



Maitland Valley

CONSERVATION AUTHORITY

Work Plan Summary 2016 - 2018

Why has the MVCA developed a three-year Work Plan?

- To focus limited resources on doing core services very well.
- To help member municipalities and landowners identify appropriate measures to deal with the increasing potential for flooding, erosion, and drought due to a rapidly changing climate.
- To help identify needed improvements and maintenance on infrastructure, equipment, and services.

Priorities over the next three years:

- 1) To strengthen the capacity of Flood and Erosion Safety Services: This will help municipalities reduce the potential for damage to development and land in areas prone to flooding and erosion.
- 2) To strengthen Watershed Stewardship Services: This will help member municipalities and landowners to develop rural stormwater management systems and soil and water conservation systems. This will also help to protect municipal outlet drainage systems and soil and water resources.
- 3) To stabilize the MVCA's financial base to:
 - a) ensure Flood and Erosion Safety Services and Watershed Stewardship Services have adequate resources; and
 - b) sustain the equipment and infrastructure required to provide core services support.

Flood and Erosion Safety Services

Services we must provide:

- 1) Information for municipalities on areas that are at risk of damage, loss of life, and social disruption due to flooding. This includes:
 - a) flood forecasting system,
 - b) flood progression mapping,
 - c) flood emergency planning support services, and
 - d) technical expertise to review development proposals in flood prone areas.

Why? Several thousand people live and work in flood-prone areas across the watershed. This represents \$176 million worth of tax assessment.

- 2) Information for municipalities on areas at risk from bluff and gully erosion along the Lake Huron shoreline. This includes:
 - a) erosion risk monitoring system,
 - b) erosion risk mapping, and
 - c) technical support for reviewing development proposals in hazard areas.

Why? Development and land worth \$366 million are at risk from shoreline bluff erosion and 2,000 acres of land worth \$90 million is at risk from gully erosion.



Watershed Stewardship Services

Services we must provide:

- 1) To assist municipalities and rural landowners develop appropriate rural stormwater management systems and soil and water conservation systems. This will help prevent damage to municipal drainage infrastructure and the loss of soil and nutrients from agricultural land.
- 2) Technical expertise, outreach, and education related to rural stormwater management, reforestation and soil health.
- 3) Outreach and education to assist with the development, design, and funding of rural stormwater management systems (grassed waterways, berms, wetlands) windbreaks, buffer strips, and the reforestation of marginal farm land.

Why? The watershed contains 470,000 acres of prime agricultural land that is worth \$4.7 billion! Municipalities, landowners, and the Province of Ontario have invested millions of dollars to build and maintain municipal outlet drains. In addition, there are over 50,000 acres of marginal farmland in production across the watershed.

Priority Projects:

- Garvey-Glenn Watershed Restoration Project
- Scott Municipal Drain Watershed Restoration Project
- Middle Maitland Headwaters Restoration Project
- North Maitland Watershed Restoration Project

Conservation Areas

Service we should provide:

- 1) Management of MVCA properties should showcase good examples of the conservation of soil, forests, and floodplains.

Why? The MVCA owns 28 Conservation Areas representing over 4,600 acres of land. These properties include floodplains, wetlands, upland forests, and river valley lands.

Priorities:

- To reduce maintenance costs through naturalization at the MVCA Administration Centre and Gorrie Conservation Area;
- To determine the viability of continuing camping services at Falls Reserve Conservation Area (on July 20, 2016 the MVCA Board of Directors made a decision to continue camping operations at Falls Reserve).
- To reforest marginal agricultural lands located adjacent to forested lands;
- To support the joint community group investigating the feasibility of restoring the Maitland Mill in Gorrie and Logan Mill in Brussels for community use.
- To determine whether to continue to use the Wawanosh Nature Centre building for conservation education and spring tree storage, and
- To expand the MVCA carbon compensation tree planting program for the public and the Conservation Authority.

Corporate Services

Service we must provide:

- 1) Governance and leadership of the MVCA - MVCA Directors are the link between the Authority and member municipalities.

Priorities:

- Develop a stable funding base for the MVCA to assist member municipalities and landowners in developing a more resilient and prosperous watershed.
- Limit levy increases to between \$55,000 and \$58,000 per year for the next three years. The 2017 financial forecast identifies a shortfall of \$54,000 in operating and a shortfall of \$40,550 in MVCA financed equipment and infrastructure projects.
- Ensure that services are restructured to achieve the outcomes identified in the 2016-2018 Work Plan.
- Develop stronger partnerships with counties and municipalities that have the greatest potential for flood and erosion damage and/or have lands with greatest rural stormwater management and soil and water conservation needs.



