



**Developing a Prototype Marine
Cadastre for Chedabucto Bay, Nova
Scotia, Canada**
... or is it St. Margaret's Bay?

Dr. Michael Sutherland, CANADA
Chair-Elect, Commission 4
FIG

EILAT 2009, FIG WORKING WEEK, EILAT, ISRAEL MAY 3-8, 2009

MEETINGS ETC.	COMMISSION 4 PUBLICATION #36	GOVERNANCE	STAKEHOLDER ISSUES
LEGAL ISSUES	TECHNICAL ISSUES	COINAtlantic Marine Cadastre Prototype	



INTRODUCTION

MEETINGS ETC.	COMMISSION 4 PUBLICATION #36	GOVERNANCE	STAKEHOLDER ISSUES
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Working Group 4.3 – Administering Marine Spaces
 (Joint with Commission 7- Cadastre and Land Management)
 Dr. Michael Sutherland – Canada

MEETINGS
 FIG Meetings and Working Weeks (International research)
 UNB/FIG Workshop on Ocean Governance and Marine Cadastre – Canada 2003
 PCGIAP Workshop on Administering the Marine Environment – Kuala Lumpur, Malaysia 2004
 6th Regional Conference, San José, Costa Rica, 12-15 November, 2007

MEETINGS ETC.	COMMISSION 4 PUBLICATION #36	GOVERNANCE	STAKEHOLDER ISSUES
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FIG
FIG PUBLICATION NO 36

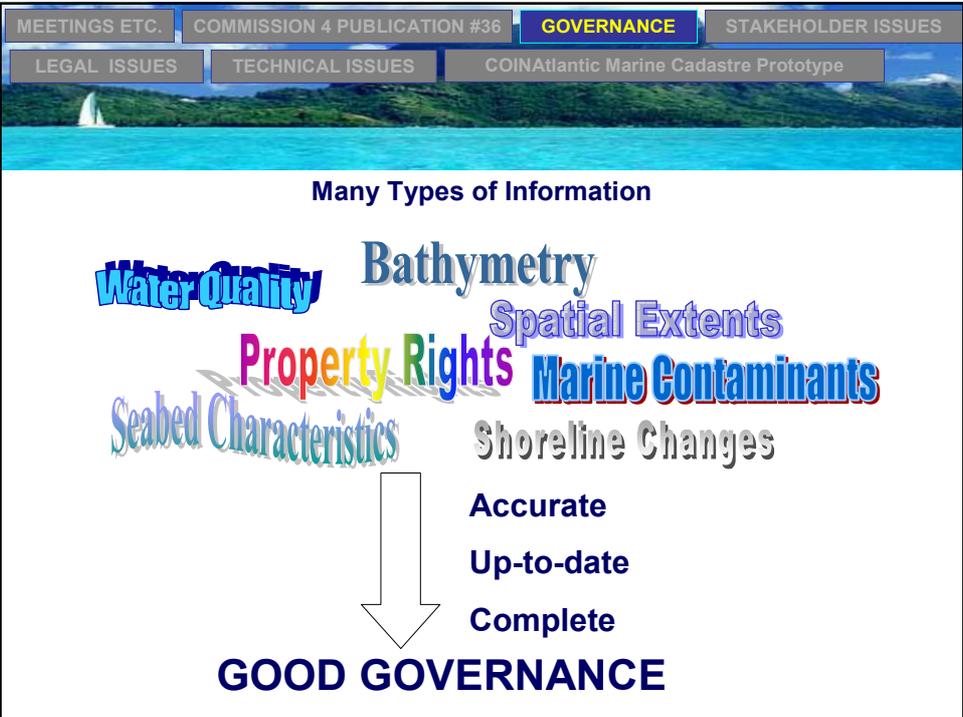
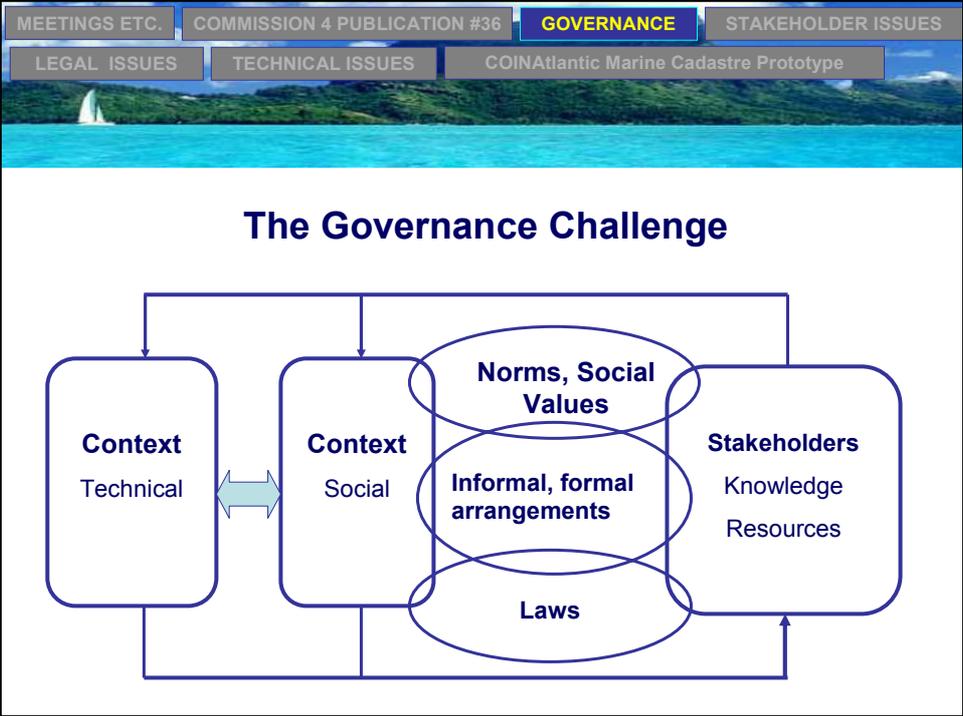
**Administering Marine Spaces:
 International Issues**



