

COASTAL ACTIVITIES IN ATLANTIC CANADA

Roundtable and Presentations

ACZISC Meeting #52

Date: Wednesday and Thursday, 19-20 September 2007

Location: Student Union Building, Dalhousie University, Halifax, NS

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PLEASE NOTE: "Coastal Activities in Atlantic Canada" is a subset of the Minutes of ACZISC Meeting #52, held on 19-20 September 2007 in Halifax, Nova Scotia.

To download the Minutes and Coastal Activity reports of previous ACZISC meetings, access the ACZISC website at <http://aczisc.dal.ca/docs.htm>.

COASTAL ACTIVITIES IN ATLANTIC CANADA

PRESENTATIONS

The following presentations (available online at aczisc.dal.ca/docs.htm#ACZISC) were made:

- **Inner Bay of Fundy Salmon Presence Assessment Tool (SPAT)** by Andrew Newbould, Fisheries and Oceans Canada
- **Nova Scotia's Proposed Coastal Management Framework** by Justin Huston, Nova Scotia Department of Fisheries and Aquaculture
- **Geoscience for Oceans Management: Implementing Canada's National Marine Mapping Strategy** by Dick Pickrill, Geological Survey of Canada, Natural Resources Canada
- **Tidal Energy** by Sandra Farwell, Nova Scotia Department of Energy.

ROUNDTABLE REVIEW OF COASTAL ACTIVITIES and UPDATES ON ACZISC RELATED PROGRAMS

FISHERIES AND OCEANS CANADA: John Legault, DFO Gulf Region, Oceans and Science Branch, reported the following:

- The Northumberland Strait Ecosystem Overview Report will guide the development of an Ecosystem Risk Assessment process for prioritizing management options and strategies.
- The Ecosystem Risk Analysis process is a systematic method of collecting and analyzing existing data and information related to environmental stressors and the activities that generate them. The multi-step process includes community consultation to establish local visions and goals and the impediments to achieving them. The stressors are then assessed by experts and mitigation techniques are examined. The Management Options can then be directed to best deal with the issues by including the community of interest (including those who generate the stressor) in implementing corrective measures.
- Ongoing efforts to develop the Ecosystem Risk Assessment/Analysis process for the Northumberland Strait include:
 - developing the Activity vs Stressor Matrix and the conceptual models that delineate the pathways of effects from the activity stressor to the ecosystem component
 - developing the data infrastructure for a web-based information system
 - working with a consultant to develop and integrate the Ecosystem Risk Assessment model into the business model of DFO for conducting environmental assessments.

Gerard Costello, DFO, Canadian Hydrographic Service - Atlantic, reported the following:

- CHS is continuing to conduct multibeam bathymetric surveys in a number of locations including: the Bay of Fundy, Cape Freels and Fogo Island, NL and in

- Northern Labrador.
- Water column backscatter data is being collected in addition to multibeam data. This is being used for various applications, including tracking pelagic species.
- Surveys are planned for the Northumberland Strait, in conjunction with the ecosystem overview initiative.
- High precision GPS is being used to reconcile vertical data. Vertical accuracies of 20 cm are being achieved.
- The surveys are often carried out in collaboration with the Geological Survey of Canada-Atlantic, as described by Dick Pickrill in his presentation.
- The challenge with bathymetric surveys continues to be collecting data in the shallow nearshore areas.
- Hydrographic surveys are being carried out for the CHS charting program. New charts are being produced for the Strait of Canso, the Port of Saint John, the eastern shore of NS, the Avalon Peninsula, etc.
- CHS is implementing the CARIS Hydrographic Production Database (HPD), based on Oracle. The system facilitates the production of both vector and raster products.
- Earlier this year, DFO bought back its rights from Nautical Data International for the distribution of CHS electronic charts and data. CHS is now in a transition phase with regard to the production, marketing and sales and distribution of its digital charts and data.
- High resolution photography is being acquired for several areas, including Northern Labrador.
- The UNLOS project is being managed jointly by NRCan and CHS. Richard MacDougall has been appointed the CHS Director for the Law of the Sea Project - geo.international.gc.ca/cip-pic/geo/continental_shelf-en.aspx.
- CHS is also responsible for the ongoing maintenance and upgrade of water level gauges.
- CHS is hosting a national Tidal Working Group meeting in October.
- Open House at the Bedford Institute of Oceanography will take place on 20-21 October - www.bio.gc.ca/oh/oh-e.html.

