

ACZISC



ATLANTIC COASTAL ZONE
INFORMATION STEERING COMMITTEE

COASTAL ACTIVITIES IN ATLANTIC CANADA MEETING #65

Presentations and Roundtable

Date: Wednesday and Thursday, 25-26 January 2012
Location: Holland Grove Room, Main Floor
Inn on the Hill, 150 Euston Street, Charlottetown, PEI

PARTICIPANTS (¹ ACZISC member; ² Advisory Committee member; ³ Director, ACZISC Association)

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PARTICIPANTS (continued)

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Additional contact information for ACZISC Members is available on the ACZISC's [website](#).

***PLEASE NOTE: “Coastal Activities in Atlantic Canada”
is a subset of the Minutes of ACZISC Meeting #65,
held on 25-26 January 2012 in Charlottetown, PE.***

***To download the Minutes and Coastal Activity reports
of previous ACZISC meetings, access the ACZISC [website](#).***

PRESENTATION and DISCUSSION

- **Aquatic Health Research at the Atlantic Veterinary College**, Dr. Jeffrey Davidson, Atlantic Veterinary College, University of PEI.
- **Aquatic Cumulative Effects Assessment: Update on CWN's Canadian Watershed Research Consortium**, Dr. Simon Courtenay, DFO at the Canadian Rivers Institute, UNB Biology Department.
- **Coastal Climate Change in Prince Edward Island**, Erin Taylor, PEI Department of Environment, Energy and Forestry.
- **A Physiographic Coastline Classification of the Scotian Shelf Bioregion and Environs: The Nova Scotia Coastline and the New Brunswick Fundy Shore**, Jennifer Hackett, DFO Maritimes.

The presentations are posted [online](#).

ROUNDTABLE REVIEW OF COASTAL ACTIVITIES and UPDATES ON ACZISC RELATED PROGRAMS

NEWFOUNDLAND DEPARTMENT OF FISHERIES AND AQUACULTURE: Nicole Hynes, reported the following:

- The NL Coastal and Ocean Management Strategy and Policy Framework was released in June 2011 (copies available on the www.gov.nl.ca/fishaq website) and DFA is now leading implementation and action planning. An inventory of current projects and initiatives within the provincial government is being compiled by the Provincial Coastal and Ocean Network, chaired by DFA, to assist in development of action items. Gaps and opportunities for future projects will be identified, as well as potential partnerships with other organizations and groups.
- Funding for coastal initiatives is ongoing within DFA's coastal and ocean program. A number of projects focus on education and awareness, (including youth conferences, school partnerships, beach clean-ups), strategic planning for coastal management areas, and aquatic invasive species projects (specifically green crab studies). The province has also compiled an inventory of fisheries/coastal related work ongoing within Regional Economic Development Boards to identify areas for local collaboration/support.
- DFA is open to collaboration in relation to identifying and partnering on coastal projects within the province.
- **Updates on Projects:**
- **Coastal Management Areas (CMAs):** the Great Northern Peninsula CMA is planning a fisheries symposium February 29 - March 1 2012; the Placentia Bay CMA held its AGM on Oct. 27 to identify priorities in relation to its IM plan. A discussion was held on issues regarding green crab in the bay, they are also looking at funding options for an Oceans Conference in the spring/summer. There was also some discussion around the benefits of holding a CMA workshop to discuss best practices and moving forward with CMAs across the province sometime this year.
- **Laurentian Channel AOI:** an advisory committee meeting was held on December 12 to discuss draft conservation objectives and look at boundary delineation for the offshore MPA.
- **National Aquatic Invasive Species Committee (NAISC):** The committee (comprised of F/P/T reps) to exchange information on AIS in Canada, is currently looking at legislation/regulations and strategies to deal with AIS across the country and is also developing a recreational and commercial boating report in respect to AIS. The next meeting is scheduled for end of February 2012.
- **National MPA network:** DFO is developing a guidance document to be reviewed by the technical committee (comprised F/P/T reps) to assist with bioregional planning. The next national committee meeting has been postponed until spring. Jurisdictions are also compiling a list of sites that may contribute to the MPA network. The approved National Framework for the MPA Network is available on the DFO website.

