Mary River Project
ᓄᓗᔮᓂ ᐅᔭᕋᖅᓯᐅᖅᑐᑦ ᐱᔾᔪᑎᒋᓪᓗᒋᑦ

Baffinland Iron Ore Mines
ᐸᕕᓐᓚᓐ ᓴᕕᕋᔭᒃᒥᒃ ᐅᔭᕋᖅᓯᐅᖅᑐᑦ

Nunavut Impact Review Board
ᓄᓇᕗᑦᒥ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ

Public Hearing
ᐃᓄᒃᓂᒃ ᑲᑎᒪᑦᑎᓂᖅ

Iqaluit, Nunavut
ᐃᖃᓗᐃᑦ, ᓄᓇᕗᑦ

July 16-18, 2012
ᔪᓚᐃ 16- 18, 2012

Canada

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ᑕᑯᔭᐃᓐᓇᓂᕐᓗᒍ

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   ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑐᕋᒐᖕᒋᑦ ᐊᒻᒪᓗ ᐱᖁᔭᑎᒍᑦ

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Mandate and Responsibility
ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᐊᑐᕆᐊᖃᕐᑕᖓᑦ ᐊᒻᒪᓗ ᐱᓕᕆᐊᒃᓴᐅᔪᑦ ᑲᒪᒋᔭᐅᔪᑦ

- Responsible for seacoast and inland fisheries, specifically for the management and protection of fish, marine mammals and their habitat.

ᐱᓕᕆᐊᒃᓴᖃᕐᑐᑦ ᓯᒃᔭᒥᑦᑐᓂᒃ ᐊᒻᒪᓗ ᓄᓇᒥᑦᑐᓂᒃ ᐃᖃᓗᖃᕐᑐᓂᒃ, ᐊᐅᓚᑦᑎᓪᓗᑎᒃ ᐊᒻᒪᓗ ᓴᐳᑎᔨᒪᔭᐅᓪᓗᑎᒃ ᐃᖃᓗᐃᑦ, ᑕᕆᐅᕐᒥᐅᑕᐃᑦ ᐳᐃᔩᑦ ᐊᒻᒪᓗ ᐃᓂᒋᔭᖏᑦ.

- DFO is responsible for the administration and enforcement of the Federal *Fisheries Act* and *Species at Risk Act*

ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᐱᓕᕆᐊᒃᓴᖃᕐᑐᑦ ᐊᐅᓚᑦᑎᓪᓗᑎᒃ ᐊᑐᕐᑎᑦᑎᓪᓗᑎᒃᓗ ᒐᕙᒪᑐᖃᒃᑯᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐱᖁᔭᖏᑦ ᐊᒻᒪᓗ ᐅᒪᔪᐃᑦ ᐊᑦᑕᕐᓇᕐᑐᒥᑦᑐᑦ ᐱᖁᔭᖏᑦ

Habitat Management Program
ᐃᓂᒋᔭᖏᓐᓂ ᐊᐅᓚᕐᑎᓂᖅ ᐊᑐᕐᑕᐅᔪᑦ

- *Fisheries Act* ᐃᖃᓗᓕᕆᓂᐅᑦ ᐱᖁᔭᖏᑦ
  - Policy for the Management of Fish Habitat
    ᐊᑐᐊᒐᐅᔪᑦ ᐊᐅᓚᕐᑎᓂᕐᒧᑦ ᐃᖃᓗᐃᑦ ᐃᓂᒋᔭᖏᓐᓂ
- *Species at Risk Act* ᐅᒪᔪᐃᑦ ᐊᑦᑕᕐᓇᕐᑐᒥᕐᑐᑦ ᐱᖁᔭᐃᑦ
- *Nunavut Land Claims Agreement, Article 12* (NIRB Process)
  ᓄᓇᕗᑦ ᓄᓇᖏᓐᓂᒃ ᐱᓯᒪᓂᕐᒧᑦ ᐊᖏᖃᑎᒋᒍᑎ, ᑎᑎᕐᓯᒪᔪᖅ 12 (ᓄᓇᕗᒥ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᐊᐅᓚᓂᖏᑦ)

Regulatory Role ᐱᖁᔭᑎᒍᑦ ᐱᓕᕆᐊᒃᓴᖃᕐᓂᖏᑦ

Fisheries Act: ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐱᖁᔭᐃᑦ

- *s.35 – prohibits the harmful alteration, or disruption or the destruction (HADD) of fish habitat unless authorized ᑎᑎᕋᖅᓯᒪᔪᖅ 35 - ᐱᔪᓐᓇᖁᑎᑕᐅᖏᓐᓂᖏᑦ ᐱᐅᔪᓐᓂᕈᑕᐅᓴᕐᑐᑦ ᐊᓯᓪᓚᐅᑎᔪᕐ, ᐃᓚᖁᓯᕐᓱᕈᓐᓂᕐᓂᖅ ᐅᕙᓗᓐᓂᑦ ᓱᕋᕐᑎᓂᖅ ᐃᖃᓗᐃᑦ ᐃᓂᒋᔭᖏᓐᓂ ᑭᓯᐊᓂ ᐊᖏᕐᑕᐅᓯᒪᒍᑎᒃ*

- *s.20 – safe fish passage ᑎᑎᕋᖅᓯᒪᔪᕐ 20- ᐃᖃᓗᐃᑦ ᐊᕐᑯᑕᓂ ᐊᒃᕕᐊᕐᑐᖃᓇᐊᖃᖏᓐᓂᖅ*

- *s.22 – sufficient flows ᑎᑎᕋᖅᓯᒪᔪᕐ 22- ᑯᒃᓂᖓ ᓇᒻᒪᒋᐊᖃᕐᓂᖓ*

- *s.30 – intakes screens and fishguards ᑎᑎᕋᖅᓯᒪᔪᕐ 30- ᑭᓚᓇᓚᒥᒃ ᐃᓪᓚᓇᓯᒪᓂᖓ ᐊᒻᒪᓗ ᐃᖃᓗᖃᔾᔭᐃᒃᑯᑎᑦ*

- *s.32 – prohibits destruction of fish by means other then fishing ᑎᑎᕋᖅᓯᒪᔪᕐ 32- ᐱᔭᓇᐊᖃᖏᑎᕐᑎᓂᖅ ᐃᖃᓗᐃᑦ ᑐᖁᑕᐅᓂᖏᑦ ᐃᖃᓗᓚᓱᒃᑕᐅᖏᑎᓪᓗᒋᑦ*

- *s.36 – prohibits the deposit of a deleterious substance, unless authorized ᑎᑎᕋᖅᓯᒪᔪᕐ 36- ᐱᔭᓇᐊᖃᖏᑎᕐᑎᓂᖏᑦ ᑯᕕᓯᓗᓂ ᐃᓚᓯᓗᓂᓗᓐᓂᑦ ᓱᕈᕐᓇᕐᑐᓂᒃ, ᑭᓯᐊᓂ ᐊᖏᕐᑕᐅᓯᒪᒍᓂ*

Policy for the Management of Fish Habitat
ᐊᑐᐊᒐᐅᔪᑦ ᐊᐅᓚᕐᑎᓂᕐᒧᑦ ᐃᖃᓗᐃᑦ ᐃᓂᒋᔭᖏᓐᓂ

- Overall objective is the ***Net Gain*** of fish habitat
  ᑕᑯᔭᐃᓐᓇᕆᓐᓗᒍ ᑐᕋᒐᐅᔪᑦ ***ᐊᒥᐊᒃᑯᖃᕆᐊᖅᓂᖓ*** ᐃᖃᓗᐃᑦ ᐃᓂᒋᔭᖏᓐᓂ
- Achieved through three goals
  ᐱᔭᐅᔪᓐᓇᖅᑐᑦ ᐱᖓᓱᓗᑎᒃ ᑐᕋᒐᐅᔪᑦ:
  - Conservation, using a risk-based approach and the principle of No Net Loss ᓄᖑᑦᑕᐃᓕᒪᔪᑕᐅᔪᑦ, ᐊᑐᖅᓗᒋᑦ ᐊᑦᑕᕐᓇᖏᑦᑐᒃᑯᑦ ᐊᒻᒪᓗ ᑐᕋᖃᕐᓗᓂ ᐊᒥᐊᒃᑯᖏᑦ ᓄᖑᕐᑯᓇᒋᑦ
  - Restoration ᓴᓗᒻᒪᖅᓴᕐᑕᐅᓗᓂ ᐅᑎᑦᑎᑕᐅᓗᓂ
  - Development ᐱᕙᓪᓕᐊᑎᑦᑎᓂᖅ

Intervention Comments
ᑭᐅᔪᑎᖏᑦ ᐅᖃᐅᓯᒃᓴᖏᑦ

1. Shipping Route ᐅᒥᐊᕐᔪᐊᑦ ᐊᕐᕐᑯᑕ
2. Ballast Water ᐃᒃᑕᕐᑯᑎᖓ ᐃᒥᖅ ᐅᒥᐊᕐᔪᐊᑦ
3. Thresholds ᑭᒃᓕᒋᔭᖏᑦ
4. Interactions with Marine Mammals ᐊᒃᑐᕐᑕᐅᒐᔭᕐᓂᖏᑦ ᐳᐃᓱᑦ
5. Vessel Traffic/Icebreaking ᐅᒥᐊᕐᔪᐊᑦ ᐃᖏᕋᑕᒃᓂᖏᑦ/ᓯᑯᓯᐅᕐᓂᖏᑦ
6. Ship Noise and Strikes ᐅᒥᐊᕐᔪᐊᑦ ᓂᐱᖏᑦ ᐊᒻᒪᓗ ᑐᓗᕐᑕᖏᑦ
7. Oil Spill ᐅᕐᓱᐊᓗᒃᒥᒃ ᑯᕕᔪᑦ
8. Cumulative Effects Assessment ᑲᑎᑉᐸᓪᓕᐊᓯᒪᔪᑦ ᐃᒃᐱᒃᓇᐅᑎᔪᑦ ᖃᐅᔨᒪᔭᐅᓇᓱᒃᓂᖏᑦ
9. Fish Habitat No Net Loss Plan ᐃᖃᓗᐃᑦ ᐃᓂᒋᔭᖏᑦ ᐊᒥᐊᑯᖃᕐᑯᓪᓗᒋᑦ ᐸᕐᓇᐅᑎᖏᑦ 9
10. Monitoring and Adaptive Management ᖃᐅᔨᒪᓇᓱᒃᑕᐅᓂᖓ ᐊᒻᒪᓗ ᐊᕿᒋᐊᖃᕐᑐᑦ ᐊᐅᓚᑕᐅᓂᖏᑦ

