



Policy & Priorities Committee

Virtual Meeting

2:00 pm

October 19, 2021

VIA Zoom:

<https://us06web.zoom.us/j/82401607752>

Meeting ID: 824 0160 7752

AGENDA

ROLL CALL

Adoption of Agenda

Declaration of Interest (written)

1. Approval of Minutes – June 4, 2021, Page #2
2. Election of Committee Chair and Vice Chair (Sally McIntyre)
3. COVID-19 Vaccination Policy, Report #3169/21 (Sally McIntyre), Page #6
4. Stewardship Plan, Report #3170/21 (Julie Falsetti), Page #11
5. IPCC Report on Climate Change, Report #3171/21(Sally McIntyre), Page #39
6. Update – Mill of Kintail Museum, Report #3172/21 (Sally McIntyre), Page #45

Other Business

ADJOURNMENT



POLICY AND PRIORITIES ADVISORY COMMITTEE

Via Zoom

MINUTES

June 4, 2021

MEMBERS PRESENT:

J. Atkinson, Chair
B. Holmes
J. Inglis
J. Karau
C. Kelsey
J. Mason
K. Thompson

MEMBERS ABSENT:

F. Campbell, Vice-Chair
R. Darling

STAFF PRESENT:

S. McIntyre, General Manager
M. Craig, Manager, Planning and Regulations
S. Gutoskie, Community Relations Coordinator
E. Levi, Recording Secretary

OTHERS PRESENT:

J. Atkinson called the meeting to order at 10:03 a.m.

PPAC04/06/21-1

MOVED BY: J. Inglis

SECONDED BY: B. Holmes

Resolved, That the Agenda for the June 4, 2021 Policy and Priorities Advisory Committee meeting be adopted as presented.

“CARRIED”

BUSINESS:

1. Minutes – Policy & Priorities Advisory Committee Meeting – April 30, 2021

PPAC04/06/21-2

MOVED BY: G. Gower

SECONDED BY: K. Thompson

Resolved, That the minutes of the Mississippi Valley Policy & Priorities Advisory Committee meeting held on April 30, 2021 be received and approved as amended.

“CARRIED”

2. By-law Amendment to Allow Consent Agenda

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S. McIntyre outlined Report 3138/21 proposing amendments to the Administrative By-laws to allow for use of consent agendas. She noted that the proposed amendment omitted Minute approvals and asked whether the committee wished to include them as a consent item.

The committee discussed whether the consent agenda should allow for approval of report recommendations or strictly information items.

G. Gower advised that there are often report recommendations coming to the Board that are basic and don't require discussion. He noted it should be up to the Chair and Vice-Chair to determine whether discussion is warranted.

J. Karau suggested that consent agendas allow for approval of minutes, administrative recommendations and receive information items.

PPAC04/06/21-3

MOVED BY: J. Mason

SECONDED BY: G. Gower

Resolved, That the Policy & Priorities Committee recommend that the Board approve amendment of the MVCA Administrative By-law to permit Consent Agendas as set out in Staff Report 3138/21, as amended.

“CARRIED”

3. **By-law Amendment to Clarify Roles of Policy & Priorities Advisory Committee**

S. McIntyre reviewed Staff Report 3139/21 proposing a small amendment to clarify the Terms of Reference for the committee to be able to consider policy matters related to committee structure.

PPAC04/06/21-4

MOVED BY: G. Gower

SECONDED BY: B. Holmes

Resolved, That the Policy & Priorities Committee recommend that the Board approve amendment of the MVCA Administrative By-law to confirm the mandate of the Policy and Priorities Committee to deal with committee structures, as set out in this report.

“CARRIED”

4. **By-law Amendment to Allow for Electronic Meetings and Participation**

S. McIntyre reported on amendments suggested to the Administrative By-law to provide for electronic meetings regardless of the operating environment, as tabled in Report 3140/21. Survey results from MVCA Board members determined that the majority are comfortable

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proceeding with the option of electronic participation so long as notice is provided ahead of time of a member's intent to participate in that fashion.

J. Inglis asked whether the intention was to hold meetings in-person and provide the option to attend remotely. S. McIntyre confirmed that returning to in-person meetings was fundamental in terms of member cohesion and relationship development with Staff.

B. Holmes asked if there was a mechanism in place to handle remote participation on short-notice, as often inclement weather could require last-minute decisions. S. McIntyre commented that provision could be made to allow for short-notice at the discretion of the Chair or General Manager.

S. McIntyre noted that there were currently Requests for Proposals to upgrade the board room AV equipment to improve sound and video quality in order to make remote meeting participation more accessible.

PPAC04/06/21-5

MOVED BY: K. Thompson

SECONDED BY: J. Karau

Resolved, That the Policy & Priorities Committee recommend that the Board approve amendment of the MVCA Administrative By-law as set out in this report that will allow Board members to participate in meetings electronically outside of a State of Emergency.

"CARRIED"

5. **Update of MVCA Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Policies**

M. Craig reviewed Report 3141/21. Based upon discussions with staff and other agencies, it is recommended that existing policies prohibiting laneways through PSWs remain in place and that an internal check-list be developed for use by the Regulations Committee if a hearing is required to address such applications, and by staff in responding to Ministerial Zoning Orders. He advised that if applications proceed to a hearing the Regulations committee can then have some confidence that the proposal has been considered by staff on a site-by-site basis with consistent evaluation.

PPAC04/06/21-6

MOVED BY: J. Karau

SECONDED BY: J. Mason

Resolved, That the Policies and Priorities Committee recommend that the Board of Directors:

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1. **Direct staff to prepare an internal check-list for assessment of any application for vehicle access through a provincially significant wetland (PSW).**
2. **Approve all proposed housekeeping changes to the MVCA Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Policies as presented in Report 3130/21**

“CARRIED”

6. Dogs Off Leash

Report 3142/21 was received for information.

ADJOURNMENT

The meeting was adjourned at 10:41 a.m.

PPAC04/06/21-7

MOVED BY: B. Holmes

SECONDED BY: J. Inglis

Resolved, That the meeting be adjourned.

“CARRIED”

“E. Levi, Recording Secretary

J. Atkinson, Chair”

REPORT

3169/21

TO:	MVCA Policy & Priorities Advisory Committee
FROM:	Sally McIntyre, General Manager
RE:	COVID-19 Vaccination Policy
DATE:	October 19, 2021

Recommendation:

That the Committee recommend that the Board of Directors approve the mandatory COVID-19 vaccination policy set out in this report.

1.0 PURPOSE

MVCA is responsible for maintaining a safe work environment for employees and Board members, and implementing safety measures to mitigate risks to visitors to our properties. The purpose of this report is to set out and obtain approval for a vaccination policy that mitigates the risk of COVID-19 transmission.

2.0 BACKGROUND

On August 24, 2021 the provincial government amended *Ontario Regulation 364/20* to require businesses and organizations to comply with any advice, recommendations and instructions issued by the Office of the Chief Medical Officer of Health that:

- (a) requires the business or organization to establish, implement and ensure compliance with a COVID-19 vaccination policy; or
- (b) sets out the precautions and procedures that the business or organization must include in its COVID-19 vaccination policy.

Ottawa Public Health has issued a guide to support workplace vaccination policies:

Ottawa Public Health strongly recommends businesses and employers develop and implement workplace vaccination policies for their employees and workforce, and that all those eligible receive a complete series of the COVID-19 vaccine. Supporting employees to get fully vaccinated is the best way to help protect them from the risks of COVID-19,

prevent outbreaks and build confidence in the health and safety of the workplace as we face a Delta variant-fueled resurgence in our community.

While strongly encouraged, these recommendations are voluntary, and are not intended to be legally enforceable under the Reopening Ontario (A Flexible Response to COVID-19) Act, 2020.

The Leeds, Grenville and Lanark District Health Unit also issued guidance:

There are many benefits for all workplaces to have an organization specific COVID-19 vaccine policy. It can be part of the COVID-19 Workplace Safety Plan considering specific risks in the organization for COVID-19 transmission, provide an opportunity to provide education and awareness to all employees, and promote higher levels of vaccination in the workplace to increase the safety of employees and the public.

In workplaces, vaccination adds to, rather than replaces, the strict adherence to established COVID-19 public health measures. Employers must continue to implement all COVID-19 prevention measures for their sector outlined in Ministry of Labour and provincial regulations and guidelines: screening for symptoms, physical distancing, wearing of masks, hand washing, regular environmental cleaning, and a COVID-19 safety plan.

In recent weeks, the federal, provincial, and several local governments have announced implementation of mandatory COVID-19 vaccination policies. To our knowledge:

- The Government of Canada is requiring all federal departments, federally regulated sector and crown corporation employees to be fully vaccinated (unless they have a medical exemption).
- The Province of Ontario is requiring all Ontario Public Service employees as well as those working in long-term care, hospitals, schools, home care service providers and paramedics to be fully vaccinated (unless they have a medical exemption). Unvaccinated employees will have to undergo a vaccine education course and regular antigen testing.
- The City of Ottawa is requiring all employees, councillors, contractors, volunteers and students to be fully vaccinated (unless they have a medical exemption). Unvaccinated employees will be required to complete a vaccine education session. Employees who do not comply with the policy will not be permitted in the workplace and may be subject to a variety of consequences, which can include leave without pay or discipline, up to and including dismissal.

- On September 10, 2021, OPG (for whom MVCA provides contracted services) issued a notice requiring all OPG employees and contractors to be fully vaccinated; and that contractors doing business with OPG implement vaccination standards that meet or exceed OPG's requirements.
- Effective September 22, 2021, Ontarians must now be fully vaccinated to access certain public settings and facilities including the Gate House at MVCA's Mill of Kintail CA.

3.0 RISK ASSESSMENT

Various safety measures have been instituted during the pandemic to protect against casual transmission of the virus. However, as the economy opens up and expectations increase for in-person interactions, the potential to be exposed to and pass on the disease will increase.

The Delta variant is "more highly transmissible, more virulent, cases are more likely to be highly infectious, is more likely to cause breakthrough infections, and when breakthrough cases occur they have similar levels of infectiousness as unvaccinated cases."¹ Therefore, where masking, social distancing, and good ventilation are not readily and consistently available or possible, there is risk of transmission amongst employees, Board members, and the public. Such is the case at some of our facilities, and in carrying out some field activities.

MVCA's Joint Health & Safety Committee (JHSC) has reviewed this matter and recommend that full vaccination be required by all employees and Board members as is now required of visitors to our Gate House facility.

