

SUPPORTING CONSERVATION AUTHORITIES'
STEWARDSHIP GOALS THROUGH THE BROADER USE OF
ENVIRONMENTAL MARKETS

Submission by Sustainable Prosperity to the Ontario
Conservation Authorities Act Discussion Paper

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About Sustainable Prosperity

Made up of business, environment, policy and academic leaders, Sustainable Prosperity (SP) is a national green economy think tank/do tank. We harness leading-edge thinking to advance innovation in policy and markets, in the pursuit of a greener, more competitive Canadian economy. At the same time, SP actively helps broker real-world solutions by bringing public and private sector decision-makers to the table with expert researchers to both design and apply innovative policies and programs.

Introduction

Sustainable Prosperity (SP) welcomes the opportunity to comment on the *Conservation Authorities Act* discussion paper as part of the Government of Ontario's review on the roles, responsibilities, funding and governance of conservation authorities under the act.

SP's expertise is on approaches that align market prices with environmental objectives. These approaches help internalize both environmental costs and benefits into the price of goods and services in order to create a financial incentive for individuals and firms to minimize environmentally damaging activities and increase environmental protection. Within this context, SP supports the broader use of market-based instruments¹ by conservation authorities — particularly environmental markets.²

Over the past 70 years conservation authorities have played an important role in the management of natural resources in the province; not only performing impressive work protecting communities from water-related hazards, but also positioning themselves as trusted environmental stewards within the province. Throughout this long trajectory, conservation authorities have evolved as organizations in order to meet the changing needs of local communities and better address new and increasing environmental challenges.

Building on this legacy of adapting to changing conditions, conservation authorities could explore a more extensive use of environmental markets as a new way to advance their environmental goals. This aligns well with Conservation Ontario's 2015 vision of becoming “the partner of choice for managing and adapting to climate change and growing the green economy.”³ Although some conservation authorities are already employing these tools, their use is limited and not spread across all 36 watershed-based organizations.

The intention of this submission is not to provide a comprehensive review of all aspects of the *Conservation Authorities Act*, but rather to highlight SP's research that is relevant to the questions raised in the discussion paper, particularly as they relate to funding mechanisms and roles and responsibilities.

This submission first explains why conservation authorities are ideal candidates to administer environmental markets — particularly those environmental markets that are more localized in nature. Later, the submission provides a more focused response to selected questions raised by the discussion paper.

In this second part, the submission addresses the discussion paper's question on funding mechanisms by explaining that environmental markets are a self-generating revenue tool that can be used to cover the costs associated with implementing and administering such programs on a cost-recovery basis.

¹ Market-based instruments are regulations that encourage behavior through market signals rather than through explicit directives regarding pollution control levels or methods. (R.N. Stavins, 1998. *Market-Based Environmental Policies* retrieved from <http://www.rff.org/files/sharepoint/WorkImages/Download/RFF-DP-98-26.pdf>)

² Environmental markets are defined as any market in which the transactions are aimed at either improving or maintaining environmental quality, or minimizing environmental degradation. SP's. 2014. *Environmental Markets in Canada*. Retrieved from <http://www.sustainableprosperity.ca/content/environmental-markets-2013>

³ Conservation Ontario. 2011. *The Road Ahead: Sharing Conservation Authorities Strengths: Strategic Direction 2011-2015*. Retrieved from http://www.conservation-ontario.on.ca/media/CO_StrategicPlan_2011_2015_3.pdf

Regarding the discussion paper's question on roles and responsibilities, the submission highlights the types of environmental markets that can be best designed and implemented at a watershed scale, and which align best with the work and capabilities of conservation authorities.

Finally, the submission identifies key steps that policy-makers and legislators can take to facilitate and encourage the wider use of environmental markets by conservation authorities including building a strong environmental markets' knowledge base, bringing into force legislation to allow water quality trading, and exploring the use of biodiversity offsets beyond endangered species.

SP hopes this research provides useful insights into the review on the roles, responsibilities and funding of conservation authorities, and would welcome any opportunity to provide further assistance.

General Input: Considering the broader use of environmental markets by conservation authorities

Ontario's projected population growth of 31% — from 13.7 million to 17.9 million⁴ — and the economic growth associated with it, will place increased pressure on Ontario's natural environment. In addition, the effects of climate change will exacerbate existing challenges such as loss of agricultural land and natural spaces, biodiversity degradation, and water quality concerns.

