Conservation Ontario & MOECC – Great Lakes and St. Lawrence River Health Workshop
Summary of Feedback

1. Introduction

The Ontario Partner Environmental Network (OPEN) project is a long-standing collaboration between Conservation Ontario and the Ontario Ministry of the Environment and Climate Change (MOECC) to improve information sharing between partners. As the OPEN Project evolves its mandate to respond to changes in technology and meet the changing needs and priorities of partners, a rebranding of the existing Open Portal (a password-protected online web-mapping application) was considered essential. The OPEN project will use innovative tools through ArcGIS Online to showcase programs, initiatives, and integrate information to make connections between partners and stakeholders on a new website called 'Environment Connections'. Over the next two years, the OPEN project/Environment Connections will refocus resources to address some overlapping priorities for Conservation Ontario and MOECC: Great Lakes health, climate change, and partner collaborations. A stakeholder workshop was held to request input on the rebranding of the OPEN Project to ensure it supports partner work in Ontario.

2. Overview of Workshop

On February 21, 2017 Conservation Ontario, in collaboration with the Ministry of Environment and Climate Change, hosted a Great Lakes and St. Lawrence River health workshop at Black Creek Pioneer Village. The workshop was the second in a three meeting series, and was held from 9:00 am – 2:00 pm. Approximately 44 people participated in the workshop representing a variety of stakeholders.

The objectives of the session were:
- To provide an overview and introduction to the project.
- To gather input on targeted Great Lakes/St. Lawrence River themes (see section 3 for details) and determine:
    - How the Ontario Partner Environmental Network can be most useful to partners/users;
    - Useful applications or tools to communicate information to stakeholders; and
    - What data and information is available to promote partner work on Great Lakes/St. Lawrence health.
- To share next steps.

To begin the workshop, opening remarks were provided by Bonnie Fox, Policy and Planning Manager, Conservation Ontario. She thanked participants for coming to the session and noted that it was an important discussion and she looked forward to hearing the ideas and thoughts of the group on the key elements to help shape the Ontario Partner Environmental Network (OPEN) Project.

Susan Hall, Lura Consulting, introduced her role as the neutral meeting facilitator. She provided an overview of the workshop agenda and facilitated a round of introductions.

Karissa Reischke, MOECC/Conservation Ontario, provided a brief overview presentation describing the history of the OPEN Project and the current actions underway to rebrand the OPEN Portal into an

innovative and collaborative resource called Environment Connections. Karissa also provided an overview of the feedback received at the climate change workshop and re-iterated that the primary audience for the new Environment Connections site is partners, including Conservation Authorities.

Carolynn O'Neill, MOECC provided an overview presentation describing the Great Lakes Virtual Space designed to create an online space for people to gather, share, learn and celebrate the Great Lakes. The concept for the Virtual Space is being developed as a public platform to encourage individuals to take action to protect the Great Lakes. Carolynn noted potential linkages to the OPEN Project that could be explored.

The format of the workshop consisted of three facilitated group discussions focused on: (1) themes; (2) key messages and stories; (3) tools and information. Each discussion included a series of questions to guide the conversation.

3. Summary of Feedback

General

The following key points were clarified during the initial discussions:

- OPEN project primary audience is Conservation Authorities (CAs) and their partners, but there will be public access to the site (with controlled information available). The ArcGIS Online platform allows for multiple levels of sharing, including private, within groups, and public.
- OPEN will not only focus on MOECC-specific issues such as water quality, but provide a platform to share and collaborate on stories, initiatives, projects, and data more easily than under the current OPEN Portal (Rolta OnPoint) platform. It was noted there is an opportunity to also showcase the work of municipal partners (i.e.: point source load reductions).
- OPEN is not intended to be a source for open data, but rather a hub that would easily allow for redirections to sources where relevant information is made available.
- It was suggested that future integration with public health data, could be beneficial.

Key Themes

Bonnie noted that Conservation Ontario had organized the group discussions to focus on six key areas in which Conservation Authorities play a role in Great Lakes and St. Lawrence River health: (1) Nutrient Loading and Agriculture; (2) Nutrient Loading and Urban Areas; (3) Great Lakes as a Drinking Water Source; (4) Shoreline Management Plans/Regulated Water Levels; (5) Watershed Report Cards; and (6) Ottawa River/St. Lawrence River. Participants discussed four additional elements: (1) plastics; (2) non-farming rural practices, (3) nearshore monitoring; and (4) biodiversity.

