered to be wetland (marshes, swamps, bogs, and fens.)⁷ 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.⁸

**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%
TOTAL	56,780	-

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.

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

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

⁸ <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 key 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.⁹ 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.¹⁰ 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.

⁹ Refer to [Appendix 3](#) for detail.

¹⁰ 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 ~80,000.¹¹ As of 2023, the watershed population was just under 264,000¹²—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 2046.¹³ 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 2038¹⁴

Municipality	2016 Census	2038 County Council	Increase
Beckwith	7,644	14,262	87%
Carleton Place	10,644	20,964	97%
Drummond North Elmsley	7,773	12,549	61%
Mississippi Mills	13,163	21,122	60%
Lanark Highlands	5,338	7,507	41%
Tay Valley	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.¹⁵

¹¹ MVCA Annual General Reports for the years 1968 and 1988.

¹² MNR Development and Hazard Policy Branch. *Apportionment Data for 2025*. August 2024.

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

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

¹⁵ 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 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...

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.

Cost Recovery Powers

Conservation authority programs and services are grouped into three categories that influence how activities are funded¹⁶:

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 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) that would result in a Special Levy to that municipality.

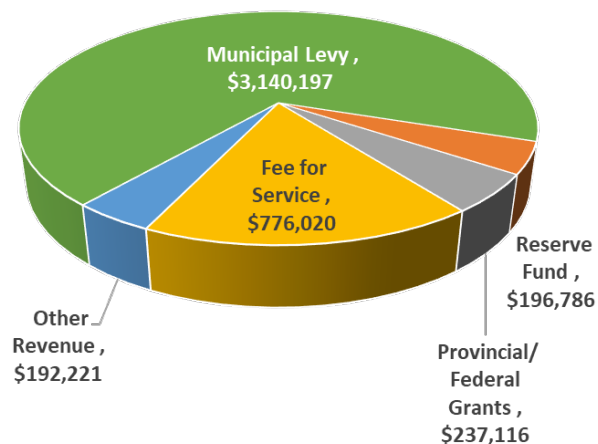
All eleven municipalities in the watershed agreed to support the following programs for the period January 1, 2024 to December 31, 2028, and signed PSAs with MVCA:

- 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 the annual 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.

The 2024 Budget forecasted that municipal levies would cover approximately 69% of the annual operating budget, as shown in Figure 4.

Figure 4: 2024 Projected Operating Revenues



¹⁶ Refer to [O.Reg. 402/22](#)

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**



Hazard Management



I. 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.

A. 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 a continual need to remind people of systemic risks and of the need to mitigate and be prepared for them.

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, and natural hazards and how to mitigate them.

B. 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. MVCA's regulatory responsibilities are unknown or misunderstood by many.
13. There is ongoing risk of duplication of effort and 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. Field surveys, modeling and mapping studies, should be recovered through user fees.
29. Compliance monitoring and enforcement are Category 1 costs that should be cost recovered where possible.

C. 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. Communications and reporting are inconsistent between MVCA and MNR, OPG, and private power generators.

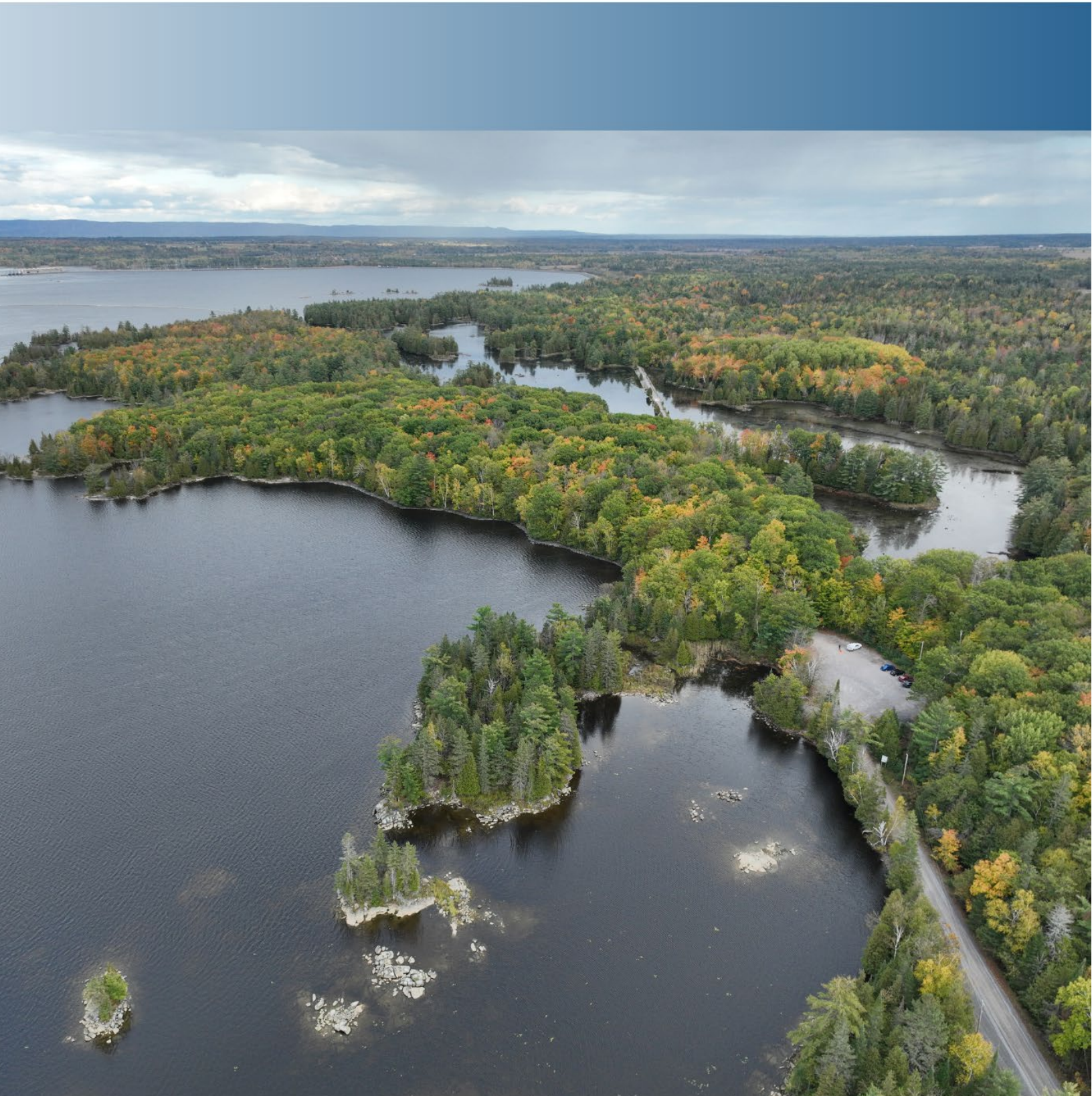
Actions to Mitigate

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 4.)
14. Formalize communications and reporting 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.

Land & Resource Conservation



2. 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.