Ray Finn, DFO NL Region, Oceans and Habitat Management Branch, reported the following:

- Loyola Hearn, Minister of Fisheries and Oceans, held a multi-stakeholder roundtable to address current issues in Placentia Bay. Discussions focused on invasive species and the interaction of marine shipping with commercial fishing. The roundtable was attended by 75 key stakeholders, including fish harvesters, representatives from industry and government personnel. A report will be produced.
- The Placentia Bay issues will be further addressed as a part of the work of the Placentia Bay-Grand Banks Large Ocean Management Area committee. The multi-stakeholder committee is scheduled to have its 1st meeting in November.
- Management plans have been announced for the Eastport (Newfoundland) and Gilbert Bay (Labrador) MPAs. The plans elaborate on regulations, outlining a comprehensive set of measures in the areas of research, monitoring, public education, compliance, surveillance and enforcement - www.dfo-mpo.gc.ca/media/newsrel/2007/nl-tnl30_e.htm.
- The Oceans Task Group of the Canadian Council of Fisheries and Aquaculture Ministers (CCFAM) will be meeting next week in St. John's. The CCFAM meets

annually to set priorities and work collaboratively on fisheries and aquaculture issues of interest.

- DFO NL has initiated discussions with the Ocean Management Research Network with regard to accessing the socio-economic expertise available via the Network.

Tim Hall, DFO Maritimes Region, Oceans and Habitat Branch, reported the following:

- Mike Murphy will be replacing Faith Scattolon as the representative of DFO Maritimes on the ACZISC.
- A contract has been awarded to produce an overview with a focus on ecology for the Southwest NB Marine Resources Planning Initiative. Public consultations will take place this winter.
- DFO and the Ocean Management Research Network (OMRN) are planning an informal regional workshop on 4 October to discuss areas of mutual research interest. Workshop results will feed into the 2007 National OMRN Conference, 24-27 October in Ottawa – www.omrn-rrgo.ca/index.php?action=conference.index.
- Management plans for the Musquash and Gully MPAs are being developed.
- DFO is investigating the potential for a GIS-based decision support tool for the Bay of Fundy/Gulf of Maine, as a follow-up to the Inner Bay of Fundy Salmon Presence Assessment Tool (SPAT) and the Ocean Use Atlas for the Scotia Shelf.
- In partnership with the US National Marine Fisheries Service, NOAA, DFO is beginning to work on an Ecosystem Overview for the Gulf of Maine. This initiative is managed by a transboundary committee.

SOUTHERN GULF OF ST. LAWRENCE COALITION ON SUSTAINABILITY: Nadine Gauvin, SGSLCS, reported the following:

- This past summer the Coalition became the new coordinating body for the Community Aquatic Monitoring Program (CAMP). Three summer students (1 per Maritime Province) were hired to work with 21 community groups on beach seining their respective coastlines in order to determine the ecological health of Southern Gulf estuaries. The data collected was entered into the Smart Watersheds and Coastal Communities online portal – newly created by DFO.
- A traditional ecological knowledge research project sponsored by the Climate Change Impacts and Adaptation Program (CCIAP) of Natural Resources Canada is well underway. The project, 'Climate change adaptation strategies for medicine gatherers in two Mi'kmaq communities of New-Brunswick', will identify strategies adopted by First Nations people with respect to climate change and other issues of concern.
- The Coalition's Coastal Erosion Working Group has recently been re-activated following a year-long hiatus. The two new co-chairs, Kathryn Parlee of Environment Canada and Martine Giangioppi of Fisheries and Oceans Canada, are keen to develop a workplan for the Group that ties in with the Coalition's objectives - www.coalition-sgsl.ca/groups_erosion.php.
- The Coalition is awaiting a response with regard to a proposal for funding submitted to the recent GeoConnections Announcement of Opportunities under its Category 1 – Strategic Planning. The focus of the proposal is the development of a regional sustainability atlas for the Southern Gulf of St. Lawrence. (The proposal was officially accepted on 21 September.)
- The Coalition's 2008 AGM and regional workshop, 'Social Economy and Sustainable Societies', will be held in Bonaventure, Québec in May or early June.

