



Climate Change Mitigation and Adaption on a Watershed Basis

Local initiatives in Ausable Bayfield Watersheds

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Sustainable Huron Committee

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Watershed Community

Creating Awareness · Taking Action



Watershed Management Strategy

- Continue to **monitor** hazard processes and respond to new challenges such as the impacts of climate change.
- Take **ACTION**
 - SAVE: Regularly review, update policies, procedures and technical guidelines for: natural heritage, hazard lands and stormwater management
 - SEED: Wetland and tree planting, Carbon Footprints to Forests
 - STEWARD: Urban and rural best management practices
- **Education**
 - Youth
 - Landowners



A working landscape







Best Management Practices (BMPs)

Rural ACTions

- Buffers
- Two-stage ditches

- Grassed waterways
- Berms

- Minimum/No-till
- Cover crops

Urban ACTions

- Stormwater ponds

- Rain gardens
- Rain barrels

- Less pavement
- Natural cover

**Trap
Treat**

Control
(at/near source)

Avoid
(improve filtration)



Initiatives

■ Monitoring

- Weather and climate monitoring stations
- Climate change monitoring station established in watershed with data retrieval via satellite.
- Go Global – Tree monitoring at Bannockburn

■ Actions

- Tree planting and wetlands – in 2018 highest number of trees planted in a decade – 57,000 trees
- Carbon Footprints to Forests
- Urban and rural stormwater

■ Education

- School programs
- Huronview Farm Demonstration



Preparing for flooding, weather variability

Adaptation Strategies:

- Flood Forecasting and Warning
- Flood Plain Management
 - Planning and Regulations

Mitigation Strategies:

- Building resiliency
 - improved soil health
 - wetlands; trees; low-impact development; rain barrels and soak aways; natural infrastructure
 - Conservation areas and forests





2007 photo after fence installed. Trees planted Spring 2008.

Examples of success:

Lake Huron tributary restoration funded by Huron Clean Water Project

January 2020 photo. Successful project! Cattle drinking clean water from farmstead. Pasture remains. No downstream pollution or sedimentation, even in flood events.



Examples of success:

Berms prove their worth during 70 mm rainfall event.
January 11-12, 2020.



- Historic erosion through low draw.
- The berm holds back water for up to 24 hours and slowly releases the water into a field tile. Constructed in 2019 by qualified contractor.
- This field has a cover crop to hold the soil.
- Both projects funded by Huron Clean Water Project.





Lessons Learned: Soil health and climate change



healthy soil has amazing water-retention capacity.

Every **1%** increase in organic matter results in as much as **25,000** gal of available soil water per acre.

Source: Kansas State Extension Agronomy e-Update, Number 257, July 6, 2017

USDA United States Department of Agriculture

Want more soil secrets?
Check out www.nrcs.usda.gov

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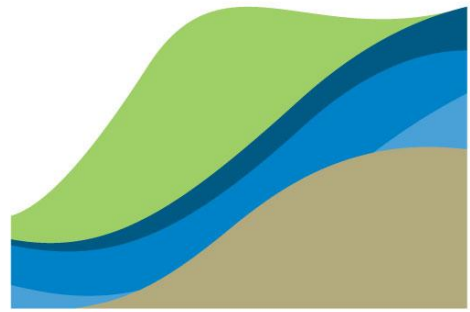
<https://www.abca.ca/community/cropscreeks/>



Carbon Footprints to Forests

- Pilot project funded by County of Huron
- Delivered by Maitland Conservation and Ausable Bayfield Conservation
- Trees planted, maintained locally to capture carbon
- Carbon calculator – Easy to use; Ideal for individuals
- Good education
- More uptake needed – e.g., Counter-balance travel to meetings; payroll deduction; individuals & businesses; etc.
- **footprintstoforests.com**





Healthy Lake Huron

Clean Water, Clean Beaches

- Departments, ministries, local conservation agencies, local public health, municipalities, community groups, landowners – working together to protect the southeast shore of Lake Huron
- Need to work together; need to continue to support projects that build watershed understanding and resiliency
- **healthylakehuron.ca**



Thanks for your support!