Given that conservation authorities are the second largest landowners in the province (after the Crown), and that 90% of the province's population lives within a conservation authority's jurisdiction, the activities and programs implemented by conservation authorities — with the support of participating municipalities and the province — can have an important role in mitigating adverse environmental impacts.

Furthermore, conservation authorities are unique non-profit organizations aligned with watershed boundaries to better serve local needs from a science-based perspective. They have lengthy experience managing local natural resources, monitoring and improving water quality, restoring and rehabilitating habitats, and implementing many other stewardship activities designed to provide environmental benefits. They also have over 70 years of administrative capacity and have built trust with local landowners by working together on a wide range of conservation projects.

For these reasons, conservation authorities are ideal candidates to implement and administer environmental markets in Ontario — particularly those markets that are more localized in nature, such as water and biodiversity markets.

Urban sprawl, industries, agriculture and other economic activities can impose environmental costs that are not always factored into the price of goods and services. As a result, there can be little incentive to reduce harmful activities or conserve ecological services. Environmental markets are a policy tool used

⁴ Ontario Population Projections 2013-2041. Ontario Ministry of Finance.
<http://www.fin.gov.on.ca/en/economy/demographics/projections/#s1>

to internalize these environmental costs and benefits.⁵ They create a monetary value where none currently exists, and thus create incentives to protect and enhance ecological goods and services and minimize environmentally-damaging activities.⁶

Some conservation authorities already have experience implementing different types of environmental markets. The Green Economy Roadmap for Conservation Authorities documented some of these initiatives,⁷ however, an opportunity remains to expand existing markets and develop new ones. The more extensive use of environmental markets by conservation authorities would not only generate price signals to encourage increased environmental protection by watershed residents, it could also provide an alternative source of revenue that would allow for the implementation of additional conservation projects.

Input on Specific Questions Raised in Discussion Paper

Funding Mechanisms

Questions 2: In your view, how are the programs and services delivered by conservation authorities best financed?

Question 2B. Are there other revenue generation tools that should be considered?

The use of environmental markets can be considered a self-generating revenue tool that can be used to cover the costs associated with implementing and administering such programs on a cost-recovery basis. Example: the money raised through the sale of water allowances that permit the discharge of phosphorous loadings into a watershed can then be used to pay for the projects that must be implemented to offset the additional nutrient loadings and to recover the costs of monitoring and administering the water quality trading program.

Note on additionality: Revenue generated through the sale of water nutrient, biodiversity and carbon offsets or credits should not be used to finance conservation and restoration projects that would have been implemented in the absence of these credits being created and sold; It is important to ensure that the outcomes achieved through the use of environmental markets are additional to what would have occurred otherwise.

⁵ Environmental markets are defined as any market in which the transactions are aimed at either improving or maintaining environmental quality, or minimizing environmental degradation. SP's. 2014. *Environmental Markets in Canada*. Retrieved from <http://www.sustainableprosperity.ca/content/environmental-markets-2013>

⁶ For more information on environmental markets, see SP's. 2014. *Environmental Markets in Canada*. Retrieved from <http://www.sustainableprosperity.ca/content/environmental-markets-2013>

⁷ Conservation Ontario. 2013. *The Green Economy Roadmap for Conservation Authorities*. Retrieved from http://www.greeneconomyroadmap.com/docs/CO_GE_Roadmap_Mar-25-2013.pdf

Roles and Responsibilities

Question 3: In your view, what should be the role of conservation authorities in Ontario?

Question 3A: What resource management programs and activities may be best delivered at the watershed scale?

As mentioned in the previous paragraphs, SP believes that conservation authorities are ideal candidates to administer and implement environmental markets. There are different types of environmental markets varying in value and volume of trades, geographic scope, number of participants, and degree of government involvement.

For the purposes of this submission we highlight the types of environmental markets that may be best delivered at the watershed scale, and which align best with the work and capabilities of conservation authorities:

Water Quality Trading:

Conservation authorities could explore a more extensive use of water quality trading markets as a way to improve water quality within their watersheds.

Water quality trading (WQT) is a market-based approach designed to improve water quality. Firms with high water pollution reduction costs are allowed to purchase pollution reduction credits from other dischargers in the same watershed in order to meet a regulatory standard.