Other Intervention Comments
ᐊᓯᖏᑦ ᑭᐅᔪᑎᖏᑦ ᐅᖃᐅᓯᒃᓴᖏᓪᓗ

1. Fish Passage ᐃᖃᓗᐃᑦ ᐊᕐᕐᑯᑎᖏᑦ ᓇᐅᑯᖃᑦᑕᕐᓂᖏᑦ
2. Use of Explosives ᐊᑐᕐᑕᐅᓂᖏᑦ ᖃᕈᑎᑦ
3. Ship Wake Effects ᐅᒥᐊᕐᔪᐊᑦ ᒪᓪᓕᕐᑎᑦᑎᓂᖏᑕ ᖃᓄᐃᔪᑕᐅᓂᖏᑦ
4. Sediment Redistribution ᑲᑕᒐᕐᑐᑦ ᓇᒧᖕᒐᐅᕙᓪᓕᐊᓂᖏᑦ
5. Aircraft Noise ᖃᖕᒐᑕᓲᑦ ᓂᐱᖏᑦ
6. Marine Fish and Benthos ᑕᕆᐅᕐᒥᐅᑕᐃᑦ ᐃᖃᓗᐃᑦ ᐊᒻᒪᓗ ᐅᒪᔪᐊᕈᓯᑦ ᖁᐱᕈᐊᕐᔪᐃᑦ
7. Biophysical Environmental Management Plans ᐅᒪᔪᐃᑦ ᓇᔪᕐᑕᖏᑕ ᐊᕙᑎᖓ ᐊᐅᓚᑕᐅᓂᖓᓄᑦ ᐸᕐᓇᐅᑎᑦ

1. Shipping Route ᐅᒥᐊᕐᔪᐊᑦ ᐊᖅᑯᑕ

Baffinland Conclusions ᐸᕚᓐᓚᒃᑯᑦ ᑭᖑᓪᓕᕐᐸᕐᓯᐅᑎᖏᑦ ᐅᖃᐅᓯᒃᓴᖏᑦ

- With the assumption that environmental conditions along the route are understood, the final Environmental Impact Statement concludes that year-round shipping is possible.
- ᐃᓱᒪᒋᔭᐅᓪᓗᓂ ᑐᑭᓯᐅᒪᔭᐅᓇᓱᒋᓪᓗᒍ ᐊᕙᑎᖓᓂᕐᑐᑦ ᐅᒥᐊᕐᔪᐊᑦ ᐊᖅᑯᑕᓂ, ᑭᖑᓪᓕᕐᐸᒥᒃ ᐊᕙᑎᖓᓄᑦ ᐃᒃᐱᒃᓇᐅᑎᔪᑦ ᐅᓂᒃᑲᖏᑦ ᑭᖑᓪᓕᕐᐸᖓᓂ ᐅᖃᕐᓯᒪᒃᒪᑕ ᐊᕐᒍ ᐃᓗᐊᓂ ᐊᐅᓚᐃᓇᕐᓗᑎᒃ ᐅᒥᐊᕐᔪᐊᑦ ᐱᔭᒃᓴᐅᓂᖓᓂᒃ.

DFO's Analysis ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᖃᐅᔨᓴᕐᓗᑎᒃ ᐃᒪᐃᓕᖔᕐ.

- The proposed shipping route is unprecedented.
- ᐅᒥᐊᕐᔪᐊᑦ ᐊᖅᑯᑎᒋᓂᐊᕐᑕᖓ ᐊᔾᖃᖏᑦᑐᖅ ᐊᑐᕐᑕᐅᓚᐅᕐᓯᒪᖏᑦᑐᖅ.
- Potential route deviations and their relative effects on fish, marine mammals and their habitat need to be further considered
- ᐊᓯᐊᒍᑦ ᐊᖅᑯᑎᖃᓐᓇᐊᒃᓴᖅ ᐊᒻᒪᓗ ᐃᒃᐱᒃᓇᐅᑎᔪᑦ ᐃᖃᓗᒃᓄᑦ,ᐳᐃᓯᓄᑦ ᐃᓂᒋᔭᖏᓐᓄᓪᓗ ᐃᓱᒪᒋᔭᐅᒃᑲᓐᓂᕆᐊᖃᕐᑐᖅ

1. Shipping Route ᐅᒥᐊᕐᔪᐊᑦ ᐊᖅᑯᑕ

DFO Recommendations ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐊᑐᖁᔭᖏᑦ:

a. Need to identify locations along the shipping route that may necessitate the use of route deviations to address safety concerns and/or support the mitigation of impacts to marine mammals.

ᐃ. ᓇᓗᓇᐃᕐᓯᔭᓇᐊᖃᕐᑐᑦ ᓇᐅᑯᖕᖓᓂᐊᕐᒪᖕᖓᑕ ᐅᒥᐊᕐᔪᐸᑦ ᐊᖅᑯᑎᖕᖓ ᐊᓯᓪᓕᓇᐊᖃᕈᓂ ᐊᑦᑕᕐᓇᕐᓂᖅᑕᐅᔪᓂ ᐊᒻᒪᓗ/ᐅᕙᓗᓐᓂᑦ ᐃᑲᔪᕐᑕᐅᓗᑎᒃ ᐊᖅᑭᒋᐊᕐᓯᔭᓇᐊᖃᕈᑎᒃ ᐃᒃᐱᒃᓇᐅᑎᔪᓄᑦ ᐳᐃᓯᓄᑦ

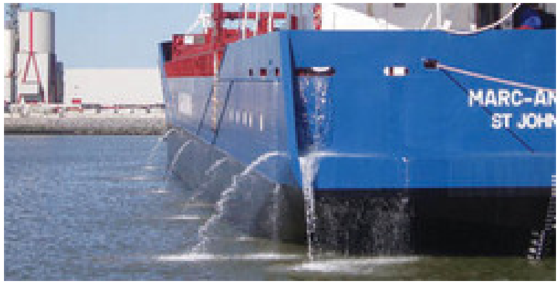
b. Use vessel monitoring devices to allow tracking of vessels.

ᐱ. ᐅᑐᕐᑕᐅᓂᖏᑦ ᐅᒥᐊᕐᔪᐊᒥ ᖃᐅᔨᓴᕈᑎᑦ ᓇᒧᖕᖓᐅᕙᓪᓕᐊᒻᒪᖕᖓᑦ ᑎᑎᕋᕐᑕᐅᕙᓪᓕᐊᓗᓂ ᐅᓂᐸᕐᔪᐊᑦ

2. Ballast Water ᐅᒥᐊᕐᔪᐊᑦ ᐃᒃᑕᕐᑯᑕ ᐃᒥᖅ

Baffinland Conclusions ᐸᕕᓐᓚᒃᑯᑦ ᐃᒪᐃᓕᕗᑦ:

- 17.1 million cubic meters of ballast water will be discharged annually but will not alter the quality of water in Steensby Inlet.
- 17.1 ᒥᓕᐊᓐ ᑭᐸᕆᒃᓗᒍ ᒥᑕ ᐃᒪᕐᒥᒃ ᐃᒃᑕᕐᑯᑎᖃᖅᑕᕐᓂᐊᕐᑐᑦ ᑯᕕᔭᐅᕚᒃᓗᓂᓗ ᐊᕐᒍᑕᒫᑦ ᑭᓯᐊᓂ ᐃᒪᐅᑦ ᐱᐅᓂᖓᓂᒃ ᓱᕐᕈᑎᔾᔮᐊᖏᑦᑐᖅ ᑲᖏᕐᓘᒃᔪᐊᕐᒥ.



DFO's Analysis ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᖃᐅᔨᓴᕐᓂᖏᑦ:

- The large and persistent lens of foreign water may result in reduced benthic productivity particularly during open-water periods.
- ᐊᖏᓈᕐᓂᖓᓄᑦ ᐊᒻᒪᓗ ᐱᑕᖃᐃᓐᓇᓕᕈᓂ ᐊᓯᐊᓂᖓᕐᑐᖅ ᐃᒥᖅ ᐱᓚᕿᔾᔪᑎᑐᐃᓐᓇᕆᐊᓕᒃ ᐅᒪᔪᐊᕈᓯᑦ ᐊᓯᓪᓕᕐᑕᐅᓗᑎᒃ ᐃᓘᐊᕐᑐᒥᒃ ᐃᒪᐃᓇᐅᑎᓪᓗᒍ.
- There is a potential for introduction and successful establishment of non-native species in the waters of northern Foxe Basin.
- ᓴᕿᔪᑕᐅᑐᐃᓐᓴᓇᐊᓕᒃ ᐊᒻᒪᓗ ᐃᑕᖅᓕᕐᑎᑦᑎᑐᐃᓐᓇᓇᐊᓕᒃ ᑕᒪᓂᕐᒥᐅᑕᐅᖏᑦᑐᓂᒃ ᐅᒪᔪᐊᕈᓯᕐᓂᒃ ᐃᒪᖓᓂ ᑕᓇᐅᖓᓂ ᐃᒃᓗᓕᐅᑦ.

2. Ballast Water ᐅᒥᐊᕐᔪᐊᑦ ᐃᒃᑕᕐᑯᑕ ᐃᒥᖅ

DFO Recommendations ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐊᑐᕐᑯᔭᖏᑦ:

a. Ballast water treatment options.
ᐃᒃᑕᕐᑯᑕᐅᔪᖅ ᐃᒥᖅ ᓴᓗᒻᓴᕐᑕᐅᓚᐅᑲᖃᑦᑕᕐᓗᓂ

b. A contingency plan should be developed in the event that ballast water exchange or treatment is not effective.
ᖃᓄᐃᓕᔪᖃᕐᓂᕈᓂ ᐸᕐᓇᐅᑎ ᐊᕿᒃᑕᐅᔭᕆᐊᖃᕐᑐᖅ ᐃᒃᑕᕐᑯᑎ ᐃᒥᖅ ᐊᓯᖓᓕᕐᑕᐅᓇᓱᒃᑎᖓᓗᒍ ᐅᕙᓗᓐᓂᑦ ᓴᓗᒻᒪᕐᓴᐃᔪᑎ ᐱᕐᑯᖏᑲᓪᓚᒃᐸᑦ.

c. Baffinland develop a detailed monitoring program to detect any negative impacts on marine biota from ballast water discharge.
ᐸᕕᓐᓚᒃᑯᑦ ᐊᕿᒃᓯᓗᑎᒃ ᐃᓗᓕᖅᑲᐅᕐᑐᒥᒃ ᖃᐅᔨᒪᓇᓱᒃᓂᕐᒥᒃ ᐊᐅᓚᓂᖕᒐᓂᒃ ᖃᐅᔦᔭᐅᖃᑦᑕᕐᑯᓪᓗᒋᑦ ᐃᒃᐱᒃᓇᐅᑎᔪᑦ ᐱᐅᖏᑦᑐᓪᓗᓐᓂᑦ ᑕᓇᐅᕐᒥᐅᑕᓄᑦ ᐃᒃᑕᕐᑯᑕᐅᔪᖅ ᐅᒥᐊᕐᔪᐊᕐᒧᑦ ᑯᕕᔭᐅᖃᑦᑕᕐᑎᓪᓗᒍ.

d. Baffinland develop a detailed monitoring plan for fouling.
ᐸᕕᓐᓚᒃᑯᑦ ᐊᕿᒃᓯᓗᑎᒃ ᐃᓗᓕᖅᑲᐅᕐᑐᒥᒃ ᖃᐅᔨᒪᓇᓱᒃᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᒥᒃ ᐱᐅᔭᓂᕐᑐᖃᕐᓂᕈᓂ.