FUNDY ENERGY RESEARCH NETWORK: Lisa Isaacman, reported the following:

- A major focus on FERN in this quarter is facilitating research to improve environmental monitoring equipment and systems for high energy environments such as the Bay of Fundy.

-FERN held a Workshop on Tidal Energy Environmental Monitoring Tool and Systems in January, and is helping to develop and coordinate several projects to test, adapt and develop environmental monitoring systems that can survive and be effective in high flow environments.

-FERN is still working on a system for sharing information on who is doing what in tidal energy research, including who has what data. We are running into a lot of challenges, especially technological (we do not have the expertise to set something up) and getting people to contribute.

-Open to collaborations with anyone willing to share expertise in these areas.

INSTITUTE OF ISLAND STUDIES: Irene Novaczek, Director, reported the following:

- **Climate change adaption work:**

- Vulnerability assessments in watersheds of north and south shores of PEI are in progress.
 - Mail out survey complete, document available on the Institute of Island Studies website (<http://www.upei.ca/iis>). Online survey to be part of climate change vulnerability assessments.
 - Nutrient contaminant and water movement through fractured sandstone project application submitted as a collaboration between UPEI, UCalgary, UGuelph to the Canadian Water Network. The project will start in 2012 if funded.
- Many of the projects involve collaborations including universities, watershed alliance, municipalities, the Southern Gulf of St. Lawrence Coalition on Sustainability, MCPEI, and CARIBSAVE.
- Working with DFO through the NAAPO Process across the Atlantic to develop a position paper on aquaculture development.
- Engaged with DFO on the National discussion paper on “Canada Future in Commercial Fisheries”.

BAY OF FUNDY ECOSYSTEM PARTNERSHIP: Marianne Janowicz, Vice-Chair, reported the following:

- **BoFEP has three major new projects for the year** and one ongoing project.

Through funding from Environment Canada (EC), BoFEP is undertaking an ecological risk assessment (ERA) of chemicals of emerging concern (CECs) in municipal wastewater. As well, through the EC funding, a project called, *Tools for Managing Stormwater and Wastewater* will focus on enhancing the knowledge and capacity of municipalities to effectively manage stormwater and wastewater in order to improve water quality in the Bay of Fundy and reduce infrastructure and property damage. The third EC funded project and an ongoing one, is to conduct two Talking Circles to continue the dialogue between the Native culture and western views on conservation. The third new project is being partially funded by the Department of Fisheries and Oceans and involves assembling the *Fundy Fact Sheets* that BoFEP has been producing since the late 1990's into book form.

- The ERA project is being conducted by Dr. Karen Kidd at the University of New Brunswick, St. John, and her researcher, Angella Mercer and will involve developing a bibliography of information sources along with tables of CECs (with a focus on pharmaceuticals) measured in effluents or receiving environments in the Bay of Fundy watershed and will rely heavily on studies done elsewhere with an emphasis on ones

that are particularly relevant to the Bay of Fundy ecosystem (estuarine and marine systems). Literature information on the toxicity of these chemicals to aquatic organisms (freshwater and marine; e.g. barnacles, fishes) will be compiled including information on bioaccumulation in fish risk to fish-eating wildlife and humans. Results of this review will be used to assess the potential risk that CECs may pose in the Bay of Fundy. Based on the information obtained, the potential risks of CECs to the Bay of Fundy will be discussed. Where measured environmental concentrations and relevant toxicity data exist, an ERA for individual chemicals will be conducted.

