

July 12, 2017

Sent via email

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At Authority Meeting #5/17, of Toronto and Region Conservation Authority (TRCA), held on June 23, 2017, Resolution #A103/17 in regard to Wetland Protection was approved as follows:

THAT Toronto and Region Conservation Authority (TRCA) staff continue to work with our provincial and municipal partners in the identification and protection of wetlands in the TRCA jurisdiction;

THAT staff continue to encourage TRCA's partners to support the integration of these wetland features into the greenspace planning for new communities as they are so important to the long term health of the natural heritage and hydrologic systems;

AND FURTHER THAT the Ministry of Natural Resources and Forestry, the Ministry of the Environment and Climate Change, the Ministry of Municipal Affairs, Conservation Ontario and TRCA's municipal partners be so advised.

Enclosed for your information and any action deemed necessary is the report as approved by the Authority. If you have any questions or require additional information, please contact Dena Lewis at 416-661-6600 extension 5225, dlewis@trca.on.ca

Sincerely



Kathy Stranks
Senior Manager, Corporate Secretariat
CEO's Office

cc. Dena Lewis, Senior Manager, Planning and Ecology, TRCA
Mary-Ann Burns, Senior Planner, Policy, TRCA

/Encl.

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RES.#A103/17 -

WETLAND PROTECTION

Protection for Urban and Near-urban Wetlands. Responding to the Authority's request for staff to report on what is being done to protect urban and near-urban wetlands.

Moved by: Glenn De Baeremaeker
Seconded by: Jennifer McKelvie

THAT Toronto and Region Conservation Authority (TRCA) staff continue to work with our provincial and municipal partners in the identification and protection of wetlands in the TRCA jurisdiction;

THAT staff continue to encourage TRCA's partners to support the integration of these wetland features into the greenspace planning for new communities as they are so important to the long term health of the natural heritage and hydrologic systems;

AND FURTHER THAT the Ministry of Natural Resources and Forestry, the Ministry of the Environment and Climate Change, the Ministry of Municipal Affairs, Conservation Ontario and TRCA's municipal partners be so advised.

CARRIED

BACKGROUND

At Authority Meeting #10/16, held on January 6, 2017, amendment #A211/16 was approved as follows:

THAT staff report back on what is being done to protect urban and near urban wetlands;

Wetlands are a critical component of healthy watersheds. The ecosystem services that wetlands provide such as flood attenuation, improving air and water quality, and provision of habitat for many important species are invaluable.

All watersheds in southern Ontario, including TRCA's watersheds, currently have less wetland cover than they did prior to extensive European settlement (c. 1800), with losses exceeding 70% in many jurisdictions. Environment Canada in its report, "How Much Habitat is Enough?" recommends that "each major watershed should have a minimum, 10% wetland cover protected and restored." On average, TRCA's watersheds have less than 5% wetland cover (Figure 1). Even in the best cases, none of the individual watersheds reach the 10% target recommended by Environment Canada.

Watersheds		Wetlands		
Watershed	Area (m ²)	Area (m ²)	Area (ha)	% of Watershed
Carruthers	38,129,320	3,668,056	366.8	9.6%
Don	358,060,192	2,827,504	282.8	0.8%
Duffins	286,535,957	21,625,107	2,162.5	7.5%
Etobicoke	211,647,944	4,937,427	493.7	2.3%
FrenchmansBay	27,129,483	1,896,889	189.7	7.0%
Highland	101,577,557	687,117	68.7	0.7%
Humber	910,777,586	48,349,725	4,835.0	5.3%
Mimico	77,091,237	447,663	44.8	0.6%
Petticoat	26,822,177	2,561,022	256.1	9.5%
Rouge	332,879,060	18,664,097	1,866.4	5.6%
Waterfront	121,575,753	1,333,098	133.3	1.1%
TOTALS	2,492,226,267	106,997,704	10,699.8	4.3%

Figure 1

In a growing and intensifying city region such as TRCA’s jurisdiction, protected and functioning wetlands are critical to combatting the impacts of urbanization and the compounding effects of climate change.