A publication of FIG Commissions 4 & 7 Working Group 4.3

FIG
INTERNATIONAL FEDERATION
 OF SURVEYORS

- **General discussion of issues**
- **Asia and Pacific Region**
- **Europe**
- **North America**
- **Africa**
- **Small Island Developing States**



MEETINGS ETC. COMMISSION 4 PUBLICATION #36 GOVERNANCE **STAKEHOLDER ISSUES**

LEGAL ISSUES TECHNICAL ISSUES COINAtlantic Marine Cadastre Prototype

Stakeholder Identification

Addressing:

- Lack of knowledge**
- Government silos**
- Single issue focus**
- Property rights uncertainties**
- Jurisdictional uncertainties, gaps, and overlaps**

MEETINGS ETC. COMMISSION 4 PUBLICATION #36 GOVERNANCE **STAKEHOLDER ISSUES**

LEGAL ISSUES TECHNICAL ISSUES COINAtlantic Marine Cadastre Prototype

Stakeholder Engagement and Input

Addressing:

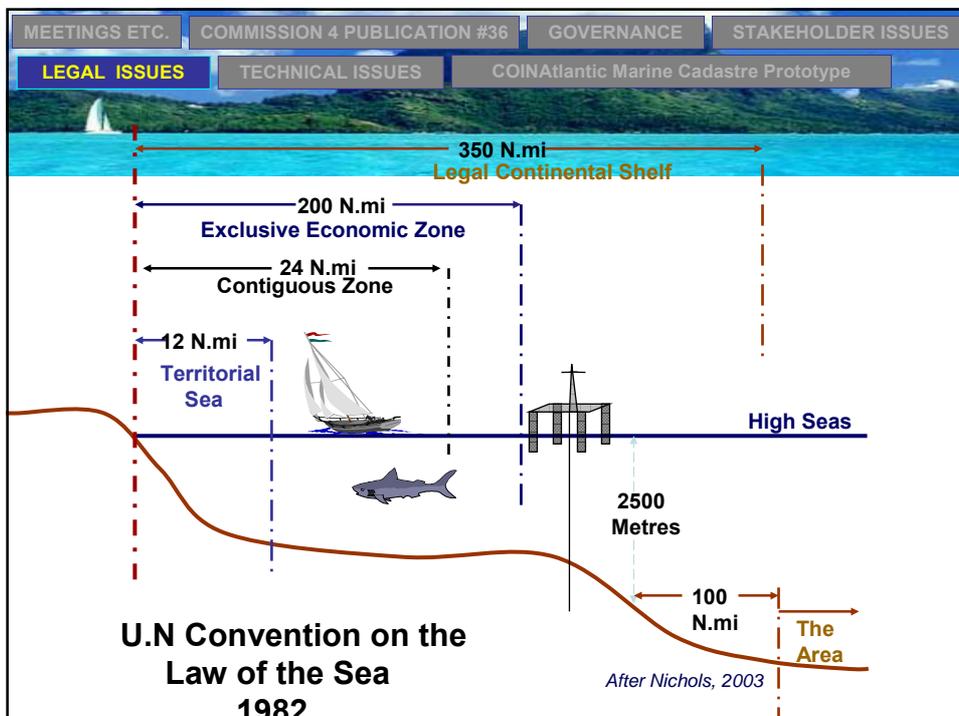
- Genuine consultation**
- Collaboration, coordination, cooperation, integration ...**

After Prescott [1985]

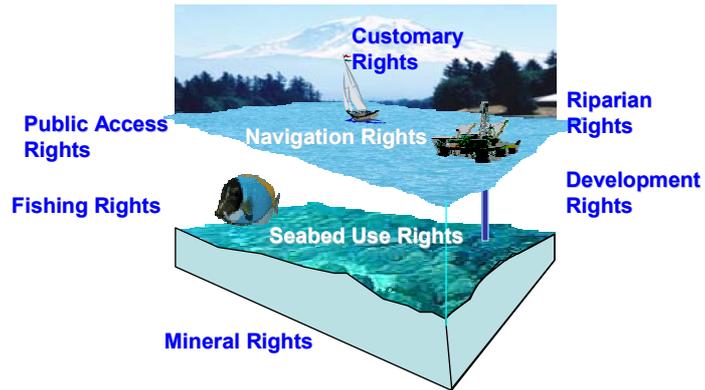
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LEGAL ISSUES TECHNICAL ISSUES COINAtlantic Marine Cadastre Prototype

- Sovereignty
- Legislative jurisdiction
- Administrative authority
- Complex private and public rights
- Overlaps and gaps
- Boundaries: not defined or ill-defined

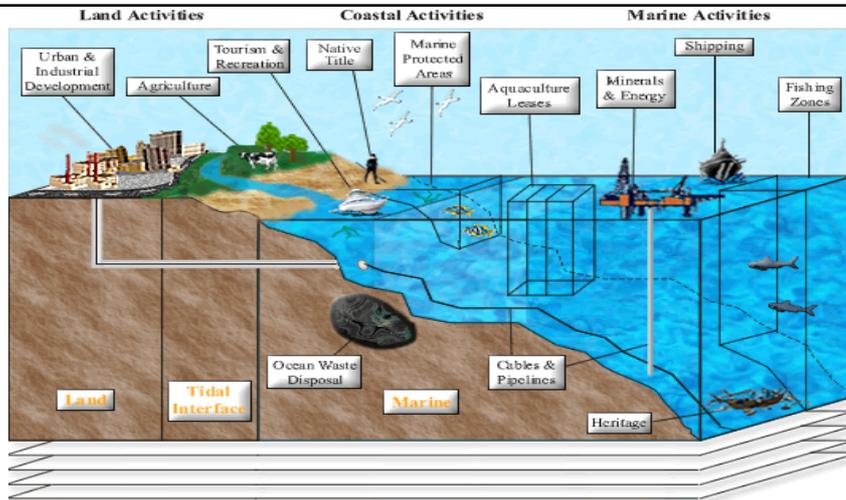


Many Other Types of Marine Boundaries



After Sutherland, 2001-05

THE AUSTRALIAN MODEL



Sustainable Management



DESCRIBE



VISUALISE



REALISE

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LEGAL ISSUES **TECHNICAL ISSUES** COINAtlantic Marine Cadastre Prototype

