

# MARINE INSTITUTE

OF MEMORIAL UNIVERSITY OF NEWFOUNDLAND



# Policy, Planning and Technical Considerations for MSP in Newfoundland and Labrador

Marine Spatial Planning:  
Lessons Learned from British Columbia  
October 6, 2016

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# Outline



- NL Coastal and Ocean Context
- NL Coastal and Ocean Policy and Planning Context
- MSP and Aquaculture Expansion
- Technical Requirements
- MSP Capacity Development

# NL Coastal and Ocean Context



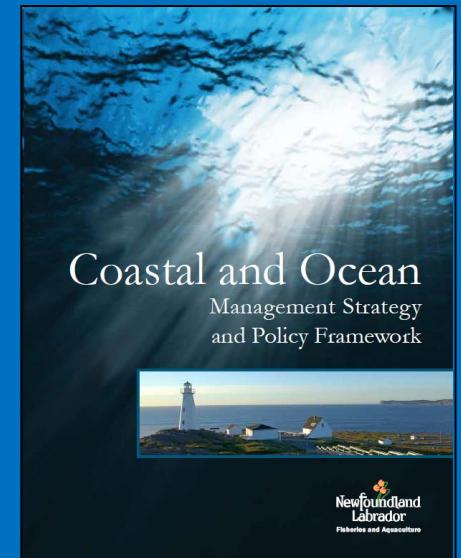
- Traditional activities - Fisheries and shipping
- Offshore oil and gas production since 1997 with ongoing exploration
- Coastal tourism and recreation growing
- Potential offshore wind project on the west coast (Beothuck Energy)
- Aquaculture established with interest in expansion
- Productive marine ecosystem but decline in resources (past groundfish, present shellfish), aquatic invasive species
- User conflicts and need for environmental conservation/protection (MPA network development)
- Province has identified a need for coastal land use planning

# Policy and Planning Context



At the provincial level, the Government of Newfoundland and Labrador's Coastal and Ocean Management Strategy and Policy Framework recognizes the need for integrated approaches, the use of mapping and geospatial technology and identifies specific goals and objectives to work collaboratively to bring together coastal and ocean data and information.

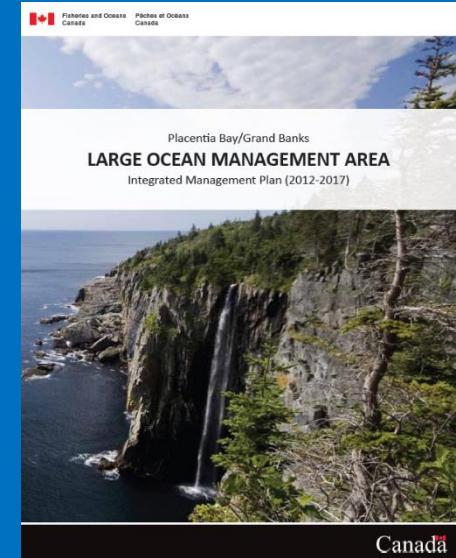
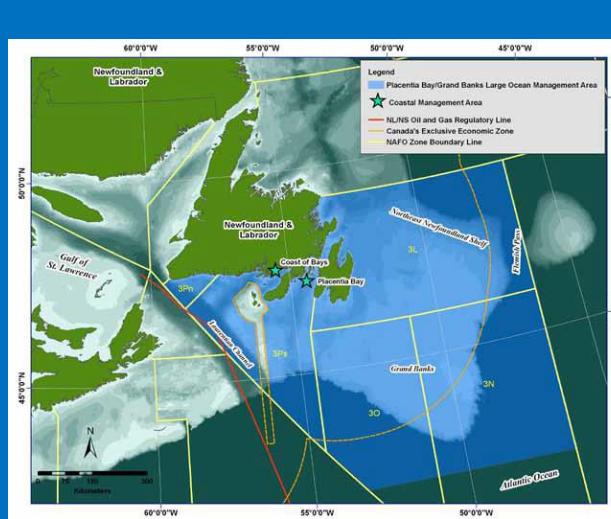
The document also specifically refers to the need for "greater coordination of marine activities" and "effective planning" as a means to achieve a balance between environmental and economic sustainability.



