

Mississippi Valley Conservation Authority

ANNUAL REPORT 2017



MISSISSIPPI VALLEY CONSERVATION AUTHORITY

MVCA is one of Ontario's 36 Conservation Authorities. As the agency appointed to manage the Mississippi Valley and Carp River watersheds, MVCA aims to balance your needs with the needs of the environment to help protect people and property from the dangers of flooding and natural hazards; keep drinking water sources clean; and foster the protection of wildlife habitats and significant natural features such as wetlands and forests.

MVCA 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.”

MVCA 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.”

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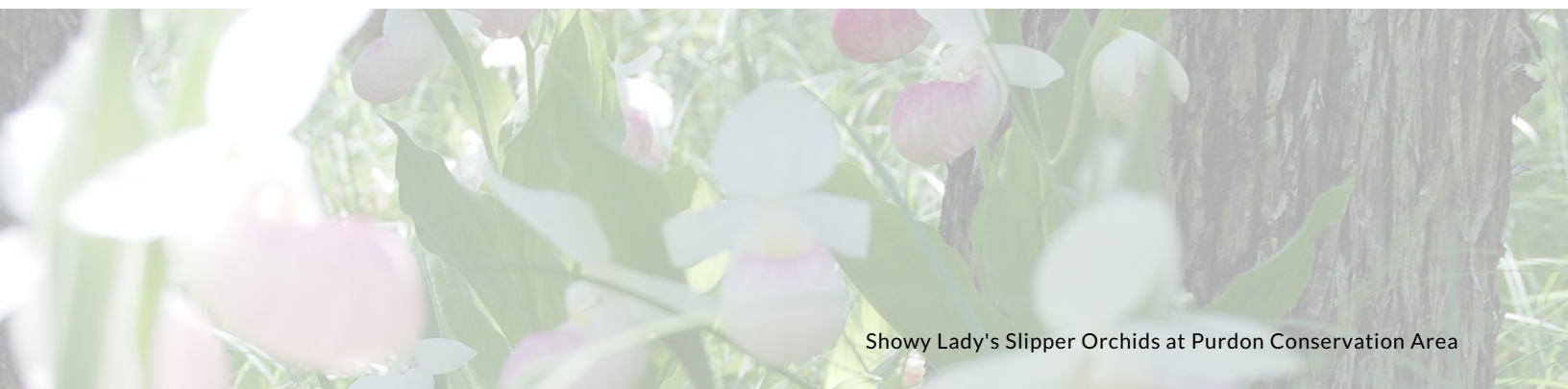
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MISSISSIPPI VALLEY CONSERVATION
FOUNDATION





High Falls

A MESSAGE FROM THE CHAIR

John Karau

On behalf of the Board of Directors and MVCA staff, I am pleased to present the 2017 Annual Report.

The entire watershed was at the mercy of Mother Nature for most of the year; flooding dominated the news headlines, specifically in the Constance Bay area along the Ottawa River. With two severe droughts and two severe flood events in the past five years, there is one thing abundantly clear: climate change isn't impending...it's here, taking the form of more frequent flooding and droughts, stressed biodiversity, fluctuations in "normal" weather patterns and flows in streams and rivers.

As the lead agency dedicated to conserving, restoring and managing Ontario's natural resources on a watershed basis, we need to stay ahead of the curve. I'm pleased to say we are moving in that direction; in September the Board of Directors approved a change in policy that will now protect additional wetlands in the watershed, not just Provincially Significant Wetlands. Wetlands play a critical role in flood attenuation and maintaining stream flow during dry periods.

To further realize the importance of wetlands and the effects of climate change, the Province of Ontario released its Wetlands Conservation Strategy and passed Bill 139 which includes a revised Conservation Authorities Act. The modernizing of this 1946 legislation provides the foundation for Conservation Authorities to strengthen their watershed management role and also develop a more defined role around climate change adaptation.

This will better position us moving forward, and in 2018 we have a lot to look forward to: MVCA will celebrate 50 years of conservation.