Public Access Rights

Fishing Rights

Navigation Rights

Riparian Rights

Development Rights

Seabed Use Rights

Mineral Rights

Whole-Part Relationship, Main Object, Dependency Relationship, Physical Layers, Natural Resources, Interests, Laws, Parent-Child relationship, Water column, Seabed, Subsea Surface, Sea Surface, Level of Government (Federal, Provincial, Municipal), Types of Institutions (Formal, Informal, Customary), Rights, Restrictions, Responsibility, Water column, Seabed, Subsea Surface, Sea Surface, Level of Government (Federal, Provincial, Municipal), Types of Institutions (Formal, Informal, Customary)

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LEGAL ISSUES **TECHNICAL ISSUES** COINAtlantic Marine Cadastre Prototype

Web-GIS / Mapping Technologies

Applet Viewer

Internet

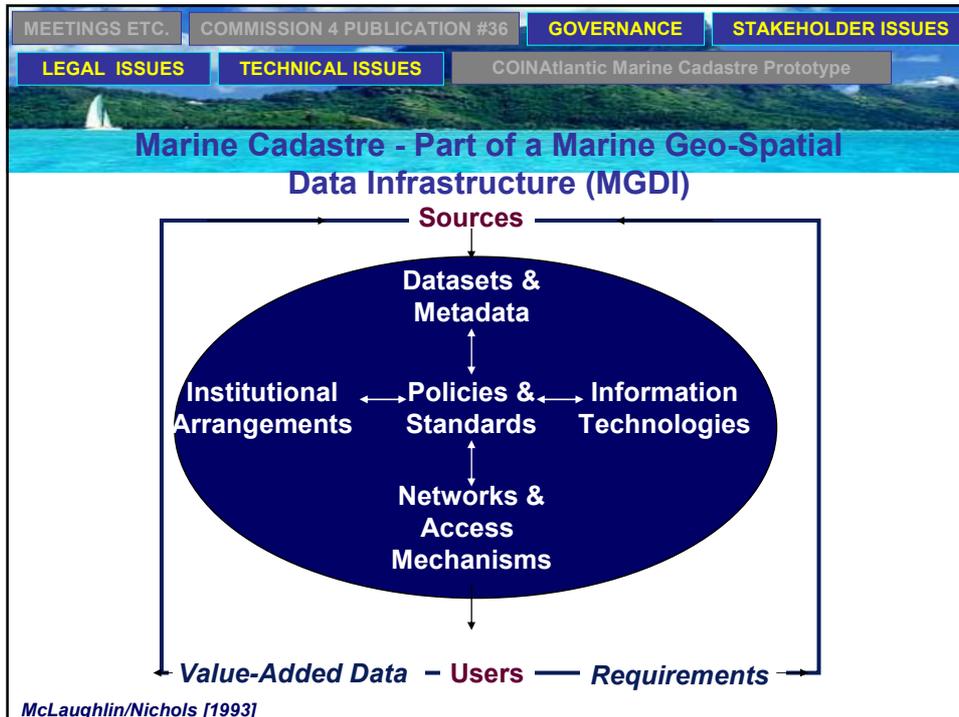
Internet

Source 1

- Caris files
- ESRI shape files

Source X

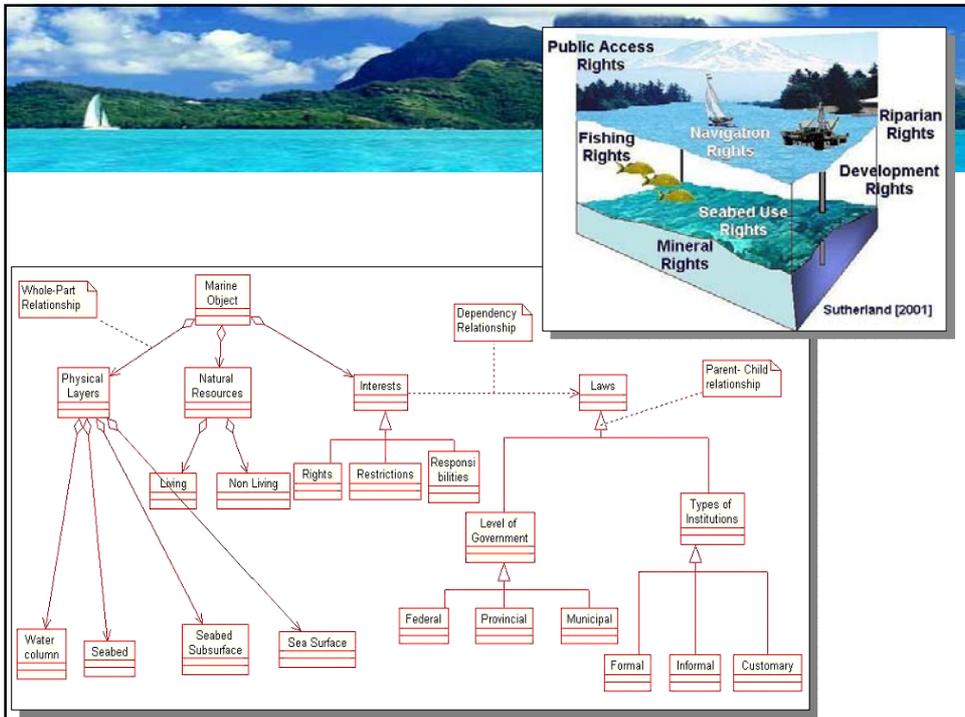
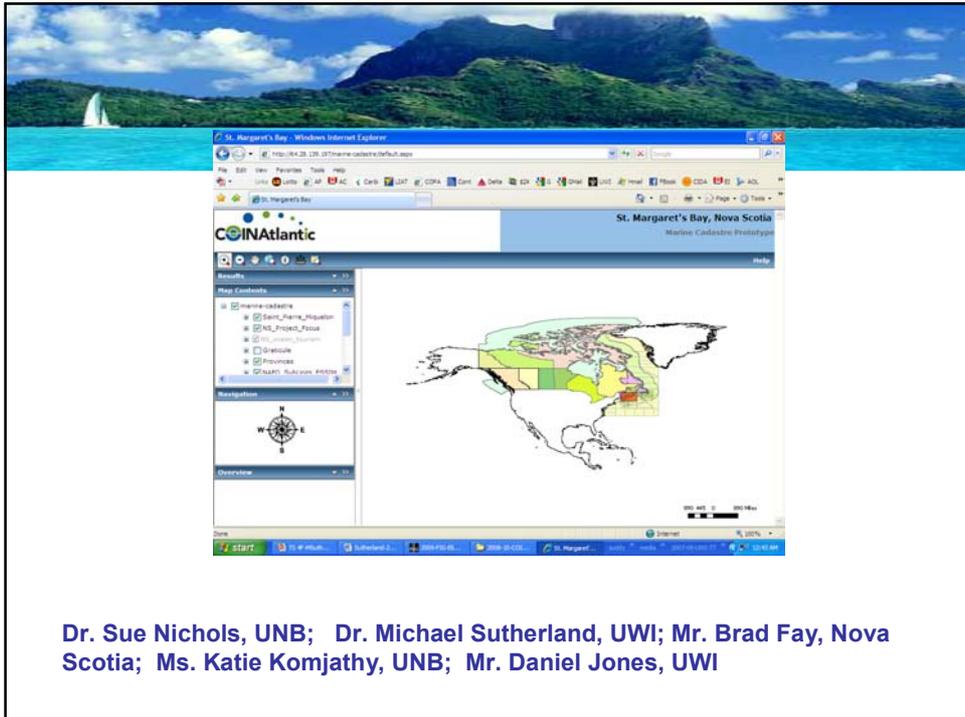
- Oracle 9i
- Orthophotography