- The Coalition's next quarterly Steering Committee meeting is being held on 21 September at the Université de Moncton. Everyone is welcome to attend! The afternoon guest speaker is Jeffrey Wilson, a doctoral candidate from Dalhousie University, who will speak on 'Income, sustainability, and the ecological footprint: an exploration of primitivism'.

GOVERNMENT OF NOVA SCOTIA: Colin MacDonald, Service Nova Scotia and Municipal Relations, reported the following:

- GeoNOVA's (www.geonova.ca) metadata content has been renamed the geographic catalogue. In June, a tool was launched to enable data custodians to edit their metadata.
- The GeoNOVA geographic data search tool is linked with the GeoConnections Discovery Portal. Version 2 of the search tool will be available in November.
- The Atlas of Nova Scotia (142.176.62.99/geonova/map/load.html) currently features 65 thematic maps. Recent additions include 40 maps with census and demographic information obtained from Community Counts - www.gov.ns.ca/finance/communitycounts.
- Mapping applications for mobile devices are being developed.
- GeoNOVA is participating in a project on interoperability with GeoConnections/GeoBase with regards to making WFS flow automatically. This is being applied to roads, administrative boundaries and geographic names. The project will be completed in November.
- The GeoNOVA portal technology is being further developed with new features for 'one-stop' shopping, including personalized screens, areas for sharing data, etc.
- A common data exchange for data providers will be developed.
- An RFP will be issued for the development of a tracking and mapping tool for environmental assessments, based on the CGDI.
- A Nova Scotia wind atlas has been released - www.nswindatlas.ca. The next version will feature interactive maps.

Justin Huston, NS Department of Fisheries and Aquaculture, reported the following:

- In April 2007, the Environmental Goals and Sustainable Prosperity Act (www.gov.ns.ca/legislature/legc/bills/60th_1st/1st_read/b146.htm) was passed unanimously by the Provincial Legislature. The Act sets specific targets to achieve the goals outlined in the Opportunities for Sustainable Prosperity Strategy (OSP). The Act commits the government to 21 goals, some of which are of direct relevance to the coastal management:
 - 12% of NS' total land mass will be legally protected by the year 2015.
 - A comprehensive water-resource management strategy will be developed by the year 2010.
 - Wastewater treatment facility discharges will be provided (at least primary treatment) by the year 2017.
 - A policy of preventing net loss of wetlands will be established by the year 2009.
- The Department of Environment and Labour (NSDEL) has established the NS Round Table on the Environment and Sustainable Prosperity. The committee will advise and consult on issues raised by the Minister relating to environmental sustainability, public health and economic competitiveness. It will also work with government on ways to meet the commitments of the Province's Environmental Goals and Sustainable Prosperity Act. The Round Table will include 12 invited