3. Thresholds ᑭᒡᓕᒋᔭᖕᒋᑦ

Baffinland Conclusions ᐸᕳᓐᓚᒃᑯᑦ ᐅᖃᕐᓂᖕᒋᑦ:

- The rationale for selection of threshold values used in the final Environmental Impact Statement was based on past use for other projects.
- ᐱᔾᔪᑎᖃᕐᑐᑦ ᑭᒡᓕᖕᒋᑕ ᖃᓄᐃᑦᑐᓂᖕᒋᓐᓂᒃ ᐊᕿᒃᓯᓯᒪᓪᓗᑎᒃ ᐊᑐᕐᑕᐅᔪᑦ ᑭᖑᓪᓕᕐᐸᒥᒃ ᐊᔭ+ᓕᕆᓂᕐᒧᑦ ᐃᒃᐱᒃᓇᐅᑎᔪᓄᑦ ᐅᓂᒃᑲᖕᒋᓐᓂ ᒪᓕᒃᓯᒪᓪᓗᑎᒃ ᑭᖑᓂᖓᑦᑎᓐᓂ ᐊᑐᕐᑕᐅᓚᐅᕐᑐᑦ ᐊᓯᖕᒋᓐᓄᑦ ᐱᓕᕆᐊᖑᓪᓗᑎᒃ.

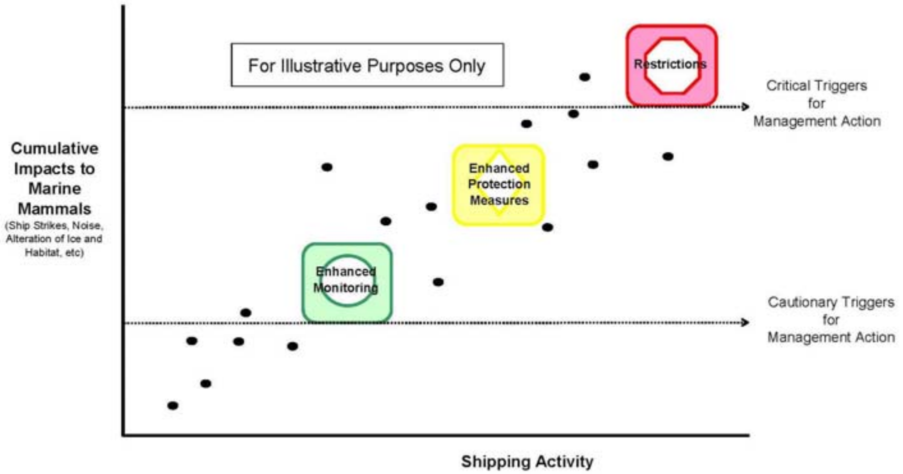
DFO's Analysis ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᖃᐅᔨᓴᕐᓂᖕᒋᑦ:

- The rationale for choosing thresholds needs to be supported by a robust scientific analysis and the proposed thresholds must be measurable.
- ᐱᔾᔪᑎᒋᔭᖕᒋᑦ ᐊᕿᒃᓯᔪᑕᐅᔪᑦ ᐃᑲᔪᕐᑐᕐᑕᐅᔭᕆᐊᓕᑦ ᑭᒡᓕᓯᓂᐊᕐᑎᒃᑯᑦ ᖃᐅᔨᓴᕐᓗᑎᒃ ᑭᒡᓕᒋᕙᔭᕐᑕᖕᒋᓐᓂᒃ ᐅᒃᑐᕝᕙᒃᓴᐅᓗᓂᓗ.

3. Thresholds ᑭᒃᓕᒋᔭᖏᑦ

DFO Recommendations
ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᐊᑐᕐᑯᔭᖏᑦ:

- Baffinland should provide science-based thresholds in the proposed adaptive management plan, which are supported by quantitative analyses and include power analysis of monitoring efficacy.
- ᐸᕖᓐᓚᒃᑯᑦ ᓴᕿᑎᑦᑎᓗᑎᒃ ᑭᒃᓕᓯᓂᐊᕐᑎᓂᑦ ᐊᕿᒃᑕᐅᓯᒪᔪᒥᒃ ᑭᒃᓕᖏᓐᓂᒃ ᐊᕿᒋᐊᕐᑕᐅᔭᕆᐊᖃᕐᑐᑦ ᐊᐅᓚᔪᑕᐅᒐᔭᕐᑐᑦ ᐸᕐᓇᐅᑎᖏᓐᓂ ᐃᑲᔪᑕᐅᓗᑎᒃ ᐊᖏᓇᕐᑎᒋᓗᒍ ᖃᐅᔨᓴᕐᓯᒪᔪᓂᒃ ᐊᒻᒪᓗ ᖃᐅᔨᓴᕐᑕᐅᓯᒪᓗᓂ ᖃᐅᔨᒪᓇᓱᑕᐅᔪᑦ ᐊᐅᓚᓂᓇᒐᔭᕐᑕᖏᑦ ᐊᑐᕐᑕᐅᒐᔭᕐᑐᑦ.



4. Interactions with Marine Mammals ᐊᒃᑐᕐᑕᐅᒐᔭᕐᓂᖏᑦ ᐳᐃᓯᑦ

Baffinland Conclusions ᐸᕕᖓᓚᒃᑯᑦ ᐅᖃᕐᓂᖏᑦ:

- The final Environmental Impact Statement does not predict any significant negative effects on marine mammals from shipping. Monitoring and adaptive management measures would be applied if and when a negative interaction was identified.
- ᑭᖑᓪᓕᕐᐸᒥᒃ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᐃᒃᐱᒃᓇᐅᑎᒐᔭᕐᑐᑦ ᐅᓂᑲᕐᓯᒪᔪᑦ ᐅᖃᕐᓯᒪᖕᒋᓪᓚᑕ ᖃᓄᐃᔪᑕᐅᒐᔭᕐᒪᖔᑦ ᖃᓄᐃᔪᑕᐅᔾᐳᐊᖏᓐᓂᕿᐃᓯᒪᒃᓚᑕ ᐳᐃᓴᓄᑦ ᐅᒥᐊᕐᔪᐊᕐᖃᖃᑦᑕᕿᓗᐊᕈᓂ. ᖃᐅᔨᒪᓇᓱᒃᑕᐅᔪᓇᐊᓕᒃ ᐊᒻᒪᓗ ᐊᖅᑭᐊᕈᑎᒃᓴᐃᑦ ᐊᐅᓚᔪᑕᐅᒐᔭᕐᑐᑦ ᐊᑐᓕᕐᑎᑕᐅᓗᑎᒃ ᐱᐅᔪᓐᓂᕈᑕᐅᓐᓂᕈᓂ ᐳᐃᓴᓄᑦ.

DFO's Analysis ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᖃᐅᔨᓴᕐᓂᖏᑦ:

- Without conducting additional baseline studies and the implementation of additional mitigation measures, the analysis does not support a conclusion of negligible impacts of shipping.
- ᐱᑕᖃᖕᒋᑎᓪᓗᒍ ᖃᐅᔨᓴᕐᑕᐅᓯᒪᔪᓂᒃ ᐱᕆᐊᕐᕕᐅᔪᓐᓇᕐᑐᓂᒃ ᐊᒻᒪᓗ ᐊᖅᑭᐊᕈᑎᒃᓴᐃᑦ ᓇᓗᓇᐃᕐᓯᒪᖕᒋᑎᓪᓗᒋᑦ, ᖃᐅᔨᓴᕐᓂᖏᑦ ᐃᑲᔪᕐᑐᐃᔪᓐᓇᖕᒋᑦᑐᑦ ᐃᒃᐱᒃᓇᐅᑎᒐᖕᒋᓐᓂᖓᓂᒃ ᐅᒥᐊᕐᔪᐊᕐᑕᖃᖃᑦᑕᓕᕐᐸᑦ.

4. Interactions with Marine Mammals ᐊᒃᑐᕐᑕᐅᒐᔾᕐᓂᖅᒋᑦ ᐳᐃᔨᑦ

DFO's Analysis (cont.) ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᖃᐅᔨᓴᕐᓂᖅᒋᑦ (ᑲᔪᓯᐊᖅ):

- DFO is concerned that the surveillance monitoring alone will not provide information on negative interactions and facilitate a means to avoid such interactions.
- ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐃᓱᒪᓗᑎᖃᕐᑐᑦ ᖃᐅᔨᓴᕐᓂᖅᒋᑦ ᑕᓐᓇᑐᑎᓪᓗᒍ ᑐᑭᓯᐊᑕᐅᔪᓐᓇᔾᔨᐊᖏᒻᒪᑦ ᐊᒃᑐᕐᑕᐅᒍᓗᐊᕐᓂᕐᐸᑕ ᐊᒻᒪᓗ ᐃᑲᔪᑎᒃᓴᕐᑕᖃᖏᒻᒪᑦ ᐊᒃᑐᕐᑕᐅᔾᔭᐃᑯᑎᒃᓴᓂᒃ.

- There are currently insufficient measures proposed in the final Environmental Impact Statement to monitor interactions or avoid/reduce potential impacts of shipping on marine mammals.
- ᒫᓇᐅᔪᖅ ᐱᑕᖃᖏᓪᓗᐊᕐᒪᑦ ᐅᒃᑐᕈᑕᐅᔪᓐᓇᕐᑐᓂᒃ ᐸᕐᓇᐅᑎᖏᓐᓂ ᑭᖑᓪᓕᕐᐸᒥᒃ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᐃᒃᐱᒃᓇᐅᑎᔪᑦ ᐅᓂᑲᖏᓐᓂ ᖃᐅᔨᒪᓇᓱᒃᑕᐅᒐᔾᕐᑐᓂᒃ ᐅᕙᓗᓐᓂᑦ ᐱᑦᑕᐃᓕᒪᔪᑕᐅᒐᔾᕐᑐᓂᒃ/ᒥᑭᒡᓕᒋᐊᕈᑕᐅᒐᔾᕐᑐᓂᒃᓗᓐᓂᑦ ᐃᒃᐱᒃᓇᐅᑎᔪᓅᑦ ᐅᒥᐊᕐᔪᐊᕐᑕᖃᖃᑦᑕᕐᑎᓪᓗᒍ ᐳᐃᔨᓅᑦ.

Canada

4. Interactions with Marine Mammals ᐊᑦᑐᕐᑕᐅᒐᔭᕐᓂᖏᑦ ᐳᐃᔨᑦ

DFO Recommendations ᐃᒪᕿᐅᑕᓕᓇᔨᒃᑯᑦ ᐊᑐᕐᑯᔭᖏᑦ:

a) Baffinland ensures that mitigation measures to reduce the potential for interaction with marine mammals be developed and implemented into the project.

ᐃ) ᐸᕕᓐᓚᒃᑯᑦ ᐅᖃᕐᓯᒪᒃᒪᑕ ᐊᕿᑭᐊᕈᑎᒃᓴᐃᑦ ᒥᑭᓐᓂᕐᓴᐅᑎᓐᓇᓱᒃᑐᒍ ᐊᒃᑐᕐᑕᐅᔪᑎᒋᒐᔭᕐᑕᖏᑦ ᐳᐃᔨᑦ ᐊᕿᒃᑕᐅᔭᓇᐊᖃᕐᓂᖓᓂᒃ ᐊᑐᓕᕐᑎᑕᐅᓗᓂᓗ ᐅᔭᕋᒃᓂᐊᕐᓂᖏᓐᓄᑦ.

b) DFO recommends that a well-designed, long-term monitoring program be implemented to verify impact predictions, demonstrate the efficacy of mitigation, and inform adjustment/addition of mitigation measures as needed.