A. 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 tools 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 to MVCA did not include legal surveys registered on title. 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, ecological and hydrological processes, and to identify opportunities for reconciliation through land conservation and management.
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 annually to assess the need for land acquisition or disposal 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.¹⁷
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.

¹⁷ For more information visit: <https://www.orlandconservation.ca/video-partial-taking-or-conservation-severance>

B. 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.¹⁸
 - 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. A conservation area-type park is available within a 30-minute drive of all watershed residents.¹⁹
5. There is 15 ha of conservation area-type parkland for every 1,000 residents in the watershed.²⁰
6. Other conservation trails:
 - a. Walking/hiking trails on conservation lands within the watershed are maintained to a high standard.
 - b. MVCA optimizes use of knowhow and equipment by supporting municipal, county, and conservation organizations for the maintenance of walking/hiking trails in the watershed.

Gaps & Risks

7. Sustainable funding for continued operation of the Mill of Kintail Museum.
8. The Mill structure cannot provide a climate-controlled environment for sensitive museum artifacts.
9. It is cost prohibitive to maintain the K&P Trail to the same standard found elsewhere on the trail.
10. Directional and interpretive signage is of variable quality amongst conservation areas.

¹⁸ A brisk walk is 4-5km/hour. Source: <https://www.ccohs.ca/oshanswers/psychosocial/walking.html>

¹⁹ For measurement purposes, conservation area lands would include equivalent types of properties owned by other organizations such as the NCC Greenbelt which has the equivalent of two conservation areas within the watershed.

²⁰ Ibid. The average amount of large park space accessible to residents in the GTA (excluding Toronto) is ~12.5 ha. Source: [Greenbelt Foundation Large parks community Needs Analysis & Planned Parkland Inventory: Technical Report](#). January 2022. Various standards were used for defining accessible, with a 30-minute drive being considered the least accessible.

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

Actions to Mitigate

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

Policies

18. 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.
19. MVCA will seek funding and work with the accessibility community to review and improve site accessibility at its conservation areas.
20. Signage standards will be developed, and implemented as resources allow.
21. Master Plans will be developed for all sites, and reviewed at least once every 10 years.
22. 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.
23. 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.
24. 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.
25. MVCA may support conservation organizations in its jurisdiction by assisting with trail maintenance on a cost recovery basis.
26. A demand analysis will be undertaken to identify existing and projected areas of the watershed requiring additional conservation areas.
27. Acquisition of lands from the province and local municipalities and counties will be prioritized over land donations for the establishment of new conservation areas.
28. 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.

Table 3: Permitted Land Uses and Programs & Services at MVCA Conservation Areas	Carp River	K&P	Mill of Kintail	Morris Island	Palmerston- Canonto	Purdon
<i>Category 1</i>						
Geocaching and orienteering ²¹		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			X	X		
Cross country skiing		X	X	X		
Mountain biking		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			
MVCA-led special events ²²	X	X	X	X	X	X
Other special events ²²		X	X	X	X	
Education Center and Gate House rentals ²³			X			
Cloister and Picnic Shelter rentals ²³			X			
Museum			X			
Observatory ²³			X			
Community workshop ²³			X			
Heavy vehicle use for forest extraction ²³		X				

²¹ With restrictions to limit impacts on natural areas.

²² 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.

²³ By license agreement only.

29. 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 10:70:20 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.

30. 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.

31. 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.

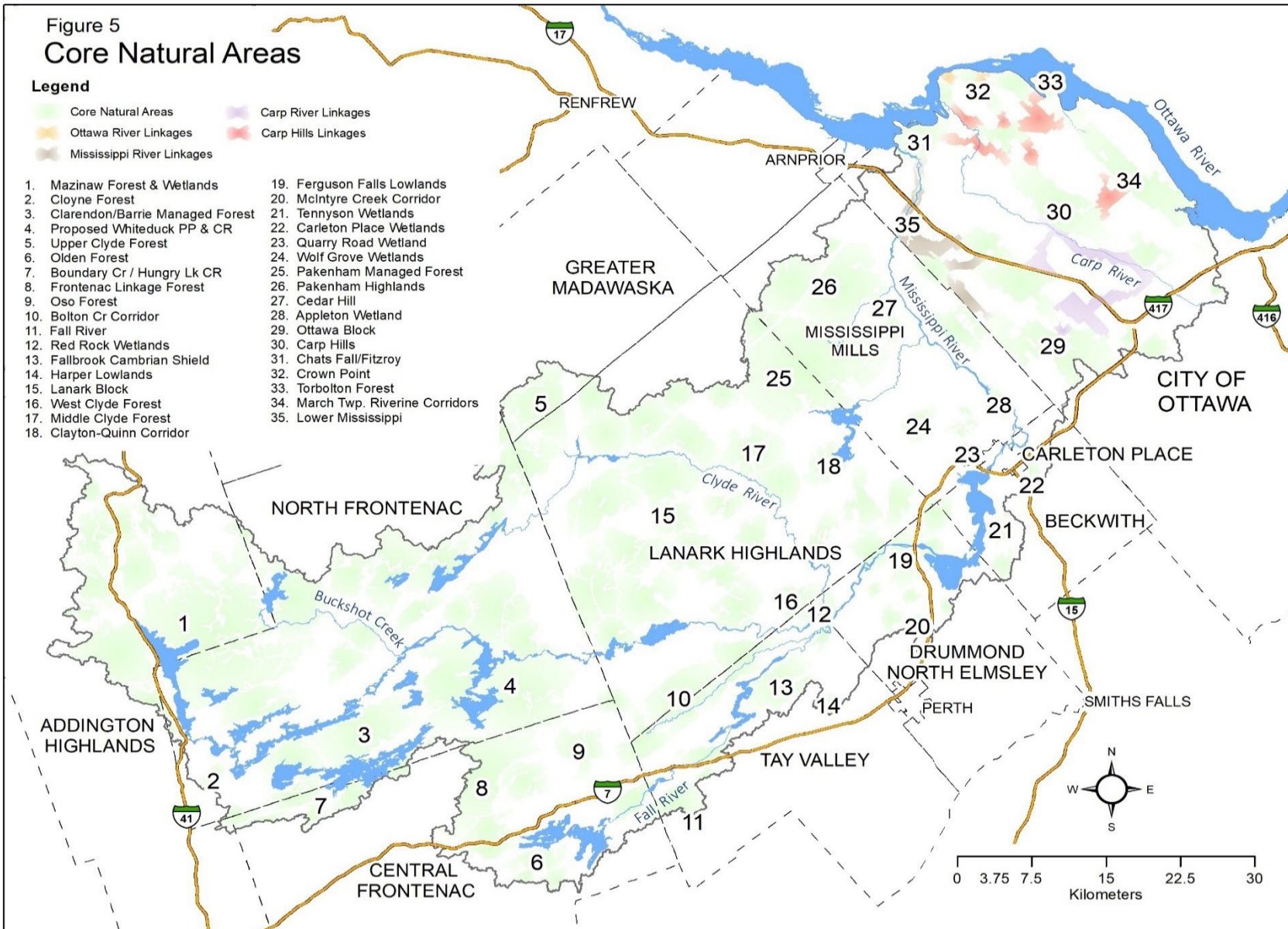
32. Proposed acquisitions shall be considered as follows:

- 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.