- The Ecology Action Center is conducting the project with municipal planners on behalf of BoFEP and will provide planners with the tools to better manage stormwater and other emerging water contamination issues, such as pharmaceuticals. These one-day workshops will include a comprehensive case study using real data and maps collected by the Dalhousie School of Sustainability in order to share specific data collection and analysis methods with the workshop participants. The workshop will provide examples of innovative best management practices (BMPs) that are being applied in municipalities across Canada to improve on-site water retention and infiltration with the end goal of improving water quality in the receiving water body. A regional stormwater expert will attend and present at the workshops. One workshop session will discuss emerging water contaminant issues, with a focus on pharmaceuticals. The researcher will, with the help of the identified ERA specialist, identify the potential impacts of pharmaceuticals on marine ecosystem health and recommend approaches for treatment/control of pharmaceuticals discharged to the marine environment and ways to mitigate the potential for cumulative ecosystem impact/change. The researcher will also prepare an information sheet on pharmaceuticals in the marine environment.
- With the leadership of Hugh Akagi, to date, BoFEP has hosted three Talking Circles on conservation. Dialogue has begun but through the process thus far, we have recognized the disparity between the cultural approaches. These Talking Circles are about building trust as much as understanding. The two scheduled for this year will focus on Bay of Fundy health and community and individual action that reflects conservation values as the participants see them.
- The *Fundy Fact Sheets* book project is fortunate to have a team of individuals with the editorial skills required and the science knowledge. Jon Percy, a long time BoFEP communications specialist, scientist and writer and Andi Reardon, editor and writer and known by many as a former editor of the Gulf of Maine Times comprise the team.
- In addition, BoFEP is working on actualizing some of the recommendations for moving forward contained in the 2011 Strategic Plan than the organization presented at the annual meeting in November 2011. We will also be initiating a fund raising drive this year through the Ambassador Program and other initiatives. The Ambassador Program involves BoFEP members approaching business, industry, organizations and individuals to tell them about BoFEP, encourage participation and identifying how we can work together.
- BoFEP is pleased at the extent to which we are able to coordinate activities with other organizations in order to mutually create and disseminate information of value to stakeholders of the Bay of Fundy to better maintain the health of the Bay.

ATLANTIC POLICY CONGRESS OF FIRST NATIONS CHIEFS SECRETARIAT:

Stanley Oliver, Fisheries Director, reported the following:

- Continuing to develop an APC Fisheries Strategic Plan with ongoing community consultations.
- APC has been continuing to attend numerous DFO Advisory meetings that effect First

- Nations commercial Fisheries (ie. snow crab, lobster, shrimp).
- Currently conducting a research scan of all the universities to see what research is being done in First Nations commercial Fisheries.
- Finalizing an under-utilized commercial species survey.
- Currently conducting a pilot project to integrate the APC finance management system and bands finance systems.
- Working with bands and colleges to deliver fisheries training.
- Many of the APC fisheries projects cooperate with other non-governmental organizations (ie. Canadian Lobster Council), Federal government, provincial governments, First Nation bands, universities, and funding agencies.

NATURAL RESOURCES CANADA: Ross Boutilier, Geological Survey of Canada (Atlantic), reported the following:

- Coastal researchers with the Earth Science Sector of NRCan, in conjunction with academic and industry partners are now engaged in a new project under the Climate Change Geoscience Program in which one activity, funded by the Climate Change Impacts and Adaptation Directorate, is to deliver national scale mapping products of use for climate change adaptation planning on Canada's three marine coasts. Datasets to be developed include a compilation of all weekly regional sea ice charts available from the Canadian Ice Service into monthly, annual and decadal mean products, development of a national coastal wind climatology, and the combination of the two into a national scale wave energy climatology. Work underway at this time includes a reanalysis of the Shaw et al., 1997 data on sensitivity to sea-level rise. This involves remapping to a new digital shoreline and filling in missing data. The goal is to incorporate the new analysis data to develop a sensitivity of Canada's Coasts to changing climate, rather than just sea-level rise. Some of these products will become available by March 31, 2012. Contact: Gavin.Manson@nrcan.gc.ca
- **Bob Taylor:** Bob Taylor's retirement takes effect this January, 2012, but he is also moving to continue as an NRCan Emeritus Scientist at GSC Atlantic; completion of that conversion is expected shortly. Bob's NRCan contact information will remain unchanged, and it is anticipated he will continue to contribute to work of interest to the ACZISC community.
- **Federal Departments – Integrated profile of Halifax-area Oceans-linked Science & Technology Capacity and program activity:** Federal science-based departments in the Halifax region are working to compile a description of their oceans-linked science & technology capacity, to allow better internal coordination and information for current and future partners. The profile, called an "S&T Map" is modelled after that created nationally by the Federal S&T Integration Board for the "Oceans Domain" of all Federally-led S&T. Contact: Ross.Boutilier@nrcan.gc.ca