In Ontario, elevated nutrient levels, such as phosphorous from agricultural runoff, have been a problem for water quality for decades. Although current regulation makes it unlawful to discharge contaminants into the natural environment beyond the allowed levels, these regulations mostly apply to point sources. However, studies have shown that non-point polluters, such as farms, are largely responsible for excess nutrient loads in Ontario's watersheds.

By introducing water quality trading, conservation authorities could provide a cost-effective way for point-source emitters to comply with nutrient loads regulations and also create financial incentives for non-point source emitters to put in place water quality improvement projects.

Both the South Nation and Nottawasaga Conservation Authorities have successfully implemented water quality trading programs within their watersheds. Lake Simcoe Conservation Authority is also considering the implementation of this environmental market as a way to reduce nutrient loadings into Lake Simcoe.⁸

Biodiversity Offsets:

As the use of biodiversity offsets continues to expand in Ontario, conservation authorities could play an important role as trustworthy offset providers.

⁸ For more information on water quality trading in Ontario see SP's 2-part blogpost *Pricing Water Pollution* <http://www.sustainableprosperity.ca/blog/pricing-water-pollution-water-quality-trading-ontario>

Biodiversity offsets are a specific type of environmental market that create a market for recreating or protecting biodiversity. Biodiversity offsets work to balance the negative impacts on biodiversity from development on one site by creating equivalent or greater environmental enhancement in another site.⁹

In Ontario a form of offsetting is allowed through the issuance of an “overall benefit permit” for species at risk. Although Ontario’s *Endangered Species Act*¹⁰ prohibits the harm and harassment of protected species and damage and destruction to their habitat, a permit can be issued to perform an activity that would have otherwise not been permitted under the act (Section 17 of the act) if an offsetting action is implemented.

Several conservation authorities have shown interest in biodiversity offsets by participating in workshops and forums related to the potential of using biodiversity offsets in Ontario more broadly. South Nation Conservation Authority has experience offsetting under the *Endangered Species Act*¹¹ and Toronto Region Conservation has spoken publicly about the possibility of creating a restoration bank.¹²

Carbon offsets:

Conservation authorities could explore the development of carbon offset programs as a way to finance some of their forestation projects.

A carbon offset or credit is a reduction in CO₂ emissions, or other greenhouse gas, used to compensate for an emission released elsewhere. Individuals and businesses purchase these offsets in order to reduce their carbon footprint or even become carbon neutral.

Two conservation authorities¹³ in Ontario have begun selling non-registered carbon offsets generated from tree-planting projects.¹⁴ The Rideau Valley Conservation Authority’s *Carbon Neutral Program* calculates individuals’ and companies’ carbon footprint. It later plants native trees in their name in order to compensate for some — or all — of the carbon released from their activities. The cost per planted tree is \$3. Ausable Bayfield and Maitland Valley Conservation Authorities also offer a similar service under the *Footprints to Forests Program* and charge \$5.50 per planted tree.¹⁵ Offset buyers generally consist of individuals and local businesses seeking to offset their carbon footprint by funding forest projects within their region or watershed.

⁹ For more information see SP’s policy brief *Getting Biodiversity Offsets Right* <http://www.sustainableprosperity.ca/content/getting-biodiversity-offsets-right>

¹⁰ Passed by the Ontario Legislative Assembly in 2007.

¹¹ Ontario Nature. 2014. *Insights into Biodiversity Offsetting in Ontario*. Retrieved from http://www.ontarionature.org/discover/resources/PDFs/reports/Biodiversity_Offsetting_Ontario.pdf

¹² Toronto Region Conservation Authority. 2013. *Structure of a Compensation Bank* (Presentation). Retrieved from <http://trca.on.ca/dotAsset/166357.pdf>

¹³ Conservation authorities are community-based watershed organizations set up to manage the natural resources of watersheds in Ontario.

¹⁴ Although these tree-planting programs are not registered under any of the registries listing major carbon offset projects in Canada — as this would be too costly for such small initiatives — the methodologies used to calculate CO₂ reductions associated to offset projects, and estimate their client’s carbon footprints, have been independently reviewed by a third party consultant.

¹⁵ The programs’ websites contain information on prices per planted tree.

Payment Programs:

Conservation authorities should continue developing and administering payment programs, which create financial incentives for environmental stewardship to take place in private land, but should also consider developing these programs into more formal types of environmental markets.