ᐱ) ᐃᒪᕐᒥᐅᑕᓕᓇᔨᒃᑯᑦ ᐊᑐᕐᑯᔨᕗᑦ ᐊᕿᑦᑎᐊᕐᓯᒪᐊᒥᒃ, ᐊᑯᓂᐅᐊᒧᑦ ᖃᐅᔨᒪᓇᓱᑕᐅᓂᐊᕐᑐᒥᒃ ᐊᑐᓕᕐᑯᔨᓪᓗᑎᒃ ᑐᑭᓯᐅᒪᔭᐅᑎᐊᕐᓂᐊᕐᒪᑕ ᐃᒃᐱᒃᓇᐅᑎᐊᑦ, ᓇᓗᓇᖏᓪᓗᓂᓗ ᐊᑐᑎᖃᑎᐊᕐᒪᖔᑦ ᐊᕿᑭᐊᕈᑎᒃᓴᖃᕐᓗᓂᓗ, ᐊᒻᒪᓗ ᖃᐅᔨᒪᓇᕐᑐᒃᑯᑦ ᑐᑭᓯᐅᒪᔭᐅᐊᒃᑯᑦ ᐊᕿᑭᐊᕈᑎᒃᓴᐃᑦ ᓇᓗᓇᐃᕐᑕᐅᓯᒪᓗᑎᒃ ᐱᔭᓇᐊᖃᕋᖓᑕ.

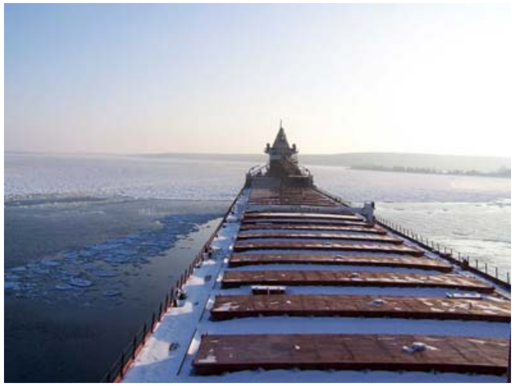
Canada

5. Vessel Traffic and Icebreaking

ᐅᒥᐊᕐᔪᐊᑦ ᐃᖏᕿᓂᖏᑦ ᐊᒻᒪᓗ ᓯᑯᓯᐅᕐᓂᖏᑦ

Baffinland Conclusions ᐸᕕᓐᓚᒃᑯᑦ ᐅᖃᕐᓂᖏᑦ:

- Baffinland deems ice/ship interactions likely but insignificant, and concludes that ice-breaking activity is indistinguishable from ice dynamics under natural conditions.
- ᐸᕕᓐᓚᒃᑯᑦ ᐅᖃᕐᓯᒪᒃᒪᑕ ᓯᑯᓯᐅᕐᓗᑎᒃ/ᐅᒥᐊᕐᔪᐊᓪᓗ ᐊᒃᑐᕐᓯᒪᔭᕐᑐᑦ ᑭᓯᐊᓂ ᒥᑭᑲᔭᕐᓂᖔᓂᒃ, ᐊᒻᒪᓗ ᐅᖃᕐᓗᑎᒃ ᓯᑯᓯᐅᖃᑦᑕᕐᓗᑎᒃ ᐊᔾᔨᑐᐃᓐᓇᕐᓂᖔᓂᒃ ᐃᓕᕐᑯᓯᖓᑕ ᓯᑯ ᐊᐅᓚᓂᖓᑕ ᑕᐃᒪᐃᑐᐃᓐᓇᕐᓂᕿᐃᓪᓗᑎᒃ.



DFO's Analysis ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᖃᐅᔨᓴᕐᓂᖏᑦ:

- There is insufficient support for Baffinland's conclusion that the ice breakup along the ship track will have little or no impact on marine mammals.
- ᐱᑕᖃᖕᒋᓗᐊᕐᒪᑦ ᐃᑲᔪᑕᐅᔪᓐᓇᕐᑐᓂᒃ ᐸ%ᓐᓚᒃᑯᑦ ᐅᖃᕐᐅᓯᖏᑦ ᒪᓕᒃᓗᒋᑦ ᓯᑯᓯᐅᖃᑦᑕᕐᓗᑎᒃ ᐅᒥᐊᕐᔪᐊᑦ ᐊᖅᑯᑕᓂ ᐃᒃᐱᒃᓇᐅᑎᒐᔭᖕᒋᓂᖔᓂᒃ ᐅᕙᓗᓐᓂᑦ ᒥᑭᑦᑐᒥᒃ ᐃᒃᐱᒃᓇᕿᔭᕐᓂᖔᓂᒃ ᐳᐃᔨᓄᑦ.

5. Vessel Traffic and Icebreaking

ᐅᒥᐊᕐᔪᐊᑦ ᐃᖏᕋᓂᖏᑦ ᐊᒻᒪᓗ ᓯᑯᓯᐅᕐᓂᖏᑦ

DFO's Analysis (cont.) ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᖃᐅᔨᓴᕐᓂᖏᑦ (ᑲᔪᓯᕙ):

- More environmental data are needed to assess the impact of ship tracks through pack ice and resulting implications for marine species.
- ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᑎᑎᕋᕐᓯᒪᔪᓂᒃ ᐱᑕᖃᒃᑲᓐᓂᕆᐊᖃᕐᑐᖅ ᖃᐅᔨᓴᕐᑕᐅᓗᓂ ᐃᒃᐱᒃᓇᐳᑎᒐᔭᕐᓂᖓ ᐅᒥᐊᕐᔪᐊᑦ ᐊᕐᖁᑕ ᓯᑯᑯᖓᑎᓪᓗᒍ ᖃᓄᐃᔪᑕᐅᒐᔭᕐᒪᖔᑦ ᐳᐃᔨᓄᑦ.

- The higher frequency of occurrence, timing and location of ice breaking along the ship track mean that Project related ice breakage differs from natural (undisturbed) ice dynamic processes.
- ᐱᑕᖃᐃᓐᓇᕐᓂᕐᓴᐅᑎᓪᓗᒍ, ᖃᖓᒃᑯᖓᓂᖓᓗ ᐊᒻᒪᓗ ᐃᓂᒋᖃᑦᑕᕐᑕᖓ ᐅᒥᐊᕐᔪᐊᑦ ᐊᕐᖁᑕᓂ ᑐᑭᖃᕐᐳ ᐅᔭᕿᓂᐊᕐᑎᓪᓗᒋᑦ ᓯᑯᓯᐅᖃᑦᑕᕐᑎᓪᓗᒋᑦ ᐊᔾᔨᒋᙱᓐᓂᖓᓂᒃ ᐃᓕᖁᓯᕐᓱᕐᑎᓪᓗᒍ ᓯᑯ ᐊᐅᓚᓂᖓ (ᖃᓄᐃᓕᔪᐅᓯᒪᙱᑎᓪᓗᒍ) ᓯᑯ ᐊᐅᓚᓂᖓ.

5. Vessel Traffic and Icebreaking

ᐅᒥᐊᕐᔪᐊᑦ ᐃᖏᕋᓂᖏᑦ ᐊᒻᒪᓗ ᓯᑯᓯᐅᕐᓂᖏᑦ

DFO Recommendations ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐊᑐᕐᑯᔭᖏᑦ:

Baffinland provide additional data on ship-track closure in pack ice to validate the predictions presented in the Final Environmental Impact Statement, which should be used to evaluate the impacts to the marine environment and to develop mitigation approaches.

ᐸᕙᓐᓚᒃᑯᑦ ᑐᓂᓯᓚᐅᕐᑐᒐᓗᐊᑦ ᑎᑎᕋᕐᓯᒪᔪᓂᒃ ᐅᒥᐊᕐᔪᐊᑦ ᐊᖅᑯᑕᓂ ᓯᑯᑯᕐᑎᓪᓗᒋᑦ ᖃᓄᐃᔪᑕᐅᒐᔭᕐᓂᖏᑦ ᖃᐅᔨᒪᔭᐅᓂᐊᕐᒪᑕ ᑭᖑᓪᓕᕐᐸᖕᒐᓂ ᐊᕙᑎᓕᓇᓂᕐᒧᑦ ᐃᒃᐱᒃᓴᐳᑎᒐᔭᕐᑐᑦ ᐅᓂᑲᖏᓐᓂ, ᐊᑐᕐᑕᐅᓗᓂ ᖃᓄᑎᒋ ᐃᒃᐱᒃᓴᕐᑎᒋᒐᔭᕐᒪᖔᑦ ᐳᐃᔨᓄᑦ ᐊᕙᑎᖏᓐᓄᓪᓗ ᐊᒻᒪᓗ ᐊᖅᑭᒋᐊᕈᑎᒃᓴᓂ ᐱᒋᐊᕈᑕᐅᓗᓂ.

6. Ship Noise ᐅᒥᐊᕐᔪᐊᑦ ᓂᐱᖓ

Baffinland Conclusions ᐸᕙᓐᓚᒃᑯᑦ ᐅᖃᕐᓂᖏᑦ:

- Baffinland concluded that for all marine mammal VECs, disturbance, hearing impairment and masking as a result of ship noise was not significant.
- ᐸᕙᓐᓚᒃᑯᑦ ᐅᖃᕐᓯᒪᒻᒪᑕ ᑕᒪᕐᒥᒃ ᐳᐃᔩᑦ, ᐊᒃᑐᕐᑕᐅᓂᖏᑦ, ᑐᓴᓂᖏᑦ ᐊᒻᒪᓗ ᐃᓕᖁᓯᖏᑦ ᐅᒥᐊᕐᔪᐊᑦ ᓂᐱᖓᓄᑦ ᐱᓪᓚᕆᐅᖏᓐᓂᖓᓂᒃ.

DFO’s Analysis ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᖃᐅᔨᓴᕐᓂᖏᑦ:

- The marine mammals that would be exposed to the proposed project are industrially-naïve populations which increases the uncertainty respecting how they may respond to noise disturbance.
- ᐳᐃᔩᑦ ᓇᓚᓂᒃᑲᔪᕐᑐᑦ ᐅᒥᐊᕐᔪᐊᑦ ᐊᖅᑯᑕᓂ ᖃᐅᔨᒪᖏᒻᒪᑕ ᓴᓇᔪᑕᐅᔪᓂᒃ ᓂᐱᓂᒃᓗ ᖃᐅᔨᒪᓇᖏᓐᓂᖓᓄᑦ ᖃᓄᐃᒃᑲᔪᕐᒪᖓᑕ ᓂᐱᒧᑦ.