PRINCE EDWARD ISLAND DEPARTMENT OF ENVIRONMENT, LABOUR AND JUSTICE: Sean Ledgerwood, Watershed and Subdivision Specialist, reported the following:

- **Update** on watershed management program from the [presentation given ACZISC meeting #61:](#)
 - The program still moving forward
 - There are now 25 groups now, some amalgamation/expansion.
 - Most groups have watershed plans completed.
 - There are now have multi-year contracts (3 years) for six of the groups. Contracts

were offered to groups that expanded, or are sized 25 000 Ha or more.

-Groups have expanded their capacity.

-The budget is still at \$920 000/year.

-Watershed Alliance has established itself and is providing good service to the groups. The Alliance now has a Program Director, seconded from PEI Government (Shawn Hill). Having an employee gives groups much higher capacity.

-Working with other organizations in a collaborative fashion is one of the watershed management Program's main objectives.

- **Department Reorganization:** The section that houses the Watershed Management Program was reorganized to include subdivision approvals over one lot. The section is now the Watershed and Subdivision Planning Section. Two employees review and approve subdivision applications for areas of PEI not under authority of official plans or bylaws. Meant to make linkages with watershed groups and government decisions in their local area.
- **Nitrate Reduction Pilots:** Two pilot programs were funded to look at nitrate reduction plans in two river systems (Southwest River and Wheatley River). The pilots were prompted by excessive nitrate loads in area, resulting in drinking water issues and anoxic events in the estuaries. This is a planning process only looking at nitrate reduction done by local community (watershed groups). The three steps the groups are using are: determine the issues; set actions; and implement the plan. The PEI Government supports process with technical advice and modeling work. The project is ongoing.

FISHERIES AND OCEANS CANADA:

Jennifer Hackett, DFO Maritimes, reported the following:

- **St Anns Bank Area of Interest:** DFO Science review meeting is being held January 25-26 in Dartmouth. The ecological overview report will be presented and participants will be peer reviewing a proposed risk assessment methodology to assess activities for the site – this will inform boundaries and management measures. A fishing industry working group has been formed (met in December and will meet again in February in Sydney) and the first Advisory Committee meeting will be held in March.
- **MPA network planning:** The National Framework for MPA networks across the country has been approved, DFO Maritimes will be holding a DFO science meeting (March 3-5) to review work to date and how to move forward with identifying Ecologically and Biologically Significant Areas and incorporating representative habitats into MPA network design. The network will be designed for the Maritimes region (bioregion) within the context of integrated oceans management that considers all human uses.
- **Regional approach to ocean and coastal management:** The Oceans and Coastal Management Division is advancing a region-wide program for coastal and ocean management. The main priorities and elements of the regional program include intergovernmental coordination (i.e., working through RCCOM and related arrangements); smart stakeholder engagement (both multi-sector and targeted sector); marine planning, assessment and decision support (i.e., marine and coastal spatial planning; support for bioregional MPA planning); and state of the ocean reporting.
- **The Gully and Musquash MPAs** both now have draft ecological monitoring frameworks provided by DFO science. In April DFO is having a 'state of knowledge'

