Meliadine Mine Extension Project Reconsideration

Presentation by Fisheries and Oceans Canada to the Nunavut Impact Review Board Public Hearings, Rankin Inlet, NU

September 12-21, 2023

ᑕᓯᖏᐊᖅ (Lᓕᐊᑎᓐ) ᐅᓴᖏᓐᓂᓂᐊᖏᔪᐅᑦ ᐊᓐᑭᑦᓕᒃᐊᖅᑕᐅᓂᖓ ᐱᓕᒃᐊᖅ ᐃᓱᒪᓴᖅᓯᐅᕈᑕᐅᖅᑲᓐᓂᖏᓐ ᓂᖓ

ᐅᓂᖅᑲᖏᓂᖓ ᐃᒪᖏᑎᐅᑕᓕᒃᓴᖅᓯᑦ ᑲᓇᑕᒥ ᓄᓇᕗᒻᒥ ᐊᐊᑎᓕᒃᓴᖅᓯᑦ ᑲᑎᒪᔨᖏᓐᓂ ᐃᓄᓕᒫᖏᓐᓂᑎᑦ ᑲᑎᒪᑎᓂᑎᑦᓂᑎᑦ, ᓄᓇᕗᑦ

ᓯᑎᐱᒃ 12-21, 2023

Lake Laberge, Yukon Territory, Canada. Shutterstock

DFO Mandate and Legislation

- Protect **all fish and fish habitat** in Canada
- *Fisheries Act* – No death of fish and changing/destroying fish habitat
- *Species at Risk Act* – protect, recover and conserve all listed aquatic species

ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐱᓕᕆᐊᒃᓴᖏᑦ ᒪᓕᒐᐃᑦᑐ

- *ᓴᐳᑎᔪᖏᑦ ᐃᖃᓗᐃᑦ ᐃᖃᓗᐃᑦᑐ ᓇᔪᒐᖏᑦ ᑲᓇᑕᒥ*
- *ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐱᖁᔭᖅ – ᑐᖁᔭᖅᖏᑦᑐᖅ ᐃᖃᓗᖕᓂᒃ ᐊᒻᒪᓗ ᐊᓯᐊᙳᖅᓯᓂᕐᒥᒃ/ᓱᕋᒃᑎᕆᓂᕐᒥᒃ ᐃᖃᓗᐃᑦ ᐃᓂᖏᑉᐸᒃᑕᖏᓐᓂᒃ*
- *ᓂᕐᔪᑎᓄᑦ ᖁᐊᖅᓵᕐᓇᖅᑐᒦᓕᖅᑐᓄᑦ ᐱᖁᔭᖅ – ᓴᐳᒻᒥᓯᒪᓂᖅ, ᐅᑎᖅᑎᕐᑎᓂᖅ ᐊᐅᓚᐊᖅᑕᐃᓕᓂᕐᒧ ᑕᒪᐃᓐᓂᒃ ᑎᑎᕋᖅᓯᒪᔪᓂᒃ ᐃᒪᕐᒥᐅᑕᓂᒃ ᓂᕐᔪᑎᓂᒃ*

Comments & Recommendations

ᐅᖃᐅᓯᒃᓴᑦ ᐊᑐᓕᖃᐅᔨᓕᓗᒍ

13 Technical Comments:

1. **Scope**
2. **Changes since 2014**
3. **Baseline information on fish habitat**
4. **Downstream impacts**
5. **Road crossing design**
6. **Annual reporting**
7. **Aquatic invasive species**
8. **Underwater noise from shipping**

13 ᐱᓕᕆᑐᐊᓪᑦ ᐅᖃᐅᓯᒃᓴᑦ:

1. **ᖃᓄᐃᔪᓐᓇᓂᓐᓇ**
2. **ᐊᓯᐸᖃᓯᒪᔨᑦ ᐱᑎᐊᖃᓐᓄᒍ 2014-ᒥᑦ**
3. **ᐃᖃᓄᐃᑦ ᓴᔨᖃᐸᒃᑕᓐᓂᓐᓂᒃ ᑐᑭᓯᑎᐊᑭᑎᑦ**
4. **ᐊᖃᒃᓴᐊᖃᑕᖃᒃ ᐊᒃᑐᐃᐸᔨᑎᑦ**
5. **ᐊᖃᒃᑯᑎᐅᐸ ᐃᒃᖁᐃᒃᓴᓐᓇ**
6. **ᐊᖃᖏᔪᓕᒫᖃᒃᓯᐅᑎᑦ ᐅᓂᒃᓴᓕᐊᑦ ᐅᓂᒃᓴᓕᐅᖏᓂᖃᖅ**
7. **ᐃᒪᖏᒥᐅᑕᑦ ᐅᒪᔨᑦ ᐊᐸᔪᓐᓇᕐᓕᑦᑐᑦ**
8. **ᐃᒪᐅᐸ ᐃᖃᒃᓴᓐᓇᓂ ᓂᐱᖃᒃᑯᖃᔨᖃᒃ ᐊᐅᓪᓀᖃᒃᑎᑕᐅᔨᒥᑦ**

DFO-TRC-01 Scope

- New Fisheries Act (2019) provides stronger protection for all fish and fish habitat
- DFO to review all components of the project broader scope
- Resolved

ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ–TRC-01 ᐱᓕᕆᐊᒃᓴᖅ

- ᓄᑖᖅ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐱᖁᔭᖅ (2019) ᐊᑐᐃᓐᓇᐅᑎᑦᓯᔪᖅ ᓴᙱᓂᖅᓴᒥᑦ ᓴᐳᔾᔨᓂᕐᒥᑦ ᐃᓘᓐᓇᖏᓐᓄᑦ ᐃᖃᓗᐃᑦ ᐃᖃᓗᐃᓪᓗ ᓇᔪᒐᖏᓐᓂᑦ
- ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᕿᒥᕐᕈᓗᑎᒃ ᐃᓗᓕᓕᒫᖏᓐᓂᒃ ᐱᓕᕆᐊᒃᓴᐅᑉ ᐊᖏᓂᖅᓴᐅᑉ
- ᐋᖅᑭᒃᑕᐅᔪᖅ

DFO-TRC-02
Baseline Assessment

- Lack of baseline information on:
  - Fish community
  - Channels between waterbodies, and seasonally inundated areas
  - Important habitat
- Resolved

ᐃᒪᕐᒥᐅᑕᓂᕐᓂᕐᑯᑦ–TRC-02
ᖃᐅᔨᓴᖅᑕᐅᖅᑲᐅᓴᕐᒪᓂ ᖃᐅᔨᓴᕐᓂᖅ SEP

- ᐱᑕᖃᑦᑎᐊᙱᓐᓂᖓ ᑐᙵᕕᒋᔭᐅᔪᒥᒃ ᑐᓴᖅᑕᐅᔫᓴᓂᒃ ᐅᑯᓇᓂ:
  - ᐃᖃᓗᖃᕐᕕᒃ ᓄᓇᓕᒃ
  - ᕿᓪᓚᕝᔪᒪᙵᑦ ᐃᒪᐅᑉ ᐊᑯᓐᓂᖓᓂ, ᐊᒻᒪᓗ ᐊᕐᕌᒍᑉ ᐃᓚᐃᓐᓇᖓᓂᑦ ᐃᓂᐅᔪᓂᑦ
  - ᐱᒻᒪᕆᐅᔪᑦ ᓇᔪᖅᐸᒃᑕᖏᑦ
- ᐋᖅᑭᒃᑕᐅᔪᖅ

DFO-TRC-03
Hydrology

- Lack of information on impact on hydrology
  - Change direction and volume of flow
  - Cumulative impact
  - Seasonally used habitat
- Resolved

ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ-TRC-03
ᐃᒪᓕᕆᓂᖅ

- ᑐᓴᒐᒃᓴᖃᙱᓗᐊᕐᓂᖅ ᐊᒃᑐᐃᓂᕆᓇᔭᖅᑕᖓᓂᒃ ᐃᒪᓕᕆᓂᖅ
  - ᐊᓯᔾᔨᕐᓗᒍ ᓇᒨᙵᐅᓂᐊᕐᓂᕆᔭᖓ ᐊᒻᒪ ᖃᓄᖅ ᐊᖏᑎᒋᓂᖓ ᑯᐱᓂᖓ
  - ᑲᑎᑉᐸᓪᓕᐊᔪᑦ ᐊᒃᑐᐃᔾᔪᑎᑦ
  - ᐊᕐᕌᒍ ᐃᓚᐃᓐᓇᙱᑕ ᐃᓗᐊᓂ ᐊᑐᖅᑕᐅᖃᑦᑕᖅᓯᒪᔪᑦ ᓇᔪᖅᐸᒃᑕᖏᑦ
- ᐋᖅᑭᒃᑕᐅᔪᖅ

DFO-TRC-04-05-06-07 & 08
Fish and Fish habitat

- Lack of information on fish habitat in watershed A, B, J , I, CH, W and X
- Impact of work on water levels, discharge, timing and duration of flows, fish migration and flow of nutrients
- Resolved

ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ-TRC-04-05-06-07 & 08 ᐃᖃᓗᐃᑦ ᐃᖃᓗᐃᑉ ᓇᔪᒐᖏᑦ

- ᑐᓴᐅᒪᓐᖏᓗᐊᕐᓂᖅ ᐃᖃᓗᐃᑦ ᓇᔪᖅᐸᒃᑕᖏᓐᓂᒃ ᐃᒪᕐᓂ A, B, J , I, CH, W ᐊᒻᒪ X
- ᐊᒃᑐᐃᔾᔪᑕᐅᔪᑦ ᐱᓕᕆᐊᓄᑦ ᐃᒪᐅᑉ ᖁᓪᓕᖕᓂᖏᓐᓄᑦ, ᑯᕕᔪᓄᑦ, ᖃᖓᒃᑰᕋᔭᖕᓂᖏᑦ ᐊᑯᓂᐅᓂᖏᓪᓗ ᐃᖏᕐᕋᓂᖏᑦ, ᐃᖃᓗᐃᑦ ᑕᒡᔭᐊᕐᓂᖏᑦ ᐃᖏᕐᕋᓂᖏᓪᓗ ᐆᒪᑦᑎᐊᕆᓐᓇᖅᑐᑦ
- ᐋᖅᑭᒃᑕᐅᔪᖅ

## DFO-TRC-09 ## Borrow pits	## ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ-TRC-09 ᐊᑐᖅᑐᐊᕐᕖᑦ

- Lack of information on impact of borrow pits on water balance, fish and fish habitat.
- Resolved

- ᐱᑕᖃᑦᑎᐊᙱᓐᓂᖓ ᑐᓴᖅᑕᐅᔪᒃᓴᓂᒃ ᐊᒃᑐᖅᓯᕙᓐᓂᖏᓐᓂᒃ ᐊᑐᖅᑐᐊᕐᕕᐅᔪᓐᓇᖅᑐᑦ ᐃᒧᑦᑐᖅᑎᓯᒪᔪᑦ ᐃᒪᐅᑉ ᓇᓕᒧᓕᖕᓂᖏᓐᓄᑦ, ᐃᖃᓗᖕᓂᒃ ᐃᖃᓗᐃᑦ ᐃᓂᒋᕙᒃᑕᖏᓐᓂᒃ.
- ᐋᖅᑭᒃᑕᐅᔪᖅ

DFO-TRC-10 Road Location and Construction

- Lack of information on location and impact of new road infrastructure on fish and fish habitat.
- Resolved

ᐃᒪᕐᒥᐅᑕᓕᕆᔾᑯᑦ–TRC-10 ᐊᖁᑎᐅᑉ ᐃᓂᖓ ᓴᓇᔭᐅᓂᖓᓗ

- ᑐᓴᐅᒪᙱᓗᐊᕐᓂᖅ ᓇᓖᓐᓂᖏᓐᓂᒃ ᐊᒻᒪ ᐊᒃᑐᐃᓂᖏᓐᓂᒃ ᓄᑖᓂᒃ ᐊᖁᑎᓂᒃ ᒪᑭᒪᔾᔪᑎᓂᒃ ᐃᖃᓗᐃᑦ ᐊᒻᒪ ᐃᖃᓗᐃᑦ ᓇᔪᖅᐸᒃᑕᖏᓐᓂᒃ.
- ᐋᖅᑭᒃᑕᐅᔪᖅ