4.0 PROPOSED POLICY

Mississippi Valley Conservation Authority (MVCA) has an obligation to take all necessary precautions to protect the health and safety of its workforce, and recognizes the importance of immunization to reducing the risk of serious infection and transmission of the COVID-19 virus among employees and those it supports.

APPLICATION

1. This policy applies to all MVCA employees, Board and Committee members, contractors, volunteers and students (herein referred to as "employees".)
2. All new hires will be required to be fully vaccinated as a condition of employment, subject to the duty to accommodate under the *Ontario Human Rights Code*.

¹ Refer to: https://www.publichealthontario.ca/-/media/documents/ncov/phm/2021/09/mitigating-risks-breakthrough-transmission-delta.pdf?sc_lang=en

EFFECTIVE DATE

3. This Policy is to take effect immediately upon approval by the Board of Directors.

VACCINATION REQUIREMENTS

4. On or before October 29, 2021 current employees must:
 - a. Confirm they are fully vaccinated against COVID-19; or
 - b. Provide a documented medical reason for not being fully vaccinated against COVID-19; or
 - c. Provide a documented personal sincerely held religious or creed-based reason for not being fully vaccinated against COVID-19.
5. Proof of vaccination will consist of the documentation issued by the Ontario Ministry of Health, other province or territory or international equivalent indicating individual immunization status against the COVID-19 virus with vaccines approved by Health Canada or the World Health Organization.
6. Employees that do not provide proof of full vaccination and that have not advised MVCA of a medical or human rights exception for not being vaccinated by October 29, 2021 will be required to provide proof of their first dose no later than November 12, 2021.
7. As of December 13, 2021, it will be mandatory for all employees to have received their first and second doses of an approved COVID-19 vaccine.

ACCOMMODATION

8. MVCA acknowledges its obligations under the *Ontario Human Rights Code* and will comply with its duty to accommodate in appropriate cases.
 - a. Current employees and candidates for employment who are not vaccinated due to a medical reason are to provide written proof from a physician or registered nurse in the extended class supporting the medical exemption.
 - b. Current employees and candidates for employment who are not vaccinated due to another protected ground as set out in the *Ontario Human Rights Code* should advise the General Manager, and the employee and MVCA will follow the requirements of the *Ontario Human Rights Code* with respect to the accommodation process.
 - c. Employees are expected to cooperate in this process and provide necessary documentation.

TESTING

9. Effective, December 13, 2021, employees who are unvaccinated for any reason will be required to participate in regular rapid antigen testing for COVID-19, and provide a digital image of a negative test result to the General Manager via email every Monday and Thursday morning before 8:30 a.m. regardless of the days of the week that the employee is on site that week.
10. Those who receive a “positive” rapid antigen screening result must not report to work and must immediately inform the General Manager of the result. The employee is required to immediately self-isolate, book a nasopharyngeal swab (PCR) test at one of the local community testing sites and call the General Manager to report the results upon receipt and to allow the General Manager to begin the contact tracing process as needed. Employees will thereafter follow the direction of the General Manager in terms of next steps depending on the results of the PCR test.
11. Employee test results will be kept confidential to the CAO/Secretary-Treasurer (and in limited need to know circumstances to key managers) and will not be disclosed except as required for the purposes of implementing and enforcing this Policy, staffing, meeting Public Health requirements, and complying with partner directives.

Failure by employees to adhere to the requirements of this Policy may result in discipline up to and including termination.

This Policy and these measures will remain in place until further notice and are subject to change in accordance with Public Health guidelines and directives.

5.0 CORPORATE STRATEGIC PLAN

Implementation of the vaccine policy will support health and safety in the workplace and achievement of **Goal 3: People and Performance** c) Promote an engaging and inclusive environment that attracts and retains passionate and highly skilled people, and optimizes their expertise and contributions.

REPORT

3170/21

TO:	MVCA Policy & Priorities Advisory Committee
FROM:	Julie Falsetti, Stewardship Technician
RE:	Stewardship Plan
DATE:	October 19, 2021

For information.

1.0 BACKGROUND

In recent years, MVCA has undertaken limited stewardship activities due to budgetary and staffing constraints. In November 2020, the Board of Directors approved the *2021-2023 Interim Financial Plan* that recommended implementation of a 3-Year Stewardship Pilot Program using funds reallocated from the suspended Education Program. The *Mississippi River Watershed Plan (MRWP)* approved in July 2021, also recommended establishment of a 3-year stewardship pilot for the protection of water quality, wetland cover, forest cover, and other environmental features.

The attached *Stewardship Plan* has been drafted to direct and guide implementation of the pilot. The goals of the Stewardship Plan are:

- To maintain, enhance, and restore natural features and systems so that they may continue to provide ecological services to communities.
- To mitigate the impacts of urban and rural settlement and climate change.
- To engage communities and landowners in effecting improvements to publicly- and privately-owned lands.

2.0 PROGRAM SUMMARY

MVCA has very different geographic regions, each with unique challenges and needs. Stewardship programming is to be tailored to meet the different needs and priorities of MVCA's three geographical regions:

- **The Upper Watershed (wooded uplands):** Township of Addington Highlands, Township of North Frontenac, Township of Central Frontenac, and Township of Greater Madawaska.
- **The Middle Watershed (transition zone):** Township of Lanark Highlands, Tay Valley Township, and Township of Drummond/North Elmsley.
- **The Lower Watershed (agricultural/urban):** Municipality of Mississippi Mills, Town of Carleton Place, Township of Beckwith, and City of Ottawa.

Design and administration of the program in this manner will also aid future discussions with member municipalities regarding funding of the program.

The most notable program element is delivery of an ALUS Program in the County of Lanark and the Carp River watershed. The objectives of the ALUS program are to create habitat on marginal farmland, sequester carbon, and reduce greenhouse gases in the atmosphere.

The following tables identify regional objectives and proposed program focus. There is significant overlap in programming, and the tables highlight unique elements.

Upper Watershed Objectives	Program Focus
<ul style="list-style-type: none"> ▪ Enhance management of forested lands 	<ul style="list-style-type: none"> ▪ Promote the development of Forest Management Plans ▪ Distribute educational material from Forest Health Network
<ul style="list-style-type: none"> ▪ Improve waterbody, watercourse, and wetland health ▪ Increase knowledge of lake health 	<ul style="list-style-type: none"> ▪ Promote and deliver Septic Re-inspection Program (per MOUs) ▪ Promote and deliver Shoreline Naturalization Program¹ ▪ Participate in Lake Associations meetings ▪ Support Lake Links annual meeting ▪ Promotion and tracking of the Water Rangers water testing program
<ul style="list-style-type: none"> ▪ Prevent and reduce the introduction and spread of invasive species 	<ul style="list-style-type: none"> ▪ Distribute educational materials, e.g. <i>Grow Me Instead</i> publication (Ontario Invasive Plant Council, 2020). ▪ Use EDDMapS mapping database and app and other tools to log sightings

Middle Watershed Objectives	Program Focus
<ul style="list-style-type: none"> ▪ Enhance management of forested lands 	<ul style="list-style-type: none"> ▪ Promote the development of Forest Management Plans ▪ Distribute educational material from Forest Health Network
<ul style="list-style-type: none"> ▪ Improve waterbody, watercourse, and wetland health ▪ Increase knowledge of lake health 	<ul style="list-style-type: none"> ▪ Promote and deliver Septic Re-inspection Program (per MOUs) ▪ Promote and deliver Shoreline Naturalization Program ▪ Participate in Lake Associations meetings ▪ Support Lake Links annual meeting ▪ Promotion and tracking of Water Rangers water testing program
<ul style="list-style-type: none"> ▪ Habitat enhancement 	<ul style="list-style-type: none"> ▪ Promote and deliver Shoreline Naturalization Program ▪ Promote and deliver ALUS in Lanark County
<ul style="list-style-type: none"> ▪ Prevent and reduce the introduction and spread of invasive species 	<ul style="list-style-type: none"> ▪ Distribute educational materials, e.g. <i>Grow Me Instead</i> publication (Ontario Invasive Plant Council, 2020). ▪ Use EDDMapS mapping database and app and other tools to log sightings

Lower Watershed Objectives	Program Focus
<ul style="list-style-type: none"> ▪ Enhance management of forested lands 	<ul style="list-style-type: none"> ▪ Promote the development of Forest Management Plans ▪ Distribute educational material from Forest Health Network

¹ Where plantings exceed capacity, projects will be referred to Watersheds Canada.

Lower Watershed Objectives	Program Focus
<ul style="list-style-type: none"> ▪ Improve waterbody, watercourse, and wetland health ▪ Increase knowledge of lake health 	<ul style="list-style-type: none"> ▪ Promote and deliver Shoreline Naturalization Program ▪ Participate in Lake Associations meetings ▪ Support Lake Links annual meeting ▪ Promotion and tracking of the Water Rangers water testing program ▪ Promote and deliver Ottawa Rural Clean Water Program (per MOU) ▪ Promote and deliver City Stream Watch Program (per MOU) ▪ Identify opportunities for river and stream restoration ▪ Promote Low Impact Development and participation in water storage programs, e.g. Rain Ready Ottawa ▪ Promote and deliver stream clean-up events using volunteer efforts
<ul style="list-style-type: none"> ▪ Habitat enhancement 	<ul style="list-style-type: none"> ▪ Promote and deliver Shoreline Naturalization Program ▪ Promote and deliver ALUS in Lanark County and Carp River watershed ▪ Promote and deliver Ottawa Rural Clean Water Program (per MOU) ▪ Identify, investigate, and facilitate habitat enhancement of public lands
<ul style="list-style-type: none"> ▪ Prevent and reduce the introduction and spread of invasive species 	<ul style="list-style-type: none"> ▪ Analyze City Stream Watch data and prioritize removal of invasive species ▪ Organize and deliver volunteer invasive removal events ▪ Distribute educational materials, e.g. Grow Me Instead publication (Ontario Invasive Plant Council, 2020). ▪ Use EDDMapS mapping database and app and other tools to log sightings

The Stewardship Plan is to be implemented in partnership with the following organizations:

- Fellow conservation authorities
- Local municipalities
- ALUS Canada
- Local agricultural organizations (e.g. 4H Ontario, Lanark Federation of Agriculture, National Farmers Union, Ontario Soil and Crop Improvement Association, Ontario Federation of Agriculture, OMAFRA)
- Local Environmental/Stewardship Organizations (e.g. Climate Network Lanark, Water Rangers, and Ottawa Riverkeeper)
- Academia (University of Ottawa, Carleton University)

3.0 FINANCIAL CONTRIBUTIONS

Staff will seek various grants and work with partners to support delivery of the above programs. MVCA will receive funds from ALUS Canada and Environment & Climate Change Canada for delivery of the ALUS program in Lanark County and the Carp watershed. Funding periods and amounts differ as shown in the following tables.