6. Ship Noise ᐅᒥᐊᕐᔪᐊᑦ ᓂᐱᖓ

DFO's Analysis (cont.) ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᖃᐅᔨᓴᕐᓂᖏᑦ (ᑲᔪᓯᔪᖅ):

- There is insufficient data available to assess with precision the proportion of animals exposed to the unprecedented level of shipping proposed.
- ᐱᑕᖃᖕᒋᓗᐊᕐᒪᑦ ᑎᑎᕋᕐᓯᒪᔪᓂᒃ ᖃᐅᔨᒪᔪᑕᐅᓚᔾᔪᕐᓂᒃ ᐅᒥᐊᕐᔪᐊᕐᑕᖃᖃᑦᑕᕐᑎᓪᓗᒍ ᐱᑕᖃᐃᓐᓇᕐᓂᒃ.
- DFO agrees that the shipping component of the proposed Project is unlikely to lead to hearing damage.
- ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐊᖏᖃᑎᖃᕐᑐᑦ ᐅᒥᐊᕐᔪᐊᑦ ᐊᐅᓚᓂᖓᓄᑦ ᑐᓴᔪᓐᓂᕐᐸᓪᓕᕿᔭᕐᒪᖔᑕ.
- The absence of alternate wintering grounds for potentially displaced whales, or year-round habitat in the case of walrus, might result in physiological and behavioural responses.
- ᐱᑕᖃᖕᒋᓐᓂᖓᓄᑦ ᐊᓯᐊᒍᑦ ᐊᕐᑯᑎᒃᓴᒥᒃ ᐅᑭᐅᒃᑯᑦ ᐳᐃᔨᑦ ᐊᓯᐊᓄᐊᕿᔭᕐᒪᖔᑕ, ᐅᐋᓗᓐᓂᑦ ᐊᕿᒍ ᐃᓗᐊᓂ ᐱᑕᖃᐃᓐᓇᕐᑎᓪᓗᒍ ᐊᐃᔨᑦ ᑕᑯᓗᒋᑦ, ᐊᓯᓪᓕᕈᑕᐅᔭᕐᒪᖔᑦ ᐊᒻᒪᓗ ᐊᐅᓚᓂᖏᑦ ᐊᓯᓪᓕᕿᔭᕐᒪᖔᑕ.

6. Ship Noise ᐅᒥᐊᕐᔪᐊᑦ ᓂᐱᖓ

DFO's Analysis (cont.) ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᖃᐅᔨᓴᕐᓂᖏᑦ (ᑲᔪᓯᐊᖅ):

- DFO estimated the number of marine mammals potentially disturbed each year while on their wintering grounds to be:
- ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᓇᓚᐅᑦᑕᕐᑐᑦ ᐅᓄᕐᓂᖏᑦ ᐳᐃᔨᑦ ᐊᒃᑐᕐᑕᐅᔪᑦ ᐊᕐᒍᑕᒪᑦᐅ ᐅᑭᐅᒃᑯᑦ ᐃᓂᒋᔭᖏᖕᓂᑎᓪᓗᒋᑦ ᐃᒪᖕᓇᐅᓇᓯᒋᖕᓇᓪᓗᑎᒃ:
  - — 2,000 - 19,000 bowhead ᐊᕐᕕᑦ
  - — 18,000 - 24,000 narwhal ᕿᓚᓗᒐᐃᑦ ᑐᒐᓕᑦ
  - — 19,000 - 45,000 beluga ᕿᓚᓗᒐᐃᑦ ᖃᑯᕐᑕᐃᑦ
  - — 1,000 - 7,000 pinnipeds ᓯᕐᕐᑯᓕᑦ ᐳᐃᔨᑦ

- Five of the six species have special conservation status, and more than 2.5% of the population is likely to be exposed.
- ᑕᓪᓕᒪᐃᑦ ᑕᕙᖓᑦ 6-ᓂᑦ ᑕᐃᔭᐅᓯᒪᒃᒪᑕ ᓄᖑᑦᑕᐃᓕᒪᔭᓇᐊᖃᕐᓂᖏᓐᓂᒃ, ᐊᒻᒪᓗ 2.5 ᐳᓴᖏᑦ ᐅᓄᕐᓂᖏᑕ ᐊᒃᑐᕐᑕᐅᑐᐃᓐᓇᓇᐊᖃᕐᓗᑎᒃ.

- The number of individuals potentially disturbed each year could be considerably higher than the final EIS predicts, and therefore the magnitude of effects could also be higher.
- ᐅᓄᕐᓂᖏᑦ ᐊᑐᓂ ᐊᒃᑐᕐᑕᐅᓚᔭᕐᑐᑦ ᐊᕐᒍᑕᒪᑦ ᐅᓄᕐᓂᕐᓴᐅᑐᐃᓐᓇᓇᐊᖃᕐᒪᑦ ᑎᑎᕋᕐᓯᒪᔪᓂᑦ ᑭᖑᓪᓕᕐᐸᖓᓂ ᐊᕙᑎᓕᓂᕐᒧᑦ ᐃᒃᐱᒃᓇᐅᑎᓚᔭᕐᑐᑦ ᐅᓂᑲᖏᓐᓂ , ᐊᒻᒪᓗ ᑕᐃᒪᐃᓐᓂᖓᓄᑦ ᐅᓄᕐᓂᕐᓴᐅᑐᐃᓐᓇᓇᐊᖃᕐᒪᑕ ᐃᒃᐱᒃᓂᕐᑎᑕᐅᔪᑦ.

6. Ship Strikes ᐅᒥᐊᕐᔪᐸᑦ ᑐᓗᕐᑕᖕᒋᑦ

Baffinland Conclusions ᐸᕕᓐᓚᒃᑯᑦ ᐅᖃᕐᓂᖕᒋᑦ:

- Baffinland concluded that *marine mammals could experience direct injury or mortality from collisions with vessels,* but considered the risk of collisions to be low and was not significant.
- ᐸᕕᓐᓚᒃᑯᑦ ᐅᖃᕐᒪᑕ ᐳᐃᔩᑦ ᐊᓂᕐᑐᖃᑐᐃᓐᓇᓇᐊᖃᕐᓂᖕᖓᓂᒃ ᐅᕙᓗᓐᓂᑦ ᑐᖁᔪᖃᕐᓗᓂ ᑐᓗᕐᑕᐅᔪᖃᕈᓂ ᐅᒥᐊᕐᔪᐊᓗᕐ, ᑭᓯᐊᓂ ᑐᓗᕐᑕᐅᔪᑦ ᐅᓄᖕᒋᓐᓂᐊᕋᓱᒋᔭᐅᒃᒪᑕ ᐱᒻᒪᕆᐅᖕᒋᓐᓂᕋᐃᓪᓗᑎᒃᓗ.

DFO's Analysis ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᖃᐅᔨᓴᕐᓂᖕᒋᑦ

- The marine mammals that would be exposed to the proposed project are industrially-naïve populations.
- ᐳᐃᔩᑦ ᐊᒃᑐᕐᑕᐅᒐᔭᕐᑐᑦ ᐃᖕᒋᕿᑲᑕᒃᑎᓪᓗᒋᑦ ᐃᖃᓇᐃᔭᕐᕕᐅᔪᓂᒃ ᐃᖃᓇᐃᔭᕈᑕᐅᔪᓂᒃᓗᖕᓂᑦ ᖃᐅᔨᒪᖕᒋᒻᒪᑕ.

6. Ship Strikes ᐅᒥᐊᕐᔪᐸᑦ ᑐᓗᕐᑕᖏᑦ

DFO's Analysis (cont.) ᐃᒪᕐᒥᐅᑕᓖᓐᓂᒃᑯᑦ ᖃᐅᔨᓴᕐᓂᖏᑦ (ᑲᔪᓯᔪᖅ):

- A more direct source of negative interaction would be the mortality or severe injury resulting from ship strikes.
- ᐱᐅᖏᑦᑐᒃᑯᑦ ᐊᒃᑐᕐᑕᐅᒐᔭᕐᑐᑦ ᑐᕌᑕᐅᓗᑎᒃ ᐃᓕᖓᒃᑕᐅᓗᑎᒃᓗᓐᓂᑦ ᐅᒥᐊᕐᔪᐊᒍᑦ ᑐᓗᕐᑕᐅᔪᑦ.
- The number of individual bowhead, narwhal, or beluga whales potentially struck can be estimated, based on the available information.
- ᐊᖑᕐᓂᖏᑦ ᐊᕐᕚᑦ, ᕿᓚᓗᒐᐃᑦᓗ ᑐᓗᕐᑕᐅᒐᔭᕐᑐᑦ, ᓇᓚᐅᑦᑕᕐᑕᐅᓐᓇᕐᑐᑦ ᑎᑎᕋᕐᓯᒪᔪᓂᒃ ᒪᓕᒃᓗᑎᒃ.
- Baffinland ore carriers will travel at an average speed of 14 knots during the open-water period and an average of 7 knots during the ice-covered period. Available literature suggests that speeds above 15 knots are likely to be fatal.
- ᐸᕕᓐᓚᑦ ᓴᕕᕋᔾᒥᒃ ᐅᓯᒃᑲᕐᑕᐅᑎᖕᒐ ᐅᒥᐊᕐᔪᐊᖅ ᐃᖏᕋᒃᑦᑕᕐᓂᐊᕐᒪᑦ ᓱᒃᑯᓂᖅᑲᕐᓗᓂ 14 ᓇᑦᓯ ᐃᒪᐃᓐᓇᐅᑎᓪᓗᒍ ᐊᒻᒪᓗ ᐊᑯᓐᓂᕐᓱᕐᑐᒥᒃ ᐃᖏᕋᕝᓗᓂ 7 ᓇᑦᓯ ᓯᑯᓯᒪᑎᓪᓗᒍ. ᑎᑎᕋᕐᓯᒪᔪᑦ ᐅᖃᕐᓯᒪᔪᑦ ᓱᒃᑲᓂᖅᑭᓂ 15 ᓇᑦᓯ ᐅᖓᑕᓂ ᑐᖁᔪᑕᐅᔪᓐᓇᕐᓂᖓᓂᒃ.

Canada

6. Ship Strikes ᐅᒥᐊᕐᔪᐸᑦ ᑐᓗᕐᑕᕐᒋᑦ

DFO's Analysis (cont.) ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᖃᐅᔨᓴᕐᓂᖏᑦ (ᑲᔪᓯᔪᖅ):

- Using available data, DFO conservatively estimated that the number of whales potentially injured seriously or killed each year through being struck by an ore carrier while on their wintering grounds could be up to 5 bowheads, 40 narwhals, and 14 beluga.
- ᑎᑎᕋᕐᓯᒪᔪᓂᑦᑐᓂ, ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑐᖅᑲᐅᑎᒐᓗᐊᕐᓗᑎᒃ ᓇᓚᐅᑦᑕᕐᑐᑦ ᐅᓄᕐᓂᖏᑦ ᕿᓚᓗᑲᐃᑦ ᐊᕐᕕᓪᓗ ᐃᓕᖓᒃᑕᐅᑲᔭᕐᑐᑦ ᑐᕐᑯᑕᐅᑲᔭᕐᑐᓪᓗᓐᓂᑦ ᐊᕐᒍᑕᒪᑦ ᑐᓗᕐᑕᐅᔪᑦ ᐅᓯᒃᑲᕐᑕᐅᑎᒧᑦ ᐅᑭᐅᒃᑯᑦ ᐃᓂᕆᔭᕐᒥᓂᑎᓪᓗᒋᑦ ᐃᒪᓐᓇᐅᑲᔭᕐᑐᑦ 5 ᐊᕐᕕᑦ, 40 ᑐᑲᓕᑦ, ᐊᒻᒪᓗ 14 ᕿᑯᕐᑕᐃᑦ.
- DFO concludes that additional measure to reduce the potential for whales to be seriously injured or killed by strikes from Baffinland ore carriers are warranted.
- ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐅᖃᕐᑐᑦ ᐱᓕᕆᐊᖑᒃᑲᓐᓂᕆᐊᖃᕐᓂᖓᓂᒃ ᐊᕿᒋᐊᕐᑕᐅᓗᓂ ᕿᓚᓗᑲᐃᑦ ᐊᕐᕕᓪᓗ ᐊᒃᑐᕐᑕᐅᔪᑦ ᑐᕐᑯᑕᐅᔪᓪᓗᓐᓂᑦ ᐅᒥᐊᕐᔪᐊᕐᑯᑎᖏᓐᓄᑦ ᓇᓗᓇᐃᕐᑕᐅᒃᑲᓐᓂᕆᐊᖃᕐᑐᑦ.