Maitland Conservation - 2016 Work Plan Progress Report

Corporate Services

Component	Work Plan Activities	Progress
Governance and Leadership	2016 Priorities/Budget/Levy CA Act Review: Outreach	Budget/Levy/Priorities Approved by Board in March <ul style="list-style-type: none"> Chair, Vice, 2nd Vice met with MPP, Lisa Thompson Re: support for CA Act Review comments. Lisa advised that she will write a letter of support for MVCA/CO's comments. Copies of MVCA/CO Comments circulated to member municipalities. Several have endorsed MVCA's comments.
Administration and Human Resources	Personal Policy Procedures File Retention Policy Department review of the Finance and Administration components of Corporate Services	Completed update of MVCA personal policy procedures, approved by the Board. Policy developed and approved by the Board. Completed to determine current and upcoming needs.
Financial Management	3-Year Forecast 2017 draft budget and levy schedule	Prepared 2017 to 2019 revenue and expenditures to provide the Board with insight into future budgeting needs and operating and infrastructure requirements. Developed 2017 draft budget and levy schedule based on 3 year forecast for Board approval.
Communications	Communication Strategy 2016 IPM 2017 IPM Strategy Website Update	Presentations made to seven municipalities. Staff reviewed follow-up comments from councillors and have incorporated this information into 2017 planning. Approximately 14,000 visitors toured the CA display. Evaluation undertaken with staff, volunteers and visitors to assist with 2017 planning. ABCA and CO have confirmed participation in CA display. Website redesign launched at the end of December. Site optimized for mobile devices and accessibility standards. Content updates continue. www.mvca.on.ca
IT and GIS	Property Database	Data entry work completed for forestry projects and continues for HCCWP and water quality data. Will improve our ability to track stewardship work across the watershed and measure progress in the adoption of stewardship practices.

	Backup Procedures	Updated across service areas including off-site procedures.
	GIS-IT Services Review	Completed report delivered by B.M. Ross & Associates. Implementation of Phase 1 recommendations currently underway including: reorganization of server filing system, new computer purchasing cycle and GIS software changes.

DWSP and Maitland Source Protection Authority

Component	Work Plan Activities	Progress
Governance and Leadership	Source Protection Committee Staffing	A new SPC chair, Matt Pearson, appointed. Committee will meet in March. Jenna Allain has resigned to take on a position at the UTRCA. Geoff Cade and Donna Clarkson are splitting her duties; Geoff will take on the supervisory role of DWSP.
Implementation	Education and Outreach Planning/Development Update Assessment Reports and Source Protection Plan Municipal Updates	<ul style="list-style-type: none"> ▪ New DWSP website created with interactive mapping feature and updated resources: www.sourcewaterinfo.on.ca ▪ HVA/SGRA information displayed at community events. Staff assist CO with a series of ads in Better Farming. ▪ DWSP Electronic newsletter released in July. ▪ Third education video on ways to protect drinking water sources released in Dec. Focusses on best practices for industrial and commercial operations. https://youtu.be/sPVUX0qQ7nY <p>Planning staff are including DWSP in application reviews to ensure that proposed land use changes/development are consistent with the Source Protection Plan.</p> <ul style="list-style-type: none"> ▪ Blyth has drilled a new well and delineated a new wellhead protection area to replace the existing well located in the flood plain. ▪ new Blyth well incorporated into AR & Maitland Source Protection Plan <p>Staff met with municipal staff in Oct. / Nov. to provide progress updates related to DWSP and risk management services</p>