33. 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.

34. All conservation area objectives shall be met at a new conservation area before it is opened to the public.



C. CONSERVATION PRESERVE

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. Sterilize undevelopable land to mitigate 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:
 - d. 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.
 - e. 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.
 - f. 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.
 - g. 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.

D. 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:
 - h. Land Use permit from the Crown in accordance with provincial fees that may be paid using the Municipal Levy;
 - i. Easements secured from public entities that should not exceed \$5/year and may be paid using the Municipal Levy.
 - j. Easements secured from private entities that shall be fair and reasonable, approved by the Board, and may be paid using the Municipal Levy.
 - k. 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.

E. 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.

Source Water Protection



3. 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 demonstrates value for money in delivering system monitoring and resource management services to the province and municipalities.

Objectives

2. Samples are collected, handled, and shipped in accordance with required procedures.
3. Provincial monitoring activities are leveraged to support local municipal monitoring objectives.
4. Provincial resource management work is leveraged to support local municipal watershed management objectives.
5. The Board of Directors understands its separate and distinct role as a Source Protection Authority.

Gaps & Risks

6. 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*.
7. CA regulations prevent use of Category 1 revenues to investigate and support municipalities in protecting surface and groundwater supplies at a watershed level.
8. 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.

There are concerns regarding the limited number and suitability of existing provincial groundwater monitoring stations in MVCA's jurisdiction.

Actions to Mitigate

9. 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.)
10. Continue to support municipalities with administration of Section 8 of the *Ontario Building Code* in accordance with Category 2 PSAs.
11. Continue to publish and share monitoring results with municipalities and the public.

Policies

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

Category 3 Programs & Services



4. 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.
 - 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.

Policies

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

5. 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*²⁴ divides MVCA's jurisdiction into three geographic areas, each with specific objectives and focus. The following are current services offered under this program:

- ALUS Lanark-Ottawa
- 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

Policies

9. The *Stewardship Plan* will be reviewed at least once every four years.
10. Stewardship program results should be published annually.
11. Services will be delivered in accordance with Category 3 Programs and Services Agreements and any ancillary contract agreements.

²⁴ View details: https://mvc.on.ca/wp-content/uploads/2021/11/2021-10-25-2021_Stewardship_Plan_FINAL.pdf

6. 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 and buildings for current and future generations.
2. 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.

Policies

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

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."²⁵ 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.

²⁵ <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 licences, 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.
- 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	Mississippi River- 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. Ottawa River- 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. ²⁶ Transportation infrastructure closed. As a result of province-wide impacts, there was an investigation that led to development of the provincial Ontario's Flooding Strategy 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.

²⁶ Source: [Ottawa River reached peak level in 2019 — a look back - The Weather Network](#)

Event	Flood Damage Centre	Key Impacts
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	04-07-18 - Watershed Conditions statement - low water 19-07-18 – Level I Minor Drought declaration 03-12-18 conditions return to normal	<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	26-May-16 Watershed Conditions statement - low water 20-Jun-16 – Level I Minor Drought declaration 30-Jun-16- Level I Minor Drought upgraded to Level II Moderate Drought 11-Aug-16- Level II Moderate Drought upgraded to Level III Severe Drought 14-Dec-16- Drought downgraded from Severe to Moderate Jan 2017- conditions return to normal	<p>Watershed Conditions</p> <ul style="list-style-type: none"> • Virtually all smaller tributaries dried up. • Most swamps were completely dry. • Multiple reports of dry wells. • Most municipalities had water bans in place except the City of Ottawa. <p>Municipal systems</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>Power producers</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"> • Low water conditions began the middle of July, 2011. • First declared Low Water Condition Level I June 1, 2012 • Declared Level II on July 17, 2012 and remain there until Nov 15, 2012. 	<p>Watershed Conditions</p> <ul style="list-style-type: none"> • Virtually all smaller tributaries dried up. • Most swamps were completely dry. • One reported dry well, no reported fish kills. • Mississippi Mills issued a water ban for July and August.
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

Known land slides on the lower Indian and Lower Cody Creeks. Only aware because of landowner reporting, and has little affect to property. Due to slumping or undercutting. Most erosion is located in deep defined stream channels characterized by silty clay soils (ancient glacial), found in tributaries of the lower Mississippi River between Blakeney and Pakenham. Many creeks/ivers 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	McClaren'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.

Cattle erosion exists in many areas in the lower Mississippi and lower Carp River watersheds. This was abated in some areas under a 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
Carp River Subwatershed/Watershed Plan, 2004								
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.			

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 City Stream Watch Program . 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. 5.5km) 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, 2.5km 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. 4.1km of shoreline has been planted on the west side of creeks and 4.6km has been planted on the east side of creeks). TOTAL: Carp River: approx. 2.8km/9km planted, Priority 1 tributaries: app. 4km/24.2km planted.			X
Riparian plantings along 18.2km of priority 2 streams		X			Private Land Forestry Program - one landowner along Priority 2 creek nearest the Ottawa River, planted 500 trees, but only 200m of their 550m shoreline is planted. TOTAL: 0.2km/18.2km 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.			
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 regulated under the Nutrient Management Act. Options available through Rural Clean Water.			

Activity / Recommendation	Status				Comments	Category		
	Compl	WIP	On Hold	Cancel		1	2	3
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.			
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).			
Require hydrogeological investigations for land development proposals (MOE Guideline D5-5)				X	Implemented through City of Ottawa Development Review.			
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. Lands designated Significant Wetlands and Natural Environment Area are publicly owned. Most of the lands designated as Urban			X

Activity / Recommendation	Status				Comments	Category		
	Compl	WIP	On Hold	Cancel		1	2	3
					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.			
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.			
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								
The Action Plan was developed to support the findings of the Carp River Subwatershed Study.					As identified in the Carp River Subwatershed Watershed Study, most of the recommendations of the Subwatershed Plan must			

Activity / Recommendation	Status				Comments	Category		
	Compl	WIP	On Hold	Cancel		1	2	3
					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.			
Blockage Removal					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.			
Shoreline Plantings					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.			
City Stream Watch					Ongoing through annual rotation.			
Upper Poole Creek Subwatershed Plan, 2000								
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.			
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 proposed development within 120m of the boundary of Upper Poole Creek Wetland.		X			Implemented through City of Ottawa development review. Permitting, permission is required from MVCA and potential review of technical studies.			