ALUS Canada Funding

Aug 2021 - July 2022	Aug 2022 - July 2023	Aug 2023 - July 2024
\$41,300.00	\$35,400.00	\$29,500.00

ECCC Funding

Sept 2021 - Mar 2022	Apr 2022 - Mar 2023	Apr 2023 - Mar 2024
\$21,820.00	\$66,167.50	\$97,987.50

It is important to note that Environment and Climate Change Canada provides dollar-matching funds only. Therefore, the amount received will be based upon the actual amounts expended during the eligible period, up to the maximum shown.

MVCA also receives financial support under a Memorandum of Understanding with the City of Ottawa to deliver a Rural Clean Water Program within city limits.

City of Ottawa

Rural Clean Water Program
\$3,000/year

4.0 CORPORATE STRATEGIC PLAN

Delivery of a stewardship program 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.



**Stewardship Plan
2021 - 2024**

October 2021

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ABBREVIATIONS

- | | |
|---|---|
| ALUS – Alternative Land Use Services | MNR/MNRF – Ministry of Natural Resources/Ministry of Natural Resources and Forestry |
| CA – Conservation Authority | MOU – Memorandum of Understanding |
| CIPS – Cambium Indigenous Professional Services | MRSSO – Mississippi Rideau Septic System Office |
| CRCA – Carp River Conservation Area | MRW – Mississippi River Watershed |
| CRW – Carp River Watershed | MRWP – Mississippi River Watershed Plan |
| CSW – City Stream Watch | MVCA – Mississippi Valley Conservation Authority |
| CWF – Canadian Wildlife Federation | NGO – Non-Governmental Organization |
| EDDMapS – Early Detection and Distribution Mapping System | ORCWP – Ottawa Rural Clean Water Program |
| FHN – Forest Health Network | PLF – Private Lands Forestry |
| FOCR – Friends of the Carp River | RCWP – Rural Clean Water Program |
| IEP – Indigenous Engagement Plan | RVCA – Rideau Valley Conservation Authority |
| LID – Low Impact Development | SNC – South Nation Conservation |
| MECP – Ministry of Environment, Conservation and Parks | SWM – Stormwater Management |
| MICA – Morris Island Conservation Area | |

1.0 INTRODUCTION

The objects of a conservation authority are “to provide...programs and services designed to further the conservation, restoration, development and management of natural resources other than gas, oil, coal and minerals.”¹ A crucial course of action in achieving conservation and restoration goals is that of land stewardship: the act of caring for the land, air, water, and biodiversity in order to maintain collective ecological, social, and cultural benefits. The development and implementation of a Stewardship Plan are key steps to fulfilling this responsibility. This document marks the current phase of implementation of MVCA’s Stewardship Program: Program Development and Planning (Figure 1).

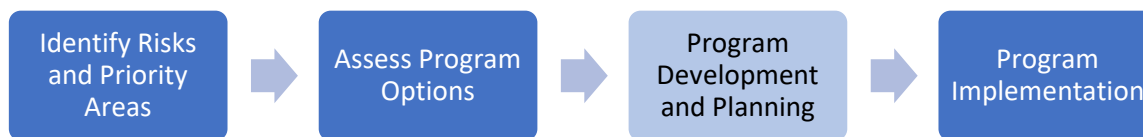


Figure 1. The key steps in development and implementation of a Stewardship Program.

The goals of this Stewardship Plan are:

- To maintain, enhance, and restore natural features and systems so that they may continue to provide ecological services to communities.
- To mitigate the impacts of urban and rural settlement and climate change.
- To engage communities and landowners in effecting improvements to publicly- and privately-owned lands.

1.1 Three-Year Stewardship Pilot Program

The Mississippi River Watershed Plan (MRWP) prescribed the establishment of a Stewardship Strategy.

To achieve the goal to support learning and environmental stewardship, the MRWP suggested the development and implementation of a Three-Year MVCA Stewardship Program Pilot for the protection of water quality, wetland cover, forest cover, and other environmental features. Such a plan is needed to provide long term guidance for MVCA’s Stewardship activities within the Mississippi River and Carp River Watersheds and to address other goals set by the MRWP, including:

- Minimize risks to human life and property due to flooding, erosion, and unstable slopes and soils.

¹ [Conservation Authorities Act, R.S.O. 1990, c. C.27 \(ontario.ca\)](#)

- Sustain or improve water quality for all users.
- Increase our resiliency and adaptive response to climate change.
- Maintain, enhance, or restore natural features and systems for all users, and
- Support learning and environmental stewardship.

This Program Pilot aligns with the 2021-2025 Corporate Strategic Plan and will achieve community building by engaging local partners to foster connections, leverage resources, and strengthen our “social license” to operate. A Stewardship Strategy that outlines intentions to engage and educate community stakeholders through stewardship initiatives would help MVCA obtain the following objectives:

- To demonstrate MVCA to be a trusted, client-centred, resourceful, and helpful partner.
- To strengthen relationships with municipalities and community stakeholders, First Nations, the agricultural sector, developers, not-for-profits, and academia.

MVCA has been engaged in limited stewardship but has not been able to commit to the implementation of a full-time Stewardship Program due to budgetary and staffing constraints. The Three-Year Stewardship Program Pilot is an approved board initiative and a commitment that allows MVCA to establish a foundation of stewardship.

1.2 History of Stewardship Program

Shortly after the termination of the MNR’s Private Land Extension Programs around the year 2000, MVCA initiated a stewardship program to address the service gap, which was comprised of the following programs:

- **Rural Clean Water Program:** Currently only delivered within the City of Ottawa.
- **Ministry of Environment Source Water Protection:** Discontinued by MECP.
- **Lanark County Forest Management Program:** MVCA still delivers this program.

In recent years, MVCA has been engaged in Stewardship on a part-time basis through the delivery of the following programs that have either been MVCA initiatives or shared with other partners, which were funded as resources allowed:

- **Shoreline Naturalization Program:** Offers native planting of riparian areas on private properties. Tree/shrub giveaways/sales are provided in coordination with lake associations.²

² Initially, there was a small amount of municipal levy allocated to this program. Currently, MVCA is implementing a cost-sharing model consistent with what other Conservation Authorities have already implemented.

- **Private Lands Forestry (PLF):** MVCA provides RVCA with \$5,500 towards implementing the Green Acres Program (City of Ottawa) and the Trees for Tomorrow Program. This includes large-scale tree plantings that are not necessarily within watercourse buffers.
- **Special, Site-by-Site Projects:** “One-off” projects generally funded through grants from various government and non-government sources. They range from large shoreline plantings on public properties to in-stream restorations and fish habitat enhancement projects.
- **Ottawa Rural Clean Water Program (ORCWP):** A collaboration between the City of Ottawa, MVCA, RVCA, and SNC that delivers grants to rural property owners for a variety of stewardship activities primarily aimed at protecting water quality.³
- **City Stream Watch (CSW):** A stream monitoring program that enlists volunteers to help staff monitor environmental conditions in streams within the City of Ottawa.⁴
- **Septic Re-inspection Program:** Delivered by the MRSSO to certain municipalities, this program combines homeowner education about septic system operation and maintenance with an inspection component.⁵
- **Education and Outreach:** MVCA’s educational programming was suspended due to the COVID-19 pandemic. This program consisted of outdoor education programming, curriculum-based classroom presentations, guided field trips, and outreach events.⁶
- **Planning and Regulations:** MVCA contributes to aquatic and terrestrial health through the planning and regulations process, allowing MVCA to recommend best management practices to landowners and municipalities.

In 2020⁷, the Board approved a Three-Year Stewardship Pilot Program to enable assessment of program interest and viability.

³ This program is currently only available within the City of Ottawa.

⁴ This program is supported through external funding, and includes an education and stewardship component implemented through volunteer engagement events (e.g. stream litter clean-ups, invasive species removals). Data collected through CSW has been used to direct Stewardship efforts.

⁵ The program aims to help protect drinking water, the natural environment, and support the implementation of the Clean Water Act. We work cooperatively with Tay Valley Township, Township of North Frontenac, and Township of Drummond/North Elmsley to establish a voluntary septic re-inspection program. Alternatively, Bennett Lake in Tay Valley Township is subject to a mandatory re-inspection program. Educational and promotional presentations and workshops are hosted occasionally to encourage participation.

⁶ A Living Classroom is being developed at CRCA, with MVCA and FOCR working with educators to develop a curriculum to be used by visiting local schools. MVCA launched EcoTrek, an educational and interactive mobile app that allows visitors to learn about the river and wetlands at the CRCA.

⁷ Interim Financial Plan. <https://mvc.on.ca/wp-content/uploads/2021/02/20no13-Interim-Financial-Plan-Append-A-FINAL-v4.pdf>.

1.3 Environmental Scan

The MVCA jurisdiction is comprised of three distinct watersheds: The Mississippi River Watershed (MRW), the Carp River Watershed (CRW), and part of the Ottawa River Watershed. Below are key attributes of the MVCA jurisdiction:

- The jurisdiction is a mix of rural and urban land use, with urban development concentrated in and around the City of Ottawa, Carleton Place, and Almonte, and rural estate-lot growth in the surrounding municipalities.
- The west end mostly consists of contiguous expanses of natural areas.
- The east end has smaller, fragmented pockets of natural area.
- The MRW has two distinct physiographic regions: The Canadian Shield in the west and the St. Lawrence lowlands in the east.
- The Shield area has shallow soils and rocky outcroppings, which is a constraint for agricultural land use.
- The Lowlands area is flatter with deeper, more fertile soils is more suited to agricultural land use.
- Forest cover comprises 28% of the CRW (59% interior forest canopy [Robinson Consultants, Inc., 2004]) and 65% of the MRW (23% forest interior).⁸
- There is a disparity in both forest cover and forest interior between the Shield (27% forest interior) and the Lowlands (6% forest interior).
- Agricultural land use makes up 56% of the CRW and 11.5% of the MRW.⁹

These areas face the stresses of climate change, rural and urban settlement, and related challenges with flooding and droughts, impairment of water quality and impacts to natural features and systems. The projected local impacts of climate change are as follows:

- Increased flooding and erosion, and early spring flooding (freshet)
- More frequent and prolonged drought conditions
- More frequent severe weather
- Reduced winter snow cover and river/lake ice
- Water quality changes (e.g. warming and increased algae blooms)
- Decreased soil moisture during the growing season
- Reduction in (drying of) wetland areas
- Increases in invasive species, plant pests and diseases

⁸ 70% of the forest cover is on private land, 28% on crown land, and 2% on municipal/county lands and land trust managed properties.