- representatives from environmental groups, industry, municipalities, the aboriginal community, business and resource industries. Remaining positions are open to individuals. The Round Table is expected to hold its first meeting this fall.
- The Department of Energy (NSDOE) is leading provincial efforts to facilitate tidal power development in NS. Presently, the NS Government is moving forward by:
 - 1) co-sponsoring with the NB Department of Energy a \$250,000 Strategic Environmental Assessment to help identify the potential impact of offshore renewable energy development on marine life, fisheries, etc. in the Bay of Fundy; and
 - 2) creating a streamlined policy framework for developers.More information is available at www.gov.ns.ca/energy.
 - The Department of Transportation and Public Works (NSTPW) was recently awarded the Transportation Association of Canada's 2007 Environmental Achievement Award for its "habitat banking" initiative – an innovative approach to restoring and enhancing saltmarshes and marine coastal habitat in NS.
 - Developed in cooperation with DFO, the habitat banking program enables NSTPW to restore more habitat than is actually required by regulators for a given highway construction or maintenance project, and then bank the extra "habitat credits" for use in the future when new construction is likely to cause damage to habitat, and the creation or restoration of new habitat is not a viable option.
 - This new approach reduces construction and regulatory costs, more effectively addresses regulatory requirements for habitat compensation and simplifies future environmental permitting needs. To date, NSTPW, in cooperation with several other partners, has developed six habitat banks that will restore over 62 hectares of high-value marine habitat along the Atlantic coast and in the Bay of Fundy and the Gulf of St. Lawrence.
 - The Department of Natural Resources (NSDNR) is developing a new strategy to govern natural resources in the Province. Voluntary Planning Board, an arm's length provincial agency, will lead a year-long public consultation process beginning in January 2008. The consultations are the first phase in a three-part plan being used by NSDNR to develop the new strategy for minerals, forests, provincial parks and biodiversity. In phase two, a panel of independent experts will conduct more detailed analysis of the findings identified by Voluntary Planning consultations. Phase three will be the development of the long-term strategy by NSDNR using the various inputs from the previous phases.
 - The Department of Environment and Labour (NSDEL) is leading a three-year process to develop a comprehensive water-resource management strategy.
 - The key deliverables in 2007-2008 include: development of a discussion paper, development of a stakeholder consultation strategy, identification of vision, issues/concerns, and information gaps. Concurrently, strategic activities will be carried out under the 3-pillars of the strategy: drinking water; water quality and quantity; and wastewater.
 - In 2008-2009, a review of current programs and policies will be conducted, an education and outreach program will be developed and launched, and the strategic activities, including data gathering and information gap-filling, will continue. Public involvement and consultation will also continue.
 - In 2009-2010, the water strategy will be drafted and consultations on the draft strategy will take place before submitting to cabinet for consideration. Education

and outreach, as well as information/data gathering will continue. Beyond 2010, the strategy will continue to be augmented, revised and updated as needed and as implemented.

- The strategy development will be overseen by an Interdepartmental Water Management Committee consisting of 10 government departments and chaired by the Deputy Minister of Environment and Labour.

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA: Bill Blight, Real Property Project Management, reported the following:

- PWGSC provides services to other federal departments. DFO is its biggest client.
- 2007 marks the 10th anniversary of the opening of Confederation Bridge. This was preceded by an 8-year preparatory phase and a 4-year construction period. Bill was the PWGSC project engineer for the Bridge.
- Biophysical data was collected prior to Bridge construction to establish a baseline of information.
- Environmental monitoring is ongoing re the long-term effects of the presence of the Bridge, including: marine plants, shorelines, the scallop fishery, the lobster fishery, and ice and temperature. Don Maynard is the lead for these activities.
- The Canadian Wildlife Service is responsible for monitoring seabirds.
- PWGSC is a member of the Northumberland Strait Ecosystem Initiative Working Group established to prepare an ecosystem overview report, in the context of the physical, chemical, biological and human environments - www.glf.dfo-mpo.gc.ca/os/northumberland/index-e.php.
- PWGSC is involved in a project with DND to revitalize areas where military training has taken place.
- The Department is continuing to carry out hydrographic surveys for DFO, CCG, and other clients.
- Special applications are being developed, e.g., monitoring ice scour.

GOVERNMENT OF PRINCE EDWARD ISLAND: Albert MacDonald, PEI Department of Community and Cultural Affairs, reported the following:

- As a result of the recent provincial election in PEI, new ministers and deputy ministers have been appointed. A new department – Fisheries and Aquaculture – has been created. Previously it was combined with Agriculture.
- The report on the public consultations on managing land and water on a watershed basis in PEI, including recommendations, and the Guide to Watershed Planning and other documents are available at www.gov.pe.ca/go/watershedconsultations.
- The Minister of Environment is considering the establishment of setbacks. A report will be submitted in the spring of 2008.
- The report entitled ‘Consequences of climate changes on contamination of drinking water by nitrate on PEI’ is available at adaptation.nrcan.gc.ca/projdb/pdf/109_e.pdf.
- A lidar mapping project proposal for the entire Island has been submitted.
- PEI has agreed to host the Coastal Zone Canada 2010 Conference in Charlottetown. Volunteers will be sought for the organizing committee.