Activity / Recommendation	Status				Comments	Category		
	Compl	WIP	On Hold	Cancel		1	2	3
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
Watts Creek / Shirley's Brook Subwatershed Plan, 1999								
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		
	<i>Compl</i>	<i>WIP</i>	<i>On Hold</i>	<i>Cancel</i>		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 I

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
Watershed Management								
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
Subtotal	\$2,100,573	1,850,453	\$1,238,282	\$25,000	\$147,671	\$420,500	\$19,000	\$1,850,453
Flood and Erosion Control								
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
Subtotal	\$508,166	\$482,130	\$426,335	\$0	\$0	\$55,795	\$0	\$482,130
Conservation Areas								
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
Subtotal	\$416,511	\$370,468	\$307,551	\$32,917	\$0	\$25,000	\$5,000	\$370,468
General/Corporate Services								
Subtotal	\$1,108,512	\$1,129,772	\$844,903	\$138,869	\$0	\$10,000	\$136,000	\$1,129,772
TOTAL	\$4,133,762	\$3,832,823	\$2,817,071	\$196,786	\$147,671	\$511,295	\$160,000	\$3,832,823

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
Watershed Management								
Monitoring & Watershed Planning	\$0	\$296,536	\$178,536	\$0	\$50,000	\$68,000	\$0	\$296,536
Subtotal	\$0	\$296,536	178,536	\$0	\$50,000	\$68,000	\$0	\$296,536

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
Watershed Management								
Monitoring & Watershed Planning	\$0	\$296,536	\$178,536	\$0	\$50,000	\$68,000	\$0	\$296,536
Subtotal	\$0	\$296,536	178,536	\$0	\$50,000	\$68,000	\$0	\$296,536

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
Capital Budget								
Category 1								
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
Category 3								
Mill of Kintail	\$0	\$30,000	\$13,835	\$16,165	\$0	\$0	\$0	\$30,000
TOTAL	\$1,438,327	\$1,789,397	\$691,745	\$212,652	\$150,000	\$0	\$735,000	\$1,789,397

Water & Erosion Control Infrastructure (WECI) projects:

- Lanark Dam
- Farm Lake Dam – Safety Assessment
- Widow Lake Dam (WECI)
- Kash Lake Dam 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

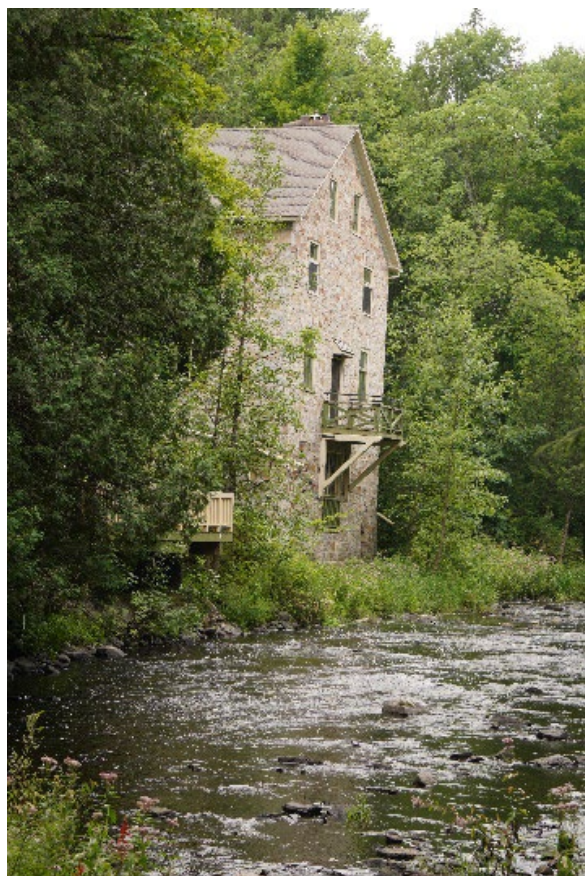
Other projects:

- 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



- Playground
- Facility rentals
- Washrooms
- Picnic areas

Size: 68 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

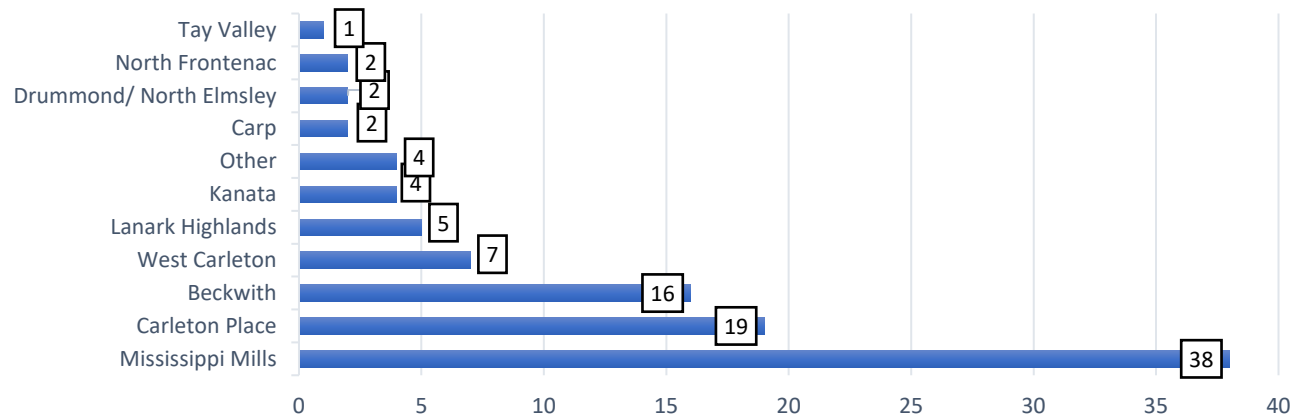
- Hiking/snowshoe trails (6km)
- Bike trail, fitness trail, forest hike, snowshoe trail
- 4.7km of marked walking trails
- Forest Loop (2.6km), Secrete Snow Loop (3.5km), Trillium Trail (2.9km), and Indian Riverside Trail
- Elevation as high as 150m
- R. Tait McKenzie and Dr. James Naismith Museum
- Education programs/ Summer day camps
- Wheelchair accessible half basketball court
- Covered shelter
- Dogs allowed - on leash
- Paid Parking

	Walking Trail	Parking	Washrooms	Signage	Fees	Camping	Boat Launch	Museum	Accessible Area	Rentals	Dogs Allowed	Picnic Areas	Biking Trail	ATV Trail	Education	Fishing	Lookout	Boardwalk	Canoeing	Playground	Beach	Hunting
Mill of Kintail	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:

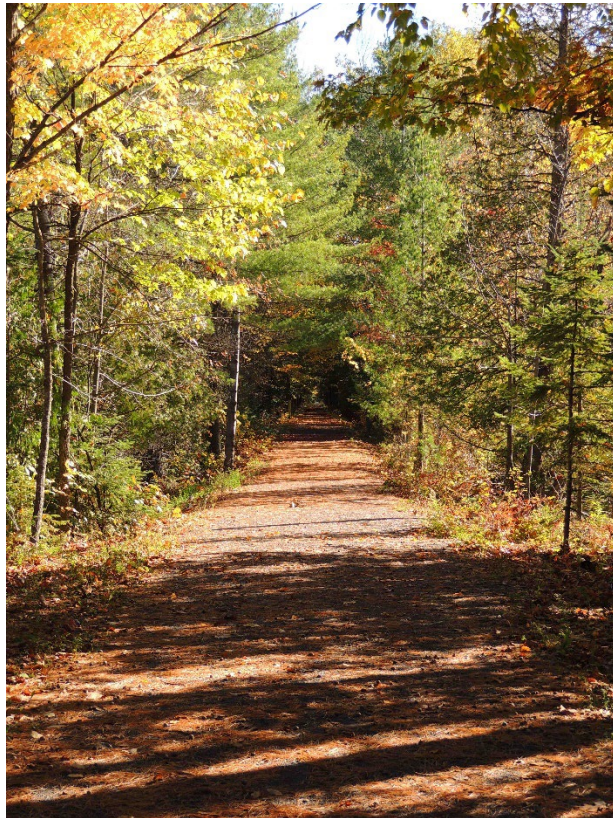
- Average 4.6/5
- Well maintained
- No phone reception, download maps
- Easy terrain
- Slippery in winter
- Quiet
- Negative views on parking/entrance fee
- Trails sometimes closed
- Often dogs off leash

STAFF SWOB ANALYSIS: Mill OF KINTAIL CA

Strengths	Weaknesses	Opportunities	Barriers
<ul style="list-style-type: none"> • Historic site/buildings • R. Tait McKenzie and Dr. James Naismith Museum • Extensive hiking/snowshoeing trail network • Popular with the public • Established facilities to host events • Playground & Half Basketball Court • Proximity to populated area • Many site amenities to cater to multiple uses • Intersected by watercourse • Fully operational and staffed 	<ul style="list-style-type: none"> • Small Parking lot • Overflow parking, weather dependent • Lack of modern washroom facilities • Lack of maintenance facilities/storage for larger events • Security gaps for certain buildings and site locations • Enforcement of site rules • Largest use is over a two-week period 	<ul style="list-style-type: none"> • Potential for hosting more/larger scale events • Available space for more parking • Available space for sports/recreation • Camp sites • Trail grooming for increased winter usage • Potential for volunteer involvement • Potential for more educational programs 	<ul style="list-style-type: none"> • Lack of accessible trails • Terrain limits accessibility to certain areas for maintenance • Accessibility issues within the buildings • Numerous community stakeholders with differing opinions and priorities when it comes to the property

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

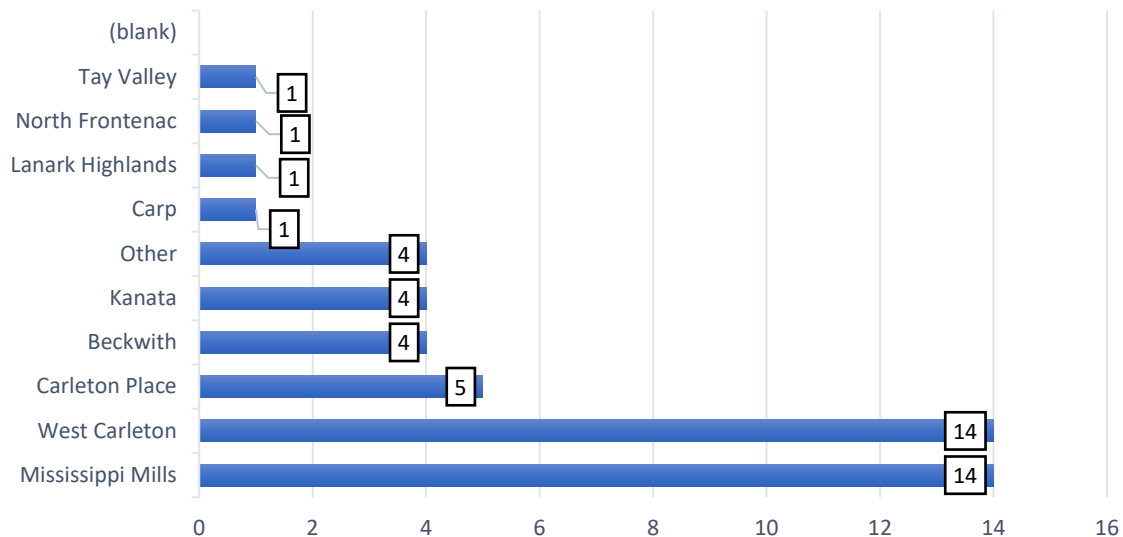
- 6km of Nature trails (6)
- Includes boardwalk
- Paddle routes
- Wheelchair accessible facilities
- Fishing platforms
- Washrooms
- Picnic areas
- Canoe launch
- Scenic lookout
- Rest area
- Dogs allowed - on leash
- Paid parking
- Signage

	Walking Trail	Parking	Washrooms	Signage	Fees	Camping	Boat Launch	Museum	Accessible Area	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			

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"> • 6km of multi-use trails with varied difficulty • Accessible portion of trail • Canoe Launches • Proximity to large population • Proximity to large body of water • Wildlife • Fishing platform • Picnic Areas • Good washroom facilities • Accessible washroom facility 	<ul style="list-style-type: none"> • High cost of infrastructure • No public drinking sources • No septic (holding tank only) • Lack of security infrastructure • Outdated entrance signage 	<ul style="list-style-type: none"> • Ability to expand trail network • Available boat/canoe launch • Available picnic areas • Possible site for educational programming • Trail grooming for increased winter usage 	<ul style="list-style-type: none"> • No room for septic/seasonal washrooms • Unable to expand parking lot • Narrow entrance roadway • Leased property limits possible major projects • Majority of landscape not conducive to accessibility • Lack of presence to enforce site rules

Purdon Conservation Area

Township of Lanark Highlands



Size: 25.7 ha

Tenure: Purchased 1988

Master Plan: 1986

Other:

MNR Approved Managed Forest Plan 2006

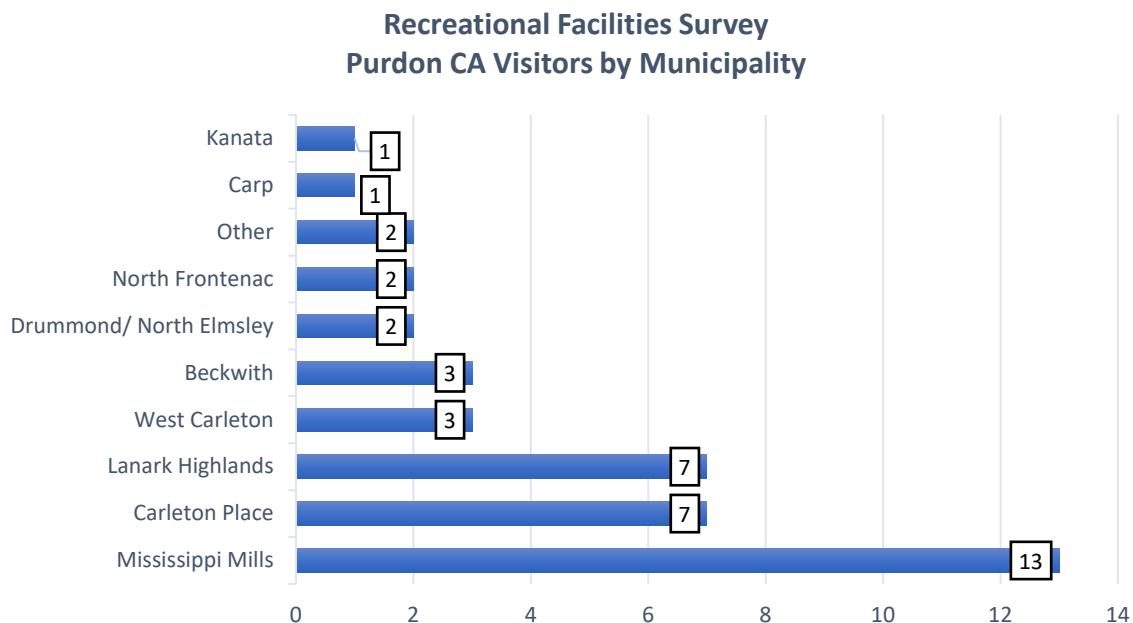
Site Features

- Trails:
 - 400m Orchid Trail (accessible boardwalk)
 - 1.3km 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 Area	Rentals	Dogs Allowed	Picnic Areas	Biking Trail	ATV Trail	Education	Fishing	Lookout	Boardwalk	Canoeing	Playground	Beach	Hunting
Purdon CA	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"> • Renowned colony of the Showy Lady Slipper (Cypripedium reginae) • 1.7 km of trails of varied terrain and skill levels • 345 m of recently widened boardwalk with side barrier to enhance accessibility • Wheelchair accessible outhouse • 2 scenic lookouts • 2 parking lots • Picnic Area • Interpretive Signage • Wetland with characteristics of a swamp, fen and a bog 	<ul style="list-style-type: none"> • Smaller parking lots • Aging interpretive signage • Corduroy portion to Highland Trail in poor condition • Entrance/site signage in need of updating • Largest use is over a two-week period in mid-June 	<ul style="list-style-type: none"> • Extend boardwalk • Expand lower parking lot • Make finger lookout more accessible • Upgrade signage • Partner with Orchid Society to increase amount of orchids 	<ul style="list-style-type: none"> • Lack of modern washroom facilities • No winter maintenance • Ability to get equipment into trail network • Terrain and site conditions make trail creation tough

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

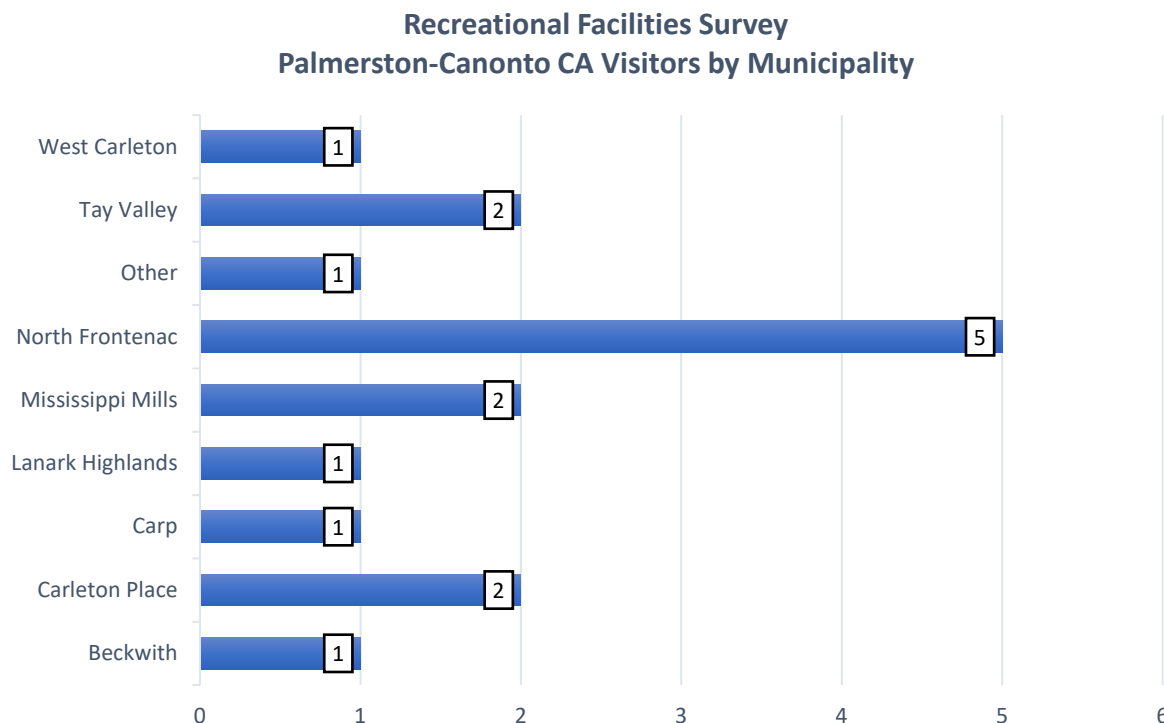
Site Features

- 7 Hiking trails (300m to 1km in length)
- Parking
- Outhouse
- Beach
- Rest building
- Lakeview and Vista Lookouts

	Walking Trail	Parking	Washrooms	Signage	Fees	Camping	Boat Launch	Museum	Accessible Area	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						

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 4.4/5
- 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"> • 5 km of extensive hiking trail network • Beautiful lookouts and scenery • Variety of amenities onsite and close by (beach, boat launch, municipal camp sites) • Strong relationship with township for maintenance and operation 	<ul style="list-style-type: none"> • Poor washroom facilities • Limited parking and access to trails • Remote area (not close to populated centre) • MVCA lack of involvement in active management • Poor site and directional signage • Poor trail base (rough terrain) 	<ul style="list-style-type: none"> • Portage trail to Canonto • Rock Climbing • Camp sites • Room for expansion of trail network and amenities • Partnership with N. Frontenac to enhance site 	<ul style="list-style-type: none"> • Remote • Terrain restricts ability to maintain site • Room to expand parking is limited • Fair distance from MVCA Office

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:

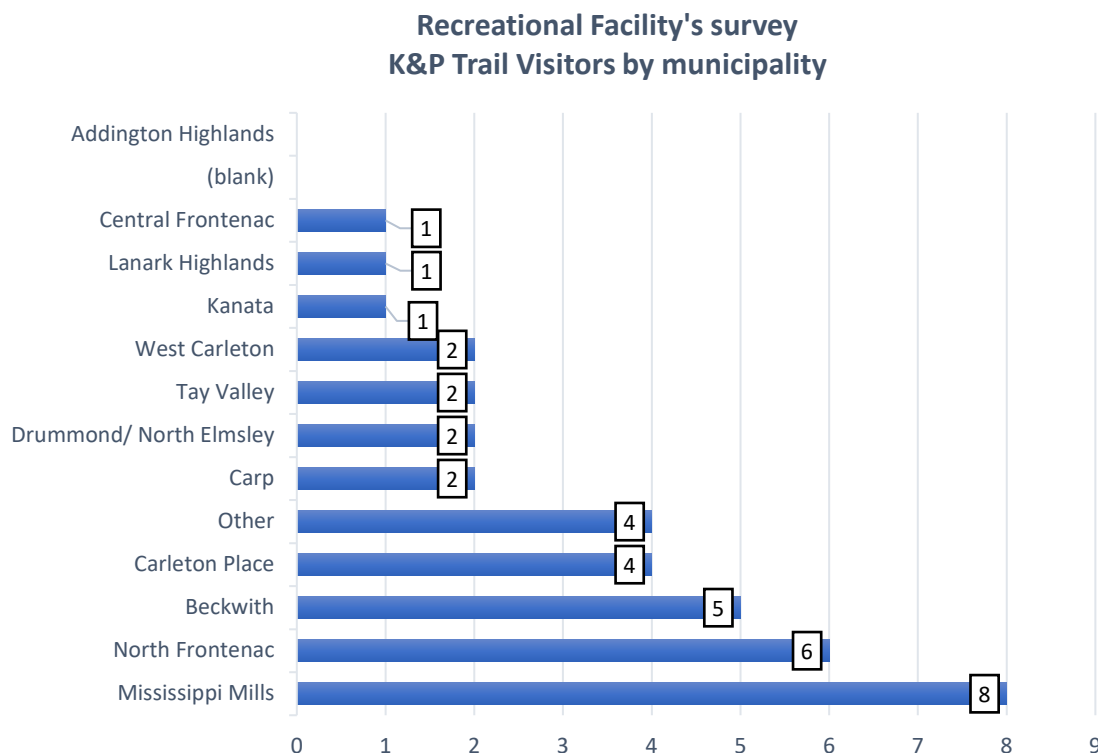
- Average 4.1/5
- Local traffic
- Mostly paved
- Good for birding

STAFF SWOB ANALYSIS: CARP RIVER CA

Strengths	Weaknesses	Opportunities	Barriers
<ul style="list-style-type: none"> • 4 km paved pathway encircling naturalized areas of the Carp and stormwater facility. • Located near large population base • City maintains day-to-day O&M responsibilities • Excellent trail base • Interpretative signage highlights unique development and MVCA partnership 	<ul style="list-style-type: none"> • No on-site or dedicated parking • No washrooms • Lack of Trees • Lack of shelter and other amenities 	<ul style="list-style-type: none"> • Close to schools for educational components • Could expand south of current location • Large population base for increased foot traffic • Provides recreation in otherwise urban centre • Potential addition of amenities/ facilities 	<ul style="list-style-type: none"> • Lack of Masterplan leads to ambiguity of MVCA involvement • Potential of annual flooding in the Spring • Land is not owned by MVCA which could make investment in the property tougher

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 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"> • Multi-use recreational trail used for hiking, biking, ATVing, and snowmobiling • Incredible scenery/variety of scenery • Allows access to public properties • Access to various communities • Excellent recreational trail • Partnering organizations help with work/maintenance 	<ul style="list-style-type: none"> • Some sections in poor condition • Limited/No parking • No washroom facilities • No rest area • Rules and regulations tough to enforce • Speed and weight limits in effect pending further improvements to Clyde River Bridge 	<ul style="list-style-type: none"> • Transfer to counties as part of their trail network • Work with local partnering organizations to improve trail conditions • Local landowners could help maintain sections 	<ul style="list-style-type: none"> • Expensive upkeep • Non-recreational vehicle use • Flooding in low lying areas • Most of the trail is a fair distance from MVCA office • Resources make it impossible to properly supervise/maintain the trail

REPORT**3446/24**

TO:	The Chair and Members of the Mississippi Valley Conservation Authority Policy & Planning Advisory Committee
FROM:	Alex Broadbent, IC&T Manager and Sally McIntyre, General Manager
RE:	Portage Routes: History and Use
DATE:	October 3, 2024

For Information

MVCA is required to ensure safe passage around its water control structures and is responsible for maintaining portage routes at Authority structures. In the early days of the organization, MVCA also played a significant role in the establishment and maintenance of portage routes in key areas of the Mississippi River. While MVCA has not actively maintained portage sites for roughly 15 years, many of the sites established in the 1970s continue to be used and MVCA still receives calls from users and property owners today.

The attached article on their history and use was prepared because “Portage Routes” were the second most requested service identified in the recent *Discussion Paper Survey* behind “Natural Heritage Parks”. As well, they were identified as an opportunity to collaborate with First Nations as a meaningful action towards reconciliation. The article is intended to provide background to any discussions the Board may have on this matter.

CORPORATE STRATEGIC PLAN

Completion of the Land Conservation Strategy will support achievement of:

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

- *Portage Routes of MVCA: Their History and Use*

Portage Routes of MVCA: Their History and Use

ALEX BROADBENT, MVCA

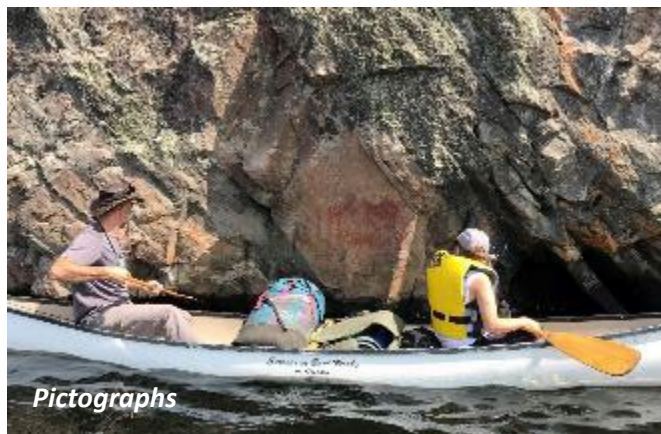
OCTOBER 2024

An Ancient Travel Route

Anishinaabe people say that Bon Echo Rock on Mazinaw Lake was a great rendezvous point long before European settlements reached the Mississippi River watershed. The cliff top at Mazinaw Lake was a sacred place, and Algonquin peoples retain and value this ancestral link to their past.

More than 260 painted images attest to the significance of this place and the storytelling technique of the people who created them. The red ochre images depict human and animal figures, as well abstract and geometric symbols.

Pictographs are place-markers linked to travel rituals and are signs of human occupation on the landscape. The Mazinaw pictographs, attest to a tradition that is at least 2,000 years old.¹ Some estimates place them as far back as 5,000 BCE.²



¹ Aubert et al. 2004; Rajnovich 1994:41

² The Mazinaw Pictographs were designated a national historic site of Canada in 1982, the largest

These pictographs and artifacts found along the Mississippi River, confirm it to be an ancient travel route perhaps as old as the pyramids of Egypt.

Lumbermen's Feud of 1882

French fur trades travelled the Ottawa and Mississippi rivers and connected with the Algonquin of this area around 1670.³ The Mississippi River watershed remained relatively untouched by settlers until the 1850s when they began to clear the land and harvest the great forests of towering pines to send them downriver using timber slides.