⁹ Agriculture in the Mississippi River Watershed is predominantly located in the lower watershed downstream of Mississippi Lake, where one-third of the land is used for farming (Robinson Consultants, Inc., 2004).

- Changes in aquatic species (more warm water/less cool water species).
- Changes to forest composition and species, affecting ecosystem processes and the forest industry.

Local municipal Official Plans designate areas where future growth is to be permitted. The 2011 and 2016 Statistics Canada Census data for several municipalities show growth rates at three times the Provincial average. The growth is expected to continue, with Carleton Place and Beckwith populations projected to almost double between 2016 and 2038 and Drummond/North Elmsley and Mississippi Mills increasing 60% over that same period. The impacts of urban and rural settlement are as follows:

Impacts	Implications
Reduction in permeable surfaces	<ul style="list-style-type: none"> ▪ Reduced infiltration of precipitation and snowmelt ▪ Increase in stormwater ▪ Overwhelms drainage systems (storm sewers and roadside ditches) and contributes to urban and rural flooding ▪ Water pollution
Removal of riparian buffers, remnant forests, and other natural features	<ul style="list-style-type: none"> ▪ Increased soil erosion ▪ Water quality impairment ▪ Reduced terrestrial and aquatic habitat ▪ Impaired ecological functioning¹⁰
Draining and filling of wetlands ¹¹	<ul style="list-style-type: none"> ▪ Loss of water storage during wet periods ▪ Increased risk of flooding and flood damage¹² ▪ Loss of groundwater and aquifer recharge during droughts ▪ Habitat loss
Increased dependence on private services (well and sewage systems) ¹³	<ul style="list-style-type: none"> ▪ Reduced groundwater availability

¹⁰ Forest and riparian cover in the east are nearing the minimum thresholds for a healthy environment recommended by Environment Canada (Environment Canada, 2013).

¹¹ Since European settlement, an estimated 65% of wetlands in the eastern watershed have been drained or filled. Moreover, a local vulnerability assessment predicts that most watershed wetlands are at risk of shrinking or drying due to climate change (Ontario Ministry of the Environment and Climate Change, 2014).

¹² Studies show that wetlands left in their natural state can reduce the cost of flood damage by 29% in rural areas and 38% in urban areas (Moudrak et al., 2017).

¹³ Not every area projected to have future growth has municipal water and sewer systems.

Impacts	Implications
	<ul style="list-style-type: none"> ▪ Potential groundwater and aquifer contamination¹⁴

1.4 Stewardship Programming at other CAs

Almost all the CAs in Ontario offer stewardship programming to some degree. Comparative analysis of these programs revealed various program elements are offered and a disparity exists in their delivery. The following list summarizes the percentage of CAs that offer each program element:

Stewardship Program Elements	Percentage of CAs that Offer Element
Large-scale tree planting/reforestation	76%
Plant sales/tree giveaways	58%
Rural clean water	58%
Habitat restoration/enhancement	45%
Agriculture-specific program (funding or otherwise)/ALUS	39%
LID/SWM promotion	24%
Workshops	21%
Shoreline planting	15%
Volunteer events	15%
Ash tree replacement	12%
Species at risk	12%
Invasive species management	12%
Educational/advice-based site visits	12%
Association with native plant nursery	9%
Trees for Rural Roads	6%
Loan equipment to volunteers for independent monitoring	3%

MVCA has offered many of these programs on a limited basis. The development of a Stewardship Plan allows MVCA to determine the most appropriate bundle of programs for this jurisdiction.

¹⁴ In rural parts of the watershed, an estimated 63% of the permanent population uses groundwater wells for their drinking water. The high growth areas also contain some of the largest wetlands and groundwater recharge areas of the eastern end of the Mississippi River Watershed, where development can negatively impact hydrologic conditions.

1.5 Target Stakeholders

MVCA will strive to engage municipalities, owners of both small and large landholdings, homeowners, businesses, institutions, recreational water users, and all residents of the jurisdiction to learn about and implement stewardship best practices, as well as for inclusion in the implementation of an assessment program for post-effectiveness monitoring. The design and elements of the Stewardship Program will be refined as these relationships develop and new priorities are identified.

1.6 Indigenous Engagement

When work began on the MRWP, MVCA undertook to prepare an Indigenous Engagement Plan (IEP) under the guidance of Cambium Indigenous Professional Services (CIPS). Research conducted by CIPS identified twenty-eight First Nations Communities/groups that hold interest within the MVCA watershed. MVCA, through CIPS, will engage with all twenty-eight Indigenous Communities/groups to discover any stewardship initiatives that they wish to undertake for which MVCA can provide support. As initiatives are identified, MVCA will recommend amendments of the Stewardship Plan to the Board as well as seek funding to support these initiatives.

2.0 CHALLENGES AND OPPORTUNITIES

The following sections outline the stewardship challenges and opportunities present within the Mississippi River and Carp River Watersheds.

2.1 Forestry

Challenges	Objectives	Program Opportunities
<ul style="list-style-type: none"> ▪ Forest fragmentation ▪ Decrease in forest density ▪ Lack of interior forest 	<ul style="list-style-type: none"> ▪ Increase forest connectivity ▪ Increase forest cover (overall and interior forest) ▪ Carbon sequestration 	<ul style="list-style-type: none"> ▪ Promote the development of Forest Management Plans ▪ Educate communities about ecological services provided by forests ▪ Distribute educational material from FHN

2.2 Waterbody, Watercourse, and Wetland Health

Challenges	Objectives	Program Opportunities
<ul style="list-style-type: none"> ▪ Impacts to surface and groundwater quality (pollution, nutrient runoff, leaching sewage) 	<ul style="list-style-type: none"> ▪ Decrease pollution entering waterways and waterbodies ▪ Improve on-site water storage to prevent runoff and flooding 	<ul style="list-style-type: none"> ▪ Septic Re-inspection Program ▪ Relationships with Lake Associations ▪ Shoreline Naturalization Program ▪ ORCWP ▪ CSW ▪ Seek out opportunities for river and stream restoration

Challenges	Objectives	Program Opportunities
<ul style="list-style-type: none"> ▪ Stormwater management ▪ Erosion and siltation ▪ Loss of wetlands 	<ul style="list-style-type: none"> ▪ Stabilize soils and shorelines ▪ Increase number of wetlands 	<ul style="list-style-type: none"> ▪ Stormwater management education ▪ Promote and encourage LIDs and participation in water storage incentive programs, e.g. Rain Ready Ottawa ▪ Work with municipalities in implementing LIDs on municipal land ▪ Introduction of ALUS Lanark Program to facilitate the restoration of wetlands on marginal farmland ▪ Use data collected through CSW and volunteer efforts to control litter entering waterways

2.3 Habitat Loss

Challenges	Objectives	Program Opportunities
<ul style="list-style-type: none"> ▪ Fragmentation and loss of natural areas ▪ Habitat loss 	<ul style="list-style-type: none"> ▪ Increase connectivity of natural areas ▪ Increase habitat opportunities for fish and wildlife 	<ul style="list-style-type: none"> ▪ Shoreline Naturalization Program ▪ Introduction of ALUS Lanark Program to support the use of stewardship best practices among farmers and to facilitate the restoration of wetlands, tallgrass prairies, and riparian areas on marginal farmland ▪ Identify opportunities to implement habitat enhancement projects on municipal or CA-owned lands (e.g. building turtle nesting mound at MICA and CRCA; snake hibernaculum and nesting boxes at CRCA; pollinator habitat at MVCA office)

2.4 Invasive Species

Challenges	Objectives	Program Opportunities
Introduction and spread of invasive species	Prevent and reduce introduction and spread of invasive species	<ul style="list-style-type: none"> ▪ Coordinated management program using data collected through CSW and volunteer efforts in tandem with replanting work

Challenges	Objectives	Program Opportunities
		<ul style="list-style-type: none"> ▪ Annual monitoring of managed populations to prevent re-establishment ▪ Use and promotion of EDDMapS tool to identify, document, and monitor the introduction and spread of invasives ▪ Educate the community; promote tools such as <i>Grow Me Instead</i> publication (Ontario Invasive Plant Council, 2020).

3.0 PROGRAM APPROACH

MVCA’s jurisdiction has been divided into three geographic regions for the purposes of this Stewardship Plan (Figure 2):

- **The Upper Watershed (wooded uplands):** Township of Addington Highlands, Township of North Frontenac, Township of Central Frontenac, and Township of Greater Madawaska.
- **The Middle Watershed (transition zone):** Township of Lanark Highlands, Tay Valley Township, and Township of Drummond/North Elmsley.
- **The Lower Watershed (agricultural/urban):** Municipality of Mississippi Mills, Town of Carleton Place, Township of Beckwith, and City of Ottawa.

Rather than delivering all programs to the entire jurisdiction, this Stewardship Plan proposes to target programs suitable to each geographic region. Table 1 (see Appendix) shows the approximate month-by-month delivery of each program for the Upper Watershed, Middle Watershed, and Lower Watershed.

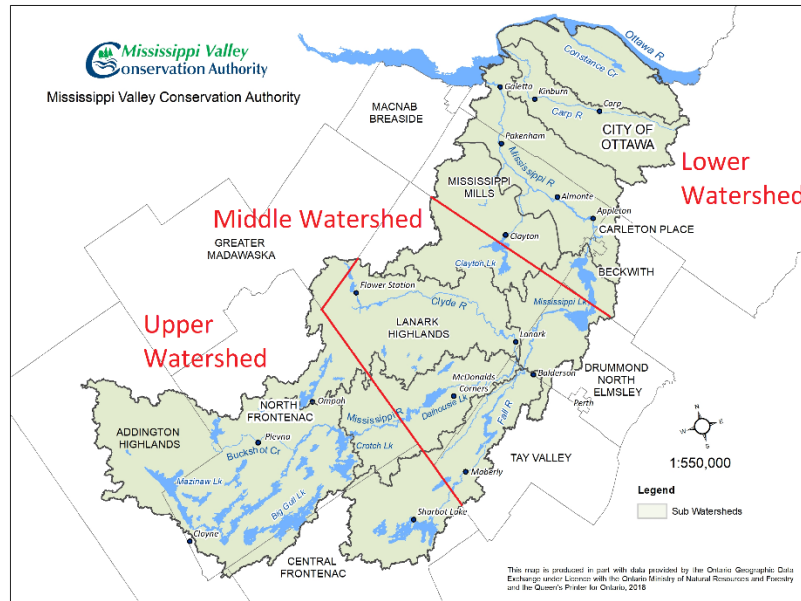


Figure 2. The MVCA jurisdiction divided into the Upper, Middle, and Lower Watersheds.