6. Ship Noise and Ships Strikes
ᐅᒥᐊᕐᔪᐊᑦ ᓂᐱᖓ ᐊᒻᒪᓗ ᐅᒥᐊᕐᔪᐊᑦ ᑐᓗᕐᑕᖏᑦ

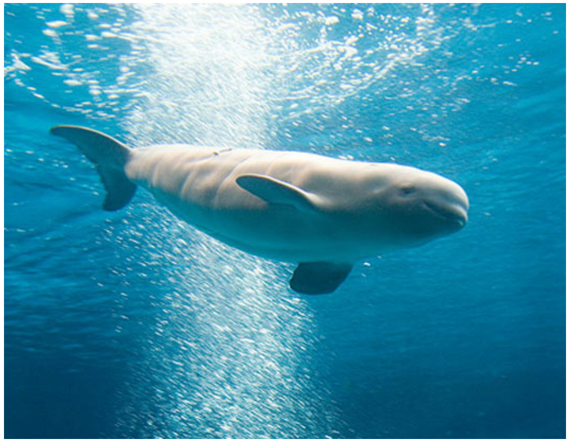
DFO Recommendations ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐊᑐᕐᑯᔭᖏᑦ:

a) Baffinland ensures that measures to reduce the potential for interaction with marine mammals are identified and implemented prior to commencement of shipping operations.

ᐃ) ᐸᕕᓐᓚᒃᑯᑦ ᐅᖃᕐᓯᒪᔪᑦ ᐅᓄᙱᓐᓂᕐᓴᐅᓇᓱᒃᓗᒋᑦ ᐃᒃᐱᒃᓂᕐᑎᑕᐅᓂᖏᑦ ᐳᐃᔾᑦ ᓇᓗᓇᐃᕐᑕᐅᓯᒪᔪᑦ ᐊᒻᒪᓗ ᐊᑐᓕᕐᑎᑕᐅᓂᐊᕐᓗᑎᒃ ᐅᒥᐊᕐᔪᐊᑦ ᐱᒋᐊᓚᐅᖏᓐᓂᖏᓐᓂ.

b) DFO strongly recommends that a well-designed, long-term monitoring program be implemented, particularly in Hudson Strait during the winter period of high occupancy.

ᐱ) ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐊᑐᕐᑯᔨᓪᓚᕆᒃᐳᑦ ᐊᕿᑦᑎᐊᕐᓯᒪᔪᒥᒃ, ᐊᑯᓂᐅᔪᒧᑦ ᕐᑲᐅᔨᒪᓇᓱᑕᐅᓂᐊᕐᑐᒥᒃ ᓴᕿᑦᑎᕐᑯᔨᓪᓗᑎᒃ, ᐱᓗᐊᕐᑐᒥᒃ ᑕᓯᐅᔭᕐᔪᐊᑦ ᐃᓗᐊᓂ ᑕᓇᐅᙵᑕ ᓱᓪᓗᙶᓂᓗ ᐅᑭᐅᒃᑯᑦ ᓇᔪᕐᑕᐅᑎᓪᓗᒋᑦ.



6. Ship Noise and Ships Strikes
ᐅᒥᐊᕐᔪᐊᑦ ᓂᐱᖓ ᐊᒻᒪᓗ ᐅᒥᐊᕐᔪᐊᑦ ᑐᓗᕐᑕᖏᑦ

DFO Recommendations (cont.)
ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐊᑐᕐᑯᔭᖏᑦ (ᑲᔪᓯᔪᖅ):

c) Baffinland revise the proposed “surveillance monitoring” to improve the likelihood of detecting strong marine mammal responses.

ᑎ) ᐸᕕᓐᓚᒃᑯᑦ ᐊᕿᑭᐊᕐᓯᓚᐅᕐᒪᑕ ᐸᕐᓇᐅᑎᖏᓐᓂᒃ "ᖃᐅᔨᓴᕈᑎᒃᓴᐃᑦ" ᐱᐅᓯᑭᐸᕐᑕᐅᓇᓱᒃᓗᓂ ᐳᐃᔨᑕᖃᕈᓂ ᖃᐅᔨᒪᔭᑕᐅᒐᔪᕐᑐᓂᒃ.

d) Baffinland ensures that data produced by the surveillance monitoring program be analysed rigorously by experienced analysts.

ᑭ) ᐸᕕᓐᓚᒃᑯᑦ ᐅᖃᕐᓯᒪᔭᑦ ᑎᑎᕋᕐᓯᒪᔭᑦ ᖃᐅᔨᓴᕐᑎᓪᓗᒋᑦ ᑕᑯᓇᒃᑕᐅᖃᑦᑕᕐᓗᑎᒃ ᐃᓕᓯᒪᔪᓄᕐ.

7. Oil Spills ᐅᕐᓱᐊᓗᒃᒥᒃ ᑯᕕᔪᖄᑎᓪᓗᒍ

Baffinland Conclusions ᐸᕕᓐᓚᒃᑯᑦ ᐅᖄᕐᓂᖏᑦ:

- Baffinland concludes that a major diesel fuel spill is “unlikely” and that marine mammals are considered to be at low
- ᑭᓂᐅᓇ.ᐸᕕᓐᓚᒃᑯᑦ ᐅᖄᕐᒪᑕ ᐊᖏᓇᕐᑐᒥᒃ ᐃᒐᓯᐅᑎᒥᒃ ᑯᕕᔪᖃᕋᔭᖏᓐᓂᖓᓂᒃ "ᑕᐃᒪᐃᑲᔭᖏᓐᓂᖓᓂᒃ" ᐊᒻᒪᓗ ᐳᐃᔾᑦ ᐊᑦᑕᕐᓇᕐᑐᒥᒃᑲᔭᖏᓐᓂᖏᓐᓂᒃ.

DFO’s Analysis ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᖃᐅᔨᓴᕐᓂᖏᑦ:

- DFO is concerned that shipping-related accidents and malfunctions may occur and will result in environmental degradation and/or loss of marine organisms and/or habitat.
- ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐃᓱᒪᓗᑎᖄᕐᑐᑦ ᐅᒥᐊᕐᔪᐊᒧᑦ ᐱᕈᓗᒃᓂᐅᔪᑦ ᐊᒻᒪᓗ ᐊᐅᓚᑦᑎᐊᖏᓐᓂᐅᔪᑦ ᐱᑕᖃᑐᐃᓐᓇᓇᐊᖃᕐᓂᖓᓂᒃ ᐊᕙᑎᖓᓗ ᐱᐅᔫᓂᕐᑎᑕᐅᑐᐃᓐᓇᓇᐊᖃᕐᓂᖓᓂᒃ ᐊᒻᒪᓗ/ᐅᕙᓗᓐᓂᑦ ᐅᒪᔪᐊᕈᓯᑦ ᐊᓯᐅᒐᔭᕐᓂᖏᓐᓂᒃ ᐊᒻᒪᓗ/ᐅᕙᓗᓐᓂᑦ ᐃᓂᒋᔭᖏᑦ.

7. Oil Spills ᐅᕐᓱᐊᓗᒃᒥᒃ ᑯᕕᔪᖃᑎᓪᓗᒍ

DFO Recommendations ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐊᑐᕐᑯᔭᖏᑦ:

- Baffinland update their Emergency Response and Spill Contingency Plan to include spills that may occur along the shipping route and for winter conditions. The plan should include proposed procedures that include mitigation for marine mammals, e.g. avoidance of polynyas.
- ᐸᕕᓐᓚᒃᑯᑦ ᓄᑕᙳᕐᑎᑦᑎᕆᐊᓚᐅᕐᒪᑕ ᑐᐊᕕᕐᓇᕐᑐᒧᑦ ᐸᕐᓇᐅᑎᖏᓐᓂᒃ ᐊᒻᒪᓗ ᑯᕕᔪᖃᕐᓂᕈᓂ ᐸᕐᓇᐅᑎᖏᓐᓂᒃ ᐱᖃᓯᐅᔾᔨᓪᓗᑎᒃ ᑯᕕᔪᖃᕐᓂᕈᓂ ᐊᖅᑯᑕᓂ ᐅᒥᐊᕐᔪᐊᑦ ᐊᒻᒪᓕᓗ ᐅᑭᐅᒃᑯᑦ. ᐸᕐᓇᐅᑎᑦ ᐱᖃᓯᐅᔾᔨᓯᒪᔭᓇᐊᓕᑦ ᖃᓄᖅ ᐊᐅᓚᒐᔭᕐᒪᖔᑕ ᐱᖃᓯᐅᑎᓯᒪᓗᓂ ᐊᕿᒋᐊᕈᑕᐅᒐᔭᕐᑐᑦ ᐳᐃᔨᓄᑦ ᓱᕐᓗ ᐊᐅᒃᑲᕐᓂᐅᔪᑦ (ᓴᕐᕿᐃᑦ) ᐅᐸᒃᑕᐅᑦᑕᐃᓕᒪᓗᑎᒃ.

8. Cumulative Effects Assessment
ᑲᑎᑉᐸᓪᓚᐊᓯᒪᔪᑦ ᐃᒃᐱᒃᓇᐅᑎᔪᑦ ᖃᐅᔨᒪᔭᐅᓇᓱᒃᓂᖏᑦ

DFO's Analysis ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᖃᐅᔨᓴᕐᓂᖏᑦ (ᑲᔪᓯᔪᖅ):

- There is uncertainty with respect to the magnitude of many of the project-related impacts and a conclusion that those impacts can be fully mitigated.
- ᖃᐅᔨᒪᓇᖏᓐᓂᖕᒐᓄᑦ ᖃᓄᑎᒋᕿᔭᕐᒪᖕᒐᑕ ᐊᔾᔨᒋᖏᑦᑐᑦ ᐊᐅᓚᓂᐅᔪᑦ ᐃᒃᐱᒃᓇᐅᑎᒐᔭᕐᑐᑦ ᐊᒻᒪᓗ ᐅᖃᕐᓗᑎᒃ ᐃᒃᐱᒃᓇᐅᑎᒐᔭᕐᑐᑦ ᐊᕿᒋᐊᕈᑎᒃᓴᖏᓐᓂᒃ ᐱᑕᖃᖏᓐᓂᖕᒐᓄᑦ.

- DFO encourages additional mitigation measures that will address the cumulative effects of multiple non-zero impacts on the overall health and population status of a VEC.
- ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑎᓕᐅᕆᕗᑦ ᐊᕿᒋᐊᕈᑎᒃᓴᐃᑦ ᖃᓄᐃᑦᑕᐅᒐᔭᕐᑐᓪᓗ ᐅᖃᐅᓯᐅᒃᑲᓐᓂᕐᓗᑎᒃ ᑲᑎᑉᐸᓪᓚᐊᒐᔭᕐᓂᖏᑦ ᐊᓄᕐᑐᑦ ᐃᒃᐱᒃᓂᖏᑎᑕᐅᔪᑎᑐᑦ ᖃᓄᐃᖏᑦᑎᐊᕐᑯᓪᓗᒋᑦ ᐅᓄᕐᓂᖏᓪᓗ ᓱᕋᒃᑕᐅᖏᓐᓂᕐᓴᐅᕐᑯᓪᓗᒋᑦ.