It was determined that the six categories were appropriate and that plastics are beyond the scope of the discussions; non-farming rural practices would be covered under the discussions with the nutrients and

agriculture group; nearshore monitoring would be covered through watershed report cards and shoreline management planning groups; and that biodiversity should be considered by all groups.

Key Messages and Stories

The following provides an overview of the key crosscutting messages and stories from all themes. Please note Appendix A has the stories and key messages organized by theme.

Overall Outcomes and Key Directions
- Messages should focus on the need to support decision making.
- The purpose should be to share information, lessons learned, and data, and to showcase projects.
- Relying on data analysis, the role of Environment Connections should be to educate, share trends, and provide avenues for benchmarking. This will also facilitate networking and an understanding of what progress is being made by which organizations.
- Environment Connections also has an important role to play in:
  - Explaining what CAs are and what they do;
  - Sharing information about Ontario's watersheds (ranging from small scale local to province wide scales); and
  - Advocating for an integrated watershed management approach.
- Environment Connections can share trends, tools, good news stories such as:
  - Trends identified through provincial or federal reports relating to climate change adaptation and mitigation, biodiversity, and health of the Great Lakes and St. Lawrence River Basin (i.e. watersheds);
  - Best or beneficial management practices;
  - Guidelines;
  - New technologies and solutions for common Great Lakes and St. Lawrence River health issues;
  - Local and downstream impacts;
  - Stewardship initiatives by CA partners (i.e.: NGOs, schools, municipalities, provincial federal governments, and landowners, etc.); and
  - The business case for action.

Agencies

Key messages that agencies can focus on:
- Showing the value of integrating programs across agencies and jurisdictions;
- Showing water quality and quantity improvements, monitoring, and key issues (i.e.: drought, salt, flooding, etc.) within watersheds; and
- Sharing the evidence base for what information and data is being collected by who and for what purpose, what the data collection gaps are and how data can be shared to achieve shared objectives.

Building Industry

Key messages for the building industry can focus on:
- Improving infiltration, reducing salt use, etc.;
- Skills, training; and
- Best practices.

General Public, Municipalities, and Councils

Key messages for this audience can focus on:
- Water budgets, permits to take water, and water rates;
- Value of shoreline management plans, where actions are being taken, and the public benefits of shoreline management;
- Opportunities to share examples of living with natural shoreline processes that occur over time;
- Healthy watersheds equal healthy Great Lakes that are drinkable, swimmable and fishable;
- Key stories related to this could include pharmaceutical, plastics, or salt impacts;
- Reframing the value of water as an asset for protection; and
- An opportunity to share information from large technical documents (i.e.: Drinking water characterization, water quality reports, or the *Clean Water Act*) in easy to read formats (i.e. infographics).

Tools and Information

The group identified a number of tools that could help support their work in Great Lakes and St. Lawrence River health protection that could be available through Environment Connections, such as:

- **Story maps** – report cards, could include videos, graphs, links, etc.
  Story map example: Zika Virus Story Map).
- **Short videos** (existing or new) – relating to coastal processes, why we regulate, how shoreline changes overtime. This could include virtual tour guides. Each video would have a specific audience and targeted key messages.
  Short Video Example: PWQMN Monitoring to promote CA work
- **Infographics and icons**
  Infographics Example: Healthy Hikes
- **Decision making tools** – free, what-if scenarios, and interactive formats.
- **Ask the Expert** function – email not a chatbox so that it can be managed.
- **Dashboard(s)**
- **Case studies**
- **Posters and Factsheets** – downloadable synopsis for larger highly technical documents, or ones that provide clear and impactful messages relating to Great Lakes protection.
- **Social media**

- **Links** – to various sourcing, including shoreline management plans, water quality information, other virtual spaces and Great Lakes resources.

The ArcGIS Online platform allows for multiple levels of sharing, including private, within groups, and public. Participants noted the following information would be beneficial to support their work. This information would be housed within the private or within groups sections of the site:

- Natural heritage data from watershed report cards available at the CA level with consistent methodology;
- MOECC water quality data (timely);
- Raw water quality data;
- Conservation Ontario guidelines and metadata;
- Monitoring data, real time data and cameras;
- Value of farming, gross domestic product, positive evidence that farmers are stewards of water quality;
- Statistics and impacts for climate change, weather and storm events;
- Data on the social-economic costs of climate change; and
- Measures of success.

The group identified that the privacy of information must be considered, and that Conservation Ontario could start with data that is already publicly available.