A less sophisticated form of environmental market, a payment program is more simply structured than the environmental markets described above. Usually government or other institutions pay farmers or landowners to adopt management practices that would have a positive environmental impact or reduce environmental degradation. Although less-structured, a buyer and a seller come together in a transaction that places a value on an ecosystem and/or the natural benefits it provides.

In Ontario, conservation authorities have experience with payment programs.¹⁶ They act as administrators of many payment programs such as the Ontario Landowner Environmental Assistance Program and other watershed stewardship activities. Most of these payment programs are targeted to private landowners, creating a price signal for environmental stewardship to take place beyond protected crown land. This is particularly important in Southern Ontario where there is little crown land due to historic high levels of population settlement.

Payment programs provide an economic incentive for landowners — often farmers — to undertake activities that will help protect or enhance the natural environment. Programs are usually time-limited, meaning funding is only available for a few years or until it is exhausted. As a result of these short-term price signals, the programs are limited in their ability to encourage the creation of a more developed market environmental protection.

Nevertheless, there is the potential to transform some of these payment programs into more formal environmental markets like the ones described above. This could allow continuity of these programs after other funding sources are exhausted. However, this may apply best in areas where there is a mix of land uses such as residential, industrial and agricultural. Program administrators could link payment recipients (like farmers) to potential credit purchasers (like wastewater treatment plants in need of offsetting their pollutant discharges or residential developers required to compensate for adverse impacts to biodiversity).

Question 3B: Are current roles and responsibilities authorized by the Conservation Authorities Act appropriate? Why or why not? What changes, if any, would you like to see?

There are a few steps that policy-makers and legislators can take to facilitate and encourage the wider use of environmental markets by conservation authorities — particularly as it relates to water quality trading and biodiversity offsets.

¹⁶ Conservation authorities are not the sole administrators of payment programs in Ontario. Ontario Soil and Crop Improvement Association, ALUS Ontario, Municipalities are among the other organizations that also deliver these programs. Funding sources for these payment programs vary; common sources include federal, provincial and municipal bodies, as well as private foundations.

Water quality trading

- **Build a strong WQT knowledge base:** Despite the potential benefits attributed to WQT, the low adoption of these market tools suggests that there is distrust surrounding the use of market-based instruments to improve water quality in the province. Increased knowledge sharing regarding the use of WQT and the study of existing case studies could contribute to a more extensive use of WQT as part of a wider water quality improvement strategy.
- **Bring into force legislation to allow WQT:** Although WQT has already been implemented in the province without the existence of any laws explicitly allowing this practice, the bringing into force of the amendment to section 75 of the *Water Resources Act* could become the legal enabler necessary for a more extensive use of WQT in Ontario. In addition, the development of province-wide WQT policies and guidelines could provide guidance on when and where WQT should be considered and could help determine who would deliver these programs.

Biodiversity offsets

- **Build a strong biodiversity offsets knowledge base:** There is still need to better understand how biodiversity offsets can be used. Building a strong knowledge base could support continuous improvement of biodiversity offset policies, guidelines and structures. In late 2014, SP published a policy brief on biodiversity offsets where it proposed a 10-point research agenda.¹⁷
- **Consider the use of biodiversity offsets beyond endangered species:** In Ontario, biodiversity offsetting has mostly occurred under the *Endangered Species Act* and the “Overall Benefit Permit” mechanism. However, new and expanding urban centres have had and will continue to have a negative impact on biodiversity; the provincial government could explore the use of offsets as a tool to conserve habitats and biodiversity beyond endangered species. Conservation authorities could play a fundamental role as offset providers.

¹⁷ For more information see SP’s policy brief *Getting Biodiversity Offsets Right*
<http://www.sustainableprosperity.ca/content/getting-biodiversity-offsets-right>

Conclusion

Sustainable Prosperity commends the Ontario Government for conducting this review of the role of conservation authorities and for inviting submissions from interested parties.

An expanding economy and population, together with other environmental threats such as climate change, require an assessment of conservation authorities' roles and responsibilities and the tools that they have at their disposal in order to meet the needs of Ontarians today and into the future. SP supports the use of environmental markets as one of the tools that conservation authorities could employ in order to maintain their role as trusted environmental stewards and to help advance Ontario's green economy.

We regard this consultation as a very positive step forward and would be happy to provide a response to any questions you may have regarding our submission.