8. Cumulative Effects Assessment
ᑲᑎᑉᐸᓪᓚᐊᓯᒪᔪᑦ ᐃᒃᐱᒃᓇᐅᑎᔪᑦ ᖃᐅᔨᒪᔭᐅᓇᓱᒃᓂᖏᑦ

DFO Recommendations ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐊᑐᕐᑯᔭᖏᑦ:

To address the cumulative impacts of noise from multiple sources on Walrus, for example:

ᑲᑎᑉᐸᓪᓚᐊᔪᑦ ᐃᒃᐱᒃᓇᐅᑎᒐᔭᕐᑐᑦ ᓂᐱᒧᑦ ᐊᔾᔨᒋᖏᑦᑐᓂᖓᕐᑐᖅ ᐊᐃᕙᕐᓄᑦ, ᓱᕐᓗ:

- DFO recommends Baffinland undertake monitoring at the Steensby Inlet Port site and along the shipping lane to document walrus occurrence and the potential response to site activity.
- ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐊᑐᕐᑯᔨᑯᑦ ᐸᕕᓐᓚᒃᑯᑦ ᖃᐅᔨᓴᕐᑯᓪᓗᒋᑦ ᑲᖏᕐᓗᒃᔪᐊᕐᒥ ᑐᓚᒃᑕᕐᕕᒃᓴᖓᓂ ᐊᒻᒪᓗ ᐅᒥᐊᕐᔪᐊᑦ ᐊᕐᑯᑎᒋᒐᔭᕐᑕᖓᓂ ᑎᑎᕋᕐᑕᐅᓗᑎᒃᓗ ᐊᐃᕙᑦ ᐱᑕᖃᕐᓂᖏᑦ ᓇᒥᒻᒪᖔᑕ ᖃᓄᐃᒃᑯᔭᕐᒪᖔᑕᓗ ᐱᓕᕆᐊᒃᓴᒥᒃᓂᒃ ᐊᑐᓕᕐᑎᓪᓗᒋᑦ.
- DFO recommends Baffinland further develop their plans to conduct aerial surveys of walruses during winter in Foxe Basin to investigate the effects of repeated exposure of walrus to ore carrier passages.
- ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐊᑐᕐᑯᔨᑯᑦ ᐸᕕᓐᓚᒃᑯᑦ ᐊᕿᒃᓯᒃᑲᓐᓂᕐᓗᑎᒃ ᐸᕐᓇᐅᑎᓂᒃ ᖃᖓᑕᓱᒃᑯᑦ ᖃᐅᔨᓴᕈᑎᒥᒃ ᐊᐃᕙᕐᓂᒃ ᐅᑭᐅᒃᑯᑦ ᐃᓂᖃᕐᑐᓂᒃ ᐃᒃᓗᓕᐅᑦ ᑕᕆᐅᖓᓂ ᖃᓄᐃᑲᔭᕐᒪᖔᑕ ᐅᒥᐊᕐᔪᐊᓗᑦ ᑕᑯᐃᓐᓇᖃᑦᑕᕈᑎᒃ ᐊᕐᖁᑕᓂ.

9. No Net Loss Plan ᐊᒥᐊᑯᖅᑲᖅᑯᓪᓗᒋᑦ ᐸᕐᓇᐅᑎᖏᑦ

Baffinland Conclusions ᐸᕖᓐᓚᒃᑯᑦ ᐅᖃᕐᓂᖏᑦ:

- Baffinland has presented a Fish Habitat Off-Setting Plan to satisfy the Habitat Policy (1986).
- ᐸᕖᓐᓚᒃᑯᑦ ᓴᕿᑦᑎᓯᒪᒃᒪᑕ ᐃᖃᓗᐃᑦ ᐃᓂᒋᔭᖏᓐᓂ ᐊᓯᐊᓄᐊᕐᓯᒐᔭᕐᓂᖏᓐᓂᒃ ᒪᓕᒃᓗᒍ ᐃᓂᒋᔭᖏᓐᓂᑦᑐᑦ ᐊᓯᐊᓄᐊᕐᑕᐅᔭᕆᖓᐊᖃᕐᓂᖏᑦ ᐊᑐᐊᒐᕐᒥ (1986).

DFO's Analysis ᐃᒪᕐᒥᐅᑕᓕᕆᔩᑦ ᖃᐅᔨᓴᕐᓂᖏᑦ:

- DFO is of the opinion that the construction of a lake is high risk with a lot of uncertainty. DFO has also indicated that this approach ranks low when utilizing the "DFO Hierarchy of Options" since fish stocking is typically considered a compensation option of last resort.
- ᐃᒪᕐᒥᐅᑕᓕᕆᔩᑦ ᐅᖃᕐᑐᑦ ᓴᓇᔭᐅᓂᖓ ᑕᓯᖅ ᐊᑦᑕᕐᓇᕐᓂᖓᓂᒃ ᖃᐅᔨᒪᓇᖏᓗᐊᕐᒪᑕ ᐅᓄᕐᑐᑦ. ᐃᒪᕐᒥᐅᑕᓕᕆᔩᑦ ᐅᖃᕐᓯᒪᓕᕐᓗᑎᒃ ᐊᑐᕈᒪᔭᖓ ᒥᑭᓚᖑᔫᒃᑯᖓᓇᓱᒃᓂᖓᓂᒃ ᐊᑐᕐᑕᐅᖓᕈᓂ "ᐃᒪᕐᒥᐅᑕᓕᕆᔩᑦ ᐊᑐᓇᐊᖃᕐᑐᓂᒃ ᓇᓗᓇᐃᕐᓯᓯᒪᓂᖏᑦ" ᐃᖃᓗᐃᑦ ᐱᑕᖃᐃᓐᓇᓇᐊᖃᕐᓂᖏᑦ ᐊᓯᐊᓄᐊᕐᑕᐅᔭᓇᐊᖃᕐᓂᖏᑦ ᐱᔭᓇᐊᖃᓪᓚᓇᒃᑎᓪᓗᒍ ᑭᓯᐊᓂ.

9. No Net Loss Plan ᐊᒥᐊᑯᖃᖁᓪᓗᒋᑦ ᐸᕐᓇᐅᑎᖏᑦ

DFO's Analysis (cont.) ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᖃᐅᔨᓴᕐᓂᖏᑦ (ᑲᔪᓯᔪᖅ):

- The concept of creating blunt gaper habitat is new and has not been done before; therefore there is a high degree of uncertainly in the implementation and success of this compensation option.
- ᐃᓱᒪᒋᔭᐅᓯᒪᔪᖅ ᓴᓇᔪᒪᓪᓗᑎᒃ ᐃᓗᕐᑐᕐᓯᒪᔪᒥᒃ ᐃᖃᓗᒃᑯᕕᒃᒥᒃ ᐃᓂᒋᔭᐅᓂᐊᕐᑐᒥᒃ ᓄᑕᖑᒃᒪᑦ ᐱᔭᐅᓚᐅᕐᓯᒪᖏᓪᓗᓂᓗ; ᑕᐃᒪᐃᓐᓂᖓᓄᑦ ᖃᐅᔨᒪᓇᖏᓪᓗᐊᕐᒪᑦ ᑲᔪᓯᑎᑕᐅᓂᕈᓂ ᐊᒻᒪᓗ ᐱᕆᐊᕐᑕᐅᓂᕈᓂ ᖃᓄᐃᒃᑲᓴᕐᒪᖔᑦ.

DFO Recommendations ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐊᑐᕐᑯᔭᖏᑦ:

a) DFO recommends that Baffinland continue to explore off-setting options in both the freshwater and marine environment to offset the HADD.

ᐃ) ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐊᑐᕐᑯᔨᔪᑦ ᐸᕕᓐᓚᒃᑯᑦ ᑲᔪᓯᕐᑯᓪᓗᒋᑦ ᖃᐅᔨᓇᓱᒃᓗᑎᒃ ᐊᓯᐊᓄᐊᕐᓯᓂᕐᒥᒃ ᐃᒥᕐᒥᐅᑕᓂᒃ ᐃᒪᕐᒥᐅᑕᓂᒃᓗ ᐃᓂᒋᔭᖏᓐᓂᑦᑐᓐᓂᕐᑎᑦᑎᒍᑎᒃ.

b) DFO recommends that community consultation should occur so that input from the communities can be incorporated into the design of the Fish Habitat Off-Setting Plan.

ᐱ) ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐊᑐᕐᑯᔨᕗᑦ ᓄᓇᓕᑦ ᑲᑎᒪᓂᒃᑯᑦ ᑐᓴᕐᕕᐅᓗᑎᒃ ᐃᓄᐃᑦ ᐅᖃᐅᓯᖏᑦ ᐱᖃᓯᐅᔾᔭᐅᔭᓐᓇᕐᓂᐊᕐᒪᑕ ᐊᕿᒃᓱᕐᑕᐅᓕᕈᓂ ᐃᖃᓗᐃᑦ ᐃᓂᒋᔭᖏᓐᓂᑦᑐᓐᓂᕐᑎᑦᑎᒍᑎᒃ.

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9. No Net Loss Plan ᐊᒥᐊᑯᖃᖁᓪᓗᒋᑦ ᐸᕐᓇᐅᑎᖏᑦ

DFO Recommendations (cont.) ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐊᑐᖁᔭᖏᑦ (ᑲᔪᓯᔪᖅ):

c) DFO recommends that Baffinland develop a monitoring plan and ensure that sufficient baseline data is collected to determine if the new fish habitat is stable and functioning as intended.

ᑎ) ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐊᑐᖁᔨᔪᑦ ᐸᕕᓐᓚᒃᑯᑦ ᐊᕿᒃᓯᓗᑎᒃ ᖃᐅᔨᒪᓇᓱᒃᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᓂᒃ ᐊᒻᒪᓗ ᐱᒋᐊᕐᕕᐅᔭᓐᓇᕐᑐᒥᒃ ᖃᓄᑎᒋᕐᓂᖓᓂᒃ ᑎᑎᕋᕐᓯᒪᔭᓂᒃ ᖃᐅᔨᓇᓱᒃᓗᑎᒃ ᓄᑕᕐ ᐃᓂᒋᔭᐅᔭᖅ ᐃᖃᓗᒃᓄᑦ ᓱᕋᖏᒃᑲᓗᐊᕐᒪᖔᑦ ᐊᑐᑎᖃᑦᑎᐊᕐᒪᖔᖅᓗᓐᓂᑦ ᐊᑐᑦᑎᐊᕋᓗᐊᕐᒪᖔᖅᓗ.

d) Baffinland develop a contingency plan should the construction and implementation of the preferred fish habitat off-setting options be determined to be not successful or does not function as intended.

