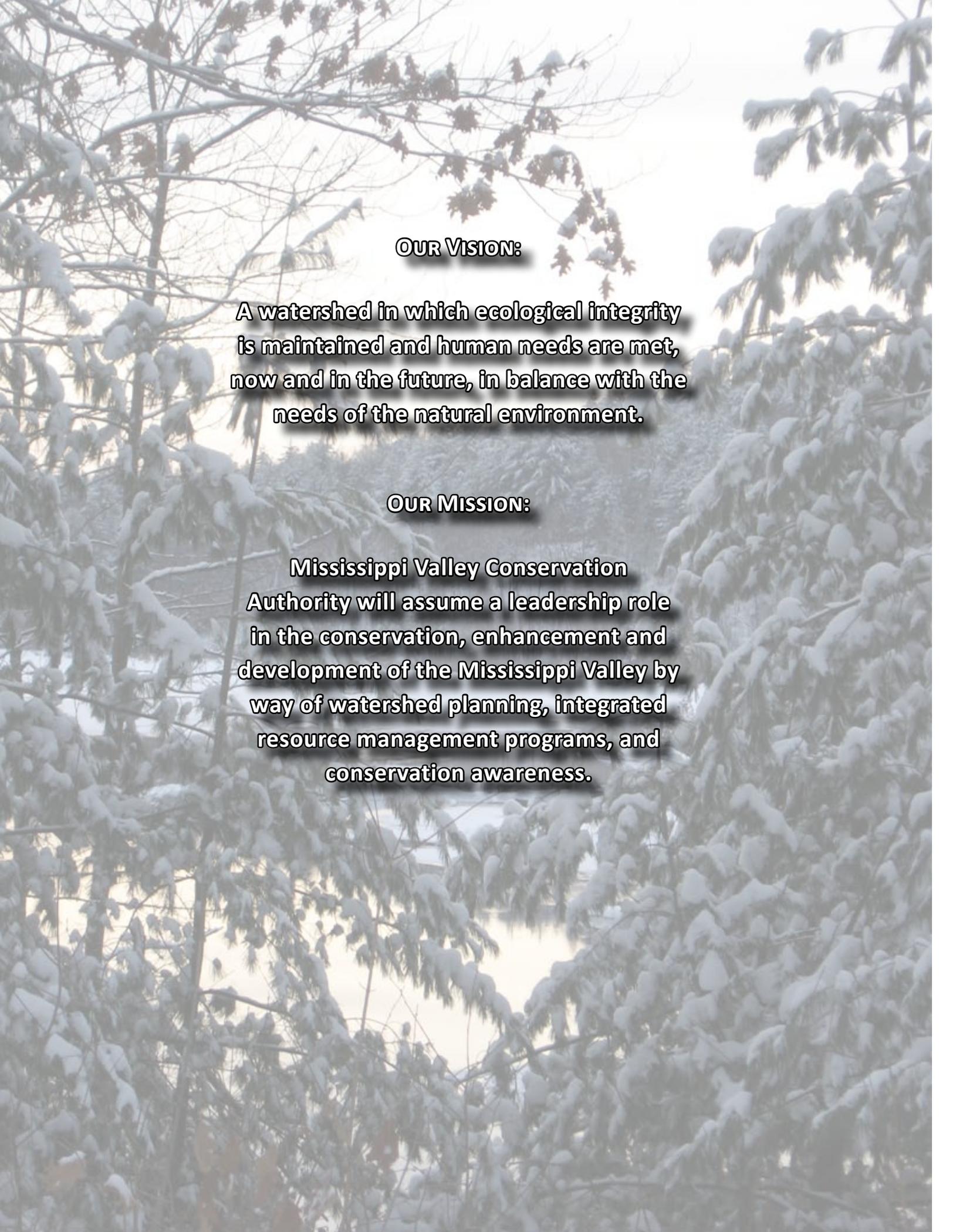




# ANNUAL REPORT

Mississippi Valley Conservation Authority

2016



**OUR VISION:**

**A watershed in which ecological integrity is maintained and human needs are met, now and in the future, in balance with the needs of the natural environment.**

**OUR MISSION:**

**Mississippi Valley Conservation Authority will assume a leadership role in the conservation, enhancement and development of the Mississippi Valley by way of watershed planning, integrated resource management programs, and conservation awareness.**

# WHAT'S INSIDE

## A MESSAGE FROM...

**JOHN KARAU**  
MVCA BOARD CHAIR



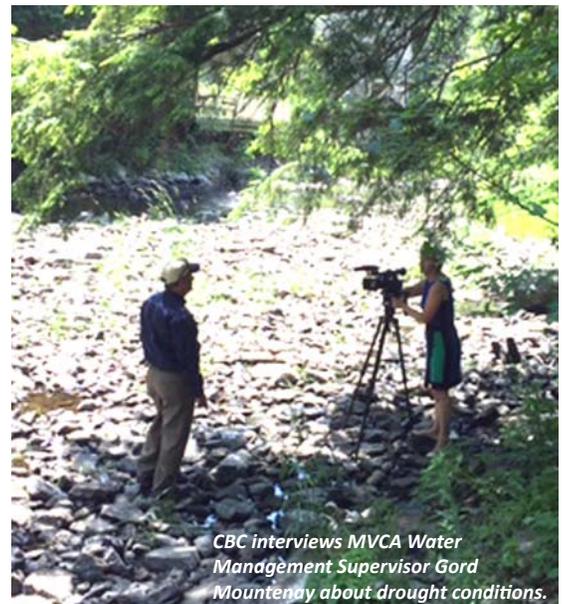
As Chair of the Mississippi Valley Conservation Authority, I am pleased to bring you our 2016 annual report.