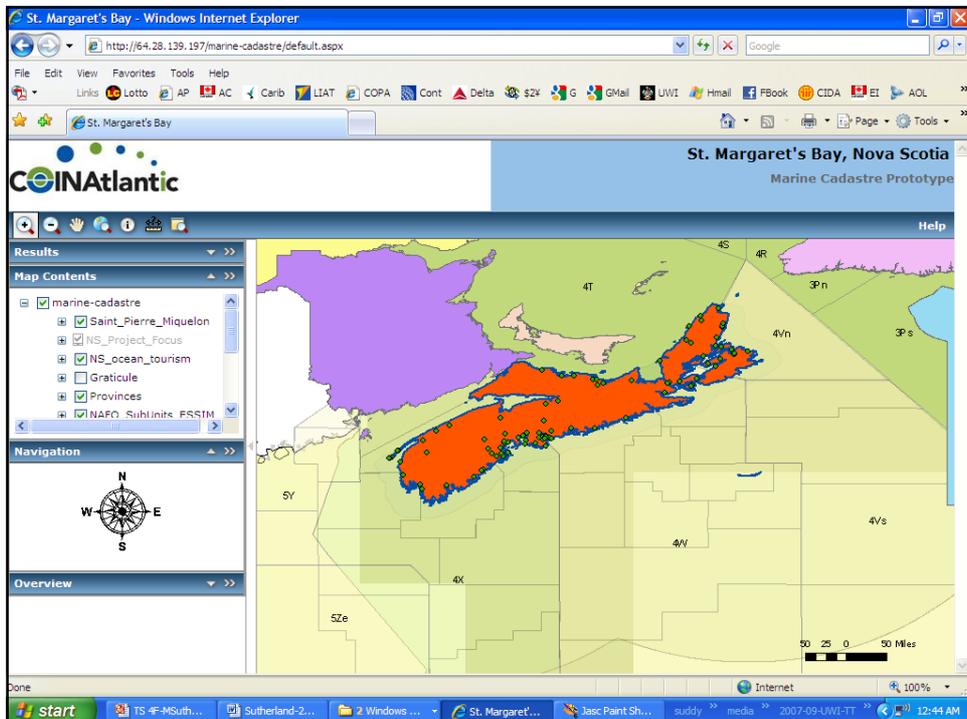
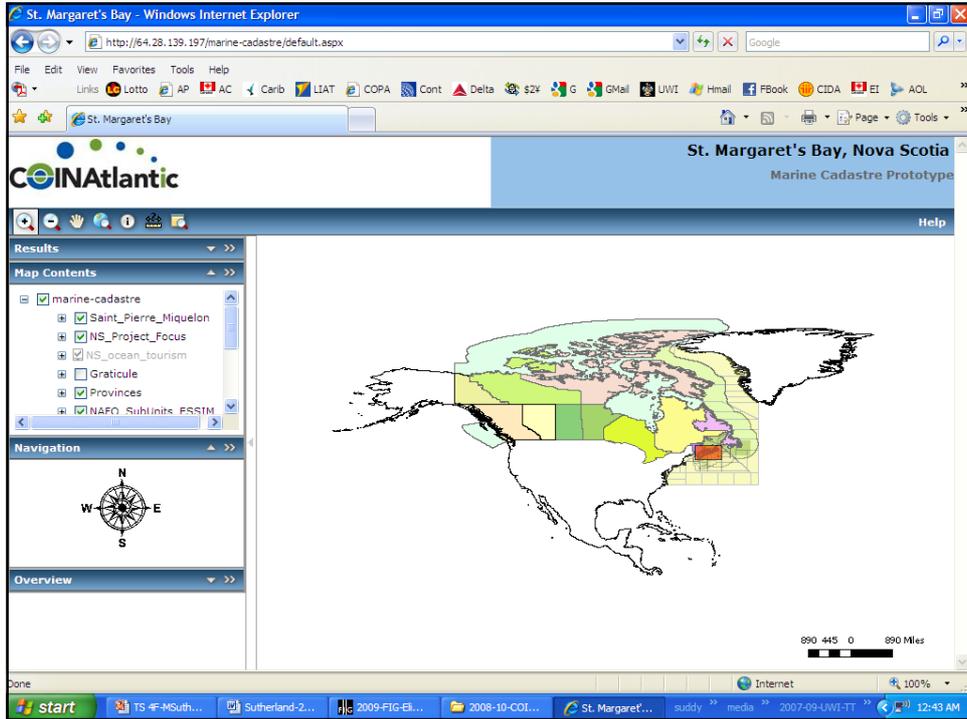