ᑭ) ᐸᕕᓐᓚᒃᑯᑦ ᐊᕿᒃᓯᓗᑎᒃ ᖃᓄᐃᓕᔭᖅᑲᕐᓂᕈᓂ ᐸᕐᓇᐅᑎᓂᒃ ᓴᓇᔭᐅᓯᒪᓂᖕᖓ ᐊᒻᒪᓗ ᐊᑐᕐᑕᐅᓂᖕᖓ ᐃᖃᓗᐃᑦ ᐃᓂᒋᔭᖕᖓ ᑲᔪᓯᑦᑎᐊᕐᓂᕿᒃᑯᓂ ᐊᐅᓚᑦᑎᐊᖏᑉᐸᓪᓗᓐᓂᑦ ᐊᕿᒃᑕᐅᓯᒪᔭᖅ ᒪᓕᒃᓗᒍ.

10. Monitoring and Adaptive Management
ᖃᐅᔨᒪᓇᓱᒃᑕᐅᓂᖓ ᐊᒻᒪᓗ ᐊᕿᒋᐊᖃᕐᑐᑦ ᐊᐅᓚᑕᐅᓂᖏᑦ

Baffinland Conclusions ᐸᕕᓐᓚᒃᑯᑦ ᐅᖃᕐᓂᖏᑦ:

- Baffinland has committed to acquiring baseline data and developing an Environmental Effects Monitoring Plan and adaptive management measures, to address potential effects of shipping on marine mammals.
- ᐸᕕᓐᓚᒃᑯᑦ ᐊᖏᕐᓯᒪᒃᒪᑕ ᑎᑎᕋᕐᓯᒪᔪᓂᒃ ᐱᓂᐊᕐᓂᕋᕐᓗᑎᒃ ᐱᒋᐊᕈᑕᐅᓂᐊᕐᑐᓂᒃ ᐊᒻᒪᓗ ᐊᕿᒃᓯᓗᑎᒃ ᐊᕙᑎᖓᓄᑦ ᐃᒃᐱᒃᓇᐅᑎᔪᑦ ᖃᐅᔨᒪᓇᓱᒃᑕᐅᓂᖏᓐᓄᑦ ᐸᕐᓇᐅᑎ ᐊᒻᒪᓗ ᐊᕿᒋᐊᓇᐊᖃᕐᑐᑦ ᐊᐅᓚᑕᐅᓂᖏᓐᓂᑦ, ᐅᒥᐊᕐᔪᐊᒧᑦ ᐃᒃᐱᒃᓂᕐᑎᑕᐅᓐᓂᕈᑎᒃ ᐳᐃᔨᑦ.

DFO's Analysis ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᖃᐅᔨᓴᕐᓂᖏᑦ:

- The baseline information needs to be augmented to support predictions of potential project effects, establish a background against which to monitor, and to determine the efficacy of mitigation measures.
- ᑎᑎᕋᕐᑕᐅᔪᑦ ᖃᐅᔨᒪᔪᑎᒃᓴᐃᑦ ᐱᒋᐊᕐᕕᐅᔪᓐᓇᕐᑐᑦ ᑲᑎᑕᐅᕐᑎᐊᓇᐊᖃᕐᑐᑦ ᐃᑲᔪᑕᐅᓂᐊᕐᒪᑕ ᖃᓄᐃᓐᓂᐊᕋᓱᒋᔭᐅᓂᖓ ᐃᒃᐱᒃᓇᐅᑎᔪᑦ, ᐊᕿᒃᓯᓗᑎᒃᓗ ᑭᖑᓂᖓᒍᓂ ᖃᓄᐃᓕᖓᓚᐅᕐᓂᖓᓂᒃ ᖃᐅᔨᒪᔪᑕᐅᓂᐊᕐᑐᒥᒃ, ᐊᒻᒪᓗ ᐊᑐᑎᖃᕐᑎᐊᕐᒪᖔᑦ ᐊᖏᓇᐊᕐᑕᐅᓯᒪᓕᕐᑎᓪᓗᒍ.

10. Monitoring and Adaptive Management
ᖃᐅᔨᒪᓇᓱᒃᑕᐅᓂᖓ ᐊᒻᒪᓗ ᐊᕿᒋᐊᖅᑐᑦ ᐊᐅᓚᑕᐅᓂᖏᑦ

DFO's Analysis (cont.) ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᖃᐅᔨᓴᕐᓂᖏᑦ (ᑲᔪᓯᔪᖅ):

- DFO is concerned about the adequacy of some methods proposed to monitor and effectively detect changes in characteristics of Valued Ecosystem Components (e.g. effects of shipping on marine mammal behaviour and habitat use).
- ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐃᓱᒪᓗᑎᖃᕐᑐᑦ ᓇᒻᒪᑲᓗᐊᕐᒪᖔᑕ ᐊᑐᕐᑕᐅᔭᒪᔭᑦ ᖃᐅᔨᒪᓇᓯᑕᐅᓂᐊᕐᑐᑦ ᐊᒻᒪᓗ ᐊᓯᓪᓕᕐᓂᐅᔭᑦ ᖃᐅᔨᒪᔭᐅᒐᔭᕐᒪᖔᑕ ᐊᑎᓕᓇᓂᕐᒧᑦ ᐃᓗᓕᖏᓐᓂᒃ (ᓱᕐᓗ ᐅᒥᐊᕐᔪᐊᑦ ᐊᐅᓚᖃᑦᑕᕐᑎᓪᓗᒍ ᐳᐃᔫᓄᑦ ᐃᓕᕐᑯᓯᖏᓐᓄᑦ ᐃᓂᒋᔭᖏᓐᓄᓪᓗ ᖃᓄᐃᔪᑕᐅᓂᐊᕐᒪᖔᑦ)

DFO Recommendations ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐊᑐᕐᑯᔭᖏᑦ:

a) Baffinland should continue to acquire valid and relevant baseline data on marine mammal Valued Ecosystem Component distribution and abundance prior to project development and during operations.

ᐸᕕᓐᓚᒃᑯᑦ ᑲᔪᓯᓗᑎᒃ ᐱᓇᓱᒃᓗᑎᒃ ᑎᑎᕐᓯᒪᔭᓂᒃ ᐱᒋᐊᕐᕕᐅᔪᓐᓇᕐᑐᓂᒃ ᐊᑐᕐᑕᐅᔪᓐᓇᕐᑐᓂᒃᓗ ᐳᐃᔫᑦ ᓇᔪᕐᑕᖏᑦ ᐊᕙᑎᖏᑦ ᐱᑕᖅᑯᕐᓗᒍ ᐊᒻᒪᓗ ᖃᓄᕐ ᐅᓄᕐᑎᒋᒃᒪᖔᑕ ᐱᒋᐊᓚᐅᕐᑎᓐᓂᖏᓐᓂ ᐅᔭᕿᒃᓂᐊᕐᓂᕐᒥᒃ.

10. Monitoring and Adaptive Management

ᖃᐅᔨᒪᓇᓱᒃᑕᐅᓂᖓ ᐊᒻᒪᓗ ᐊᕿᒋᐊᖅᑐᑦ ᐊᐅᓚᑕᐅᓂᖏᑦ

DFO Recommendations (cont.)

ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐊᑐᕐᑯᔭᖏᑦ (ᑲᔪᓯᔪ):

b) Prior to the Project operating, Baffinland develop detailed protocols both for data acquisition and analysis, including sampling regime and methods, for each Valued Ecosystem Component and issue of concern.

ᐱ) ᐅᔭᕆᒃᓂᐊᕐᓂᕐᒥᒃ ᐱᒋᐊᖕᒋᓐᓂᖏᓐᓂ, ᐸᕕᓐᓚᒃᑯᑦ ᐊᕿᒃᓯᓗᑎᒃ ᐃᓗᓕᖅᑐᕐᑐᒥᒃ ᒪᓕᒃᑕᐅᓂᐊᕐᑐᒥᒃ ᑕᒪᕐᒥᒃ ᑎᑎᕋᕐᓯᒪᔪᓂᒃ ᐱᔭᐅᓂᖓᓄᑦ ᖃᐅᔨᓴᕐᑕᐅᓂᖓᓄᓪᓗ, ᐱᖃᓯᐅᑎᓪᓗᒍ ᐱᕐᓯᖃᑦᑕᕐᑐᑎᒃ ᖃᐅᔨᓴᒃᓴᓂᒃ ᐊᐅᓚᔪᑕᐅᔪᓂᒃᓗ ᐊᑐᓂ ᐊᕋᑎᖓᓄᑦ ᐃᓱᒪᓗᑕᐅᔪᓂᒃ.

c) Given uncertainty about the potentially adverse impacts on several of the Valued Ecosystem Components, Baffinland should develop, prior to operating, a suite of options for mitigation that have demonstrated effectiveness in mitigating impacts.

ᑎ) ᖃᐅᔨᒪᓐᖏᓗᐊᕐᓂᖓᓄᑦ ᐊᓯᓪᓕᕈᑕᐅᓚᔭᕐᑐᑦ ᐃᒃᐱᒃᓇᐅᑎᓚᔭᕐᑐᑦ ᐅᓄᕐᑐᑦ ᐊᕋᑎᖓᓄᑦ, ᐸᕕᓐᓚᒃᑯᑦ ᐊᕿᒃᓯᔭᓇᐊᖅᑐᑦ, ᐊᐅᓚᑦᑎᒋᐊᓚᐅᖕᒋᓐᓂᖏᓐᓂ, ᓂᕈᐊᒃᓴᐅᔪᓂᒃ ᐊᔾᔨᒋᖕᒋᑦᑐᓂᒃ ᐊᕿᒋᐊᕈᑎᒃᓴᐅᓚᔭᕐᑐᓂᒃ ᐊᑐᑎᖅᑐᓂᒃ ᐃᒃᐱᒃᓇᐅᑎᔪᒧᑦ ᐊᕿᒋᐊᕈᑎᒃᓴᓂᒃ.

Conclusion
ᑭᖑᓪᓕᕐᐸᒥᒃ ᐅᖃᐅᓯᒃᓴᐃᑦ

- DFO would like to commend the cooperative working relationship Baffinland has demonstrated during the review.
- ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐅᖃᕈᒪᔪᑦ ᐃᑲᔪᕐᑎᒋᒃᑐᑎᒃ ᐃᖃᓇᐃᔭᖃᑎᒋᒃᑐᑎᓗ ᐸᕝᕙᓐᓕᒃᑯᑦ ᐊᐅᓚᓂᖃᕐᓯᒪᓂᖏᑦ ᕿᒥᕈᔭᐅᑎᓪᓗᒋᑦ.

- DFO is confident our outstanding issues related to fish, marine mammals and their habitat can be resolved prior to and during the regulatory phase.
- ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐅᒃᐱᕈᓱᒃᑐᑦ ᐃᓱᒪᓗᑕᐅᔪᑦ ᐃᖃᓗᐃᑦ ᐆᐃᔨᑦ ᐊᒻᒪᓗ ᐃᓂᒋᔭᖏᑕ ᒥᒃᓴᓄᐊᖓᔪᑦ ᐊᕿᑭᐊᕐᑕᐅᔪᓐᓇᕐᓂᖏᓐᓂᒃ ᐱᕐᑯᔭᑎᒍᑦ ᐱᒋᐊᓚᐅᖏᓐᓂᖏᓐᓂ ᐱᓯᒪᓕᕋᓗᐊᕐᑎᓪᓗᒋᓪᓗᓐᓂᑦ.

Qujannamiik, Thank You

Questions?