3.1 Upper Watershed: Areas of Focus

The Upper Watershed contains many lakes, rivers and streams with small wetlands scattered within forested cottage-country and crown-owned lands. The key stewardship objectives for this region are below, paired with program opportunities:

Upper Watershed Objectives	Program Opportunities
Enhance management of forested lands	<ul style="list-style-type: none"> ▪ Promote the development of Forest Management Plans ▪ Distribute educational material from Forest Health Network
<ul style="list-style-type: none"> ▪ Improve waterbody, watercourse, and wetland health ▪ Increase knowledge of lake health 	<ul style="list-style-type: none"> ▪ Promote and deliver Septic Re-inspection Program (per MOUs) ▪ Promote and deliver Shoreline Naturalization Program¹⁵ ▪ Participate in Lake Associations meetings ▪ Support Lake Links annual meeting ▪ Promotion and tracking of the Water Rangers water testing program
Prevent and reduce the introduction and spread of invasive species	<ul style="list-style-type: none"> ▪ Distribute educational materials, e.g. <i>Grow Me Instead</i> publication (Ontario Invasive Plant Council, 2020).

¹⁵ Where plantings exceed capacity, projects will be referred to Watersheds Canada.

Upper Watershed Objectives	Program Opportunities
	<ul style="list-style-type: none"> Use EDDMapS mapping database and app and other tools to log sightings

3.2 Middle Watershed: Areas of Focus

The Middle Watershed features many lakes, rivers, and streams along with both small and large wetlands, many of which are deemed Provincially Significant (PSW). Most notable is the abundance of agricultural land use in the eastern area of this section. The key stewardship objectives for this region are below, paired with program opportunities:

Middle Watershed Objectives	Program Focus
Enhance management of forested lands	<ul style="list-style-type: none"> Promote the development of Forest Management Plans Distribute educational material from Forest Health Network
<ul style="list-style-type: none"> Improve waterbody, watercourse, and wetland health Increase knowledge of lake health 	<ul style="list-style-type: none"> Promote and deliver Septic Re-inspection Program (per MOUs) Promote and deliver Shoreline Naturalization Program Participate in Lake Associations meetings Support Lake Links annual meeting Promotion and tracking of Water Rangers water testing program
Habitat enhancement	<ul style="list-style-type: none"> Promote and deliver Shoreline Naturalization Program Promote and deliver ALUS Lanark
Prevent and reduce the introduction and spread of invasive species	<ul style="list-style-type: none"> Distribute educational materials, e.g. <i>Grow Me Instead</i> publication (Ontario Invasive Plant Council, 2020). Use EDDMapS mapping database and app and other tools to log sightings

3.3 Lower Watershed: Areas of Focus

The Lower Watershed is characterized by a high concentration of agricultural land use, limited forested cover that is primarily privately owned and fragmented, large wetland complexes (some PSWs), and a high concentration of rural and urban land use. This region is where the majority of urban growth is projected to take place. The key stewardship objectives for this region are below, paired with program opportunities:

Lower Watershed Objectives	Program Focus
Enhance management of forested lands	<ul style="list-style-type: none"> Promote the development of Forest Management Plans Distribute educational material from Forest Health Network

Lower Watershed Objectives	Program Focus
<ul style="list-style-type: none"> ▪ Improve waterbody, watercourse, and wetland health ▪ Increase knowledge of lake health 	<ul style="list-style-type: none"> ▪ Participate in Lake Associations meetings ▪ Support Lake Links annual meeting ▪ Promotion and tracking of the Water Rangers water testing program ▪ Promote and deliver Shoreline Naturalization Program ▪ Promote and deliver Ottawa Rural Clean Water Program (per MOU) ▪ Promote and deliver City Stream Watch Program (per MOU) ▪ Identify opportunities for river and stream restoration ▪ Promote Low Impact Development and participation in water storage programs, e.g. Rain Ready Ottawa ▪ Promote and deliver stream clean-up events using volunteer efforts
<p>Habitat enhancement</p>	<ul style="list-style-type: none"> ▪ Promote and deliver Shoreline Naturalization Program ▪ Promote and deliver ALUS Lanark ▪ Promote and deliver Ottawa Rural Clean Water Program (per MOU)¹⁶ ▪ Identify, investigate, and facilitate habitat enhancement of public lands
<p>Prevent and reduce the introduction and spread of invasive species</p>	<ul style="list-style-type: none"> ▪ Analyze City Stream Watch data and prioritize removal of invasives ▪ Organize and deliver volunteer invasive removal events ▪ Distribute educational materials, e.g. <i>Grow Me Instead</i> publication (Ontario Invasive Plant Council, 2020). ▪ Use EDDMapS mapping database and app and other tools to log sightings

4.0 PARTNERING OPPORTUNITIES

MVCA shares environmental protection and resource management interests with many Non-Government Organizations (NGOs), local groups and associations. It has collaborative relationships with universities, many lake associations, and a variety of stewardship organizations. These collaborations become increasingly important as Provincial resources and services continue to diminish at the local level. A detailed description of current and potential partnership opportunities follows.

¹⁶ Wetland habitat restoration is a new category that will be eligible starting in 2022.

4.1 Conservation Authorities

MVCA has formed strong partnerships with several CAs within Ontario, which are explained below:

Conservation Authority	Partnerships
Rideau Valley Conservation Authority	<ul style="list-style-type: none"> ▪ Ottawa Rural Clean Water Program ▪ City Stream Watch ▪ Ash Tree Replacement Program ▪ Private Lands Forestry (Green Acres and Trees for Tomorrow Programs) ▪ ALUS Lanark¹⁷
South Nation Conservation	<ul style="list-style-type: none"> ▪ Ottawa Rural Clean Water Program ▪ City Stream Watch ▪ Ash Tree Replacement Program
Cataraqui Conservation	<ul style="list-style-type: none"> ▪ Source plant material for Shoreline Naturalization Program and other stewardship initiatives from native plant nurseries that are associated with Cataraqui Conservation¹⁸

4.2 Municipalities

MVCA has been providing planning advice to its member municipalities for many years. By making recommendations for improving and maintaining terrestrial and aquatic health throughout the watershed, MVCA promotes best management practices in a limited nature for properties that are being re-developed.

Along with providing planning advice, MVCA has worked with many of its member municipalities to implement stewardship initiatives within the watershed. Many of these initiatives were shoreline plantings in publicly accessible waterfront locations. Municipal plantings undertaken in recent years are listed below:

Year	Waterfront Site	Municipality
2014	Diefenbunker Site	City of Ottawa
2014	Kinburn Community Centre	City of Ottawa
2014	Poole Creek (Stitt Street Park)	City of Ottawa
2015	Fred Millar Park	Pakenham (Municipality of Mississippi Mills)
2016	Almonte Fairgrounds	Almonte (Municipality of Mississippi Mills)

¹⁷ Starting in 2021, MVCA, RVCA, and Lanark County are partnering with ALUS Canada to deliver an ALUS Lanark program (see below).

¹⁸ This is a potential new partnership that could begin in 2022.

Year	Waterfront Site	Municipality
2016	Metcalfe Park	Almonte (Municipality of Mississippi Mills)
2016	Riverside Park	Almonte (Municipality of Mississippi Mills)
2018	Poole Creek Outlet	City of Ottawa
2018	Carp River Restoration Site	City of Ottawa
2019	Centennial Park	Town of Carleton Place
2019	Pakenham Beach	Pakenham (Municipality of Mississippi Mills)
2019	Palmerston Lake Beach	Township of North Frontenac
2019	Poole Creek	City of Ottawa

Future opportunities for MVCA to partner with its member municipalities are as follows:

- Continue to deliver shoreline naturalization program, with a focus on larger tracts of land
- Continue to deliver Septic Re-inspection Program where MOUs exist

4.3 ALUS Lanark

ALUS Canada is an organization that provides financial and technical support to farmers who deliver ecosystem services in their communities through wetland restoration and construction, tallgrass prairie restoration, or shoreline restoration. ALUS Lanark will expand MVCA’s support of agricultural stewardship initiatives on private lands. The Middle and Lower Watersheds will benefit from this program. The key benefits of these habitat restoration projects include:

- Carbon sequestration
- Reductions in greenhouse gas emissions
- Natural disaster risk reduction from floods
- Habitat enhancement for migratory birds and species at risk
- Reduced loss of topsoil
- Reduced downstream siltation

The first step in implementing the ALUS Lanark program is to form a partnership advisory committee (PAC). MVCA will find and work with prominent representatives of the agriculture community to gain their expertise on how to engage and support farmers in implementing stewardship best practices. Ideally, these representatives will include local farmers and farm workers, agricultural business and industry representatives, and municipal representatives. Examples of local organizations to which MVCA could perform outreach for recruiting representatives and for promotion of ALUS Lanark include:

- 4H Ontario
- Lanark Federation of Agriculture
- National Farmers Union
- Ontario Soil and Crop Improvement Association (OSCIA)
- Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)
- Ontario Federation of Agriculture (OFA)

4.4 Local Environmental/Stewardship Organizations

MVCA is currently engaging in a partnership with CWF to enhance turtle habitat via constructing of a turtle nesting mound at the Morris Island Conservation Area. There are opportunities for enhancing wildlife habitat at the Carp River Restoration Area, and therefore potential to continue this partnership.

MVCA will work with local Stewardship Councils to review current stewardship programming needs, overlap, and gaps, as well as promote participation in existing stewardship initiatives by Stewardship Councils and other groups.

4.5 Academia

There are opportunities to collaborate with the University of Ottawa and Carleton University in the pre-treatment and post-effectiveness monitoring of restoration projects (see Section 7.0).

