



Workshop Backgrounders 2003 OMRN National Conference



Integrated Management – Case Studies

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Offshore Oil and Gas Development: the Hibernia Project, Grand Banks, Newfoundland and Labrador

The Hibernia offshore oilfield was discovered in 1979. It is located about 300 km east southeast of St. John's, in 80 metres of water on the Grand Banks.

While government and communities generally saw the discovery of commercial volumes of oil as promising, there was also concern and apprehension about a wide range of social and economic issues, including the possible impacts on population change, crime, inflation, traditional industries, and the local culture and way of life.

The operator, Mobil Oil Canada, initiated a multi-year program of biophysical and socioeconomic studies ([Table 1](#), [Table 2](#)) and community information and consultation. The various studies and surveys provided information that was used in the project Environmental Impact Statement (EIS). The EIS described predicted socioeconomic and environmental effects, positive and negative, resulting from project construction and operation. It was subject to in-depth public and technical scrutiny under the guidance of an appointed federal/provincial public review panel in 1985. The project was officially approved to proceed by regulators in 1986.

The federal/provincial regulatory agency, the Canada-Newfoundland Offshore Petroleum Board, issued Development Application Guidelines in 1988. These have guided the assessment of all subsequent oil projects and are still in effect. They reflect community concerns about Hibernia and the approach adopted in addressing them. The operator has stated:

“The environmental and socioeconomic assessment and planning process has (now) become the benchmark and standard for industrial development in the Canadian frontier.” (Tsui, et al, 1998)”

While regulatory approval was given in 1986, financial and technical uncertainties delayed project sanction and commencement until 1990. During this time, communication and consultation continued between the operator and two groups - the communities close to the green-field offshore production platform construction site, and the fishing industry.

Some of the communities' concerns, and the associated analysis and predictions in the EIS, review panel recommendations and C-NOPB development approval conditions, were concerned with the prospective benefits, such as local employment and business opportunities. Others addressed such topics as potential in-migration, increased crime, and the demands on local social services and infrastructure.

The operator, government and communities put in place special mechanisms and initiatives to address these issues during preparations for, and over the six year life of, the platform construction project.

While there was a sense even in the early days that “fish and oil can work side by side,” the fishing industry nonetheless expressed serious concern about disruption to fishing activity on the Grand Banks from oilfield related vessel traffic and

sea floor debris. In the more confined fishing grounds of the platform construction area, where traditional small-boat inshore fisheries took place, there was even greater concern about possible loss of access to fishing grounds, interference and damage to gear.

A construction site Project Fisheries Agreement was negotiated that guaranteed no loss of fishing income and provided operational practices for both construction and fishing crews to enhance safety. Inshore fishers also participated in a construction site environmental effects monitoring program.

The Hibernia platform was completed in mid-1997 and began producing crude oil late the same year.

Several assessments of the socioeconomic effects predictions in the EIS have been made. An environmental effects monitoring program, designed with input from regulators and the interested public, continues offshore near the Hibernia platform and a petroleum industry/fishing industry liaison group has been established.

It has been stated that the Hibernia project's environmental and socioeconomic assessment and planning process is the benchmark - was it and/or is it also integrated management?

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TABLE 1

Cutting-Edge Environmental and Socioeconomic
Approaches to Working in the Frontier

Mobil Business Resources Corporation

Figure 2
Supporting Biophysical Studies for the Hibernia Environmental Impact Statement

	Title	Consultant	Date
1	Environmental Baseline Studies		
	Grand Banks Oceanographic Studies	MacLaren Plansearch	1981
	Grand Banks Wildlife Study	MacLaren Plansearch	1981
	Oil Spill Countermeasures Manual for the Coasts of Southeast Newfoundland	Woodward-Clyde Consultants	1981
	The Coastal Zone of the Avalon and Burin Peninsulas, Newfoundland: An Ecological Land Survey	Environment Canada	1981
	The Physical Environment of the Grand Banks	Seaconaut Limited	1982
	Microbiological Observations on the Grand Banks of Newfoundland	Department of Fisheries and Oceans	1983
	Grand Banks Oceanographic Study 1980 to 1981, Summary Notes, Mobil Workshop, March 30, 1983	Mobil Oil Canada, Ltd. and others	1983
	Assessment of Offshore Seabird Oil Mortality: Corpse Drift Experiment	Memorial University of Newfoundland	1983 1984
	Analysis of Benthic Samples from the Hibernia Oil Field, 1984	Hardy Associates (1978) Ltd.	1984
2	Environmental Impact Prediction Studies		
	Acute Toxicity of Hibernia Crude Oils to Selected Marine Invertebrates and Fish from Newfoundland Waters	Atlantic Biological Services, Ltd.	1981
	Oil Pollution Relevant Properties of Hibernia Oil	Martec Limited	1981
	Environmental Behavior of Two Crude Oils	Donald MacKay	1981
	The Mutagenicity of Hibernia Crude Oil	Memorial University of Newfoundland	1982
	A Review of Prospects for the Biofouling of Drilling or Production Structures off the Canadian Eastcoast with Particular Reference to Grand Banks	NORDCO Limited	1982
	The Physical Fate of Drilling and Production Discharges in the Hibernia Field	ASA Consulting	1984
	The Method for Environmental Impact Assessment Hibernia Project	Hardy Associates (1978) Ltd.	1984
3	Environmental Impact Mitigation Studies		
	A State-of-the-Art Review of Environmental Monitoring Technology for Offshore Oil and Gas Operations	Continental Shelf Associates, Inc.	1981
	Emissions to the Environment and Chemicals used in North Sea Offshore Oil and Gas Operations	Institute of Offshore Engineering, Heriot-Watt University	1982
	Oil Spill Countermeasures for the Production and Transportation of Hibernia Crude Oil	S.L. Ross Environmental Research Limited	1984
	Offshore Environmental Surveillance-Monitoring Program Design for the Hibernia Development	ShawMont Martec Limited	1982
	Offshore Environmental Monitoring - North Sea Experience	Institute of Offshore Engineering, Heriot-Watt University	1982
	Regulatory Requirements Related to the Environmental and Engineering Aspects of the Mobil Hibernia Development	Stirling, Ryan Barristers & Solicitors	1984

TABLE 2

Cutting-Edge Environmental and Socioeconomic
Approaches to Working in the Frontier

Mobil Business Resources Corporation

Figure 3
Supporting Socioeconomic Studies for the Hibernia Socioeconomic Impact Statement

Studies	Consultant	Year
Hibernia Industrial and Labour Demands	Atlantic Consulting Economists Ltd.	1984 1985
Business and Industry	Atlantic Consulting Economists Ltd.	1984 1985
Employment and Labour	Atlantic Consulting Economists Ltd.	1984 1985
Macro-Economic Impact	Infometrica Ltd.	1984 1985
The Provincial Economy	Atlantic Consulting Economists Ltd.	1984 1985
Demography	Community Resource Services, Ltd.	1984 1985
Housing	Consult Associates Ltd.	1984 1985
Community Services and Social Infrastructure	IDP Consultants Ltd.	1984 1985
Public Services, Commercial and Industrial Infrastructure	Colin Karasek Ltd. Bond Architect & Engineers Ltd. D. W. Knight	1984 1985
Land and Resource Use	CBCL Ltd.	1984 1985
Municipal Government and Finances	Consult Associates Ltd.	1984 1985
Fish and Fisheries	NORDCO Ltd.	1984
Newfoundland Attitudes	Research Associates	1984
Newfoundland Social Fabric	IDP Consultants Ltd.	1984