In partnership with our member municipalities, government and non-government agencies, I'm confident we will continue to provide rewarding opportunities and a valuable service to Mississippi Valley watershed residents in the years to come.

"AS THE LEAD AGENCY DEDICATED TO CONSERVING, RESTORING AND MANAGING ONTARIO'S NATURAL RESOURCES ON A WATERSHED BASIS, WE NEED TO STAY AHEAD OF THE CURVE."

PLANNING & REGULATIONS



Constance Bay, May 2017

MVCA protects and regulates important environmentally sensitive areas such as floodplains, wetlands, shorelines and waterways. The main objective of the regulation is 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.

2017 PERMITS & PLAN REVIEW

- 235 permits submitted.
- 230 planning applications reviewed.
- Due to extreme flooding in the Constance Bay area of the Ottawa River, more than 70 shoreline alteration permits were issued to protect against future damage.
- Implemented a new record management system (CADIMS).

CHANGES TO WETLANDS POLICY

- The MVCA Board of Directors approved a policy change that now protects additional wetlands in the Mississippi Valley watershed, not just Provincially Significant Wetlands (PSWs).
- Wetlands will be regulated if they meet the following criteria:
 - Wetlands greater than 0.5 ha (1.2 acres) in size
 - Wetlands that have hydraulic connectivity (i.e. connected to a waterbody/watercourse)

FLOODPLAIN MAPPING

- Floodplain mapping studies completed in 2017: Feedmill Creek, Constance Creek, Shirley's Brook, Watts Creek/Kizell Drain.
- Signed Second Contribution Agreement with the City of Ottawa to continue updating and producing floodplain mapping in the City.
- Successful funding application under the Public Safety Canada National Disaster Mitigation Program to produce new floodplain mapping for Harwood Creek and update floodplain mapping for entire lower Mississippi River system.



Constance Bay, May 2017



Carp River



Shirley's Brook

WATERSHED MANAGEMENT

WATERSHED WATCH

- Collect reliable environmental data to determine the limits of which lakes can handle nutrient input.
- Data is used to encourage shoreline property owners to undertake restoration projects and adopt sound stewardship practices.
- 11 lakes were sampled in 2017:

Mackavoy	Marble	Buckshot
Mazinaw	Sharbot	Crotch
Kishkebus	Silver	Dalhousie
Shabomeka	Bennett	
- The information collected was used to produce an **Integrated Monitoring Report**, which replaces the individualized lake reports previously created for the Watershed Watch (WW) program.
- The emphasis of the report is primarily on lake monitoring but includes water levels and flow, snow pack and fish data.
- Each subwatershed within Mississippi Valley will be on a five year rotation for this more in-depth analysis.

INVASIVE SPECIES SAMPLING

- In partnership with the Ontario Federation of Anglers and Hunters.
- Conducted sampling on 20 lakes including all Watershed Watch lakes.

CITY STREAM WATCH

- Assessed Huntley and Upper Carp Creeks.
- Obtains, records and manages information on the physical and biological characteristics of creeks and streams in the City of Ottawa.
- Removal of invasive species including Himalayan balsam along Upper Carp Creek and dog-strangling vine along Shirley's Brook.



STEWARDSHIP

- In partnership with lake associations and private landowners, MVCA facilitated the planting of 640 trees across 105 sites on watershed lakes.
- As part of its shoreline planting program, MVCA planted close to 900 trees across 122 sites in the watershed.
- Started the Carp River Embankment Restoration Class Environmental Assessment.
- In partnership with Rideau Valley Conservation Authority, more than 1.73 million trees have been planted in the watershed since 1994; 933,00 in the City of Ottawa through the Green Acres Program and 804,000 outside the City through the Trees for Tomorrow Program.
- Rural Clean Water, a program funded by the City of Ottawa, encourages and assists rural landowners to complete projects that improve surface and ground water quality. In 2017 there were seven erosion control projects in Constance Bay totalling \$48,750, and 25 other projects approved in the watershed totalling \$74, 140.

