



# Conservation Update

## St. Clair Region Conservation Authority

March 2015

### Flood Outlook for Spring

It has been a long, cold winter but more seasonable conditions are here. "Over the last three weeks, we have had maple syrup type weather and it is just what we needed," said Girish Sankar, Manager of Water Resources for the St. Clair Region Conservation Authority. "Maple syrup weather is when you have day time temperatures above freezing and evening temperatures dropping below the freezing point. This allows for the snow pack and ice cover on watercourses to slowly melt."

Prior to this spring's melt, we averaged 60 cm of snow across the region and ice froze to an amazing 45 cm in the lower Sydenham River. This could have resulted in significant flooding and ice jams if the melt came quickly and was accompanied by large amounts of rain.

"This does not mean we are totally out of the woods," Sankar said. "There is still snow in low lying areas and the ground still has a significant amount of frost. Should we have a rapid warm-up combined with significant rain, this could result in flooding within typical floodplain areas."

There are important benefits to our cold, snowy winter. The water in the form of snow can help to replenish soil moisture, ground water and wetlands. The speed of the melt will determine how much water soaks into the ground and how much water runs off into drains and rivers. The deep snow pack may also contribute to increasing lake levels as water stored on the land makes its way into the Great Lakes over the spring and summer.

The Conservation Authority continues to monitor watershed conditions and will issue advisories should flood risks increase. As we move through the spring melt season, residents are reminded to avoid watercourses and flooded areas due to slippery banks, cold and swift moving water, and deteriorating ice. Parents in particular are reminded to keep their children away from floodplain areas.

### Lambton Area Water Supply System (LAWSS) Shoreline Protection

Work continues on the construction of erosion protection at the mouth of the St. Clair River. Approximately 280 metres of shoreline are being restored to protect this important part of municipal infrastructure with a combination of existing concrete blocks and armour stone sea wall. Funds (\$300,000) were granted through the provincial Water and Erosion Control Infrastructure Program with matching funds from LAWSS. An additional \$50,000 has been secured from the Ministry of the Environment and Climate Change through the Canada-Ontario Agreement.

### Maple Syrup Festival

About 800 people visited the A.W. Campbell Conservation Area to experience demonstrations of syrup production from times past. Tours included a story of how maple syrup was discovered by our First Nations people who later taught pioneers the wonders of this important staple. The festival was held March 21 - 22. The Alvinston Firemen's Association provided the traditional pancake and sausage meals at the Alvinston Community Centre.



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*"working together for a healthy environment"*

## Tracking Migrating Animals

The Motus Wildlife Tracking System comprises a network of coordinated automated radio telemetry towers that track the movements of small organisms. The purpose of Motus is to facilitate landscape-scale research and education on the ecology and conservation of migratory animals. It is a program of Bird Studies Canada (BSC) in partnership with Acadia University, Western University, the University of Guelph and all collaborating researchers and organizations.

As of early 2015, the array is comprised of over 200 automated VHF radio receiving stations, positioned from Hudson Bay, along the James Bay Coast, stretching from southwestern Ontario to the mouth of the St. Lawrence River, through the Maritime provinces and down the eastern seaboard to Virginia.

The SCRCA is participating in this project by locating two Motus stations at Peers Wetland and at the Marthaville Habitat Management Area.



*Canada Warbler*

## Fish and Wildlife Habitat Management Plan

With funds from the Great Lakes Sustainability Fund, the SCRCA will be laying the ground work for the completion of a Fish and Wildlife Habitat Management Plan for the St. Clair River Area of Concern. This project will directly contribute to the delisting of the "Loss of Fish and Wildlife Habitat" Beneficial Use Impairment (BUI) currently identified as "Impaired" in the St. Clair River AOC. The development and organization of a management plan will require expertise in both aquatic and terrestrial ecology, rehabilitation and management.

## Sharing Knowledge about Cover Crops

Farmers from Lambton County attended a workshop co-hosted by SCRCA and the Lambton Soil & Crop Improvement Association. Blake Vince (Merlin ON), Adam Hayes (OMAFRA), and Chad Watts (Conservation Technology Institute Centre, Purdue, Indiana) spoke on the importance of cover crops.

In addition to these presentations, the SCRCA reported on a March 2014 project with a local landowner who was interested in determining if his farming practices influenced phosphorus levels leaving his fields. We compared nutrient levels in water samples collected from two outlets of a winter wheat field and one outlet from a field using conventional tillage with bean stubble.

While this was a very limited sample, it was interesting to note that the conventionally tilled water sample contained three times more phosphorus and nitrogen and two times more dissolved solids than the water sample from the cover crop field.

We collected samples from this year's spring melt. Dissolved phosphorus levels were much closer, while total phosphorus levels remained two times higher coming from the conventionally tilled field. Tile water from the conventionally tilled field again carried two times more solids than tile water from the cover crop field.

This fall, the farmer intends to plant a 10-species cover crop mix and observe if he can further reduce nutrients and soil loss.



### Next Conservation Authority Board Meeting

Thursday, April 23, 10:00 a.m.

Strathroy-Caradoc Municipal Office

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