DFO-TRC-11
Fish and Fish Habitat Annual Reporting

- Lack of information on fish and fish habitat in annual report to NIRB
- Additional appendix
  - Fish
  - Habitat
  - Fish passage
  - Fish-out
  - Measures implemented
  - Offsetting activities

ᐃᒪᕐᒥᐅᑕᓂᓇᔾᑯᑦ-TRC-11
ᐃᖃᓗᐃᑦ ᐃᖃᓗᐃᑉᓗ ᓇᔪᒐᖏᑦ ᐊᕐᕌᒍᑕᒫᖅᓯᐅᑦ ᐅᓂᒃᑳᕐᓂᖅ SEP SEP SEP

- ᑐᓴᐅᒪᙱᓗᐊᕐᓂᖅ ᐃᖃᓗᐃᑦ ᐃᖃᓗᐃᑉᓗ ᓇᔪᒐᖏᓐᓂᑦ ᐊᕐᕌᒍᑕᒫᖅᓯᐅᑎᒥᑦ ᐅᓂᒃᑳᒥᑦ ᓄᓇᕗᒻᒥ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ
- ᐅᐃᒍᒃᑲᓂᐊᕈᓯᑦ
  - ᐃᖃᓗᒃ
  - ᓇᔪᖅᐸᒃᑕᖏᑦ
  - ᐃᖃᓗᐃᑦ ᐊᖅᑯᑎᖏᑦ
  - ᐃᖃᓗᐃᑦ
  - ᐆᒃᑐᕋᐅᓯᑦ ᐊᑐᓕᖅᑎᑕᐅᔪᑦ
  - ᓄᖅᑲᖅᑎᑦᑎᓂᕐᒧᑦ ᐱᓕᕆᐊᖑᔪᑦ

DFO-TRC-12 Aquatic Invasive Species

- Monitoring impact on marine environment does not include aquatic invasive species
- Include a Non-Indigenous Species/ Aquatic Invasive Species Monitoring Program around zones of higher risk.

ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ–TRC-12 ᐃᒪᕐᒥᐅᑕᑦ ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᑦᑐᑦ

- ᖃᐅᔨᓴᖅᐸᓪᓕᐊᓂᖅ ᐊᒃᑐᐃᓂᐅᔪᓂᑦ ᐃᒪᕐᒥᐅᑕᑦ ᐊᕙᑎᖓᓂᑦ ᐃᓚᖃᙱᑦᑐᖅ ᐃᒪᕐᒥᐅᑕᓂᑦ ᐆᒪᔪᓂᑦ
- ᐃᓚᓕᐅᑎᓗᒋᑦ ᓄᓇᖃᖅᑳᖅᓯᒪᙱᑦᑐᑦ ᐆᒪᔪᑦ/ᐃᒪᕐᒥᐅᑕᓂᒃ ᐆᒪᔪᓂᒃ ᖃᐅᔨᓴᕈᓯᑦ ᓄᓇᐃᑦ ᐊᑦᑕᕐᓇᖅᑐᒦᓂᖅᓴᐅᔪᑦ.

DFO-TRC-13
Underwater Noise from Shipping

- Lack of information on underwater noise produced by shipping vessels
- Monitor and model underwater noise to understand impact on marine mammals

ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ–TRC-13
ᐃᒪᐅᑉ ᐃᖅᑲᖕᓇᓂ ᓂᐱᖓ
ᐅᒥᐊᕐᔪᐊᒃᑰᖅᑎᑦᑎᑎᓪᓗᒋᑦ