ATLANTIC PROVINCES COUNCIL ON THE SCIENCES: Grant Gardner, Memorial University and APICS Treasurer, reported the following:

- APICS has as members virtually all universities with science programs in Atlantic Canada, as well as government labs and some community colleges. As such it

provides an excellent conduit between the ACZISC and the academic community. Activities include undergraduate research conferences: the combined biology and aquaculture conference, which also has some graduate presentations; the geology conference; and the earth sciences conference. All should be of interest to the ACZISC. Information on APICS is available at www.apics.dal.ca.

- A great deal of coastal and marine research related to Atlantic Canada is carried out by researchers based at APICS member institutions. This could be the topic of a presentation at a future meeting of the ACZISC.
- Norm Catto is a geographer at Memorial University who works on coastal processes, including erosion and sea level rise. Norm has been approached about the possibility of organizing the 2008 annual conference of the Canadian Risks and Hazards Network - www.crhnet.ca.
- Planning is underway by the Coastal Zone Canada Association for the Coastal Zone Canada 2008 Conference, being held in conjunction with the Canadian Coastal Science and Engineering Association. CZC 2008 will be held in Vancouver, BC from 25-29 May 2008. The Conference will be preceded by the CZC Youth Forum on 23-25 May. The deadline for submitting abstracts is 30 November - www.czca-azcc.org/html/conferences/czc08_papers.html.

NATIONAL DEFENCE: Kyle Penney, MARLANT Formation Environment, reported on DND's involvement in the following:

- MARLANT depends heavily on outside DND sources for natural resource information. It appreciates being made aware of studies or information that may contribute to decision-making and the sustainable use of its training areas.
- This year MARLANT is revising and updating the Maritime Operations Area Management Plan. This will consist of improving the framework for the documentation, and updating the user data and natural resource information. The GIS database will be revised to make it more user friendly for both the Ship Operators and the Exercise Planners. The system/management plan will continue to assist MARLANT in conducting activities in the Operating Areas in the East Coast in a sustainable manner.
- In the same manner, MARLANT is continuing to develop Training Area Management Plans for the land-based properties. The framework and data are compiled for each area designated for training and include natural resource information related to the site as well as the activities that occur throughout the year. The management plans will assist in maintaining the biodiversity in the training areas while allowing MARLANT to continue to use these areas to complete required military training.
- MARLANT has successfully completed trials on a new bubble curtain for its underwater demolition range in Roach Cove, Bedford Basin. This mitigation measure, combined with the existing mitigation program, will enable MARLANT to conduct required training with minimal impact on the surrounding area.
- DND is currently working with navies from around the world and research groups to develop mitigation measures for reducing impacts on marine mammals from underwater noise. Information sharing has led to advances being made. This work is ongoing.

AGRICULTURE AND AGRI-FOOD CANADA: Dolores Durant, NLWIS, reported the following:

- The Agricultural Policy Framework (APF) (federal/provincial agreement) ends in March 2008. The next generation of this policy, entitled 'Growing Forward', is in development and will focus on a competitive and innovative sector, proactively managing risks, and contributing to society's priorities - www.agr.gc.ca/pol/grow-croiss/index_e.php.
- The National Land and Water Information Service (NLWIS) was online in March 2006. Twenty-two services are offered to the public - www.agr.gc.ca/nlwis-snite/.
- Phase 2 of the NLWIS project is building the technology infrastructure (data warehouse, data marts, registry, etc) and preparing and loading approximately 450 existing datasets. This phase is to be completed by end of December.
- Phase 3 of the project will allow public web access to much of the newly loaded data, the building of applications that are required by AAFC initiatives such as APF and Growing Forward, loading of more datasets, and expanded partnerships and agreements to access other department/agency data.
- The update of the 1996 version of the Ecological Framework of Canada to integrate provincial and territorial ecological revisions with the new version of the Soil Landscapes of Canada is being done in collaboration with EC. This will provide a consistent national, spatial context for ecosystems in Canada.
- The update of the 1978 Hydrological Atlas of Canada to a web-based, dynamic Atlas is being done with NRCan, EC, DFO and StatsCan. Early products will be higher resolution aspects of hydrometeorology, water availability, water quality, water use and consumption (e.g., agricultural use).
- NLWIS is involved with NRCan in mapping water quantity via the ESS Groundwater Mapping Program and GeoChemistry of the Canadian Surficial Environment Program. NLWIS is also involved on the National Hydro Network initiative.
- The updated version of Soil Landscapes of Canada SLC v3.3.1 has been completed. This dataset provides broad-scale coverage of all agricultural regions of Canada.
- The upgraded detailed soil map of PEI is now 50% complete.
- Re the Census of Agriculture, reallocation to Soil Landscapes and Watersheds is completed for 1971 to 2001. 2006 will be completed following the release of census data.
- Re the Gridded Climate Datasets, daily record datasets for 1961 to 2003 have been completed using two interpolation methods.
- NLWIS is leading the Canadian Group on Earth Observation soil moisture project.
- Re Biodiversity - Species Occurrence Data, 36,000 species occurrence records have been digitized and georeferenced.

ENVIRONMENT CANADA: Kathryn Parlee, Sustainable Communities and Ecosystems, reported the following:

- Gulf of Maine Council Ecosystem Indicators Partnership (ESIP): As part of its activities, ESIP is currently developing a web-based monitoring map to provide access to synthesized monitoring data collected in the Gulf of Maine and its watershed. A new version of the monitoring map is now available at www.gulfofmaine.org/esip/. Progress continues on ESIP's effort to develop indicators for the Gulf of Maine and develop a web-based indicator tool. Six

indicator areas are currently being addressed: coastal development, contaminants and pathogens, eutrophication, aquatic habitat, fisheries and aquaculture, and climate change. Working groups for each theme area are in the process of identifying indicators and selecting 2-3 key indicators to focus on. Contaminants and eutrophication will be the first theme areas incorporated into the web-based indicator tool and will be available online early in the new year.

- The Coastal Society Conference 2008: TCS has announced that The Coastal Society's 21st International Conference - Coastal Footprints: Minimizing Human Impacts, Maximizing Stewardship - will be held from 29 June - 2 July 2008 in Los Angeles, California. The deadline for submitting abstracts is 23 October - www.thecoastalsociety.org/conference/tcs21/index.html.
- OceanMap: On 10 September 2007, the EBMTTools Network hosted an online information and training session on OceanMap. OceanMap is a computer-based map interface developed by Ecotrust, a US conservation organization, to assist with marine planning as part of the California Marine Life Protection Act (MLPA). The purpose of OceanMap is to compile expert knowledge from fishermen via interviews and create a comprehensive dataset of commercial fishing use patterns. Once the data has been collected and reviewed by an Ecotrust analyst, interviewees are able to verify the accuracy of their information using a secure, Internet-based application. Composite datasets are then created for the fishing grounds of each fishery. The information can be incorporated into existing decision-support tools and used to design and assess the potential effects of MPA network alternatives - www.ecotrust.org/mlpa/.

Anthony Pouw, Environmental Emergencies, reported the following:

- The E-MAP web-based mapping system will be updated. E-MAP includes natural, cultural and man-made features and is used for environmental emergencies / assessment, biological resources identification, coastal zone management, etc. E-MAP is available at www.e-map.gc.ca (requires registration - free).
- CANUSLANT is a series of biennial exercises conducted jointly by Canada and the US for the Joint Marine Pollution Contingency Plan. EC participated in CANUSLANT 2007 held recently in the St. Andrews, NB area.