WATERSHED PLANNING

- Assisted in the implementation of the Mississippi, Kashwakamak and Malcolm/Ardoch Lake Plans.
- MVCA and the Mississippi Lakes Association teamed up with Queen's University to develop a project to investigate water quality concerns in Mississippi Lake, specifically nutrient and algae levels.
- Work continued on compiling background information, mapping and modelling to support preparation of the Mississippi River Watershed Plan.

FOREST MANAGEMENT

- Provides professional forest management services to the County of Lanark (since 2006).
- Services includes forest management plans, property management, forest harvest tendering and maintaining standing as Certified Forest under the Forest Stewardship Council standards.

WATER MANAGEMENT



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.

DAM OPERATIONS & MAINTENANCE

- Class Environmental Assessment and Preliminary Design for the Reconstruction of the Shabomeka Lake Dam.
- Widow Lake Dam Retrofit Design.
- Began design and installation for the Mazinaw Lake Dam gantry.
- Operates and maintains 18 water and erosion control structures.
- Record number of operations with 406 trips to operate the structures in 2017.



Carleton Place Dam



Crotch Lake

FLOOD FORECASTING & WARNING

2

ICE SAFETY
BULLETINS

3

LOW WATER
BULLETINS

5

HIGH WATER
BULLETINS

6

FLOOD WARNING
STATEMENTS

15

FLOOD WATCH
BULLETINS

MVCA water management staff collects and maintains data from:

- 17 lake level gauges
- 14 rain gauges
- 12 automated stream flow gauges
- 2 air temperature gauges
- Staff also records bi-weekly snow data from 16 locations across the watershed from December to May.

CONSERVATION AREAS

MVCA provides public access to more than 420 hectares of conservation lands while promoting respect of the water and environment through education and stewardship.

Mill of Kintail Conservation Area

LAND MANAGEMENT

- Continued improvements to make conservation areas more accessible such as a new ramp to the lower unit of the R. Tait McKenzie and Dr. James Naismith Museum and accessible tables for the picnic shelter at the Mill of Kintail.
- Continued partnership with Town of Carleton Place for construction of additional trails in Roy Brown Park.
- Installed parking meter at Morris Island Conservation Area - the revenue generated will be reinvested into the continued maintenance and development of roadways, parking areas, trails and other infrastructure.

VISITOR SERVICES

- The 11th annual Kintail Country Christmas saw a record attendance this year with more than 500 visitors to the site for the event.
- The first-ever Pioneer Day was held at the Mill of Kintail in partnership with the North Lanark Regional Museum and Town of Mississippi Mills to celebrate Canada's 150.
- The Naismith Foundation transferred all assets of the Dr. James Naismith collection to MVCA. MVCA continues to operate the R. Tait McKenzie Memorial Museum & James Naismith Collection.



Mill of Kintail Conservation Area



More than 25,000 people visited MVCA's conservation areas in 2017. (L-R): Mill of Kintail, Morris Island & Purdon

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.



2017 AT A GLANCE

- Delivered Spring Water Awareness Program to more than 4000 students across 17 schools.
- Coordinated the Lanark Region Envirothon.
- More than 2,000 students attended sold out field trip dates in May/June.
- Sold out all 6 weeks of Wildlife Watchers Day Camp – with waiting lists for each week.
- Hosted the UCDSB Grade 6 Summer Learning Program combining leadership activities with a unit of study on Biodiversity.



Mill of Kintail Outdoor Education

MVC FOUNDATION



Water quality monitoring

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 MVCA. 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.