- ᑐᓴᐅᒪᓐᖏᓗᐊᕐᓂᖅ ᐃᒪᐅᑉ ᐃᖅᑲᖕᓇᓂ ᓂᐱᒥᒃ ᓴᖅᑭᑕᐅᔪᓂᒃ ᐅᒥᐊᕐᔪᐊᒃᑯᑦ ᐊᐅᓚᖅᑎᑦᑎᕙᒃᑐᓄᑦ
- ᓇᐅᑦᑎᖅᓱᕐᓗᒍ ᐊᒻᒪᓗ ᐋᖅᑭᐅᒪᓗᒍ ᐃᒪᐅᑉ ᐃᖅᑲᖕᓇᓂ ᓂᐱᖓ ᑐᑭᓯᓂᕐᒧᑦ ᐊᒃᑐᖅᓯᓂᐅᔪᓂᒃ ᐃᒪᕐᒥᐅᑕᐃᑦ ᐆᒪᔪᐃᑦ

Conclusion

- 10 TRC resolved
- 3 TRC outstanding
- Most information provided for Reconsideration process and work continues into water license and Fisheries Act authorization

ᓄᖅᑲᐅᓯᕆᓗᒍ

- 10 TRC−ᖕᒐ ᐋᖅᑭᒃᑕᐅᔪᖅ
- ᐱᖕᒐᓱᑦ TRC−ᒧᑦ ᐱᔾᔪᑎᖃᖅᑕᐅᓯᒪᙱᑦᑐᑦ
- ᑕᒪᕐᒥᒐᓚᑦ ᑐᑭᓯᐅᒪᔾᔪᑏᑦ ᑐᓂᔾᔭᐅᔪᑦ ᐃᓱᒪᒃᓴᖅᓯᐅᒃᑲᓐᓂᕐᓂᕐᒧᑦ ᐱᕙᓪᓕᐊᓂᕐᒧᑦ ᐊᒻᒪᓗ ᐱᓕᕆᐊᖅ ᑲᔪᓯᓪᓗᓂ ᐃᒪᕐᒧᑦ ᓚᐃᓴᓐᓯᒧᑦ ᐊᒻᒪᓗ ᐃᖅᑲᓗᓕᕆᓂᕐᒧᑦ ᐱᕐᑯᔭᖅ ᐱᔪᓐᓇᖅᑎᑕᐅᓂᕐᒧᑦ

Conclusion (continued)

Measures:

- Maintain water levels in watershed A and B.
- Road crossing design to allow fish passage

ᐃᓱᓕᓐᓂᖓ (ᑲᔪᓯᖅ)

ᐆᒃᑐᕋᐅᑏᑦ:

- ᐃᒪᕐᒥᑎᖃᑦᑕᕐᓗᒋᑦ ᐃᒪᖃᖅᑎᑎᓐᓇᕐᓗᒋᑦ A ᐊᒻᒪ B.
- ᐊᖅᑯᑎᐅᑉ ᐃᑳᕐᕕᖓᑕ ᑕᐅᑦᑐᒃᓴᖓ ᐃᖃᓗᐃᑦ ᐊᖅᑯᑎᒃᑰᕐᓇᕐᑯᓪᓗᒋᑦ

Conclusion (continued)

Recommendations:

- Fish and fish habitat annual reporting
- Aquatic invasive species monitoring
- Underwater noise from shipping

ᐃᓱᓕᓴᐅᓚ (ᑲᔪᓱᔪᖅ)

- ᐊᑐᓕᖅᑯᐅᔪᑦ:
- ᐃᖅᓗᐃᑦ ᐃᖅᓗᐃᓪᓗ ᓇᔪᓚᕈᑦ ᐊᖏᖃᔭᑕᒪᑦ ᐅᓂᒃᑲᓕᐅᖏᖅᓂᖅ
- ᐃᒪᖏᒥᐅᑕᓂᒃ ᐅᒪᔪᓂᖏᖅᓂᖅ ᖃᐅᔨᓴᖏᓂᖅ
- ᐃᒪᐅᐸ ᐃᖅᑲᓚᓂ ᓂᐱᖅᑯᖅᑐᔪᖅ ᐊᐅᓪᓚᖅᑎᑕᐅᔪᒥᑦ

ᖁᐻᖅᓪᓚᑦ Thank You

ᐊᐱᖏᐻᑎᓴᓂᖅ? Questions?