Policy and Regulation

The protection of wetlands is a multi-jurisdictional endeavor requiring the different levels of government to work together. Provincial policy sets the general direction for protection of wetlands in the provincial interest, and municipalities and conservation authorities are responsible for implementing those policies through their own programs and policies.

Provincial Policy Statement

The Ontario Wetland Evaluation System (OWES) is used by the Ministry of Natural Resources and Forestry to identify and evaluate wetlands to determine if they are Provincially Significant Wetlands (PSWs). Designated PSWs are protected under the Provincial Policy Statement (PPS), 2014, which states that, “Development shall not be permitted in significant wetlands...unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.”

Provincial Plans

Provincial plans such as the Greenbelt Plan and the Oak Ridges Moraine Conservation Plan also contain policies to protect all wetlands on the Oak Ridges Moraine and/or in the Greenbelt as “key natural heritage features” and “key hydrologic features” in which development or site alteration is prohibited.

Municipal Official Plans

Municipal Official Plans must contain wetland protection policies in accordance with the PPS and provincial plans. The policies of the PPS represent minimum standards; however, planning authorities and decision-makers may go beyond these minimum standards. In TRCA’s jurisdiction, many municipalities have adopted or proposed policies for the protection of wetlands beyond just PSWs.

Conservation Authorities Act Section 28 Regulation

The only regulation for wetlands in Ontario is the section 28 regulation under the *Conservation Authorities (CA) Act*. TRCA's section 28 regulation (Ontario Regulation 166/06, as amended) applies to all wetlands regardless of provincial significance or permissions in official plans. It fills the gap for applications that do not require any approvals under the *Planning Act*. It is also the only enforcement body for the protection of wetlands.

The Living City Policies

The Living City Policies (LCP) implements TRCA's roles in the development planning process, the infrastructure planning process and the Regulation. The LCP guides staff in their day-to-day operation, helping to implement the PPS, provincial plans and TRCA's Terrestrial Natural Heritage System Strategy; the LCP also helps support municipalities' wetland protection policies. The LCP contains policies that recommend the protection of wetlands under *Planning Act* and *Environmental Assessment Act* processes. It also contains policies to implement TRCA's Regulation where development is proposed within Regulated Areas associated with a wetland.

Challenges and Opportunities

Wetland Identification

Not all wetlands have been identified, mapped or evaluated (under OWES). TRCA's terrestrial inventory and monitoring programs continue to identify wetlands across the jurisdiction. The inventory work also documents the habitat functions of the wetlands including the presence of flora and fauna. These data are entered into TRCA's GIS mapping databases and are used by TRCA staff in their review role. The information is also available to municipalities and to consultants on request to support their development and infrastructure planning activities. In addition, TRCA regularly updates our information with data from the Ministry of Natural Resources and Forestry (MNRF).

Municipally-led planning exercises such as subwatershed studies, Block Plans and Master Environmental Servicing Plans, also offer an opportunity to identify and evaluate wetlands in new urban areas.

Under the text of Ontario Regulation 166/06, as amended, a wetland is regulated even if it is not currently mapped.

Non-Provincially Significant Wetlands

As noted above, municipalities may choose to go beyond the PPS and provincial plans to protect local wetlands in their policies. However, there are often costly legal appeals to these policies when there is no provincial requirement for protection. In the case of linear infrastructure, it is often impossible to avoid impacting wetlands, including PSWs.

To deal with the situation where wetlands cannot be protected in-situ, TRCA has been developing a Compensation Protocol for Ecosystem Services. The draft protocol is currently out for consultation; however, staff has piloted the draft protocol with willing municipalities and proponents where unavoidable losses of natural features have occurred.

Non-provincially significant wetlands are usually small and have less complex ecosystem functions than PSWs. TRCA has expertise and experience in being able to recreate/restore wetlands elsewhere if they cannot be protected in-situ.

Some municipalities have or are considering compensation policies in their planning documents for non-provincially significant features.