As I reflect back on the past year, I can't help but be reminded that the biggest event affecting our watershed in 2016 was the severe drought, which also plagued much of the province for several months. Many lakes and rivers reached historic lows, wells dried up and some municipalities invoked water restrictions. The reality is that these types of events, whether it be drought, flood or severe storms, are expected to become more regular and more intense so yes, "Times They Are A Changin'." That's why the MVCA is continuing to take stock of the effects of climate change on our watershed. In addition, MVCA is taking a proactive approach by developing an integrated watershed management plan for the Mississippi River. Initiated in 2016, the goal of this plan is to examine long term stressors affecting the natural resources of the watershed, provide a forum for government and the public to articulate a vision for the desired state of those resources and develop a collaborative action plan to achieve that vision. Plan development is anticipated to be completed by 2019.

I'd be remiss if I didn't thank MVCA staff. Their hard work, passion and commitment is commendable as is their dedication to keeping the environment as a top priority. I am confident that in partnership with our member municipalities, watershed residents, government and non-government agencies, we will continue to build on our successes and challenge ourselves to contribute even more in the coming year to a sustainable and resilient Mississippi Watershed.

A handwritten signature in black ink that reads "John Karau".

<b>WATERSHED SCIENCE &amp; ENGINEERING.....</b>	<b>3</b>
<b>WATER MANAGEMENT.....</b>	<b>4</b>
<b>PLANNING AND REGULATIONS.....</b>	<b>5</b>
<b>MONITORING &amp; STEWARDSHIP.....</b>	<b>6</b>
<b>COMMUNITY RELATIONS.....</b>	<b>7</b>
<b>LAND MANAGEMENT.....</b>	<b>8</b>
<b>INFORMATION MANAGEMENT.....</b>	<b>9</b>
<b>MISSISSIPPI VALLEY CONSERVATION</b>	
<b>FOUNDATION.....</b>	<b>10</b>
<b>MVCA STAFF.....</b>	<b>12</b>
<b>MVCA BOARD OF DIRECTORS.....</b>	<b>13</b>
<b>JURISDICTION MAP.....</b>	<b>14</b>



# WATERSHED SCIENCE & ENGINEERING

## FLOODPLAIN MAPPING

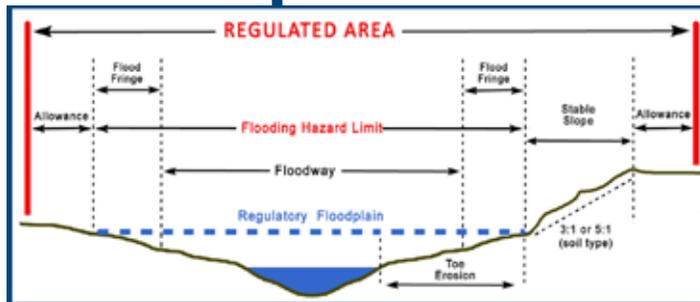
In co-operation and with financial contributions from the City of Ottawa, MVCA continued the five year program of updating flood risk maps throughout the City of Ottawa. In 2016, the Conservation Authorities within the City of Ottawa negotiated an additional five year agreement to continue the effort to update or produce new floodplain mapping for priority watercourses within the City. Floodplain mapping studies were completed for Huntley Creek and Constance Creek in 2016.

### ***The objectives of a floodplain mapping study are:***

- 1.** To determine the magnitude of design flows for various return periods and the regional flood event for the study area.
- 2.** To delineate the floodplain under the Regional (1:100 year) flood event.
- 3.** Incorporate the flood risk areas in the City of Ottawa planning documents (Official Plan and Comprehensive Zoning document) and for use in administration of Ontario Regulation 153/06.

## ADAPTING TO CLIMATE CHANGE

In collaboration with the Ministry of Natural Resources and Forestry, RVCA and with support from Natural Resources Canada, MVCA completed a three year project to assess watershed vulnerabilities to climate change and identify potential adaptation measures.



Seven studies were completed, five of which focused on the Mississippi and Rideau Valley watersheds - [www.mvc.on.ca/climate-change-and-mississippi-valley-conservation/](http://www.mvc.on.ca/climate-change-and-mississippi-valley-conservation/).

A working group of municipal and CA staff, provincial agencies and local stakeholders provided insight and advice on developing a range of adaptation options. Given the study's conclusions and recommendations to other planning efforts such as the Mississippi River Water Management Plan, Mississippi-Rideau Source Protection Plan and municipal official plans, it was important to integrate the vulnerability assessments into a broader watershed planning initiative across the Mississippi River.

## MISSISSIPPI RIVER WATERSHED PLAN

In 2016, MVCA initiated an integrated watershed management plan for the Mississippi River.

Properly addressing what future implications development growth and climate change will have on the watershed, and understanding these stressors with multiple stakeholder interests to establish common priorities will be required.

The Terms of Reference was approved by the Board of Directors and staff have initiated the compilation of relevant background information for review by a multi-stakeholder Project Advisory Committee to be convened in 2017.

Plan development is anticipated to rely predominately on existing information and analyses and be completed by 2019.



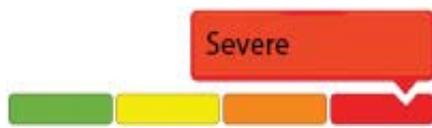
# WATER MANAGEMENT

**M**ississippi Valley Conservation Authority monitors the effect of development and land use to assess watershed conditions. This is done through field monitoring, remote sensing and gathering and interpreting information on the status of water and water related natural resources on an ongoing basis. The careful monitoring of water levels ensures that a flood forecasting and warning service is ever-ready to help municipal officials and the general public take appropriate action in a flood emergency.



