



**Affaires autochtones et
Développement du Nord Canada**

**Aboriginal Affairs and
Northern Development Canada**



Introduction

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February 2015



Background

- Beaufort Sea is rich in petroleum resources
- This represents a significant portion of the Economic potential of Canada's North
- This region's lands are part of the ISR, communities represented by IGC
- IGC raised concerns about preparedness for offshore oil and gas development, requested a strategic environmental assessment





BSStRPA (2008)

- Beaufort Sea Strategic Regional Plan of Action
- Was designed to Plan and prepare for oil and gas development from Mackenzie Gas Project
 - Improving regulatory efficiency and effectiveness
 - Optimizing benefits and mitigating environmental, social, and cultural impacts
 - Planning for uncertainty
- 23 issues, 32 recommendations, 50 specific actions
- BREa announced in August 2010 based on recommendations



Beaufort Regional Environmental Assessment (BREA)

\$21.8 M (2011-2015)

- Prepare for oil and gas activity in the Beaufort Sea
- BREA is a unique partnership that includes:
 - Inuvialuit
 - Industry
 - Governments
 - Regulators
 - Academia
- BREA is a regional initiative to support efficient and effective regulatory decisions for offshore oil and gas activities



BREA Goals

- To Advance community priorities for oil and gas preparedness
- To Fill information and data gaps to support regulatory decisions
- To Simplify future project-level environmental assessments
- To Support integrated management and planning





BREA Scope & Work Plans

- Engaged early with partners
 - Consultation ahead of forecasted oil and gas activities
 - Define priority areas
 - Define program scope
- Twenty-three (23) research projects and six (6) working groups
- BREA project led by best-placed organizations
 - Federal departments
 - Inuvialuit organizations
 - Industry
 - Academia





BREA Research Priority Areas

- i. Baseline fish information (3)
- ii. Coastal and marine birds (2)
- iii. Bird, fish, and marine mammal information (1)
- iv. Worst-case environmental design limits for ice (1)
- v. Sea ice types and extreme ice features (7)
- vi. Coupled ocean-ice-atmosphere modeling and forecasting (4)
- vii. Offshore geohazards and coastal processes (2)
- viii. Web-based geospatial analysis tool (1)
- ix. Community priorities (2)



BREA Research Program

Southern and Northeastern Beaufort Sea Marine Observatories

Active Acoustic Mapping of Fish in the Beaufort Sea

Quantifying Sea Ice Dynamics in the Beaufort Sea

Characterizing Deformed Multi-Year Ice in the Beaufort Sea

Web-Based Geospatial Analysis Tool

Distribution and Thickness of Different Sea Ice Types and Extreme Ice Features in the Beaufort Sea

Fishes, Habitats, and Ecosystem Linkages to Oil and Gas Development in the Beaufort Sea
Beaufort Sea Engineering Database

Bird Usage of the Coastal Regions of the Canadian Beaufort Sea

Overwintering in the Beaufort: Assessing Damage Potential to Vessels

Radarsat Mapping of Extreme Ice Features in the Southern Beaufort Sea

Regional Synthesis of Coastal Geoscience for Management of Beaufort Oil and Gas Activity

Biological Data to Assess the Net Environmental Benefits and Costs of Dispersants and In-Situ Burning in Oil Spill Response

Polar Bears in the Deep Offshore Regions of the Beaufort Sea

Forecasting Extreme Weather and Ocean Conditions in the Beaufort Sea

Modeling of Freshwater Flows to the Beaufort Sea

Regional Coastal Monitoring in the Inuvialuit Settlement Region

Regional Assessment of Deep Seabed Geohazards for Oil Spill Prevention

Baselines, Accumulation, Cycling, and Potential Effects of Hydrocarbons in Beaufort Sediments and Biota

CanICE: A Sea Information Database and Web-Based Portal

Seasonal Forecasting of Ocean and Ice Conditions in the Beaufort Sea

Birds of the Offshore Canadian Beaufort Sea

Delineation of Extreme Ridges in High Resolution Satellite-Based Radar Imagery





BREA Working Groups

- i. Cumulative Effects Working Group
- ii. Climate Change Working Group
- iii. Social, Cultural, and Economic Indicators Working Group
- iv. Oil Spill Preparedness and Response Working Group
- v. Waste Management Working Group
- vi. Information Management Working Group





Communicating BREA Results

- BREA Website www.beaufortrea.ca
- Inuvialuit Settlement Region
 - BREA Day (Dec 2011)
 - Community tours (June 2012 & March 2014)
 - Mid-term Results Workshop (Feb 2013)
 - BREA Research Results Forum (Feb 2015)
- Public Events
- BREA Final Report (2011–2015)