5.0 GRANTS

MVCA will seek external funding to support habitat enhancement projects, educational activities, and initiatives that benefit the community. Below are examples of grants that MVCA has had success with in the past, as well as others to consider, with additional information where available:

Grant Source	Grant Name	Amount	Dollar-Matching or In-Kind Requirements
Bass Pro Shops and Cabela's	Outdoor Fund		
Canadian Wildlife Federation	Rights-of-Way Habitat Restoration Program	No maximum amount for projects	Staff wages are considered in-kind.
Enbridge Gas	Enbridge Gas	\$5,000	
Environment and Climate Change Canada (ECCC)	Habitat Stewardship Program	\$25,000 - \$100,000 per project	Non-indigenous applicants are required to obtain a minimum of 1:1 matching contributions. Indigenous applications are required to obtain a minimum of 0.20:1 matching contributions. Leveraging can take the form of either financial or in-kind resources.
Environment and Climate Change Canada (ECCC)	EcoAction Community Funding Program	\$25,000 - \$100,000 per project	ECCC will fund up to 50% of project expenditures.
Government of Canada	Canada Summer Jobs	up to 50% of minimum wage	Approximately \$6,000 cost to MVCA
Government of Ontario	Ontario Trillium Foundation	\$5,000 - \$500,000, depending on project and project category	
Ministry of Environment, Conservation and Parks	Species at Risk Stewardship Program		Applications with matching dollars and/or in-kind contributions are preferred; Matching dollars preferred to in-kind contributions.
Ottawa Community Foundation	Community Grants Program	one-year grants in the order of \$10,000; multi-year grants range from \$3,000-\$24,000 per year	
RBC	RBC Tech for Nature	Received \$4,800 in 2020	RBC will fund up to 50% of a specific project or program budget.
TD Bank	TD Friends of the Environment Foundation	average \$6,900 in Ontario	
TD Bank	TD Tree Days	Received \$5,500 in 2020	
Wildlife Habitat Canada	The Habitat Conservation Stamp Initiative		Minimum 1:1 matching from non-federal sources required.
Ontario Wildlife Foundation	Ontario Wildlife Fund	Received \$2,000 in 2019	

6.0 BUDGET

EXPENDITURES	2022	2023	2024
1FTE Wages/Benefits	\$59,652.66	\$60,845.71	\$62,062.63
0.33FTE Wages (summer student)	\$10,000.00	\$10,000.00	\$10,000.00
Rural Clean Water program delivery	\$3,000.00	\$3,000.00	\$3,000.00
Trees Canada program delivery (RVCA Partnership)	\$5,500.00	\$5,500.00	\$5,500.00
County of Lanark Forest Management program delivery	\$6,000.00	\$6,000.00	\$6,000.00
Shoreline Naturalization & Other Watershed Stewardship			
Mileage/Expenses/Prof Development	\$4,000.00	\$4,000.00	\$4,000.00
Mat&Sup/Equip/Gexp/Promotion/Bat Boxes	\$12,000.00	\$12,000.00	\$12,000.00
Publicity	\$1,000.00	\$1,000.00	\$1,000.00
	Sept 2021 - Mar 2022	Apr 2022 - Mar 2023	Apr 2023 - Mar 2024
ALUS Lanark/Carp program delivery	\$16,516.75	\$96,704.79	\$121,407.87
TOTAL	\$117,669.41	\$199,050.50	\$224,970.50
REVENUES	2022	2023	2024
Municipal Levy	\$75,983.00	\$75,983.00	\$75,983.00
User Fees - City of Ottawa RCWP	\$3,000.00	\$3,000.00	\$3,000.00
User Fees - County Forest Management (County of Lanark)	\$6,000.00	\$6,000.00	\$6,000.00
Other - OWF Grant - Fish Habitat Wolf Grove Creek	\$2,000.00	\$2,000.00	\$2,000.00
Other - Trees/TD Planting Program Grant	\$5,500.00	\$5,500.00	\$5,500.00
Other - Canada Summer Jobs	\$5,000.00	\$5,000.00	\$5,000.00
	Aug 2021 - July 2022	Aug 2022 - July 2023	Aug 2023 - July 2024
Other - ALUS Canada	\$41,300.00	\$35,400.00	\$29,500.00
	Sept 2021 - Mar 2022	Apr 2022 - Mar 2023	Apr 2023 - Mar 2024
Other - ECCC Nature Smart Climate Solutions Fund	\$21,820.00	\$66,167.50	\$97,987.50
TOTAL	\$160,603.00	\$199,050.50	\$224,970.50

7.0 MEASURING SUCCESS

7.1 Short-term Deliverables

It is important to take measurements for gauging the success of Stewardship initiatives. The following quantifiable measures will be assessed in the short term:

- Number of projects undertaken
- Number of trees/shrubs planted
- Total area of land planted
- Total area of land restored to wetlands
- Total area of land restored to tallgrass prairie
- Length of shoreline restored
- Number of landowners contacted
- Number of landowners involved in projects
- Number of attendees at events, workshop¹⁹
- Number of community volunteer hours

In the longer term, the following actions can be taken to gauge the outcomes of Stewardship activities:

- Use sub-watershed report cards and aerial imagery to measure changes in the landscape, e.g. trends in deforestation or afforestation.
- Use City Stream Watch data to track changes in water quality and other trends in the watershed.

7.2 Post-Effectiveness Monitoring and Assessment

As projects arise, MVCA will enter into discussions with landowners regarding the opportunity to carry out post effectiveness monitoring, where appropriate. MVCA proposes to undertake baseline and post-implementation monitoring to assess the impacts of the program on water quality.

For wetland restoration projects, it is recommended that a year 1, 3, and 5 post effectiveness monitoring program be carried out. The following is a selection of parameters typically used for monitoring project function:

- Water levels (water storage)
- Water temperature
- Dissolved oxygen concentration
- % dissolved oxygen saturation
- pH
- Conductivity
- Specific conductivity
- Vegetation community (aquatic and terrestrial)

¹⁹ Program participants, including landowners and volunteers, can be surveyed after the fact

to assess the delivery and educational value of the programs.

- Zoological community (fish, birds, reptiles, amphibians, aquatic invertebrates, pollinators, other insects)

8.0 FUTURE CONSIDERATIONS

Some potential ideas, strategies, and initiatives for MVCA to consider in the future that are implemented by other Conservation Authorities:

- Expansion of Rural Clean Water Program outside of the City of Ottawa
- Expansion of City Stream Watch into Lanark County
- Acquisition of land to offer carbon offsetting program to commercial industry
- Development and delivery of Landowner Stewardship Workshops
- Delivery of guided, themed hikes in Conservation Areas
- Sale of kits of various themes, e.g. shoreline naturalization starter kits, DIY habitat kits
- Sale of nesting boxes for landowner installation
- Development of educational material/guides for download from MVCA website
- Development of Invasive Species Management Strategy for the MVCA watershed
- Organization and delivery of community science Bio-blitz projects (individual species reporting or events centred around a specific location)

9.0 SUMMARY

Land stewardship is one of the keys to providing critical climate change resiliency to municipalities. Stewardship initiatives are integral to reducing and mitigating flooding, water quality improvement, water storage, carbon sequestration, habitat restoration, and the overall benefit of human health and wellness. This Stewardship Plan will allow MVCA to help ensure the aquatic and terrestrial health and drinking water quality of the watershed.

10.0 REFERENCES

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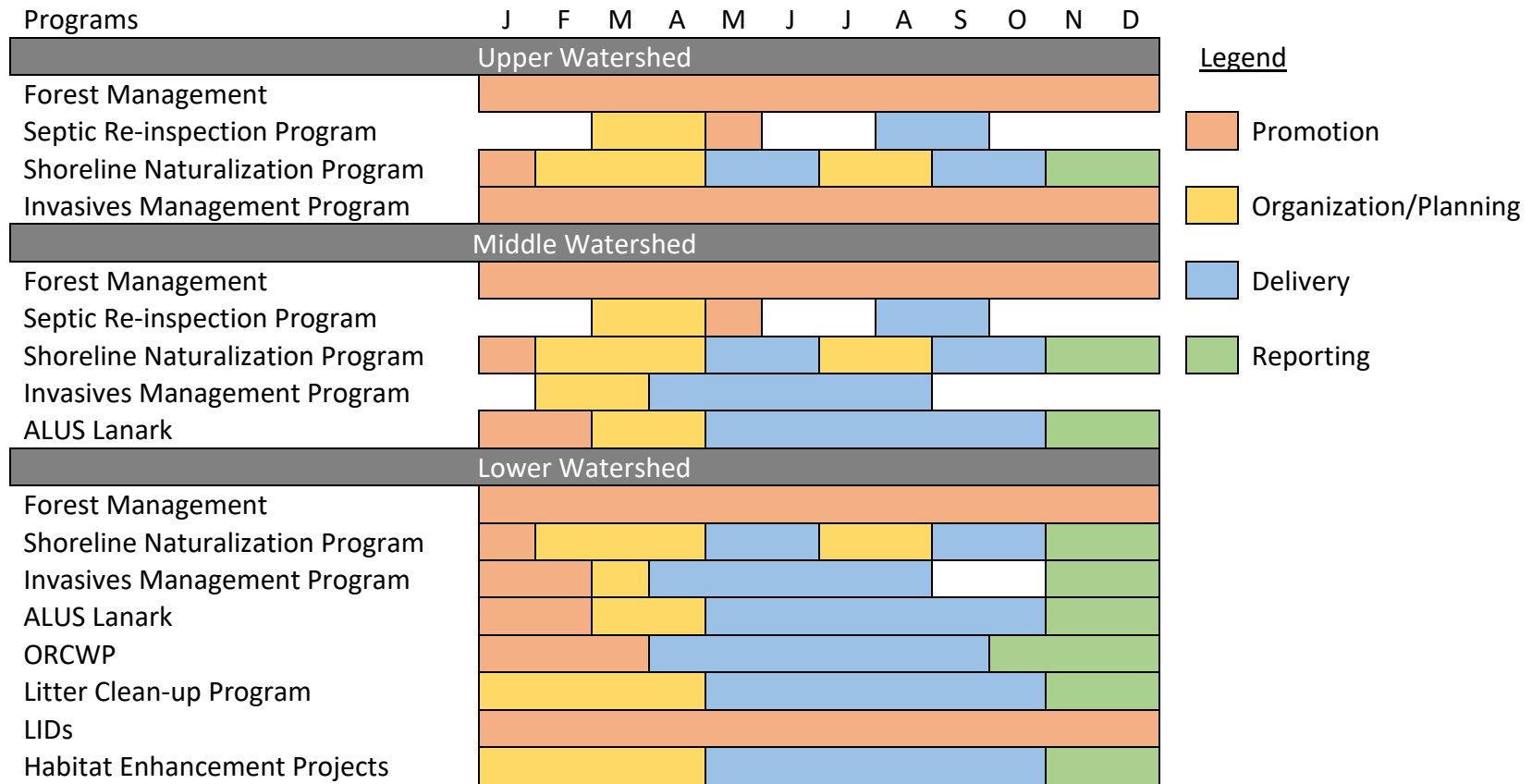
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11.0 APPENDIX

Table 1. Seasonal/monthly program delivery for all programs within each region of the watershed.



