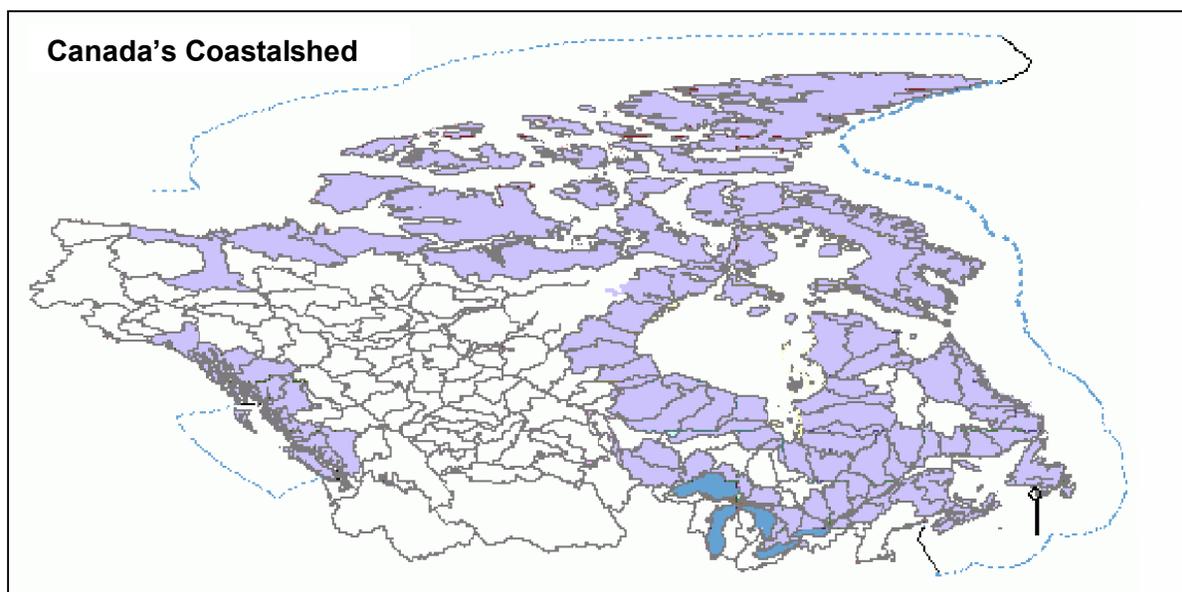


Discussion Document

OBJECTIVE: The preparation of a national strategy to further develop the Canadian Geospatial Data Infrastructure, particularly with regard to Canada's coastalshed.

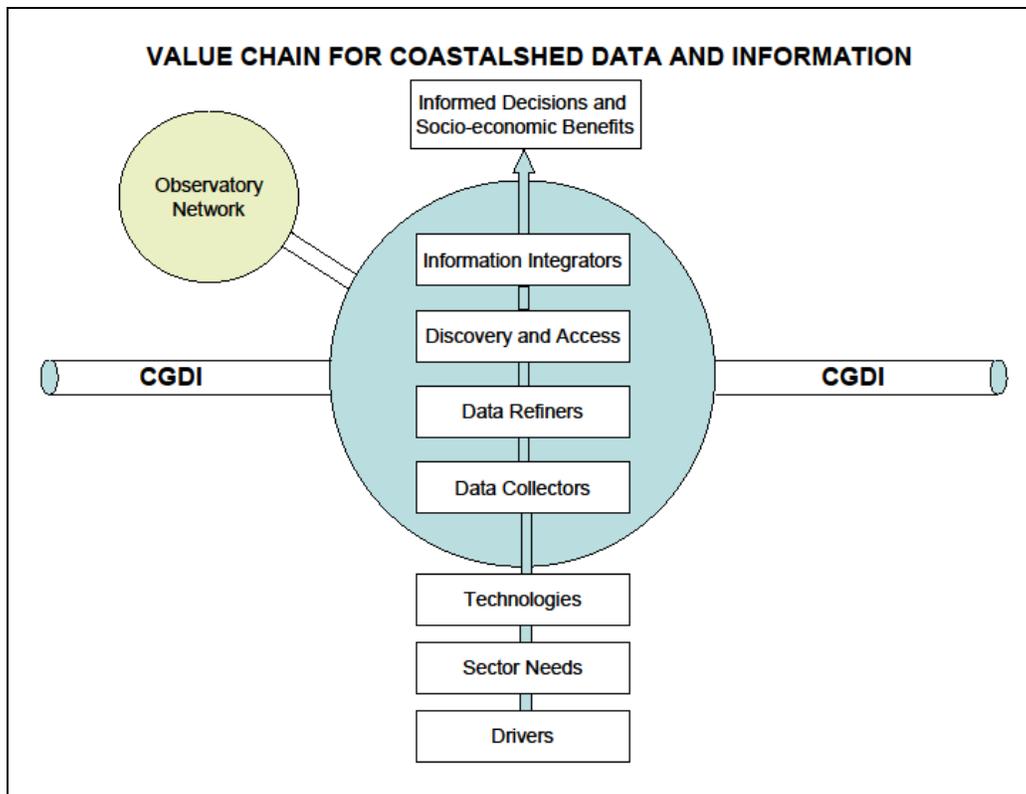
RECOMMENDATION: It is proposed that a strategy be prepared for the continued development of the Canadian Geospatial Data Infrastructure (CGDI)¹, with particular reference to Canada's coastalshed – **defined as the geographic area which encompasses all of Canada's oceans (Atlantic, Pacific and Arctic) and inland seas (Great Lakes) and their adjacent source watersheds** (see map below). The strategy would establish goals, responsibilities and the contributions required to address three main complementary requirements:

- the collection of data and information on Canada's coastalshed
- the discovery of, access to, and the management of data and information using internet technologies, and
- the application of the information to policy, planning and management decisions by all stakeholders.



Accordingly, it is recommended that a working group of coastalshed stakeholders, under the leadership of DFO, NRCan and GeoConnections, be mandated to develop a strategy and associated business case to further develop the CGDI to provide the best value and most benefits to Canadians directly or indirectly associated with Canada's coastalshed. See the value chain diagram on the next page.

¹ A geospatial data infrastructure encompasses all of the data sources, systems, network linkages, standards and institutional policies required to deliver geospatial data and information from many different sources to the widest possible group of potential users (Coleman and McLaughlin, 1998).



RATIONALE: Canada's coastalshed and associated resources contribute significantly to the livelihood of Canadians and the Nation's wealth. As an example, in Newfoundland and Labrador, during the 2001-2004 period, coastal and ocean related activities contributed, on average, \$6.36 billion or 41.3% (including indirect and spin-off impacts) to the Province's GDP (NL Department of Finance, 2008). In Nova Scotia, the impact for the 1996-2001 period was \$4.08 billion, just over 15% of the total GDP (Gardner Pinfold, 2005). These benefits accrue to all Canadians. With the anticipated expansion of Canada's marine jurisdiction via the United Nations Convention on the Law of the Sea (UNCLOS), the increasing accessibility of Arctic lands and waters, and the increasing demands for Canada's 'limited' freshwater resources, management requirements for Canada's coastalshed will become even more of a priority.

Access to geospatial data and information is a prerequisite for good management and the realization of socio-economic benefits. From a national perspective, this is facilitated by the CGDI which is supported by the GeoConnections program² and endorsed by the Canadian Council on Geomatics (CCOG) and the Inter-Agency Committee on Geomatics (IACG)³.

² The Government of Canada has invested \$120 M over ten years in the GeoConnections Program. This investment has been more than doubled through leveraged contributions from GeoConnections partners (provincial, territorial and municipal governments; NGOs; academia; private sector firms, etc.).

³ The CCOG, created in 1972, is the major federal-provincial-territorial consultative body for geographic information management. The IACG includes 12 federal government agencies that are collaborating to guide the development of the CGDI.

Canada has experienced a great deal of success in dealing with the collection and management of geographic information. Examples include Neptune off the coast of British Columbia, the Observatoire Saint-Laurent in Québec, SmartBay in Placentia Bay, Newfoundland, GeoNova in Nova Scotia, and COINAtlantic in Atlantic Canada. On a national basis, building the CGDI and the effective management, discovery and access to electronic information has been the focus of the GeoConnections program. This has resulted in the development of the GeoConnections Discovery Portal (a central catalogue of metadata and online information) and a large number of information sources at federal and provincial levels.

Coastalshred stakeholders, including federal, provincial and municipal agencies, First Nations, NGOs, community groups and the private sector, have benefited from the CGDI to discover, access and apply information to address their respective management questions. Examples include the identification and planning of coastal aquaculture sites and offshore oil and gas leases, as well as the environmental assessment and review of proposed projects in all areas of Canada under the Canadian Environmental Assessment Act (CEAA). Other issues benefiting from access to the CGDI include climate change and water resource utilization in areas of high demand such as the Great Lakes. Future opportunities include tidal power generation, the potential to explore and realize oil and gas resources in Canada's Arctic and the extension of Canada's Atlantic and Arctic continental jurisdiction under UNCLOS.

Currently there are many initiatives, resources and activities that directly or indirectly support the CGDI. The proposed strategy would provide guidance to those ongoing and future programs so that they interface appropriately with, and fully benefit from, the CGDI. It is reasonable to expect that additional resources, financial and otherwise, will be needed to continue the development of the CGDI coastalshred components, for example, investments in technology development (e.g., by Industry Canada, ACOA) and information management (e.g., by GeoConnections).

*ACZISC Secretariat
17 February 2009*