Conservation Areas

Component	Work Plan Activities	Progress
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Management and Development	Reforestation of Marginal Agricultural Lands	Completed. 17.5 acres of marginal farmland at Blind Lake Bog was planted in trees. Wildflowers and cover crop planted at Saratoga Swamp to prepare for 2017 reforestation.
	Managed Forest Tax Incentive Plans - Kilgour Tract and Falls Reserve Conservation Area	Completed and approved by OMNRF.
	Naftels Creek C.A. - Forest Management	Removed hazardous trees at parking lot and trail entrance locations.
	C.A Tree Replacements	Planted 40 large stock hardwoods to replace dying ash trees. Funding provided by the John Hindmarsh Environmental Trust Fund.
	Carbon Footprints to Forests Project	Planted 80 tree seedlings at Lake Wawanosh C.A. from donations received in 2015.
	Wildflower meadow creation	Prepared sites and seeded wildflower mixtures at George Taylor and Wawanosh Valley C.A.
	Brussels Dam maintenance	Completed. Fabricated and installed 16 new stop logs. Expense shared with Huron East, Brussels Trust and MVCA.
	Mill buildings in Brussels and Gorrie	Maitland Mills Committee received Trillium grant to complete feasibility study on both Mills. Structural Studies completed on Mills. Feasibility report expected July, 2017
	Wawanosh Valley C.A boardwalk replacement	Completed 2 nd phase of 3 year project. Funding provided by the Maitland Conservation Foundation.
	Administration Centre drain repairs	Completed. Drainage tiles and sump pump installed.
Motor Pool	Vehicle Replacement	Completed. 2016 Dodge Caravan purchased. 2011 Dodge Caravan sold on govdeals auction website.
	Equipment Replacement	Completed. Rotary mower purchased and used for reforestation site tending.
	Carbon Footprint Project	<ul style="list-style-type: none"> Planted 320 trees at Lake Wawanosh C.A. to offset the greenhouse gas emissions from Authority vehicles, propane and electricity use. Carbon Footprint Initiatives logos installed on vehicles and Admin. Centre to showcase commitment to reducing dependency upon fossil fuels.
Administration	Galbraith and Turnberry C.A Lease Agreements	Completed. Five year lease agreements renewed for continued

	Health and Safety Policies and Procedures Manual	operations. Completed and approved by the Board of Directors
Falls Reserve Conservation Area	FRCA - Campground Operational Options FRCA Family Day event FRCA electrical upgrades FRCA water system update FRCA Camping and Day-Use	Board direction obtained for continued campground operations. River corridor naturalization planning and notice of group camp #1 closure for 2017 completed. Event successful with over 630 participants. Updated existing hydro outlets and rectified stray voltage in Sycamore campground. Workshop lighting upgraded to LED. Upgraded main plumbing components for proper system operation. Successful season with slight increase in park use from previous years.

Flood and Erosion Safety Services

Component	Work Plan Activities	Progress
Preparedness	Implementation of MVCA Development/Interference with Shoreline, Wetlands and Watercourses (Ont. Reg. 164/06) Shoreline Erosion/Gully Erosion Mapping Updates	<ul style="list-style-type: none"> ▪ Andrew Fera, Planning and Regulations Assistant, hired to replace Erica Ogden to help with increased number of applications/inquiries re: development in hazard areas. ▪ 2016 Planning and Regulations Year End Report will be provided at the Jan. 25 Board meeting. ▪ Revisions to Development, Interference with Wetlands and Alterations to Watercourses Regulation Policies approved in June. ▪ Shoreline data and air photos provided to U. Guelph GIS specialists for erosion rate analysis. Project to continue into 2017. ▪ A proposal has been developed to conduct a study of structures at risk along the bluff in Central Huron (prompted by the findings of the ABCA Shoreline Management Update). If approved by the municipality, the assessment will be carried out in conjunction with the ABCA. ▪ Call Before You Build shoreline package updated. Shoreline and bluff risk information on display at the Is the Coast Clear? conference in May. Database of shoreline realtors developed. ▪ Elevation GIS data from 2015 airphotos processed to create

	<p>Harriston Hydrology Project</p> <p>River Watch Training</p> <p>Assist municipalities with emergency response training/education</p> <p>Flood Contingency Plan</p>	<p>updated digital elevation model</p> <ul style="list-style-type: none"> Harriston sub-watershed elevation data sent to GRCA for filtering to create Digital Terrain Model - to be used for Harriston Hydrology project and rural floodplain mapping refinement. <p>Completed by River Watch staff in Dec.</p> <p>Flood exercises held in North Perth and Huron-Kinloss to provide experience in how to deal with a flood emergency.</p> <p>Updated and reformatted to make it easier to use.</p>
Monitoring	<p>MNRF Snow Surveys</p> <p>Snowpack modeling</p> <p>Ice monitoring – HWY 21 Field Camera</p> <p>Gauge station maintenance</p> <p>Listowel Gauge Station</p> <p>Listowel Conduit</p> <p>Lucknow stream gauging</p> <p>New Adcon Gateway installed at office</p>	<p>Bi-weekly surveys completed from January to March as well as in December/</p> <p>GAWSER snowpack model continued via daily weather measurements</p> <p>Trial of Campbell Scientific CCFC field camera carried out August-October 2016. Awaiting purchased system to install January 2017</p> <p>Test, cleaning and calibration carried out for all tipping buckets in summer 2016; maintenance/repairs carried out as needed.</p> <p>Concrete foundation replaced</p> <p>Cleared brush/woody vegetation from downstream of the conduit. Municipality contracted structural repairs.</p> <p>High flow spring events measured.</p> <p>Hub for headwater precipitation monitoring installed with expanded license to accommodate additional future stations and Garvey monitoring station. Old unit programmed to serve as a backup.</p>
Response	<p>Provide watch and warning messages to municipalities during flood and erosion emergencies</p>	<ul style="list-style-type: none"> Precipitation/drought updates provided to Water Response Team /MNRF and as requested by local Fire Chiefs. Seven flood messages issued in 2016: 2 Flood Warnings; 2 Flood Watches; 3 Water shed Conditions – Water Safety Statements.