4. Next Steps

Susan noted that a brief summary of the session would be shared with participants. Karissa noted that the information from these workshops will be used to develop a business case and inform the design of the Environment Connections site. Bonnie thanked participants and noted that a third session will be held to discuss further collaboration in 2017.

5. Appendix

Audience	Stories or Messages	Potential Tools	Key Information or Data
Nutrient Loading in Agriculture and Rural Areas			
Farmers and non-farmers, the public, governments, universities	• Ontarians are fortunate to have healthy farmland and rural communities. These are valuable to our citizens; farmers want to maintain healthy Great Lakes and a sustainable economy. Promoting a brand of healthy and sustainable Ontario agriculture. • Showing and highlighting evidence of what the problems are and what causes them, e.g. nutrients. Message to farmers: can change and make money. Great Lakes community stewardship, monitoring to help provide evidence. • Take care of the small things and then the big things will take care of themselves. • Showcase importance sf integration at local and at all scales. Message also to governments and other agencies on integration.	• Things like watershed report cards could be turned into Story Maps. • Privacy of information, people would like to see specific evidence, but agriculture in Ontario tends to not share information, but farmers might be more likely to do so if information is positive. • Shared solutions, what are other sectors doing, how are sectors other than agriculture contributing?	Information on the value of farming, like GDP. Impacts of agriculture on lakes, positive evidence that farmers are part of the solution, like beneficial management practices.
Nutrient Loading in Urban Areas			
Primary: **Informed targets such as governments, CAs, and Public Health Units.**	• Improving and protecting Great Lakes water quality and quantity, conservation, reducing runoff, etc. • Fix what's broken and prevent problems from reoccurring in the future. • Education, ensuring people know what is happening • Sharing information and lessons learned, what	• Dashboards, like blue accounting, making data more readily available and all in one place. • Environment Canada data sources, such as weather data. • Videos, like tour guides on more complicated issues. Drone footage or photographs.	

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Secondary: **Building companies and developers**	we are actually seeing in the watersheds • What's impacting the information we are presenting? Climate change is a big impact. Emissions and adaptation, climate change is here, graphics showing what impacts are being noticed. Both upstream and downstream impacts important. Monitoring and updating. • Corporate memory, making sure nothing is being lost. • New approaches and technologies, what is working and what is changing? • Setting targets, users could use information to set local targets. • How do we monitor drought, extreme weather, phosphorus, salt, etc? Fix and prevent, fix old problems and ensure we're on the right path moving forwards. • Data: where are the gaps, what are we developing?	• Infographics, use of icons, or interactive maps. • Real-time cameras. • Using videos with developer-specific targets, such as a developers talking to fellow developers, stakeholder to stakeholder, to illustrate how programs can work. • Embedding more real-world videos and examples. • Hackathons: great way to break through barriers and get innovative ideas on how to work with data or solve problems. Also a good way to get ideas for products. • Need for measures or analytics showing if products and data being pushed out are actually useful. On-site feedback, like on TRCA's website. • Potential for VR use?	
Great Lakes as a Drinking Water Source			
The public, municipal governments	• Healthy watersheds, healthy and drinkable Great Lakes. Communicate this in simple terms and make data more available. Message is Great Lakes as an asset, but also things like pharmaceuticals, plastics, etc. • How CAs contribute, tributary loading and connections to Great Lakes, stormwater runoff and management. Reinforce role of CAs as watershed managers, maintaining people's	• Posters available online, e.g. visual of someone washing their car in a river, making connection between what you do in the landscape vs what happens in lakes and rivers. • Taking technical reports and diluting them into fact sheets or infographics online, to make people think. • Social media campaign with hard hitting	• Conservation Ontario should provide guidelines on information needs, such as metadata requirements. • Real-time data