Charitable Registration Number: 892271560RR0001

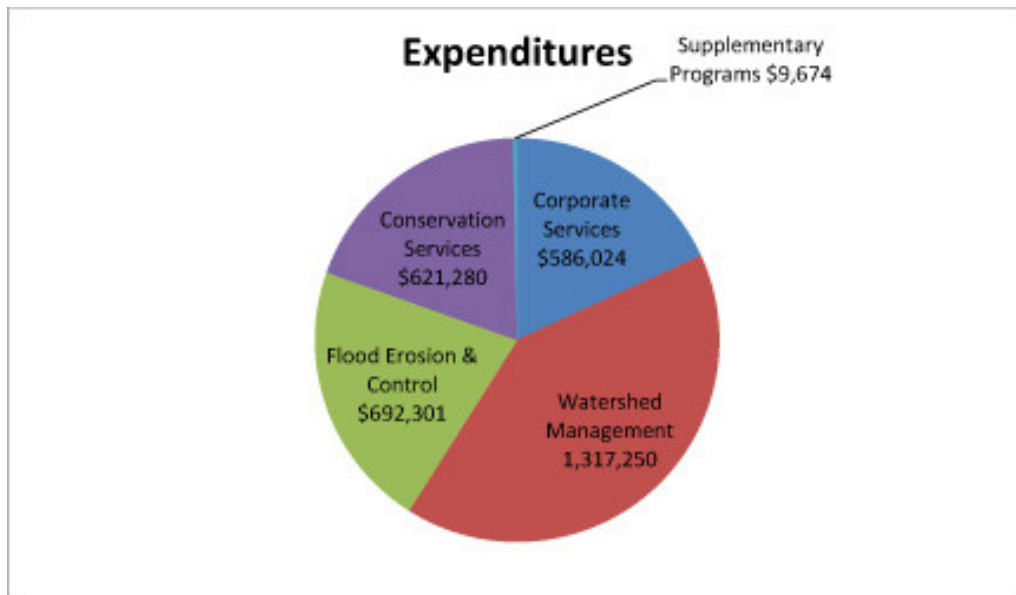
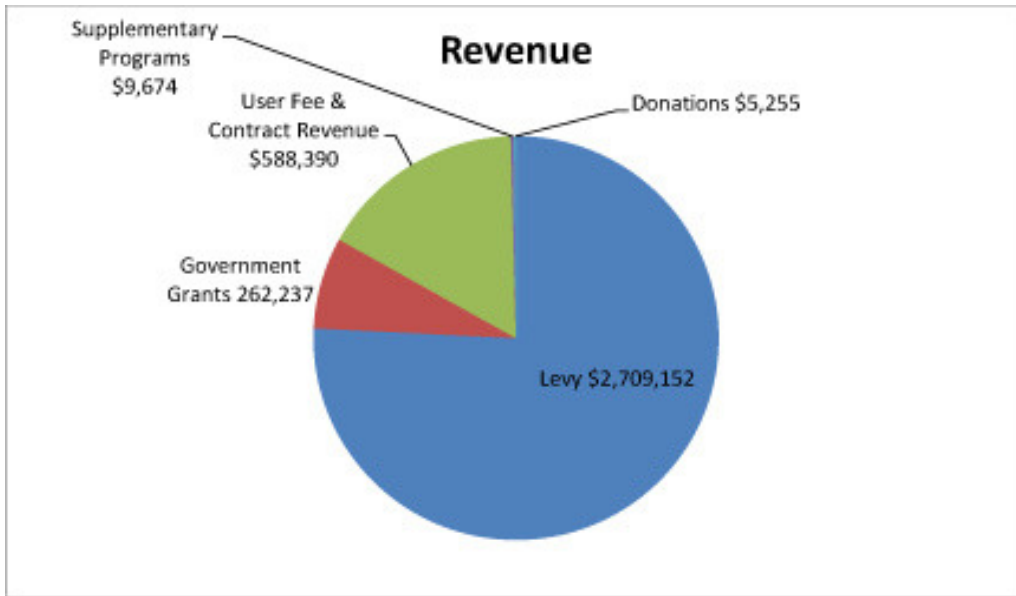
2017 Foundation Highlights

- School Bussing Grants (10 schools in 2017)
- Shoreline Planting
- Water Quality Monitoring
- Carp River Action Plan
- Conservation Area Improvements & Enhancements
- Night Sky Conservation



Education programming

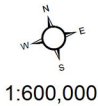
AUDITOR'S REPORT




*Left: Joe's Lake (Jennifer North photo) Middle: Pioneer Day at the Mill of Kintail Conservation Area
Right: Purdon Conservation Area*