## WATER LEVELS

Dry weather dominated the Mississippi Valley watershed for much of



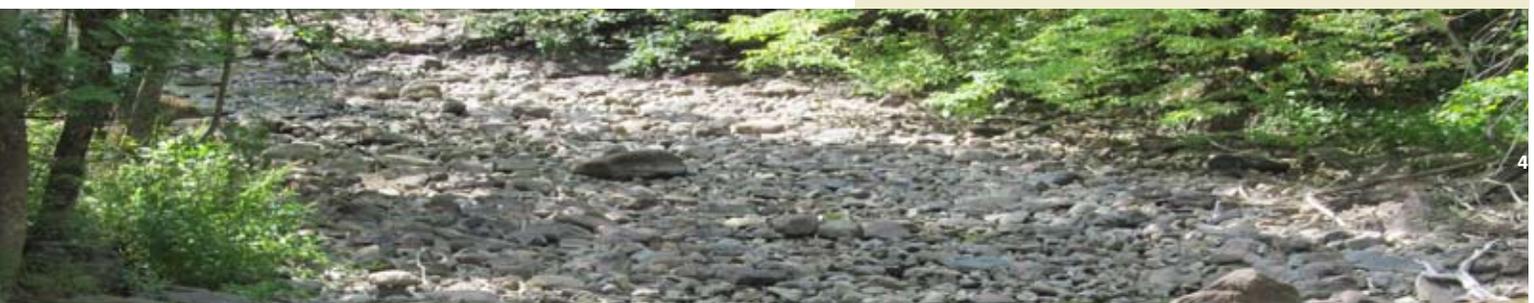
2016, resulting in a drought status effective from June onwards. A Low Water Response Team was established and met several times throughout the year. The team is coordinated by MVCA, and includes local municipal, agriculture, recreation, non-government organizations, and government representatives. The purpose of the team is to review stream flows and weather information and, if necessary, declare a Low Water Condition for all or part of the watershed.

## DAM OPERATIONS & MAINTENANCE

- In late 2016 the Ministry of Natural Resources and Forestry resumed operation and maintenance of Clayton Lake Dam, leaving 18 water and erosion control structures for MVCA to operate and maintain in 2017.
- Complete structural assessments of Bennett and Kashwakamak Lake Dams.
- Sold a portion of the Glen Cairn detention basin.

## FLOOD FORECASTING & MONITORING

- 23 ..... water control structures in the system
- 19 ..... water and erosion control structures monitored
- 16 ..... sites monitored for snow cover water content
- 16 ..... water level gauges monitored hourly
- 15 ..... sites monitored for precipitation
- 10 ..... low water bulletins issued
- 10 ..... sites monitored for stream flow
- 5 ..... flood watch bulletins issued
- 4 ..... ice safety bulletins issued



# PLANNING & REGULATIONS



**M**ississippi Valley Conservation Authority protects and regulates important environmentally sensitive areas such as floodplains, wetlands, shorelines and waterways. MVCA operates under the Conservation Authorities Act of Ontario Regulation 153/06, *Mississippi Valley Conservation Authority: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses*. The main objectives of this regulation are to ensure public safety, to protect property with respect to natural hazards and to safeguard watershed health by preventing pollution and destruction of sensitive environmental areas.

MVCA planning advisory services help municipalities with long term planning and development review. Sound planning will help ensure that life and property is protected from flooding and erosion hazards by encouraging new development to occur away from hazard-prone areas and sensitive environmental features. In 2016, MVCA planning staff reviewed **250** planning applications and issued **140** permits under Ontario Regulation 153/06.

## PROPOSED CHANGES TO WETLANDS POLICY



*Drummond North-Elmsley open house.*

MVCA is working towards regulating and protecting wetlands in the watershed that meet various criteria. In 2006, Conservation Authority regulations were changed to include the regulation of development and interference of all wetlands within a CA's jurisdiction. To date, MVCA has applied the regulations to

provincially significant wetlands (PSW) only. This is potentially being extended to other wetlands that are not provincially significant. In December the MVCA Board of Directors reviewed a draft policy for regulating all wetlands. The development of the policies is part of a Board of Directors approved implementation strategy to apply the regulations as intended to non-provincially significant wetlands.

In 2016 MVCA staff gave presentations on wetlands

to **4** member municipal councils. An open house was also held in Drummond-North Elmsley where more than **50** people attended.

## LAKE PLANNING

MVCA worked closely with the Kashwakamak Lake Association and the Malcolm & Ardoch Lake Association in finalizing their Lake Sustainability Plans and are actively involved in helping



to implement the recommendations. MVCA also worked with the Mississippi Lakes Association (MLA) in implementing their lake plan that was approved in 2015. This included partnering with MLA and the Mississippi Valley Field Naturalists in conducting a survey of aquatic invasive species on Mississippi Lake and working with the Mississippi Lake Environment and Nutrient Management Committees in planning for initiatives focused on the protection of water quality and the natural environment.

## CITIZEN SCIENCE

MVCA staff worked with a dedicated group of volunteers to collect water level and rainfall data in and near the Upper Poole Creek Wetland and along the Carp River.

### WATERSHED WATCH

The objectives of the program are to collect reliable environmental data, both historic and current, and to determine the limits of which lakes can assimilate nutrient input. The data will be used to encourage shoreline property owners to undertake restoration projects and to adopt sound stewardship practices.

- Completed sampling on **12** lakes including: Ardoch, Canonto, Crotch, Dalhousie, Flower, Round, Joe's, Kerr, Mazinaw, Palmerston, Robertson, Sunday and White.
- A full Watershed Watch (WW) summary report will be released winter 2017.
- Partnered with the Water Rangers program to post all WW data online for public access. This initiative encourages more volunteer participation in environmental monitoring.



*Kat Kavanagh of Water Rangers participates in the WW program.*

### INVASIVE SPECIES SAMPLING *(in partnership with the Ontario Federation of Anglers and Hunters)*

- Sampling was conducted on **20** lakes this year including all WW lakes plus a few additional based on lake volunteer interest.

### CITY STREAM WATCH

The goal of the City Stream Watch program is to obtain, record, and manage valuable information on the physical and biological characteristics of creeks and streams in the City of Ottawa, while ensuring that they are respected and valued natural features of the communities through which they flow.