NATURAL RESOURCES CANADA: Jacques Grondin, Canada Centre for Cadastral Management (CCCM), reported the following:

- Integrated Cadastral Management:
 - CCCM has implemented a new GIS system, *i.e.* ARCGIS 9.2.
 - All digital cadastral datasets for the Indian Reserves in Canada have been converted to the new system.
 - 95% of the affected staff has been trained on ARCGIS 9.2.
 - CCCM has initiated the data capture for the National Parks in the Atlantic Region. Currently only digital cadastral datasets for Indian Reserves are available online. In the summer of 2007 the Atlantic Client Liaison Unit produced a fully integrated digital cadastral dataset for the PEI National Park.
 - A proposal was submitted to management for the production of digital cadastral datasets for the Cape Breton Highlands National Park, Fundy National Park, Kouchibouguac National Park and Kejimikujik National Park.
 - CCCM is continuing its implementation of a fully integrated E-Environment.

- All work on the Musquash Marine Protected Area has been completed, including the demarcation of the various zones within the MPA and the preparation of illustrative maps.

Bob Taylor, Geological Survey of Canada - Atlantic, reported the following:

- Geoscience for Oceans Management Program: Multi-beam bathymetric surveys continued in collaboration with CHS in the Bay of Fundy and the St. Lawrence estuary. Maps from previous surveys were completed for the Placentia Bay and Bras d'Or Lakes areas.
- Enhancing Resilience in a Changing Climate Program: Much of the coastal activities were directed toward communities in the Arctic. In Atlantic Canada, activities include the coastal vulnerability study in the Halifax Regional Municipality (HRM). Analysis and validation of the lidar multibeam surveys completed in April 2007 are ongoing; approximately 20% of the surveys have been delivered to HRM. Some nearshore surveys using interferometric sidescan were completed in the Conrads-Lawrencetown Beach area to acquire the seabed information close to shore, which multibeam surveys do not cover. In June shoreline surveys were completed for an assessment of shoreline stability in Conception Bay, NL. The information is required by local planners and provincial representatives to address housing development issues in the area.
- Law of the Sea: Activities continued as reported by CHS with seismic surveys off the Scotian Shelf. Plans are being made to survey parts of the Arctic Ocean (Canada's northern boundary) in the spring of 2008.
- NRCan Communications, based in Fredericton, have been working with scientists at the GSCA to produce a number of impact notes highlighting marine and coastal research in Atlantic Canada. These pamphlets will be released to the public next month.

Tony Turner, GeoConnections Secretariat, reported the following:

- The goal of the GeoConnections Integrated Announcement of Opportunity (AO) is to link activities associated with strategic planning, capacity building, user requirements, applications development, thematic content and standards through a series of multi-phase projects that leads to maximum leveraging of CGDI data, services and technologies. The deadlines for LOIs under the two remaining rounds of the Integrated AO are 12 October 2007 and 1 February 2008.
- The last Integrated AO attracted 81 letters of intent, of which 40 fell under the environment-sustainable development (E-SD) theme. Of those, proposals were asked from 10 proponents. Eight proposals were received and negotiations leading to contribution agreements are currently underway. New project proposals from Atlantic Canada include:
 - The NL Department of Environment and Conservation for the development of a provincial water resources portal.
 - The Southern Gulf of St Lawrence Coalition on Sustainability for the development of a Strategic Plan in anticipation of preparing a regional sustainability atlas.
 - NB Emergency Measures Organization project.
- A Geological Survey of Canada-led project will develop standards for national water well data leading to web-accessible data from provincial and federal sources and a national decision support system.

- Other GeoConnections funded projects include:
 - The NS Department of Environment and Labour will develop an Environmental Attributes Screening Criteria tool to support the provincial Environmental Assessment process. The project is just getting underway.
 - The Gulf of Maine Council on the Marine Environment will develop integrated geospatial tools for coastal managers in the transboundary Bay of Fundy/Gulf of Maine region. The project involves integrating data on issues such as contaminants and the creation of indicators through ESIP. The scheduled completion date is 31 January 2008.
- In total GeoConnections is funding 38 E-SD projects, greater than for any other thematic area.
- Work will begin on two new national framework layers for Geobase - land cover and municipal boundaries; see www.geobase.ca/geobase/en/index.html.
- The new focus for E-SD activities in 2008-2010 will be on national information systems (NIS) and, in particular, on developing NIS capacity to serve environmental assessment requirements, and land-use planning. Funding will involve developing business cases, securing appropriate ownership and governance, developing pilot studies to demonstrate utility, web-enabling priority data, and developing appropriate portals and decision support systems.
- Rhian Evans, the GeoConnections Content Officer for environment projects, has left on maternity leave for one year. A replacement is being sought and professional exchanges are welcomed.