Audience	Stories or Messages	Potential Tools	Key Information or Data
	connection to their Great Lakes. • Longer-term water quality trend reporting and other science-based reports like water budgets, water intakes, and helping people to understand what these reports mean. • Better showcasing of partners, especially lesser known ones like Ducks Unlimited. • Rethinking and looking at priorities. • Road map or timeline of key legislation and circumstances (remind people of why) or events. How CAs are involved in implementing and responding to events and legislation. CAs' role in keeping Great Lakes great. • Lake Ontario Collaborative Project, modeling around water impacts, in collaboration with municipalities, model used to determine how spills would impact drinking water systems. Identifying threats to drinking water. New portal could enable more collaboration between CAs, showing gaps in data or any other intakes on the Great Lakess. Model should cover all water intakes on Lake Ontario, but the information is not necessarily widely understood or available. • No one outside of the CAs really has the full picture on things like water budgeting and water rates and connecting to permits to take water. Linkage to quality and quantity of Great Lakes water.	messages and images.	where it is available. If hosted it could show other CAs and partners the usefulness of the data. Also MOECC data such as monitoring algae bloom and data from Great Lakes buoys. • Raw water data from water treatment plants. • Having live links in infographics that link to more detailed data or reports.
Shoreline Management Plans / Regulated Water Levels			
Practitioners,	• Significant value in shoreline management plans,	• Animated video showing the coast	

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lakefront communities, all levels of government.	only realized when they articulate the value of the shoreline features and how to protect them. Divide messaging for different lakes to recognize the differences between them. Regulation of water levels also plays a part in that. • Shoreline management plans have to address the science behind coastal processes, biology, hydrology, etc. • Access to waterfront as a public benefit, has dynamic with private ownership of waterfront land that gets played out through development, which can also impact the value of the shoreline. • Generally have to live with the shoreline and processes that take place along the shore. Individuals and corporations look at shoreline on short timelines, but important for people to understand the importance of the longer timelines and how those play into shoreline management and regulation.	process, such as the undercutting of coastal bluffs and gullies to show why we regulate. Links to different shoreline management plans. Good practices for shoreline management. Great Lakes water level information. • Bathymetric mapping and variability of water levels, showing how shorelines will actually change based on changes in the water levels.	
Watershed Report Cards			
The public, local interest and community groups, NGOs, province, federal government, other CAs	• CAs exist and collect and analyse data locally. People don't know who CAs are and what they do. Allow more room to tell stories about watersheds and get more into the good, the bad, and the reasons than in just the report cards. Also show the broader scope of report cards. • Health of the watershed; high level of the entire watershed compared to other watersheds, or comparing different stretches of river to one	• Report card produced and put online, would be translatable into a Story Map format quite easily. Could insert pictures, videos, infographics, maps, etc. Could link to raw data itself if people are interested and use search functions to let people see where they are within the watershed. Have an "Ask an expert" button that will connect to email that will get filtered through to the right	Perhaps reaching out to public for pictures or people outside organization for infographics. What information could help in terms pf creating the report

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	another. Depends on the audience and capacity of organization. Could be local scale to province-wide. Show the current state and threats to that state. • Health of near-shore environment along Great Lakes. Water quality, wetlands, recreational opportunities, e coli and beaches, development along the shorelines, current state, threats. • Lake biodiversity, not specifically discussed by CAs in Great Lakes, but could look at local quality in terms of biodiversity, invasive species, etc. • Local actions: Community groups taking action, or potential problems, up to larger scales like provincial programs. • Establishing partners, partner engagement, and enhancing those partnerships. Data availability and sharing; ensure partners know that data is available, such as academic partners and improving two-way communications. Most of the data is available, either open or on-request, so showcase what is there. • Question raised about capturing and maintaining local-scale datasets, such as forest cover data, potential to make a repository for that kind of data. New portal could make this kind of information more readily available for longer.	person.	cards, the Portal is not necessarily used currently. Access to MOECC or other provincial datasets such as drinking water intake data could be useful.
Ottawa and St. Lawrence Rivers			
	• Who is doing what and sharing info with partners. Showcasing what different CAs are doing, such as South Nation's work with	• Need for collaboration, geospatial map where you can compare regions and show what kinds of things that each CA	

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	phosphorus. What programs are available, who's doing them and what are they looking at. • Governance and who is in charge of different things, ie Ontario, Quebec and the Ottawa River. • What data is out there and what is available. What kinds of data are available and who is collecting it. Types of monitoring and how it's being done. In City of Ottawa, there are many different programs and jurisdictions involved, who is in charge of information and programs? How do I get that information or get referred to it? • Story of CA, where you can see what kind of information can be used to demonstrate value of CAs.	is running. Access to different programs and different kinds of information. • Drought monitoring, for example, currently has very disjointed reporting, Low water response program is through MNRF, but long-term groundwater monitoring is done through MOECC, and these datasets are not necessarily connected. What information is available? Improve access and connectivity. • Springboard for public info, see what is available and how can we easily share it publically. For example, integrating watershed report cards on a more province-wide scale. Phased approach.	