*Dog-strangling vine invasives pull along Shirley's Brook. A phragmites pull also took place on the Mississippi River.*

- Students and volunteers focused in the Kanata North region, specifically Shirley's Brook and Kizell Drain, as well as a small tributary of the Carp River referred to as Tributary "C" for a total of 8.4 kilometres.

### SHORELINE PLANTING

- Included three large sites along the Mississippi River: Riverfront Estates, Almonte Fairgrounds, and Metcalfe Park.
- Two large sites on the Carp River and various smaller lake and stream front properties.
- Total of **1300+** trees/shrubs planted, **70+** volunteers.



Almonte Fairgrounds – **266** native trees and shrubs planted with the help of Almonte District High School students.

Carp River site along Huntmar – planted **550** native trees and shrubs with the help of volunteers from Senstar Corporation.



### CARP RIVER RESTORATION

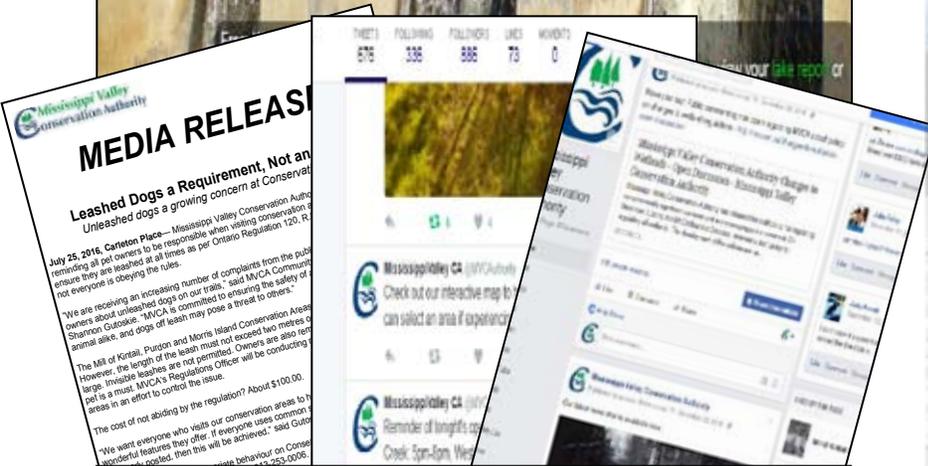
Since 2013 the Carp River has undergone extensive rehabilitation. Located in the City of Ottawa, within the jurisdiction of the MVCA, the Carp River and its tributaries are part of a long term environmental management strategy. In 2016, two properties along the Carp River participated in shoreline enhancement projects that saw more than **750** plants go in the ground. This will help stabilize the banks, provide habitat for fish and other wildlife and contribute aesthetic value to properties along the river.



# COMMUNITY RELATIONS

## MEDIA & COMMUNICATIONS

MVCA communications handles media inquiries, provides and arranges for media interviews and consults with MVCA staff on various issues that are of public interest. Media releases, workshops, onsite event support and newsletters are examples of the efforts undertaken to promote these important conservation and outreach programs.



[www.mvc.on.ca](http://www.mvc.on.ca)



Mississippi Valley  
Conservation Authority



@MVCAuthority

## EDUCATION

MVCA's education programs teach a variety of environmental lessons with a focus on conservation and stewardship to thousands of students across the watershed every year. In 2016, more than **5000** students participated in the programs, including the highly popular outdoor education programs at the Mill of Kintail Conservation Area, as well as Envirothon, Spring Water Awareness, and the sold-out Wildlife Watchers Day Camp. Education programs are available year round, and many can also be adapted to be taught in-school or at a nearby green space. Visit [www.mvc.on.ca/education](http://www.mvc.on.ca/education) for details.



## VISITOR SERVICES/MILL OF KINTAIL CONSERVATION AREA (MoK)

- More than **7,500** people visited the R. Tait McKenzie and James Naismith Museums.
- The "Brothers of the Wind Archival Centre" was created with funds from the Libraries & Archives Canada Grant.
- More than **2,450** artifacts were accessioned into database software.
- An episode of the popular TVO children's show "Mystery Files" was filmed at the MoK in August.
- Officials from NBA Canada, the US Ambassador to Canada Bruce Heyman and Minister of Sport and Persons with Disabilities Carla Qualtrough attended

the MoK for the premiere of an NBA video, which later aired at the Air Canada Centre during the NBA All-Star game.

- An exhibit showcasing the talents of artists with special needs from the Catholic District School Board of Eastern Ontario was featured for the 9th consecutive year.
- The 10th annual Kintail Country Christmas drew a crowd of more than **400** people.

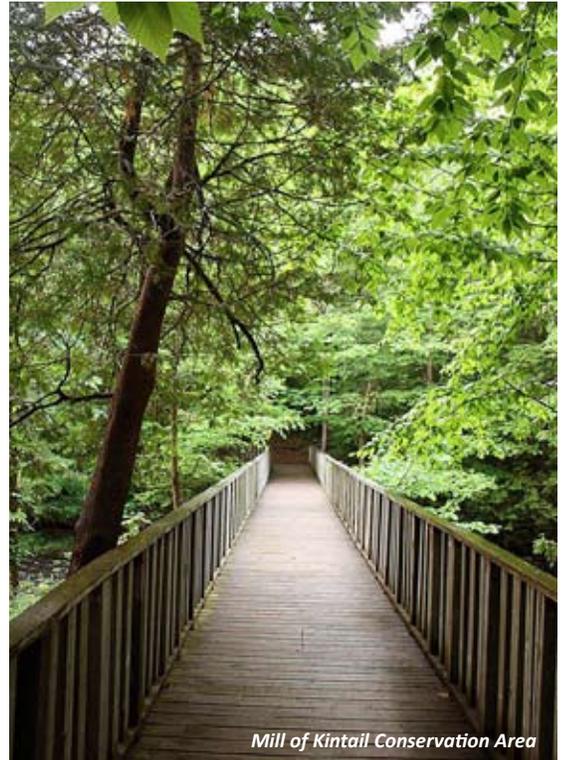


# LAND MANAGEMENT

**M**ississippi Valley Conservation Authority's conservation areas attract thousands of visitors each year. Purdon, Mill of Kintail and Morris Island are just a short drive from the City of Ottawa. MVCA provides public access to more than 420 hectares of conserved lands while promoting respect of the water and the environment through education and stewardship.