Watershed Stewardship Services

Component	Work Plan Activities	Progress
Forestry - Large Stock and Seedling Tree Service	Provide technical support and identify funding opportunities for landowners and municipalities for windbreaks and roadside plantings as well as watercourse buffering and planting marginal lands.	<ul style="list-style-type: none"> ▪ Total trees planting in 2016 = 53,098. 23 projects (14 block plantings, 7 windbreaks, 2 living snowfences). 23 ha restored. ▪ Initial 2016 survival assessments (95%) and final 2015 survival assessments completed. ▪ Windbreak maintenance factsheet distributed at community events and IPM. ▪ Tree planting factsheets provided with tree order pickups. ▪ Applications updated for largestock, seedlings and reforestation services. Applications available on-line. Advertising for 2017 reforestation services completed. Forestry services promoted at Fall Colour Tour and IPM. ▪ Agreement reached with MTO for living snowfence program. MTO has identified priority areas and has agreed to cover stock and replacement costs. Landowners will also be eligible for an incentive payment. Maitland staff will deliver the program. ▪ Forestry property data base framework completed in 2016. Database work in 2017 will include developing forestry reporting queries (summaries by municipality), invoicing (automatic generation of a tree “packing slip”) and correspondence (generation of letters and applications from project data).
Soil Erosion Control	Provide technical assistance to build soil health and design rural stormwater management and conservation system projects	<ul style="list-style-type: none"> ▪ Requests for Erosion control projects are lower than previous years. ▪ Staff are working to encourage the incorporation of erosion control/rural stormwater management into projects being undertaken under the Drainage Act. ▪ GLASI edge-of-field monitoring site set up. This site provides data on agricultural water and soil quality. Both tile-flow and overland-flow are being monitored. ▪ GLASI projects in Garvey-Glenn for conservation tillage equipment and cover crops, both of which improve soil health.
Demonstration Projects	Garvey-Glenn Watershed	<ul style="list-style-type: none"> ▪ Great Lakes Agricultural Stewardship Initiative (GLASI) - funding for 2016 (\$100,000) has been allocated with the majority going towards equipment purchase and modifications.

		<ul style="list-style-type: none"> ▪ Project update provided to the Ashfield Colborne Lakefront Association in May. Three newsletters have been distributed to landowners. ▪ Cover Crop and Erosion Control tour was held to illustrate the advantages of using these best management practices on farms. ▪ Construction has been completed on 7 Water and Sediment control basins, 2 km of grassed waterways and 1.2 km of a 2-stage ditch. ▪ Garvey-Glenn drainage work has been presented at the Latornell Conservation Symposium and the 5th International Conference on Natural Channel Systems
	Hindmarsh Wetland Development Project	Training undertaken with landowner on the operation of control boxes and timing to adjust volumes within the ponds.
	Middle Maitland Headwaters Restoration Project	<ul style="list-style-type: none"> ▪ Bosman property - 2.5 acre hardwood drain buffer planted. 225 trees were planted initially and some replanting was also completed at this site. Project funders included RBC Blue Water Project, Trillium Mutual Roots and the Stratford Perth Community Fund ▪ Morrison property - 620 m stream buffer planted with 205 white spruce. Project funders included RBC Blue Water Project, Trillium Mutual Roots and the Stratford Perth Community Fund ▪ Whayley Project downstream of Listowel: planted this spring - 2,300 trees on 2.8 acres along the watercourse. Cost of \$5,699.00 with funding from Trees Ontario and Bruce Power. ▪ Listowel Memorial Park - .9 acre of floodplain planted with 30 trees and 245 shrubs. Municipality of North Perth funded this project. The stock was planted during a community planting event. ▪ Stormwater Pond Naturalization – 58 trees and 286 shrubs planted with assistance from LDSS students and the Middle Maitland Rejuvenation Committee. Municipality of North Perth funded this project. ▪ Carbon Footprint Initiative launched on October 13th. Funding provided by Molesworth Farm Supply/Pioneer for reforestation in Middle Maitland Headwaters.
	Scott Municipal Drain Demonstration Project	<ul style="list-style-type: none"> ▪ Wetland/ drain buffering - spring planting of 2,690 trees on 3.2 acres