REPORT

3171/21

TO:	MVCA Policy & Priorities Advisory Committee
FROM:	Sally McIntyre, General Manager
RE:	IPCC Report on Climate Change and MVCA
DATE:	October 13, 2021

For information.

1.0 PURPOSE

On August 6, 2021, the Intergovernmental Panel on Climate Change (IPCC) released its latest report with the most current physical science knowledge and projections regarding climate change.¹ The report states the need for all levels of government to act to: reduce greenhouse gases (GHGs) in order to mitigate extreme temperature increases; and modify business policies, plans, and programs to adapt to existing and projected changes in climate. As an organization operating on the front-line of climate change, the purpose of this report is to inform the Board of actions planned and underway at MVCA to contribute to mitigating and adapting to climate change.

2.0 THE IPCC

The United Nations created the IPCC in 1988 to provide policymakers with regular scientific assessments on the state of knowledge about climate change. The IPCC is comprised of representatives from 195-member governments with hundreds of experts that volunteer their time and expertise to conduct reviews and prepare or peer review reports.²

In addition to government appointed representatives, there are numerous “Observer Organizations” that attend sessions of the IPCC and provide experts to review draft reports.³ These groups range from the Organization of the Petroleum Exporting Countries (OPEC) to The Nature Conservancy, and the Royal Meteorological Society.

¹ <https://www.ipcc.ch/report/sixth-assessment-report-working-group-i/>

² <https://www.ipcc.ch/about/>

³ https://www.ipcc.ch/site/assets/uploads/2021/07/List_of_Observer_Organizations_26_July_2021.pdf

3.0 LATEST IPCC REPORT

The August 2021 report is the sixth in a series—the first published in 1990.⁴ It states that there is irrefutable evidence of human induced climate change, that the impacts are now observable world-wide, and that significant action is required now. This conclusion is based upon comprehensive analysis of five future scenarios (referred to as SSP₁ through SSP₅), each representing a set of socio-economic conditions/behaviours that impact greenhouse gas emissions.^{5,6}

The following two figures published by the IPCC help to illustrate their findings.

- Figure 1 shows predicted emissions and the warming potential under each scenario.
- Figure 2 shows predicted impacts on the frequency of specific intense weather events.

In summary, Figure 1 shows that even with significant changes in global socio-economic trends and associated GHG emissions, the planet is going to continue to get warmer (see red circle.)

Figure 2 shows that in the near term we are likely to experience what *was* a 1 in 10-year severe heat event 3 to 4 times more frequently.

4.0 WHAT THIS MEANS FOR MVCA

While climatic changes are predicted to be less extreme in eastern North-America compared to other regions, we will still experience changing weather patterns. These kinds of trends will have direct impacts on the planning, design and operation of MVCA's water control structures as well as on the update of our regulation mappings and associated policies. As well, we can anticipate this region to experience increased settlement due to domestic and international migration; and increased use, dependence upon, and export of local natural resources and agricultural products due their changing availability on the national and international market. This will increase demand for surface and ground water, potential water contamination, and risk from natural hazards if not planned and designed in anticipation of the impacts of climate change.

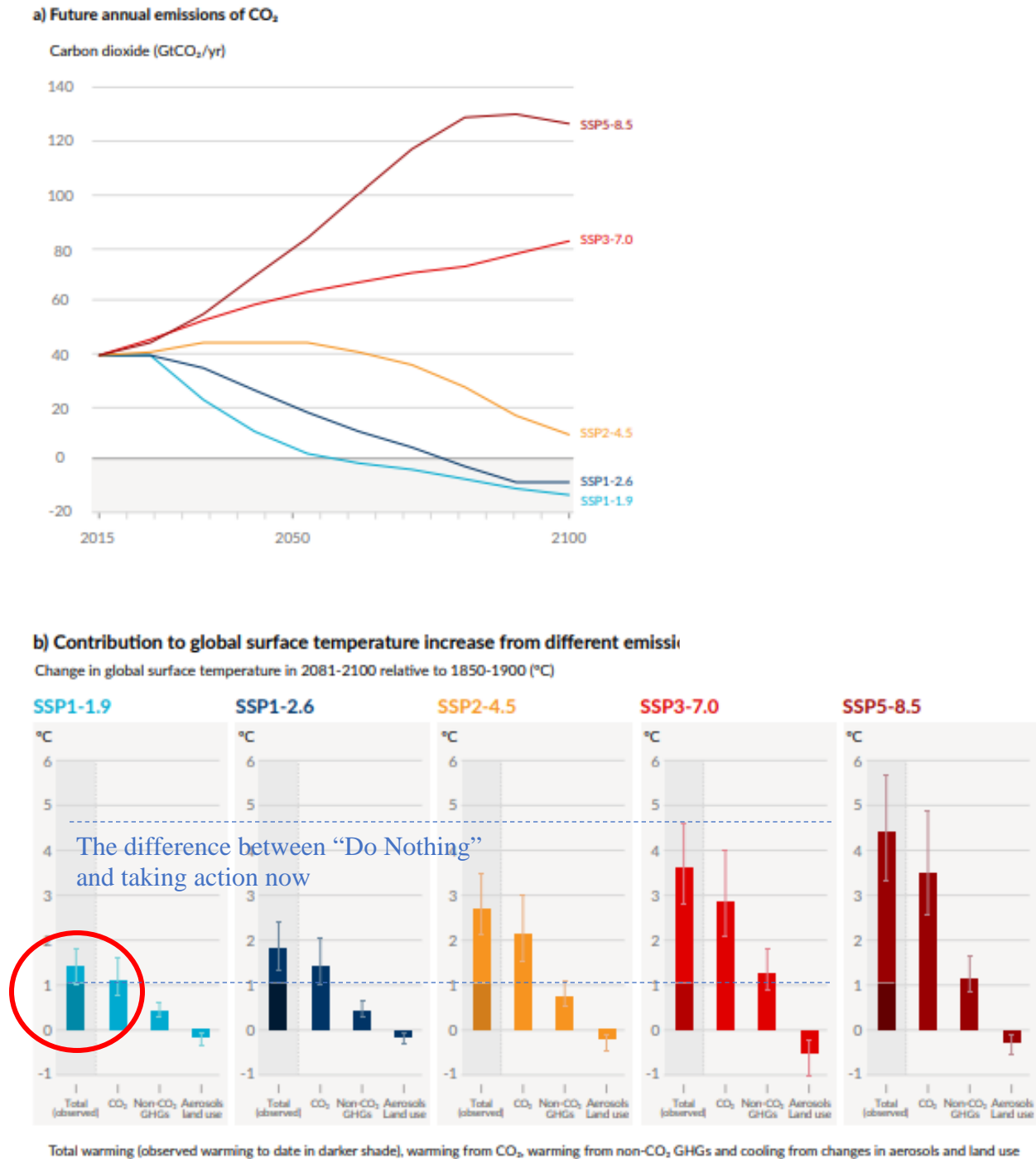
To date, actions by MVCA to address climate change have largely focused on our role in supporting adaptation to changing weather conditions. However, as a public organization on the front lines of climate change it is appropriate that we actively work toward mitigating the worst of climate change.

⁴ Previous reports were published in [1990](#), [1995](#), [2001](#), [2007](#), and [2014](#).

⁵ SSP refers to the Shared Socio-economic Pathway or [global social-economic trends](#) underlying the scenario.

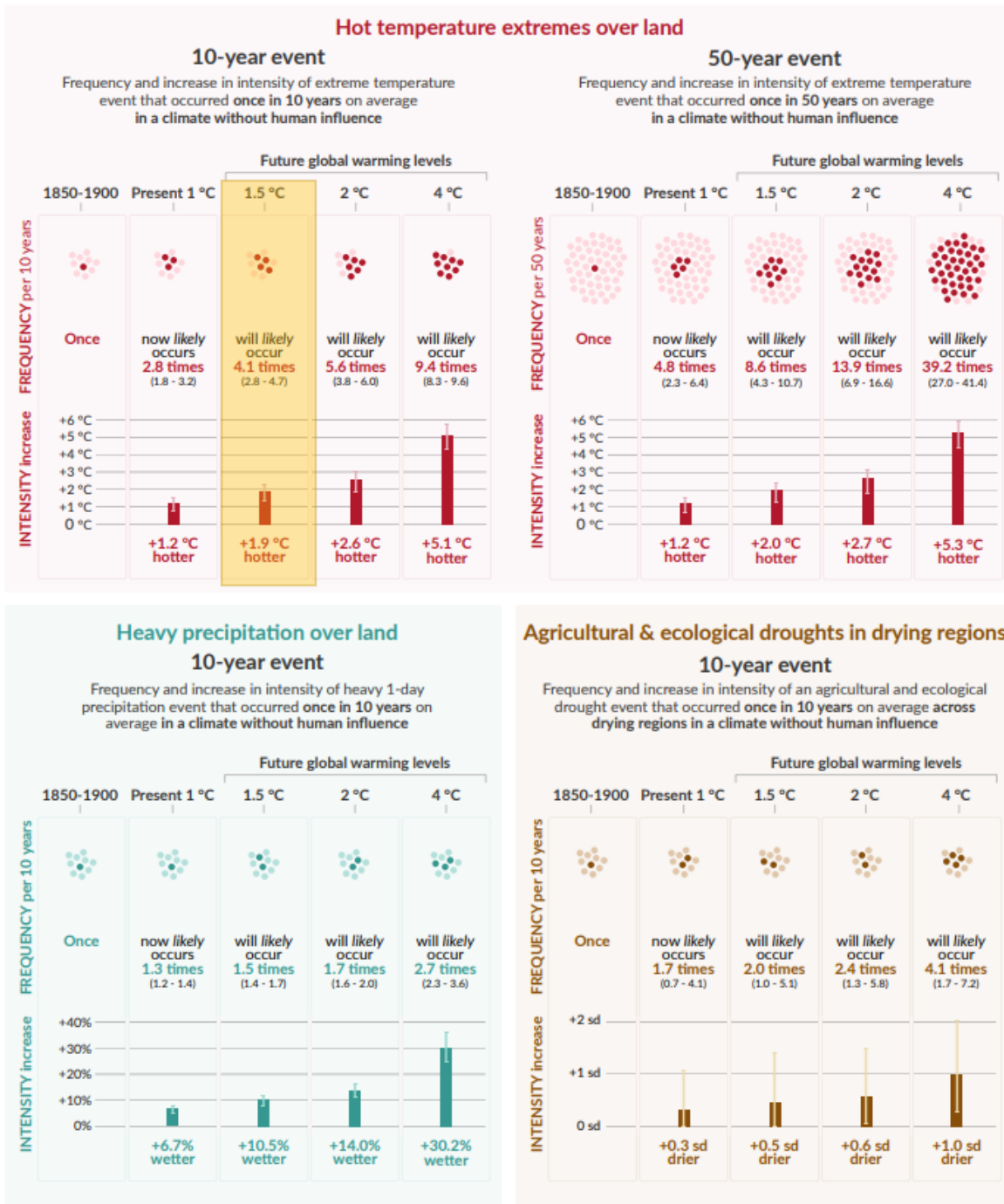
⁶ Visit [Reuters.com](#) for a summary of each scenario: “Explainer: The U.N. climate report's five futures – decoded”

Figure 1: IPCC Emission and Warming Projections⁷



⁷ Page SPM-16, https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf

Figure 2: IPCC Precipitation and Temperature Projections⁸



⁸ Page SPM-23, https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf

4.1 Adaptation

MVCA is already undertaking several actions towards improving organizational knowledge and readiness to address the impacts of climate change.