## CONSERVATION AREAS

22,000+ ..... visitors annually  
7,450 ..... people visited the R. Tait McKenzie and James Naismith Museum  
5 ..... developed conservation areas  
950+ ..... metres of trails resurfaced  
58 ..... kilometres of trails maintained for public access  
4 ..... new memorial benches



Mill of Kintail Conservation Area

## CONSERVATION SERVICES



MVCA provides a wide range of professional forest management expertise to the County of Lanark including administering selective timber harvests, routine property inspections and maintaining Forest Stewardship Council Certification. In 2016, more than **100,000** trees were planted throughout the Mississippi Valley watershed in partnership with Rideau Valley Conservation Authority.



Morris Island Conservation Area



MVCA delivered **8** projects totalling **\$4,400** in grants

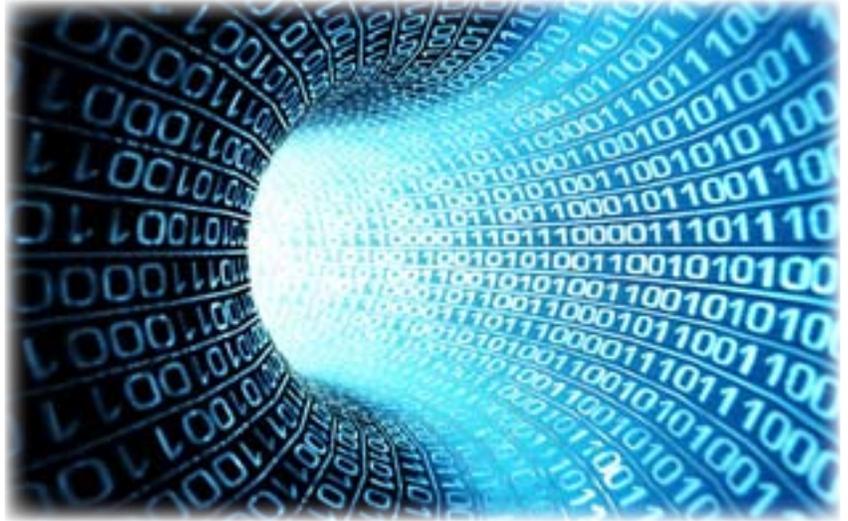
The goal of the Ottawa Rural Clean Water Grants Program (ORCWGP) is to improve surface water and groundwater quality by encouraging and assisting rural landowners to complete projects that reduce “non-point source” pollution. The ORCWGP is delivered in partnership with the Conservation Authorities within the City of Ottawa (MVCA, Rideau Valley Conservation Authority and South Nation Conservation) to offer localized landowner service and more consistent delivery of landowner grant programs.



Carleton Place High School students help resurface trail at Purdon Conservation Area

# INFORMATION MANAGEMENT

***Information Management (IM) is an umbrella term that encompasses all systems and processes within an organization for the creation and use of corporate information. It allows Mississippi Valley Conservation Authority to provide a leadership role in natural resources and integrated watershed management, and better position ourselves to meet the challenges and opportunities moving forward while being cost-effective and accountable.***



## IM @ MVCA

- Web content management
- Document management
- Record management
- Digital asset management
- Geographical Information Systems (GIS)
- Training

## GIS

IM highlights our expertise and professionalism and allows the Authority to grow. By maintaining and building the infrastructure that supports the deployment and development of the information system, we safeguard our corporate knowledge and digital assets.

Data gathering and dissemination is a cornerstone of MVCA's work. The collation of information is a key function of MVCA and fundamental in timely and sound decision making. GIS and the management of spatial data is now the focus of many of the programs relying on IM, and is key in producing the deliverables of MVCA programming, and meeting our roles and responsibilities.

## SUPPORT

In 2016, there was a focus on spatial digitization of hydrographic features (water bodies, wetlands, rivers and streams) to coincide with evidence shown in recent investments in aerial photography. Data becomes old and antiquated, and it became apparent that in-house efforts were needed to bring these important data sets forward to a new age standard. This effort brings conformity to the changes in the watershed and allows for a comprehensive land use and coverage to support MVCA's programs and projects.

### ***Four emerging trends:***

- A growing realization that location is central to how people organize and relate to their world.
- The convergence of the internet and GIS is facilitating data sharing and distribution like never before.
- Many organizations are beginning to utilize spatial data in the integration of their business processes – location based services and resource planning.
- Many other government agencies are enhancing public access to geographic data.

# MVC FOUNDATION



## Mississippi Valley Conservation Foundation

*The Mississippi Valley Conservation Foundation (MVCF) is a charitable organization whose mission is to raise funds and provide volunteer support for the conservation and education programs of the Mississippi Valley Conservation Authority. The Foundation is dedicated to conserving the lands, wildlife and water environments of the Mississippi Valley and to preserve places of outstanding natural and cultural significance.*

**Donate Now! Call: 613-253-0006 Online: [www.mvc.on.ca/mvcf](http://www.mvc.on.ca/mvcf)  
Charitable Registration Number: 892271560RR0001**

### MVCF MISSION

- To raise funds and provide volunteer support for the conservation, education, and outreach programs of the MVCA.