		<ul style="list-style-type: none"> Planting of nut tree plot (200 trees and shrubs) completed in Oct. with students from Goderich Public School, the Wingham Guides and Blyth Scouts. Some deer fencing was installed to protect the trees Funding provided from Lions Club Goderich, Great Lakes Guardian Fund and Trees Ontario.
Rural Water Quality Programs	<p>Provide technical and financial incentives to improve water quality</p> <p>Enhanced marketing and promotion</p>	<ul style="list-style-type: none"> 344 new projects approved for HCCWP grants in 2016 (MVCA + ABCA) for an estimated total of \$547,000 in grants (all-time high). HCWP “housecleaning” of uncompleted and not likely to proceed projects from previous years freed up sufficient funding to review all applications to year end. Applicants may re-apply. Maitland staff conducted over 200 site visits. Top three projects in terms of project value: Erosion Control, Tree Planting, Cover Crops. Top three projects in terms of number of projects: Cover Crops, Tree Planting, Forest Management Plans. An additional 3 projects completed in the Maitland watershed through the Wellington County Clean Water Program. Wellington RWQP anticipates another \$465,000 (including \$50,000 for non-farm projects) in 2017. Since 2000 approximately half their grant has gone to manure storage projects. Due to demands on funding, the HCCWP Review Committee has decided not to add any new grant categories for funding in 2017. Proposed changes to accommodate more grant applications has been submitted to Huron County Council. This will necessitate fewer site visits and reduced grant pay-out in some grant categories. Property database framework completed in 2016. Adding 2016 project information will consume a significant amount of staff time in 2017. Brochure, website and display updated. HCCWP brochure added to Saugeen Conservation website in Dec. Staff promoted programs at several community events including: Brussels Agri Services Annual Grazing Meeting and their Spring Pasture Walk and Talk in June, Coffee, Crops & Donuts workshop series, HFA dinner and Fall Colour Tour.
Watershed Monitoring and Reporting	Provide environmental monitoring and reporting	<ul style="list-style-type: none"> Prov. Water Quality Monitoring Network monitored 8 events Garvey Glenn – 9 events sampled

	<p>Provide statistical analysis summary information on targeted watershed demonstration projects to determine if stewardship projects are improving soil health/water quality.</p>	<ul style="list-style-type: none"> ▪ Neonicotinoid Project – 8 events sampled ▪ MOECC Multi Watershed Nutrient Study – 5 events sampled ▪ Pesticide Project – 8 events sampled ▪ Provincial Groundwater Monitoring Network - 10 wells sampled ▪ Ashfield Colborne Lakefront Assoc. Water Quality monitoring Project – 15 events sampled ▪ Ontario Benthic Biomonitoring Network – 3 sites sampled for benthic invertebrates and water chemistry. ▪ Edge-of-Field tile sampling – 3 “summer” events sampled. 2 fall events sampled and 5 winter events sampled to date. One event has been sampled at the overland flow station in Jan. ▪ Staff participated in a PCSWMM course in August and have been working to update data in the Rural Stormwater Management Model so results can be analysed for 2015 and 2016.
Education and Outreach	<p>Stewardship Education Technician to coordinate community projects and develop stewardship educational opportunities at targeted demonstration sites across the watershed.</p>	<ul style="list-style-type: none"> ▪ Trees for Minto - Information mailout sent to 119 landowners in the headwaters of the North Maitland. Three planting projects were completed in the Maitland watershed using Green Legacy trees. Community Champion and Committee Chair have recently been appointed. Next meeting is Jan. 26th. ▪ Habitat program delivered free-of-charge to 843 students during 2015-2016. TD Friends of the Environment provided \$9,250 to support the program. ▪ Approx. 120 people participated in the family geocaching day at Wawanosh Valley C. A. in June (supported by Rural Response for Healthy Children). 70 people attended the Evening Walk at Wawanosh Valley C.A. held in Aug. Over 450 visitors attended the annual Fall Colour Tour in October. ▪ 2016 education program attendance – approximately 7,400 participants in programs, this is a significant increase over 2016. ▪ Bus tour of Middle Maitland stewardship projects delivered to 70 students from Listowel District Secondary School. Students assisted with tree and shrub planting at a stormwater pond.