CANADIAN PARKS AND WILDERNESS SOCIETY – NOVA SCOTIA: Laura Hussey, CPAWS-NS, reported that the marine program is currently focused on two main project areas:

- Marine Protected Areas: CPAWS-NS is working to establish an effective network of marine protected areas in the region, with a particular focus on National Marine Conservation Areas (NMCAs). NMCAs are administered by Parks Canada. CPAWS-NS is focusing on the establishment of NMCAs in the marine waters around Nova Scotia. Efforts include researching and identifying appropriate sites; working with local communities to develop understanding and support for NMCAs; and working with all levels of government to facilitate the process of establishing NMCAs. To date, activities have focused on two main candidate areas: the Digby Neck and Islands area, and the Twin Bays area (St. Margaret's Bay and Mahone Bay). It should be noted that the CPAWS-NS priority areas for NMCAs are not necessarily those of Parks Canada.
- Marine Special Elements: CPAWS-NS defines special elements as species, habitat and geological formations that have high conservation value because they are unique, rare, endangered, and/or biodiverse. This can include things such as deep sea coral forests and reefs, mollusc reefs, glass sponge aggregates, and gas vents. CPAWS-NS is interested in identifying these special and/or unique areas or elements in the region for the purpose of conservation. Currently, CPAWS-NS is undertaking a project focused on the large horse mussel reefs in the Bay of Fundy. Information on these reefs is being gathered, in cooperation with marine geologist Gordon Fader, DFO personnel, members of the Marine Resource Centres in the Bay of Fundy region, and others. Our goal is to develop recommendations on the measures necessary to ensure the continued presence and health of the reefs in the Bay.

CCMC: The following was reported on behalf of Randy Gillespie, CCMC:

- Ocean Innovation 2007: The Rise of Maritime Simulation: 21-24 October 2007 at the Halifax Marriott Harbourfront - www.oceaninnovation.ca.
- Opportunities in UAE/Jordan: CCMC, with financial support from ACOA and the assistance of the Department of Foreign Affairs and International Trade (DFAIT), organized a Pan-Atlantic business mission to the United Arab Emirates (UAE) and Jordan from 12-20 April 2007 with a particular focus on ocean mapping. The goal of the mission was to enhance business, research and training opportunities for Atlantic Canadian companies and universities, respectively.
- As a result of the mission, Atlantic Canadian business and research interests were introduced to three major opportunities (and vice versa) – a national hydrographic survey project for UAE (approx. value - US\$30M. Note: pretender qualifications now ongoing – www.ukho.gov.uk/corp/OthercontractOpportunities.asp); a major military intelligence project in Jordan (valued at US\$240M); and a major port development project in Aqaba, Jordan (approx. value – US\$600M). For more information, contact Randy Gillespie (rgillespie@ccmc.nf.ca).
- Marine Electronic Highway - Project Opportunities: With support from DFAIT, CCMC recently conducted a competitive intelligence (CI) analysis of four emerging international business opportunities for Canadian companies. These opportunities centre on major programs to develop regional marine information infrastructures commonly referred to as 'marine electronic highway' (MEH). MEH is a system of people, processes and technologies that facilitate third party access to marine operational and environmental data and information which is necessary to support safe marine transportation, environmental protection and sustainable marine resource development. The 4 emerging MEH programs included the Straits of Malacca and Singapore, Western Indian Ocean, Strait of Sicily and Gulf of Honduras. More information is available at www.ccmc.nf.ca/notices.
- SmartBay: ACZISC members should continue to visit www.smartbay.ca for the latest developments in this online integrated coastal/marine management planning tool.
- Journal of Ocean Technology: Volume 2, Number 2 (Feeding and Healing Humans: Food and Medicine from World's Oceans) is in circulation – www.journalofoceantechnology.com.