### OBJECTIVES

- Conserving the healthy water environment and natural resources of the Mississippi Valley.
- Preserving places of natural, ecological, and cultural significance in the watershed.
- Engaging the general public and stakeholders in conservation education and awareness.



MVCF provides bussing grants to help watershed schools transport students to the MoK.



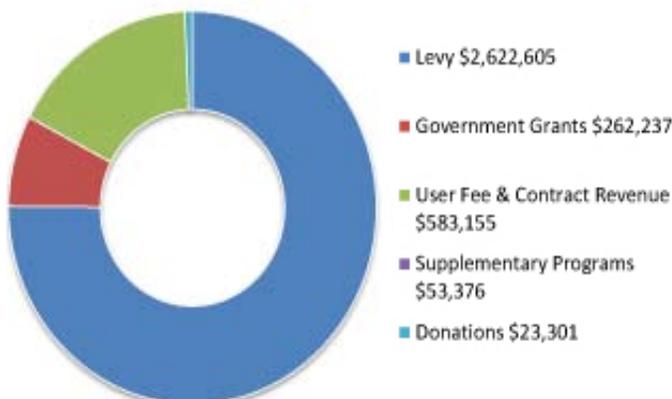
MVCF supports the City Stream Watch Program.



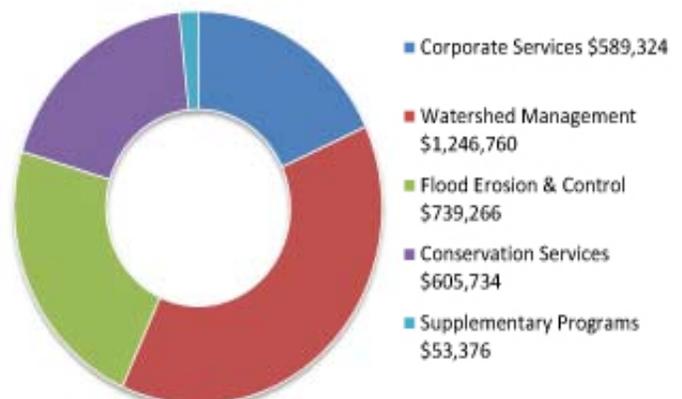
MVCF received an anonymous donation of more than \$11,000 for the Carp Action Plan.

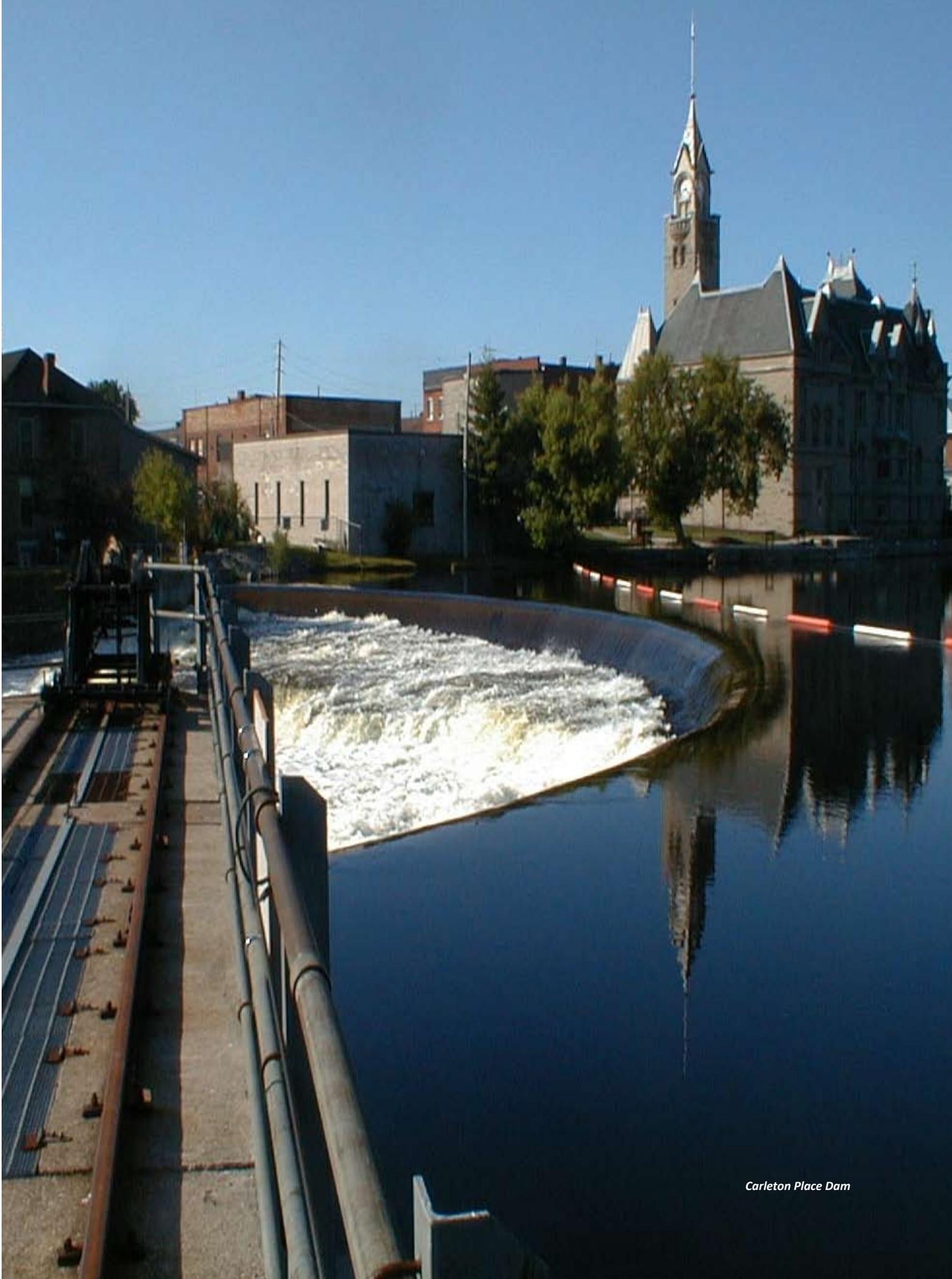
# AUDITOR'S REPORT

## Revenue



## Expenditures





*Carleton Place Dam*

# 2016 MVCA STAFF

## Executive

General Manager  
Secretary-Treasurer

Paul Lehman  
Joan Sargeant

## Administration

Administrative Assistant  
Administrative Assistant

Erin Levi  
Allison Playfair

## Community Relations

Community Relations Coordinator  
Site Supervisor, Mill of Kintail  
Education Coordinator