- Implementation of the *10-year Capital Plan* that includes conducting Dam Safety Reviews and capital improvements at existing facilities.
- Regular procurement of aerial imagery to monitor and assess changes on the landscape and the impacts of growth.
- Acquisition of LiDAR data to enable mapping and modeling of the upper watershed.
- Acquisition of bathymetric data (underwater contours) to improve modeling and predictive analysis of weather conditions, and how to manage them.
- Regular updating of flood plain mapping to reflect the above evolving knowledge, conditions.
- Participation in multi-jurisdictional working groups on how best to modify current approaches to address greater weather variability in regulatory mapping.
- Preparation of a watershed-wide risk assessment to identify areas required creation or update of flood plain mapping.
- Development of a Land Conservation Plan to identify areas that provide ecological services critical to adapting to climate change.
- Implementation of a Stewardship Program to inform and work with landowners to mitigate their impacts and adapt to the impacts of climate change.
- Working with municipalities to update their official plan policies.

A critical piece of work to be carried out will be update of the *Mississippi River Water Management Plan* in partnership with other dam owners/operators. This document, approved by the province, dictates how each owner is to operate their control structures. The current plan does not consider the impacts of climate change. Staff will recommend update of the Plan once the above noted foundation studies/modeling are completed.

4.2 Mitigation

Like most organizations in the area, the majority of MVCA's greenhouse gas emissions come from heating and cooling our facilities and the operation of the corporate fleet.

Fleet

At present, the Authority has one electric vehicle. There is considerable opportunity for MVCA to transition to an electric powered fleet through its normal vehicle replacement and procurement processes. Most daily trips by staff are under 300 km, which is within the average

range of many electric vehicles. The North-American auto industry is beginning to manufacture commercial vehicles that are electric, and as this becomes more common the price differential will lessen. Staff will follow-up with the Board as needed to implement this approach.

There is also an opportunity to adjust business practices to commuter trips by providing flexible work arrangements for employees. Due to our location, virtually all staff drive to work, many commuting from as far away as Ottawa, Smiths Falls, and Perth. A 25-40% reduction in trips and associated emissions may be possible.

Heating and Cooling

MVCA uses fossil fuels to heat its buildings, and electricity to cool them. While Ontario's power grid is largely renewable, there is an opportunity for MVCA to manage demand during extreme heat events, and to work towards conversion of its heating system as key components reach the end of their lifecycle. Staff will investigate these opportunities as resources allow with the goal of being ready to pursue a preferred course of action should government subsidies become available that would make replacement feasible, or if there is a critical component failure and replacement is required.

5.0 CARBON CAPTURE AND GHG EMISSION OFFSETS

As an owner of wetland, grassland, and forest habitat, MVCA is in a position to calculate and determine the degree to which these resources help to offset corporate emissions. Furthermore, there is an opportunity for MVCA to work with other corporations looking to secure land for the purpose of carbon capture and storage. This is an evolving area of business for conservation authorities and staff will report back to the Board with potential options as resources allow.

6.0 CORPORATE STRATEGIC PLAN

Mitigating and adapting to the impacts of climate change is integral to the work we do and supports achievement of the following goal and objectives:

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

- a) Implement the five-year capital program.
- 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*.

REPORT

3172/21

TO:	MVCA Policy & Priorities Advisory Committee
FROM:	Sally McIntyre, General Manager
RE:	Update re: Mill of Kintail Museum
DATE:	October 19, 2021

For information.

1.0 BACKGROUND

In June 2019, the province made changes to the *Conservation Authorities Act* that limited the scope of programs and services eligible for funding by the municipal levy. Upon examination, it was concluded that the Mill of Kintail Museum, which pays homage to Dr. R. Tait McKenzie and Dr. James Naismith, would no longer qualify for municipal levy funding. A special advisory committee was struck to examine options that was co-chaired by Board members Christa Lowry and Jeff Atkinson.

In April 2021, the Co-Chairs presented three options recommended by the Special Advisory Committee¹:

- A. Ownership of the collection transfer to Other Existing Organization
- B. MVCA retain ownership of the collection
- C. Create a new museum corporation

Staff were directed to conduct public consultation regarding the three options, to assess their viability, and to report back to the Board. The purpose of this report is to provide an update on the status of that work.

2.0 PUBLIC CONSULTATION

Public consultation was carried out regarding the three options between April 23 and May 7. A press release and social media notices were published and a webinar² was held on April 29, 2021 that was advertised in local papers. Articles were published in *The Millstone* and *Carleton*

¹ Report 3127/21

² Zoom recording: <https://www.youtube.com/watch?v=eNfV39NChnY>

Place/Almonte Gazette. The webinar was attended by 107 participants, and the video has been viewed over 100 times on YouTube. Fifty (50) written responses were received during the public consultation period with overwhelming support for Option B: *MVCA maintains ownership of the R. Tait McKenzie and Dr. James Naismith collections and obtains operating and maintenance funding via:*

- *Memoranda of Understanding with local municipalities; and*
- *The Mississippi Valley Conservation Foundation (MVCF)*

The following is a summary of key points raised during the consultations:

- This is an opportunity to breathe new life into a well-loved institution in Lanark County.
- The financial difficulties being experienced by the Mill of Kintail Museum is occurring across small community museums in Ontario.
- Museums in Lanark County should consolidate their management and potentially their collections to reduce overhead and improve their sustainability.
- The biggest potential is the untapped cachet of the James Naismith brand and its world-wide appeal.
- Fundraising efforts should be made to reach out to organizations that are interested in the Naismith and McKenzie stories and legacies.
- Every effort should be made to work with the NBA and the Canadian Basketball Association to secure funding for the museum.
- General fundraising capacity of the Foundation and fundraising specifically for the museum cannot be compared.
- A Mill of Kintail Foundation could be established to fundraise for the upkeep of the artifacts and the curator position.
- An R. Tait McKenzie and Dr. Naismith Museum Management Board should be established as well as a Museum Volunteer Organization.
- This should be a National Museum under the operation of the Federal Government since James Naismith and Robert Tait Mackenzie are of National Historical significance.
- The cultural significance of the Mill of Kintail and its museum is recognized locally as one of the Seven Wonders of Lanark County, with interest nationally and internationally from McGill University to Springfield College to the Olympic Stadium in Stockholm.
- Separating the artifacts and the museum from the Mill of Kintail Conservation Area could reduce opportunities to promote the site and impact visitorship.
- Dividing up of the museum, building, and/or site could create operational confusion amongst the different bodies.
- The maturity of municipality can be judged by their interest and action in preserving it's past.

- MVCA and its member municipalities should assist with transitional funding.
- It may be possible for another existing Museum Board to act on behalf of the MOK museum.
- For Option A to be attractive, there would have to be some assurance that the museum would be financially feasible.
- Because the building belongs to the MVCA, nearly all the costs associated with it, such as maintenance, new roof, septic, building insurance, etc., should not be included in operating costs.
- Future staffing costs should be limited to a curator (with no MVCA responsibilities) and another staff member to assist the curator on occasion. These costs could be offset by existing grants and other income.
- If non-compensation costs (heat, hydro, phone, taxes etc.) and minor capital costs (furnace, septic etc.) to maintain the building are absorbed by MVCA, then the cost of operating the museum should be reasonable.
- Ice cream and beverages could be sold at the gift shop, or site rentals increased to cover the cost of the museum.
- The provincial government should be lobbied to provide an exception to MVCA under the Conservation Authority's Act.
- Many felt that there had been insufficient consultation or research carried out by the Special Advisory Committee, and that there had been limited updates given to the public.
- The Lanark County Museum Network (LCMN) offered MVCA its expertise and support as museum stakeholders.

3.0 ASSESSING VIABILITY

The public has indicated a clear preference for Option B, whereby MVCA would retain control over the collections. Regulations released last week state that museum operations are ineligible for municipal levy funding.³ Therefore, if the museum is to stay with MVCA, the following will be required:

- One or more municipalities will need to approve a Cost Apportioning Agreement (CAA) and the CAA(s) would need to be reviewed every five years; or
- A stable source of self-sustaining revenues must be secured through a combination of a major sponsor(s) and on-going focused fundraising.

³ O.Reg. 687/21.

The CAA option can be explored during the upcoming Transition Phase prescribed by regulation. Further financial analysis will be completed and tabled at the Board before contacting municipalities regarding this option.

There is a strong feeling in the community that there is significant fundraising opportunity, and several in the community indicated that either the Mississippi Valley Conservation Foundation or another organization could and should spearhead that effort. This option will be explored with the Foundation and members of the Mill of Kintail Museum Advisory Committee.

There was also strong feeling that another museum Board could assume responsibility for the collection but that key financial matters would need to be resolved including clarity around what costs would be covered by MVCA and what would be the responsibility of the other museum organization. To this end, staff have been working on a Request for Expression of Interest (REOI) to be issued this fall soliciting interest from other organizations to manage or own the two collections. The REOI will be used to gauge interest and capacity, and identify requirements that organizations may have to assume management or ownership of the organization.

Results of the REOI process will help to determine the viability of Option A.

Following further assessment of Options A and B, staff will be in a better position to engage with the public and the Board about whether there is a need to pursue and assess the viability of Option C.

4.0 CORPORATE STRATEGIC PLAN

Work on this initiative is being carried out in support of the following goals under the Corporate Strategic Plan:

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

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