Cumulative effects of marine shipping

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Cumulative Effects of Marine Shipping

Paula Doucette
Transport Canada
Salish Sea 2018
What is the issue?

There have been heightened concerns around increases in marine shipping and other vessel activities having impacts on coastal and marine ecosystems and traditional ways of life.

Concerns have been heard through:

- Indigenous / Public consultations
- Environmental Assessments of Energy / Resource extraction / Infrastructure Projects
What is “Cumulative Effects of Marine Shipping?”

Outcomes of this Initiative:

- Data mining/collection (environmental, cultural, Indigenous use, marine vessel activities)

- Development of a national cumulative effects assessment framework for marine shipping

- Regionally specific tools that can be applied to existing vessel movements/future project developments
Where is “Cumulative Effects of Marine Shipping”?  
Rolled out nationally with study locations proposed on all three coasts:  
- North Coast, British Columbia  
- South Coast, British Columbia  
- St. Lawrence River, Quebec  
- Bay of Fundy, New Brunswick  
- South Coast, Newfoundland  
- Nunavut, Arctic
Collaborators in the Initiative

- Indigenous Nations
- Coastal communities
- Port Authorities
- ENGO’s
- Marine science organizations/Academics
- Industry
- Other Government Departments
- Transboundary groups
Key Activities

- **Identify** key stressors. **Identify** factors to consider in the selection of appropriate geographic and temporal boundaries. **Identify** potential impacts to Indigenous use.
- **Initiate** the development of the Cumulative Effects Assessment Framework for Marine Shipping.

**Phase 1** 2017-2018

- **Identify** key stressors. **Identify** factors to consider in the selection of appropriate geographic and temporal boundaries. **Identify** potential impacts to Indigenous use.

**Phase 2** 2018-2020

- **Collect** and **combine** existing regional vessel, environmental, cultural and Indigenous use data. Finalize the selection of valued components and boundaries.
- **Determine** the linkages between the identified shipping stressors and selected valued components.

**Phase 3** 2020-2021

- **Finalize** the Cumulative Effects Assessment Framework for Marine Shipping and application of the framework to the pilot sites.

**Phase 4** 2021-2022

- **Identify** tools and strategies to mitigate the potential effects of marine shipping.
What we’ve heard so far (draft):

In what ways do you think maritime activities affect the environment?

**Marine Vessel Activities**

- Log Booming
- Dredging / Disposal at Sea
- Anchoring
- Grounding / Wrecking
- Discharge: Operational
- Discharge: Accidental
- Movement Underway
- Harvesting

**Stressors**

- Substrate Disturbance, Light, Noise, Vibration, Aquatic Invasive Species / Pathogens, Entanglement, Visual quality
- Aquatic Invasive Species, Pathogens, Debris, Oils, Grey water, Chemicals, Contaminants, Emissions, Sewage, Nutrient Enrichment, Salinity, Climate Change
- Substrate Disturbance, Light, Noise, Vibration, Aquatic Invasive Species, Pathogens, Wake/Wash, Erosion, Strikes, Ice-breaking, Entanglement, Visual Quality, Disruption to navigation
- Hydrology, Erosion, Sediment Accretion, Wood debris, Contamination
- Substrate Disturbance, Light, Noise, Aquatic Invasive Species, Debris, Cargo release
- Oil spill/Contaminants, Cargo release, Substrate Disturbance, Emissions
- Disruption to navigation, Wake/Wash, Loss of gear
Engagement to date:

- **Indigenous Workshops**
  - BC: Victoria, Nanaimo, Prince Rupert
  - St. Lawrence: Quebec City
  - Arctic: Cambridge Bay, Iqaluit
  - Bay of Fundy: Moncton

- **Dialogue Forums**
  - BC: Vancouver, Prince Rupert
  - St. Lawrence: Quebec City
  - Arctic: Cambridge Bay, Iqaluit
  - Bay of Fundy/Newfoundland: St. John’s

- **Other**
  - ENGO Forums, Provincial/Port Authorities, Industry meetings, Technical workshops, “Let’s Talk OPP”
Developing the Cumulative Effects Framework

Planning for a **National technical workshop** in Fall 2018 to seek input and discuss:

- Interactions between marine stressors and valued components.
- Potential management objectives based on above interactions.
- Potential assessment methodologies.

Please let us know if you feel you have **technical expertise** and would like to participate.
Point of Contact for this Initiative:

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https://letstalktransportation.ca/understanding-the-effects-of-marine-vessel-activity-on-coastal-environments