Shannon Gutoskie  
Stephanie Kolsters  
Sarah O'Grady

## Watershed Science & Engineering

Director – Water Resources Engineering  
Water Resources Engineer

John Price  
Sobha Kunjikutty

## Water Management

Water Management Supervisor  
Water Resources Technologist  
Water Resources EIT

Gord Mountenay  
Jennifer North  
Christopher McGuire

## Planning and Regulations

Manager – Planning and Regulations  
Environmental Planner (Ottawa)  
Environmental Planner (Lanark & Frontenac Counties)  
Assistant Planner, EPT  
Water Resources Engineer  
Regulations Officer  
Biologist  
Watershed Planner  
Watershed Monitoring Supervisor  
Monitoring and Stewardship  
Environmental Technician

Matt Craig  
Craig Cunningham  
Diane Reid  
Victoria Hard  
Myra Van Die  
Andy Moore  
Kelly Stiles  
Alyson Symon  
Susan Lee  
Caleb Yee  
Melanie Dodd-Moher

## Information Management

Information Technology Supervisor  
GIS Specialist

Alex Broadbent  
Amelia Hewitt

## Operations

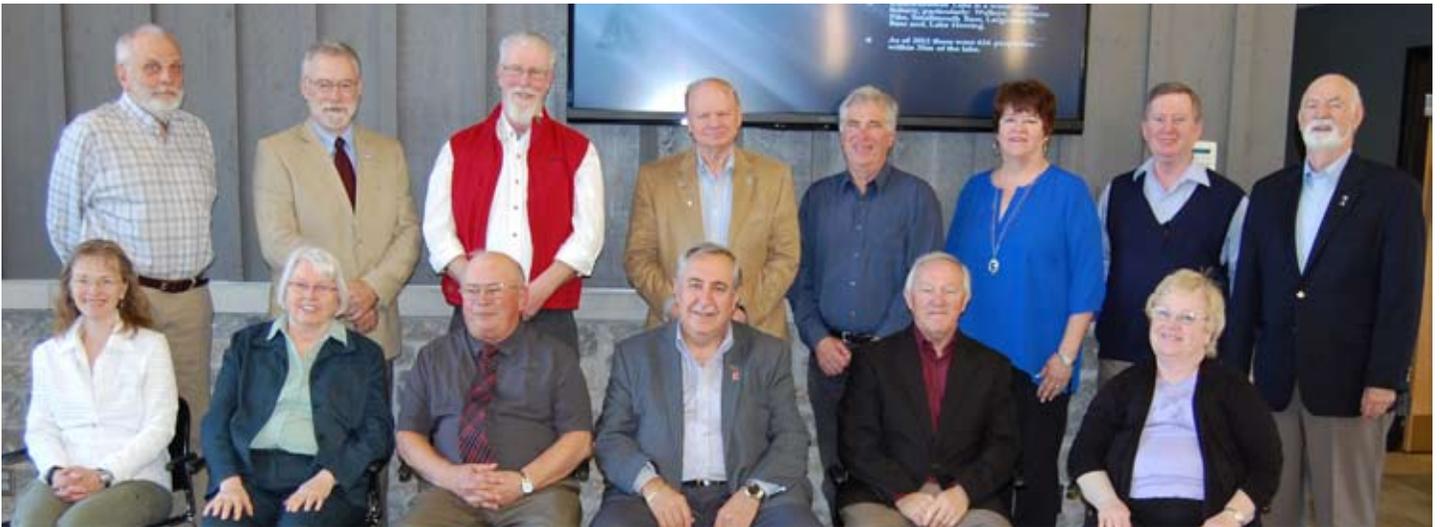
Operations Supervisor  
Advisory Services Coordinator  
Field Operations Foreman  
Maintenance Technician  
Maintenance Technician  
Conservation Area Technician

Ross Fergusson  
Brian Anderson  
John Hendry  
Rob King  
Joe Arbour

New Office Project Manager  
Septic Inspector – MRSSO

Sarah Kirkham  
Cliff Craig  
Eric Kohlsmith

# BOARD OF DIRECTORS



## MEMBER MUNICIPALITIES & MEMBERS

### City of Ottawa

John Karau (Chair)

Eli El-Chantiry

Marianne Wilkinson

Janet Mason

Phil Sweetnam

### Town of Carleton Place

Brian Doucett

Jerry Flynn

### Town of Mississippi Mills

Duncan Abbott (Vice Chair)

Alex Gillis

### Township of Addington Highlands

Kirby Thompson

### Tay Valley Township

Mark Burnham (Past Chair)

