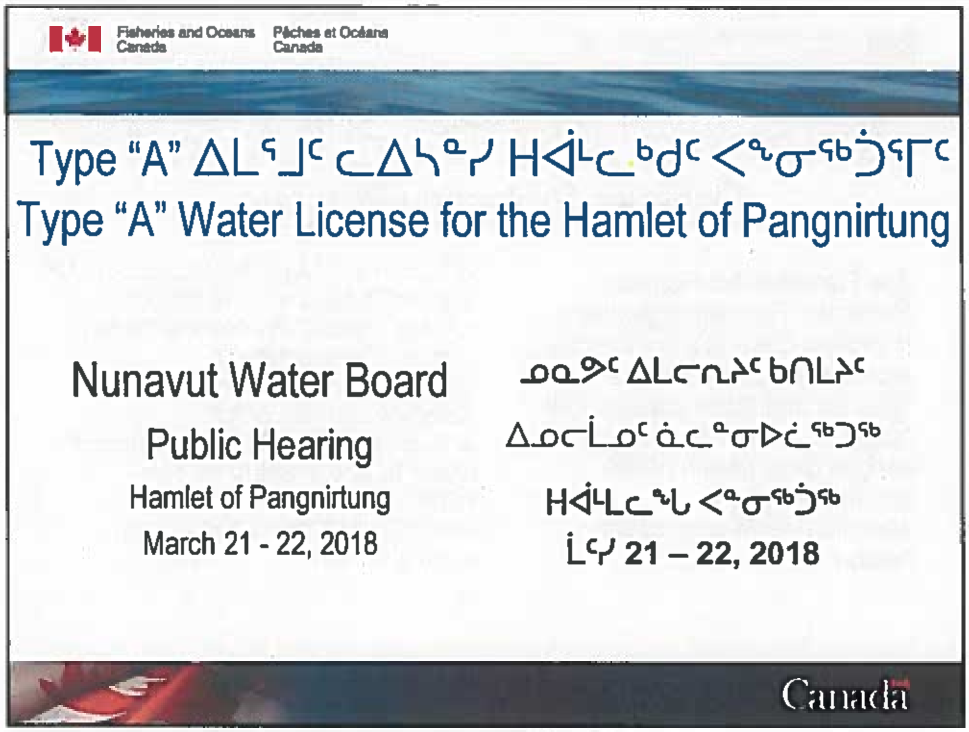


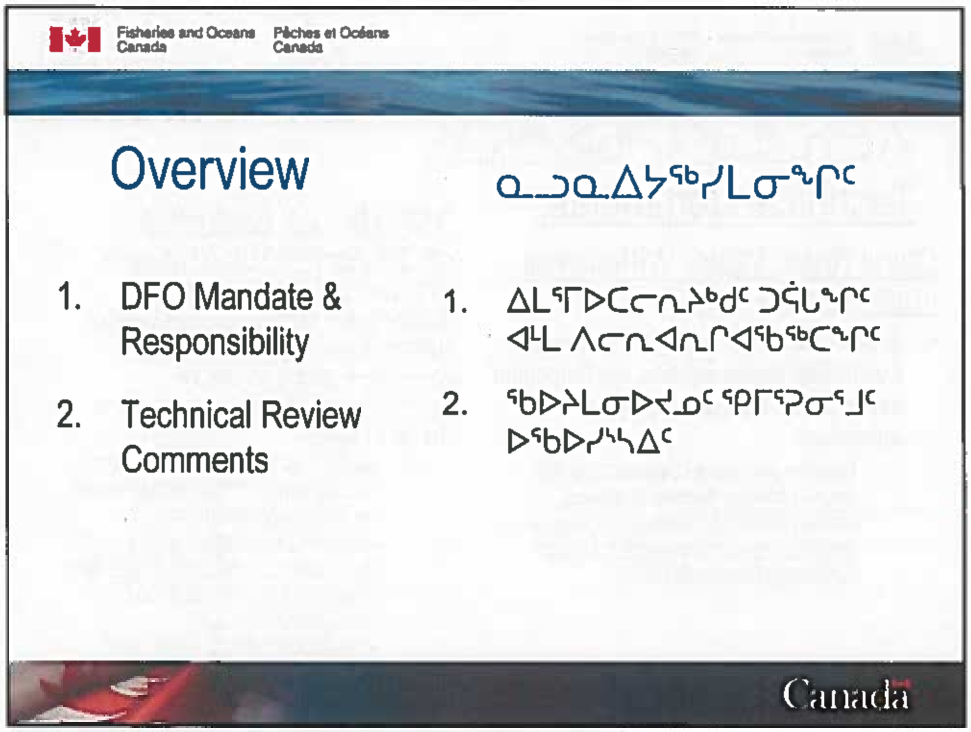
Fisheries and Oceans Canada
Pêches et Océans Canada