In fact, *Canada's Navigable Waters Protection Act* is said to have its origins due to the "Lumbermen's Feud" of 1882 between Mississippi River lumber mill barons Peter McLaren and Boyd Caldwell.⁴ The story goes that McLaren owned a lumber mill on the upper Mississippi River and, to push his logs downstream, he constructed a series of timber slides on the Mississippi and some of its tributaries. His rival, Boyd Caldwell, sought to take advantage of McLaren's work and attempted to drive his logs through the same slides. A feud entailed, which ended in court.

rock art site on the southern Canadian Shield and the only major pictograph site in southern Ontario.

³ <https://www.ottawariver.org/pdf/07-ch2-5.pdf>

⁴ https://en.wikipedia.org/wiki/McLaren_v_Caldwell

Caldwell made the claim that no single person can own the navigable rights of a river, and that he was fully justified in his actions. Caldwell's successful claim established the principle in Canadian law that waterways are open to all, and that private interests cannot refuse passage to anyone if the waterway is navigable.



Several of MVCA's dams are located at former timber slides or mills along the Mississippi and Clyde rivers.

Mississippi River Canoe Route

The Mississippi River Canoe Route extends from Bon Echo Provincial Park on Mazinaw Lake to the Ottawa River—just over 200 kilometres. Along the way, it traverses countless rapids and falls, through forested banks, lowland swamp, rolling farmland and

country hamlets. Portages are necessary at several locations due to dangerous or impassible sections of the river. It is likely that most portage routes in the early years were informal and evolved over time as trees fell, erosion occurred, and land was developed.

In 1910, the Mississippi River was the first canoe route to be promoted in *Canada's Book of Recreational Canoe Routes*.⁵

Provincial Assessment and Funding

When MNR crews surveyed the Mississippi River watershed in 1969 they found that "the high potential for canoe routes has not been developed except in the western end of the Authority."⁶

Over the years that followed, the MVCA received provincial funding to sign-up and work with landowners to establish portages: "Portage trails on the Mississippi River from Dalhousie Lake to Playfairville have been completed across private land through the co-operation and courtesy of the landowners who include Mr. W. Hall, Mr. W. Duncan, Mr. J. Playfair, Mr. N. Wall and General H. Meuser. Signs and waste disposal barrels have been erected at the portages to protect the natural environment of the river."⁷

In 1975, signs and fireplaces were installed at several locations, and several additional sites were examined for their potential as portages or for overnight camping. The

⁵ [The Happy Camper: Canoeing Canada's Mississippi River, Part 1 – Explore Magazine \(explore-mag.com\)](http://www.explore-mag.com)

⁶ <https://mvc.on.ca/wp-content/uploads/2021/04/mvc-repot-1970-v1-WEB.pdf>

⁷ MVCA 1973 Annual Report.

“brochures which were printed in 1975 have received wide distribution and the Authority has received many comments on the quality of the routes.”

By 1976, MVCA’s role was focused on publications and promotion of the canoe route while “the two Districts of the Ministry of Natural Resources will be responsible for a large part of the maintenance of the route.”⁸

Sign, Sign, Everywhere a Sign

MVCA continued to promote the canoe route, and performed occasional maintenance of portage markers and fallen tree removal for over 30 years. These activities discontinued around 2008 when the Township of North Frontenac assumed land management of Crown properties, and as more canoeists took on portage maintenance throughout the system.

Today, MVCA still has a large visual presence along the Mississippi River Canoe Route not only at our dams and gauge sites, but also due to our many historic portage signs throughout the river system.

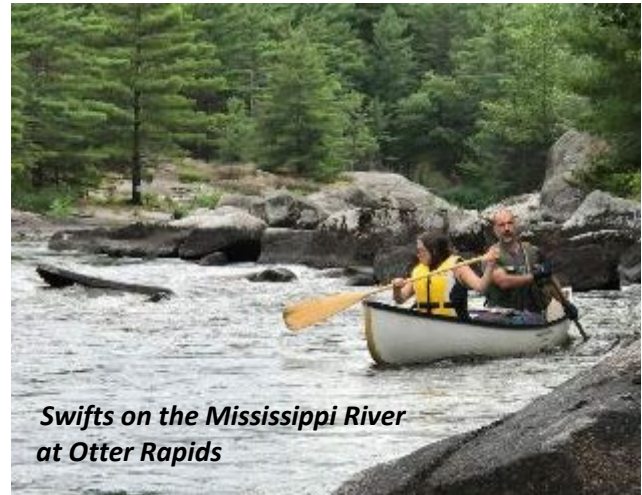


MVCA sign circ 1990s

⁸ MVCA 1976 Annual Report.

Big Gull Loop & Whitewater Opportunities

The upper Mississippi River and its reservoir lakes are enjoyed by way of the Big Gull Loop, which connects canoeists back to their starting point by exiting Crotch Lake and navigating small creeks to Gull Big, Shoe Pack and Kashwakamak Lakes.



Swifts on the Mississippi River at Otter Rapids

Adventurous white-water enthusiasts can experience the true wilderness of the river between Crotch Lake and Miller Lake. While rugged in parts, the white water eventually turns into swifts as the river passes from Crown land to Patent land and camping opportunities are reduced to private operations.

The middle reach of the Clyde River is also popular with white-water canoeists when levels are high. The Clyde River is navigable for 44 km from Widow Lake to its outlet at the Mississippi River. Where portages don’t exist, it is travelled using a “*stay with the river*” method and techniques of “*lining and wading*” are used.

Not So Calm on the Carp River

Paddling the Carp River provides excellent opportunities for day trips. Certain sections can only be paddled during high water levels, and can be challenging due to downed trees and low bridge clearances. The final reach below Carp Road to the Ottawa River provides white water conditions during the spring freshet.

Manoomin

Manoomin, “good berry”, or wild rice, is culturally significant to First Nations. It is found in abundance on Mud Lake downstream of the community of Ardoch that has harvested it for generations.

Portages

Portage or portaging is the practice of carrying water craft or cargo over land. On the Mississippi River it is generally around



Wild rice on Mud Lake



Derecho Damage at Side Dam Rapids, 2007

an obstacle in the river such as a dam or rapid.

Portages are dynamic and adjust to the changing environment, downed trees, beaver floods and may have high and low water accesses. Most of the portages of the upper reaches of the river are located within the Crown land shoreline allowance. Below Crotch Lake, portages start to be found on private land as shoreline allowance have not been preserved. Portages on private land have been a source of contention in some places.

MVCA provides for and maintains portages at our water control structures where active and historic use is known.

Mapping & Promotion

The Mississippi River Canoe Route is promoted in various publications, the most popular being *A Paddler's Guide to Ontario's Lost Canoe Routes* by Kevin Callen, 2002.

The Mississippi River Canoe Route is also actively promoted on several websites and community forums including [Mississippi Valley Field Naturalist](#) and [MyCCR.com](#).