### Township of Beckwith

Faye Campbell

### Township of Central Frontenac

Bill MacDonald

### Township of Drummond/North

#### Elmsley

Gail Code

### Township of Greater Madawaska

Garry McEvoy

### Township of Lanark Highlands

John Hall

### Township of North Frontenac

Gerry Martin

#### Invited Member

Louis Antonakos

### •Mississippi Valley Conservation Foundation

Paul Lehman

Mark Burnham

Michael Cleland

Louis Antonakos

Jim Beam

### •Mill of Kintail Museum Committee

Wayne Morrison

Darcy Moses

Alex Gillis

Dr. James Copeland

Lucy Carleton

Wendy Bridges

Kathy Duncan

### •Regulations Committee

John Karau, Ex-officio

Duncan Abbott, Ex-officio

Alex Gillis

Mark Burnham

Eli El-Chantiry

Gail Code

Phil Sweetnam

Kirby Thompson

### •Office Building Committee

John Karau, Ex-officio

Duncan Abbott, Ex-officio

Paul Lehman

Mark Burnham

Gail Code

Cliff Craig

Phil Sweetnam

## ADVISORY COMMITTEES

### •Finance & Administration

John Karau, Ex-officio

Duncan Abbott, Ex-officio

Garry McEvoy

John Hall

Alex Gillis

Brian Doucett

Eli El-Chantiry

Phil Sweetnam

### •Policy and Priorities

John Karau, Ex-officio

Duncan Abbott, Ex-officio

Gerry Martin

Faye Campbell

Marianne Wilkinson

Jerry Flynn

Kirby Thompson

Mark Burnham

Bill MacDonald

Gail Code

Janet Mason

### •Conservation Ontario

Mark Burnham

John Karau (Alternate)

Paul Lehman (2nd Alternate)

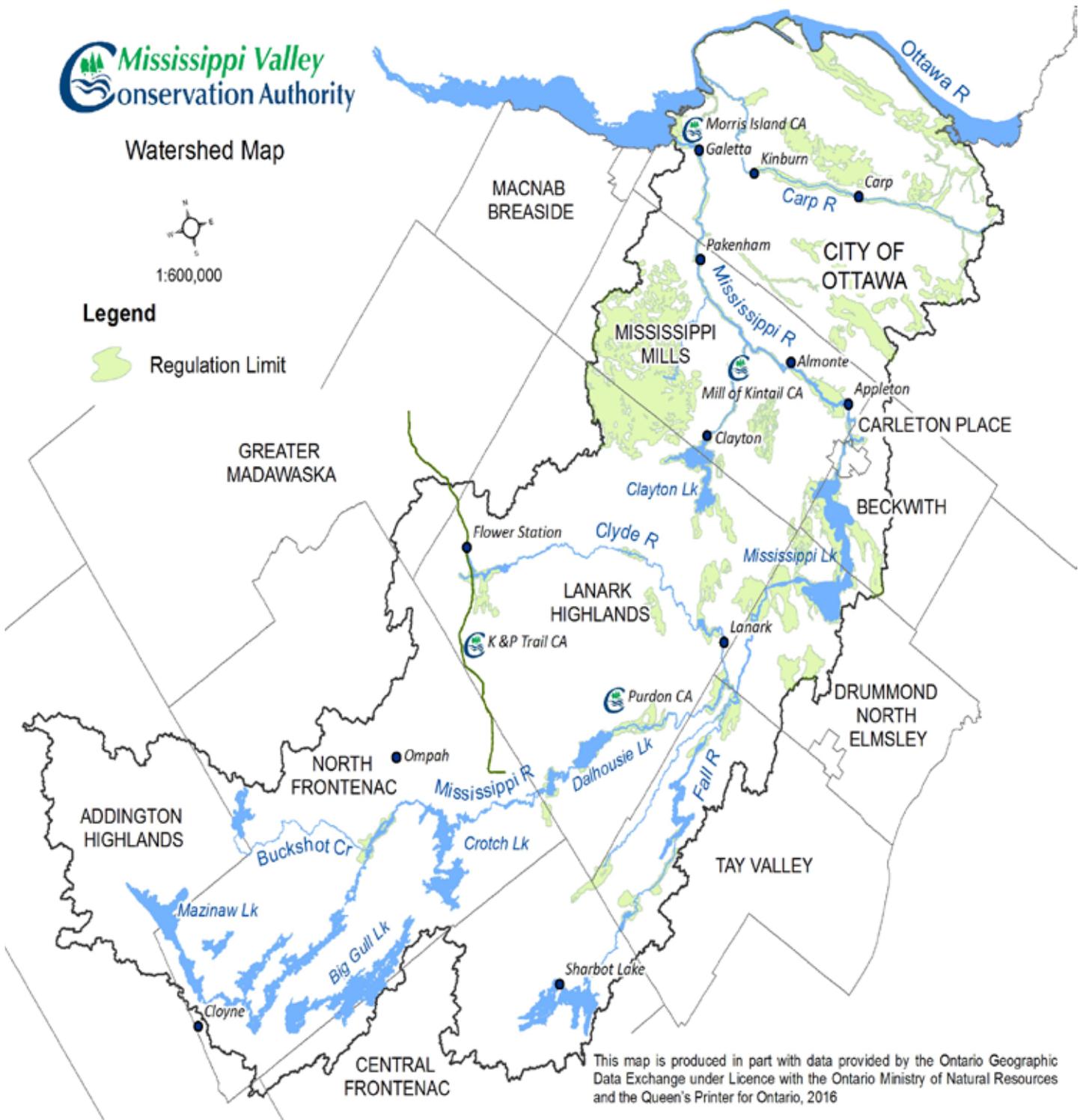
Watershed Map



1:600,000

Legend

 Regulation Limit



This map is produced in part with data provided by the Ontario Geographic Data Exchange under Licence with the Ontario Ministry of Natural Resources and the Queen's Printer for Ontario, 2016

**GOVERNANCE:**

MVCA is governed by a Board of Directors comprised of elected and appointed members representing each of the eleven municipalities in the watershed: City of Ottawa • Town of Carleton Place • Town of Mississippi Mills • The Townships of: Addington Highlands • Tay Valley • Beckwith • Central Frontenac • Drummond/North Elmsley • Greater Madawaska • Lanark Highlands • North Frontenac.

MVCA is responsible for both the Mississippi and Carp River watersheds.



## How to reach us

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