# Policy and Planning Context



*“...The Placentia Bay/Grand Banks Large Ocean Management Area IM Plan is presented as a multi-year, strategic level plan for the IM of policies, programs, plans, measures and activities in or affecting the PB/GB LOMA...”*



# Policy and Planning Context



The plan’s “Mitigate and/or Prevent Conflict” priority includes the following associated strategic objective and management strategies:

## Strategic Objective

*Conflicts are mitigated or prevented via the IM Process*

## Management Strategies

- *Understand existing and potential use patterns, interactions and cumulative effects*
- *Identify and characterize spatial and temporal conflicts*
- *Develop tools or procedures for addressing conflict*

# Policy and Planning Context



A screenshot of a computer screen displaying a webpage from the Integrated Coastal and Oceans Management (ICOM) Newfoundland and Labrador website. The page is titled 'Conflict Avoidance Tools' and discusses the challenges of managing ocean space. It features a sidebar with links like 'HOME', 'ABOUT ICOM', and 'PRIORITY ISSUES'. The main content area includes a paragraph about the expanding use of ocean space leading to conflicts, and another about marine planning providing opportunities for coordination and regional economic growth. A sidebar on the right shows a close-up image of several grey, textured stones or rocks.

*"The expanding use of ocean space and resources has led to conflict between user groups and economic, social and ecological objectives...A clear plan for the use of oceans space based on up-to-date geospatial and temporal information is required to guide decision making to avoid conflicts and provide users with the increased certainty and predictability they need to make appropriate investment decisions, and help conserve and restore natural ecosystems for future generations..."*

# Policy and Planning Context



## Regional Oversight Committee for Ocean Management (ROCOM) Priority Marine Protected Areas Network Development

An additional ROCOM priority, the establishment of a network of marine protected areas (MPAs) in the NL Shelves Bioregion (to meet Canada's commitments under the Convention on Biological Diversity), will require extensive geospatial capacity and engagement to analyze the relationship between areas of high conservation value and high socio-economic value.

# Aquaculture Expansion in NL



*"In 2012, salmonid production reached a record 16,831 tonnes, valued at \$99 million...By 2018, the Department of Fisheries and Aquaculture expects further expansion east into Placentia Bay and west into waters between Bay D'Espoir and Burgeo, with the goal of reaching an annual production level of 50,000 tonnes.*

Vision 2018 Sustainable Aquaculture Development Discussion Paper

# Aquaculture Expansion in NL



The recent Greig Aquaculture project proposal for Placentia Bay has garnered a great deal of public interest and is now the subject of a Supreme Court challenge

- 11 sea cage sites (>1,900 ha or 4,800 ac)
- Released from environmental assessment

The screenshot shows the homepage of The Telegram, a newspaper from St. John's, Newfoundland. The main headline reads: "Placentia Bay aquaculture project subject of Supreme Court application". Below the headline, it says "Published on August 16, 2016". There are social sharing buttons for Facebook, Twitter, and Google+. A sidebar on the right features a graphic for the Rio 2016 Olympics showing Canada's medal count: GOLD 4, SILVER 3, BRONZE 15. Other sections visible include "Live Webcam", "THE PEOPLE'S PAPER", "ENTER TO WIN", "Click Here for details on how to enter our contest!", "Business", "Rio Olympics", "Team Canada Tweets", and "Rio 2016 Athletes".

# MSP and Aquaculture Expansion



*“...For the promotion of sustainable aquaculture in the coming decades, it is imperative that integrated spatial planning is effectively applied at both the national and regional levels. Such planning enables the identification and management of areas for the sustainable growth of aquaculture...”*

UN Food and Agriculture Organization - Committee on Fisheries – Subcommittee on  
Aquaculture

# MSP and Aquaculture Expansion



## 1.4 Areas Suitable for a Growing Industry

*Currently, however, it is unclear where the areas of greatest expansion potential are located in Canada...*