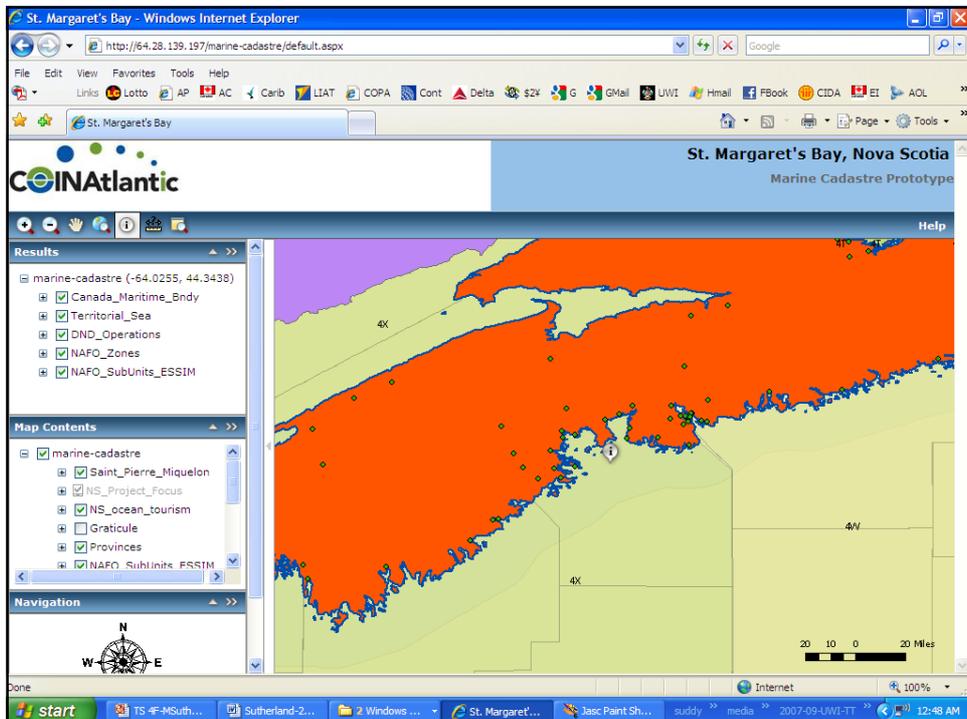
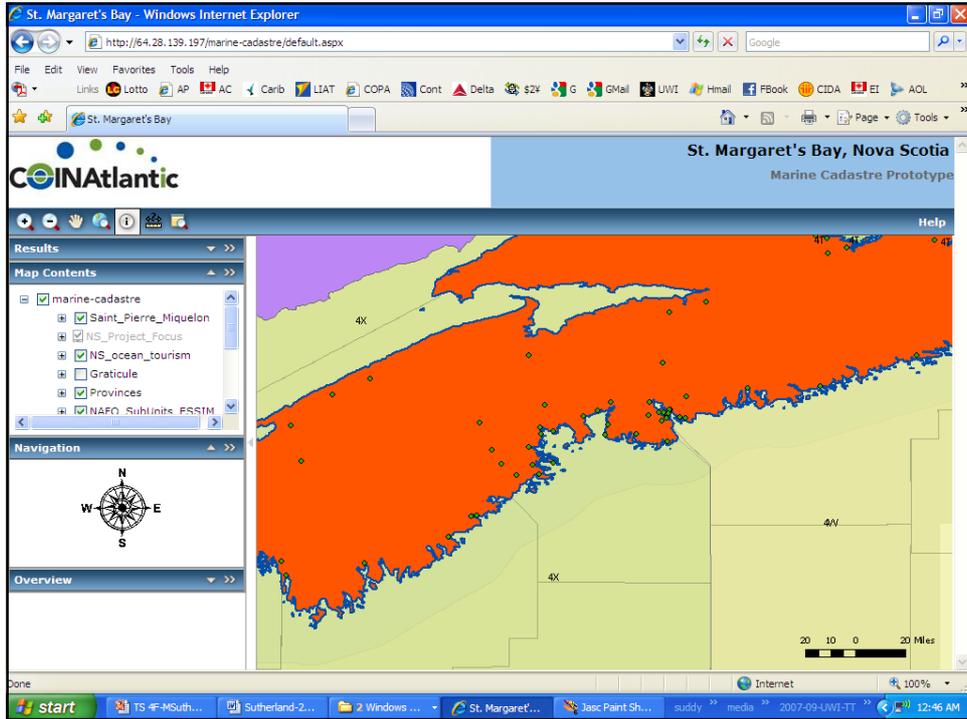
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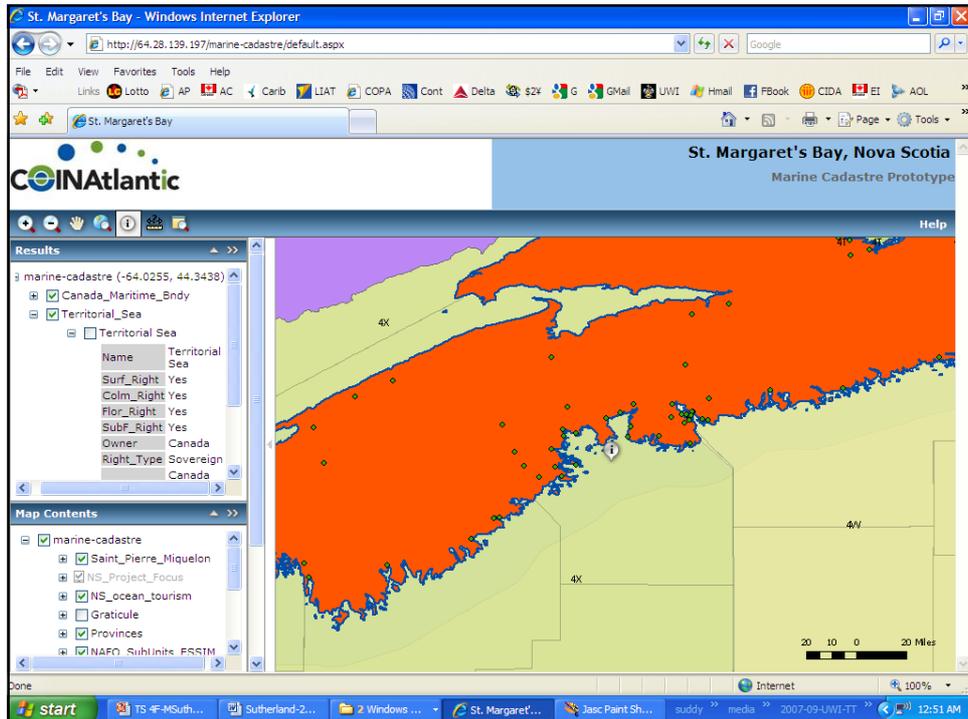
LEGAL ISSUES TECHNICAL ISSUES **COINAtlantic Marine Cadastre Prototype**

“initiative of the Atlantic Coastal Zone Information Steering Committee (ACZISC) to develop, implement and sustain a network of data providers and users that will support secure access to data, information and applications, for decision-making by coastal and ocean managers and users of coastal and ocean space and resources”









COINAtlantic Search Utility:

<http://www.marinebiodiversity.ca/COINAtlantic>

COINAtlantic Marine Cadastre Prototype:

<http://64.28.139.197/marine-cadastre/default.aspx>



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