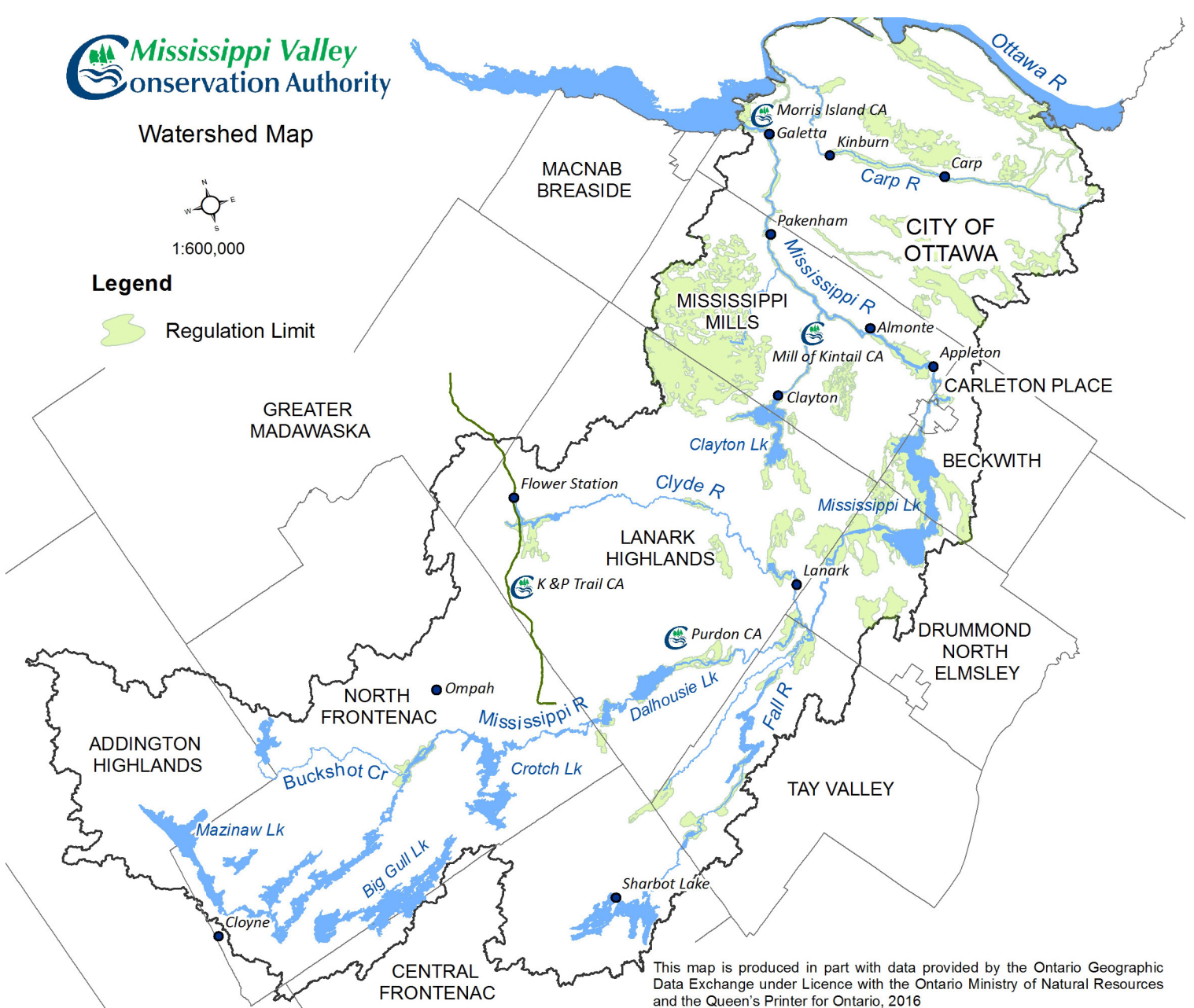


Watershed Map



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

Left: Carp River, Kanata (Elena Petrich photo) **Middle:** Snow course, Silver Lake Provincial Park
Right: Land management



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