*The Committee believes that work must continue to determine the areas that are most suitable for aquaculture growth in the marine and freshwater environments (for finfish, shellfish, and aquatic plants, as well as for IMTA). This work must take into account the potential environmental impacts, competing claims from other users, the landscape and visual aspects of aquaculture infrastructure, and the local community's acceptance of such aquaculture development.*

Standing Senate Committee on Fisheries and Oceans

# MSP and Aquaculture Expansion



National Aquaculture Strategic  
Action Plan Initiative (NASAPI)  
2011 - 2015

An initiative of the  
CANADIAN COUNCIL OF FISHERIES  
& AQUACULTURE MINISTERS (CCFAM)

A decorative graphic on the left side of the slide. It features a stylized white fish swimming through blue and white wavy patterns. Below the wavy pattern is a row of circular icons, each containing a different Canadian provincial or territorial flag. At the bottom left, the text "East Coast Marine Finfish Sector Strategic Action Plan" is written in blue, and at the bottom right, the word "Canada" is written in a white serif font.

# MSP and Aquaculture Expansion



## Key Area for Action

*“...Social License–2. Research and prepare regional aquatic resource maps to optimize aquaculture development in public waters in a manner that is respectful of the interests of other resource user groups*

- *Develop a resource-use geographical information system (mapping) tool to facilitate the identification of suitable areas for aquaculture development in public waters (Year 3 – Ongoing in some areas)*

# Policy and Planning Context



- Together policy, plans and priorities indicate a requirement to undertake Marine Spatial Planning approaches in Newfoundland and Labrador.
- Operationalize strategic level policy, plans and priorities through MSP
- Existing user conflicts, aquaculture expansion, offshore wind development and MPA network planning are classic drivers for MSP.

# Technical Requirements



- Undertaking MSP triggered by industry expansion, user conflict and environmental protection efforts requires a great deal of geospatial and temporal data (administrative, natural environment, human use etc.) and trained practitioners
- Unlike BC and the MaPP process, NL coastal and ocean geospatial and temporal data is currently fragmented, silo'd and either inaccessible or uncollected.
- Fisheries and Oceans Canada NL Region has some MSP (personnel) capacity and has undertaken efforts to compile and map geospatial and temporal data (for internal use) but there's a need in NL for more trained personnel, focused efforts for data compilation/mapping in inshore/coastal areas and broader access to such data.

# MSP Capacity Development



- The Fisheries and Marine Institute has established a Master of Marine Studies (Marine Spatial Planning and Management Program) to train MSP personnel, increase MSP capacity and engage in applied projects to meet MSP needs in NL (September 2016)
- Based on research into Ireland's Digital Ocean approach and curriculum development input from MSP experts from BC, Ireland, the Netherlands and Rhode Island, the Marine Institute is proposing to purchase the GIS based decision support tool Seasketch and develop a coastal and ocean spatial data infrastructure
- A Placentia Bay geospatial data pilot project is being proposed as a focus of initial efforts

# MSP Capacity Development



Placentia Bay is:

- a data rich area
- a Coastal Management Area with an Integrated Management Plan
- an Ecologically and Biologically Significant Area
- an area of multi user conflict and expanding industry (ex. Greig Aquaculture)
- an area with high risk of oil spills
- an area with coastal climate change risks
- the home of the highly regarded Smartbay project

# MSP Capacity Development



## Placentia Bay Integrated Management Plan

*“...Current and anticipated expansion of existing uses coupled with the potential for new marine-linked industries underlies the growing requirements for effective multiple use management practices. There are also areas of importance and significance to specific users and interest groups. This importance may be derived from traditional uses, or from the specific resources, ecological or cultural characteristics of an area. The value placed on access to such areas must be considered when planning for multiple use...”*

# MSP Capacity Development



Therefore, it's proposed the initial focus of efforts to identify, access, manage, map and analyze coastal and ocean geospatial data target Placentia Bay as a test case.

Such efforts can make a significant contribution to facilitating the use of such data for a variety of spatial planning and management requirements (ex. environmental protection, user conflict avoidance/multi user planning, streamlining development applications and approvals, oil spill response planning, coastal climate change adaptations).



# Thank You