The Province of Ontario's draft Wetland Conservation Strategy has identified that in parts of Ontario where wetland losses have been the greatest, that perhaps, all wetlands should be protected. The draft Strategy also presents compensation/offsetting as something to be explored.

Wetland Hydrology (Water Balance)

Wetlands and their ecological functions are very much defined by each of their unique hydrologic regimes. For example, hydrology is one of the main factors influencing whether or not amphibians are able to use a wetland to breed. Truly protecting a wetland goes beyond just setting aside the land and providing a buffer. Protecting the hydrologic regime or water balance (volume, timing, and duration of water inputs and outputs) is critically important. This can be very challenging when land is urbanized and the amount of stormwater runoff increases dramatically and water quality decreases. It becomes necessary to take measures to match the quantity and quality of water entering the wetland if the wetland is going to continue to function adjacent to development.

The LCP contains requirements for a water balance analysis to demonstrate that the hydrology of the feature will be maintained once the development occurs. To assist proponents, TRCA has produced a Wetland Water Balance Monitoring Protocol to provide consistent guidance for proponents where their proposals have the potential to impact wetland features.

TRCA is also working on a Risk Evaluation Tool to determine the level of monitoring and evaluation that is required based on the sensitivity of the wetland and the extent of hydrologic change the development is likely to cause. These guidelines and tools have been or are being developed with input from an external stakeholder committee that includes membership from TRCA municipalities, other CAs and the building and consulting industry.

TRCA and Credit Valley Conservation have also initiated a research study to better understand when significant adverse impacts from development are likely to occur.

Unauthorized Removals or Damage

TRCA's Enforcement Officers play an important role in the management of natural hazards and features within TRCA watersheds. As noted above, the only regulation for the protection of wetlands comes under section 28 of the *CA Act* and so too the enforcement and compliance of the regulation. Violation trends within TRCA's jurisdiction range from minor intrusions into wetland features to major site alterations. Through the investigation process of unauthorized works, it is a challenge to delineate the original feature limits when wetlands that are not mapped or evaluated are damaged or removed outside of the land use planning process.

TRCA's compliance approach is to resolve minor infractions through landowner cooperation and resolve violations by notice through discussions and negotiations for restoration where possible. Currently, there are no Stop Work provisions or Order to Comply provisions within the *CA Act*. Prosecutions are generally reserved for situations where a negotiated resolution is not possible and the offence is significant in nature. However, these legal proceedings take multiple years to resolve, the costs of which are borne by the CA.

Wetland Restoration

TRCA has developed strong expertise in the creation, enhancement and ecological restoration of wetlands. Using an understanding of the natural heritage needs in each watershed along with TRCA's inventory and monitoring data, restoration opportunities have been identified and prioritized. In the last five years, TRCA has restored nearly 100 ha of wetlands in TRCA watersheds, moving us towards the target of 10% wetland cover.

FINANCIAL DETAILS

The work done at TRCA to protect wetlands is accomplished through established planning and environmental assessment processes and is part of the regular planning and development budgeting process.

Funding support for science and research (including the water balance work) is supported through grants from the Great Lakes Sustainability Fund, the Toronto Region Remedial Action Plan (RAP), with additional capital funding from York and Peel regions. Credit Valley Conservation has made significant in-kind contributions to this work as well.

Funding support for restoration work comes through various municipal capital projects, Peel's climate change fund, and various grants from external organizations such as Great Lakes Sustainability fund, Toronto RAP, and TD Friends of the Environment Fund, etc.

DETAILS OF WORK TO BE DONE

Staff supports the direction in the Province's draft Wetland Conservation Strategy for the protection of all wetlands, in areas where wetland loss has been the greatest, and the use of off-setting or compensation to replace wetlands that are damaged or lost. Staff is awaiting the next round of consultation from the Province on implementation of their Wetland Conservation Strategy and, as needed, will contribute to its implementation.

Staff will continue to strengthen partnerships and working relationships with municipalities and other conservation authorities to protect and restore wetlands within TRCA's watersheds.

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Date: June 23, 2017