meeting to assess the level of our knowledge and information on each of the indicators for the Gully MPA (just under 50 in total). Musquash will be looking to do the same next fiscal year. After this, the next step is to determine how to move forward with monitoring and assessment within the confines of our new fiscal reality. -

http://www.dfo-mpo.gc.ca/csas-sccs/Publications/SAR-AS/2010/2010_066-eng.html

- **State of the Scotian Shelf webpage**, part of the new ACZISC website was launched on Oceans Day June 8th. The State of the Scotian Shelf Report is a living document that consists of several parts, including a context document and a series of theme papers. More information is available at <http://coinatlantic.ca/index.php/state-of-the-scotian-shelf>.
- Theme papers released to date include:
 - Marine Habitats and Communities
 - At Risk Species
 - Trophic Structure
 - Ocean Noise
 - Waste and Debris
- Theme papers to be released by the spring include:
 - Invasive species
 - Water and Sediment Quality
 - Ocean Acidification
 - Emerging Issues
 - Climate change and its effects on ecosystems, habitats and biota
- **The State of the Gulf Report and website** were established in June 2009. Similar to the State of the Scotian Shelf Report, the State of the Gulf of Maine Report is a living document that consists of several parts, including a context document and a series of theme papers. The most recent theme paper on *Microbial Pathogens and Biotoxins* was released in September 2011. More information is available at <http://www.gulfofmaine.org/new-site/resources/state-of-the-gulf-of-maine-report>.
- Theme papers to be released by the spring include:
 - Aquaculture in the Gulf of Maine
 - Offshore ecosystems and habitats
 - Watershed status
 - Eutrophication
 - Toxic contaminants
- **The Gulf of Maine Council on the Marine Environment** modernized its website www.gulfofmaine.org in advance of the launch of the new GOMC 5-Year Action Plan 2012-2017. Previous content was not removed in this process. The navigation to it has changed. If you are having difficulties finding information or notice any broken links, please contact info@gulfofmaine.org.
- **The Bedford Institute of Oceanography** is celebrating its 50th Anniversary during the 2012 year. Please visit www.BIO2012.ca or www.IOB2012.ca frequently for numerous upcoming public and school events, as well as an Art/Music contest.
- **8 June 2012 is the 20th Anniversary since Oceans Day** was first held in Rio de Janeiro during the Earth Summit. Watch for details of events near you on www.COINAtlantic.ca.
- DFO is interested in collaborating with any parties that have experience and expertise in socio-economic evaluations and assessments, protected area network planning, and large-scale risk assessments.

NOVA SCOTIA FISHERIES & AQUACULTURE: Justin Huston, Coastal Zone Coordinator, reported the following:

- **Draft Coastal Strategy:** The draft Coastal Strategy was released on October 13th and public consultation ran until December 16th. All feedback on the draft strategy has been posted online (<http://www.gov.ns.ca/coast>), and this feedback will be used by the Province to shape the final Coastal Strategy, due in early Summer, 2012.
- **CoastBase:** A networking and information sharing tool to support ICOM in Atlantic Canada. CoastBase was originally created as a database of regional experts, organizations and publications to support the development and implementation of Nova Scotia's State of the Coast Report and its future Coastal Strategy. Dalhousie's Marine Affairs Program working in conjunction with the Province and Environment Canada, is adapting this database with the help of Norex web design firm into a web-based application to help facilitate greater information sharing, networking, and collaboration among public and private research institutions, government agencies, non-governmental organizations, and stakeholders.
- The application will allow users to easily find, share and access information relevant to specific coastal management issues. To date, the content of CoastBase has focused on information related to the Government of Nova Scotia's priority coastal issues and Environment Canada's Atlantic Ecosystem Initiatives' priority environmental issues. Recognizing that users may have a variety of different information needs, CoastBase allows users to search for information about coastal issues, contacts, organizations, publications, projects, datasets, and policy/legislation.
- The application will also use a 'moderated-wiki' approach, allowing users to contribute information to the database and increase the administrator's capacity to identify and upload relevant information to the site. In addition to standard information fields for each type of information, users will be able to easily attach KMLs so that information can be viewed with the COIN Atlantic Search Utility.
- Partners interested in contributing content are welcome to collaborate.
- **Online Public Coastal Access Inventory:** The development of an inventory of public coastal access sites will be a key action under the Province's future Coastal Strategy, and will help fulfill commitments under the Province's Natural Resources Strategy, Tourism Plan, and Health and Wellness Mandate.
- Presently, there are numerous online resources that provide information on various types of public coastal access in the province; however, they are sector specific, limited in geographic scope, and/or not easily accessible to the public. The concept is to create a one-window inventory of existing public coastal access sites in Nova Scotia. This tool will be made accessible through a stand-alone web map viewer, with the ability to download and use the information in other provincial and public mapping applications. This project is in the initial phases of development, with the hope to have an initial phase of the inventory online by summer 2012.
- Collaborations are welcome with potential partners interested supporting the project, either through funding or through in-kind support.
- **An Assessment of Coastal Infrastructure Relevant to the Fishing and Aquaculture Industries in ACAS Study Areas:** (<http://atlanticadaptation.ca/node/218>). Utilizing funding from NRCAN's Regional Adaptation Collaborative under the Atlantic Canada Adaptation Solutions Association, NSDFA is working in partnership with DFO Small Craft

Harbours to develop a methodology for assessing the vulnerability of working waterfront infrastructure to coastal hazards.

- Objectives for the project are:
 - 1) To assess the potential impacts of climate change on infrastructure relevant to the fishery and aquaculture industries in the six ACAS study areas in NS (Yarmouth, Lunenburg, Oxford-Port Howe, Minas Basin, Chignecto Isthmus and the Halifax Regional Municipality).
 - 2) To develop a vulnerability assessment methodology to support planning and decision-making on management of infrastructure relevant to the fishery and aquaculture industries.
- CBCL Limited was contracted to undertake the work and a final report will be released publically in early Spring.
- **Coastal Research Network:** The Province is working with Dalhousie University's Marine Affairs Program to establish a Coastal Research Network to facilitate research on priority coastal management issues. The idea is not to compete with existing networks, but simply articulate key research needs and accelerate undergraduate and graduate study on priority coastal management issues. Now working through the Maritimes Regional Committee on Coastal and Ocean Management (RCCOM) to engage federal departments in identifying research needs with the goal of defining a shared federal/provincial research needs for coastal management in Nova Scotia.
- Federal agencies will collaborate to identify coastal research priorities through RCCOM (Dave Duggan, DFO Maritimes, is the federal contact).
- **LiDAR Specifications:** Working through the GeoNOVA LiDAR Working Group, the Province has contracted Spatial Synergistics to develop specifications for LiDAR collection and use by provincial departments to ensure that LiDAR information that is collected by the Province can be applied to multiple uses. In addition to provincial departments, key municipalities and federal departments are engaged in this process.

ACZISC SECRETARIAT: Alexi Westcott, Project Officer, reported the following:

- There are now **RSS feeds** available for the COINAtlantic website; see <http://coinatlantic.ca/index.php/coinatlantic-rss> to choose the feed that interests you most.

Andy Sherin, Director, reported the following:

- The ACZISC is now a member of the International Coastal Atlas Network (ICAN) - <http://ican.science.oregonstate.edu>. The ACZISC Secretariat will format a newsletter for ICAN two times a year. The ICAN newsletter is not like the ACZISC's Coastal Update: content will be in the form of articles sent in my members.
- The ACZISC Secretariat has made three proposals to the Coastal Zone Canada 2012 Conference: an open data management paper and session, as well as COINAtlantic training in French and English. - <http://www.czc2012-zcc2012.org>.