Type “A” ᐃᒪᕐᒧᑦ ᓚᐃᓴᓐᓯ Hᐋᒻᓚᒃᑯᑦ ᐸᖕᓂᖅᑑᕐᒥᑦ
Type “A” Water License for the Hamlet of Pangnirtung

Nunavut Water Board
Public Hearing
Hamlet of Pangnirtung
March 21 - 22, 2018

ᓄᓇᕗᑦ ᐃᒪᓕᕆᔨᑦ ᑲᑎᒪᔨᑦ
ᐃᓄᓕᒫᓄᑦ ᓈᓚᖕᓂᐅᓛᖅᑐᖅ
Hᐋᒻᓚᖓ ᐸᖕᓂᖅᑑᖅ
ᒫᑦᓯ 21 – 22, 2018

Canada



Fisheries and Oceans Canada
Pêches et Océans Canada

Overview

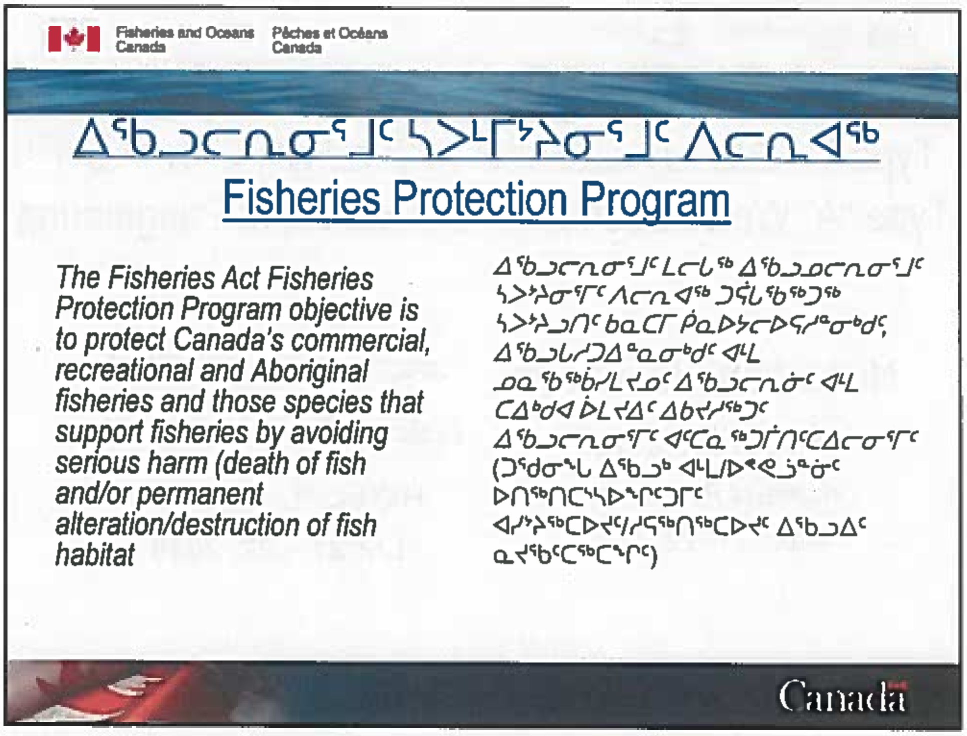
1. DFO Mandate & Responsibility
2. Technical Review Comments

ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖏᑦ

1. ᐃᒪᕐᒥᐅᑕᓕᕆᔾᑯᑦ ᑐᕌᖓᖏᑦ ᐊᒻᒪ ᐱᓕᕆᐊᕆᒋᐊᖅᑲᖅᑕᖏᑦ
2. ᖃᐅᔨᒪᓂᐅᔪᓄᑦ ᕿᒥᕐᕈᓂᕐᒧᑦ ᐅᖃᐅᓯᔅᓴᐃᑦ

Canada

NUNAVUT WATER BOARD
Date: March 21, 2018
Exhibit No.: 2



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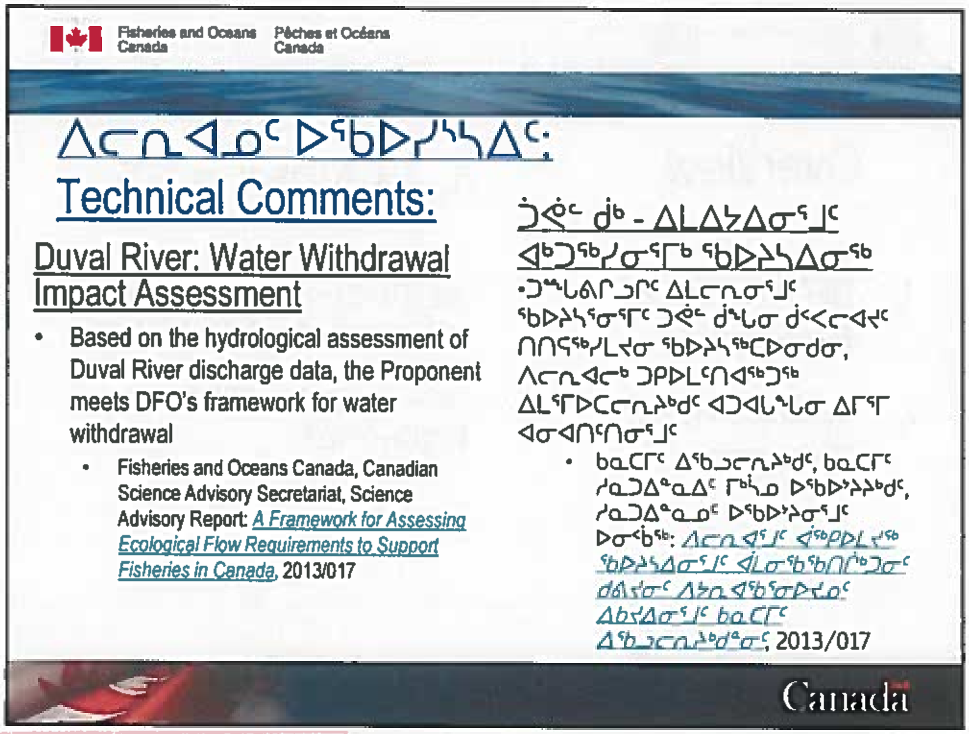
ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᓴᐳᒻᒥᔾᔨᓂᕐᒧᑦ ᐱᓕᕆᐊᖅ
Fisheries Protection Program

The Fisheries Act Fisheries Protection Program objective is to protect Canada's commercial, recreational and Aboriginal fisheries and those species that support fisheries by avoiding serious harm (death of fish and/or permanent alteration/destruction of fish habitat

ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᒪᓕᒐᖅ ᐃᖃᓗᓄᓕᕆᓂᕐᒧᑦ ᓴᐳᔾᔨᓂᕐᒥᑦ ᐱᓕᕆᐊᖅ ᑐᕌᒐᖃᖅᑐᖅ ᓴᐳᔾᔨᓗᑎᑦ ᑲᓇᑕᒥ ᑮᓇᐅᔭᓕᐅᕋᓱᓐᓂᒃᑯᑦ, ᐃᖃᓗᒐᓱᒃᑐᐃᓐᓇᓂᒃᑯᑦ ᐊᒻᒪ ᓄᓇᖃᖅᑳᖅᓯᒪᔪᓄᑦ ᐃᖃᓗᓕᕆᓃᑦ ᐊᒻᒪ ᑕᐃᒃᑯᐊ ᐆᒪᔪᐃᑦ ᐃᑲᔪᖅᓱᖅᑐᑦ ᐃᖃᓗᓕᕆᓂᕐᒥᑦ ᐊᑦᑕᓇᖅᑐᒦᑎᑦᑕᐃᓕᓂᕐᒥᑦ (ᑐᖁᓐᓂᖓ ᐃᖃᓗᒃ ᐊᒻᒪ/ᐅᕝᕙᓘᓐᓃᑦ ᐅᑎᖅᑎᑕᔅᓴᐅᓐᒋᑦᑐᒥᑦ ᐊᓯᔾᔨᖅᑕᐅᔪᕐ/ᓱᕋᖅᑎᖅᑕᐅᔪᑦ ᐃᖃᓗᐃᑦ ᓇᔪᖃᑦᑕᖅᑕᓐᒋᑦ)



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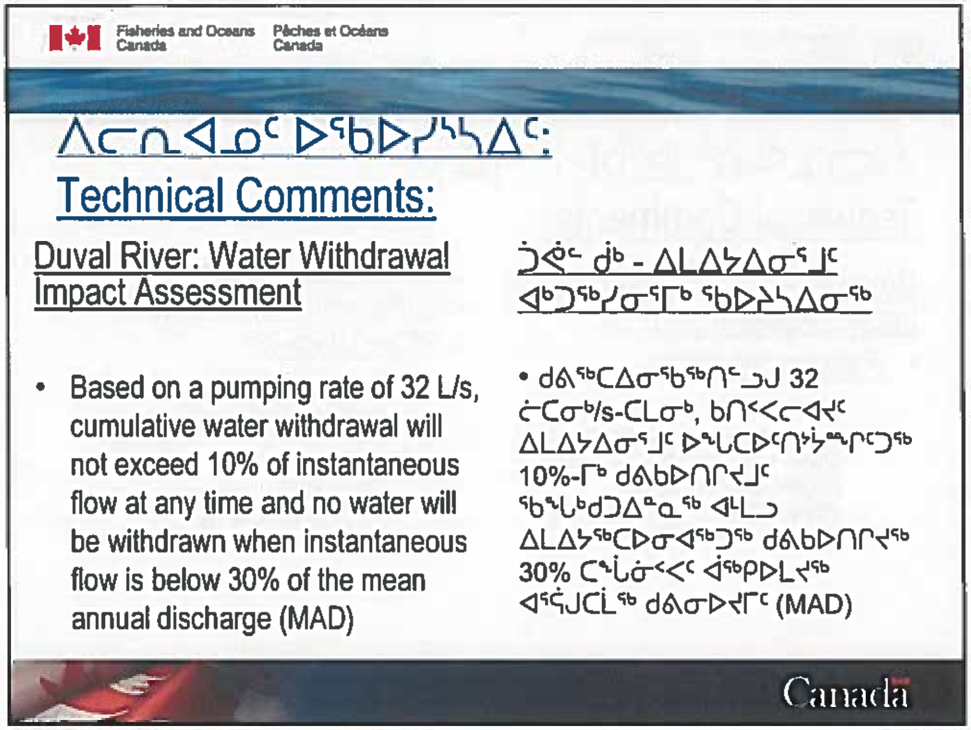
ᐱᓕᕆᐊᓄᑦ ᐅᖃᐅᓯᔅᓴᐃᑦ:
Technical Comments:

Duval River: Water Withdrawal Impact Assessment

- Based on the hydrological assessment of Duval River discharge data, the Proponent meets DFO's framework for water withdrawal
  - Fisheries and Oceans Canada, Canadian Science Advisory Secretariat, Science Advisory Report: *A Framework for Assessing Ecological Flow Requirements to Support Fisheries in Canada*, 2013/017

ᑑᕚᓪ ᑰᒃ - ᐃᒪᐃᔭᐃᓂᕐᒧᑦ ᐊᒃᑐᖅᓯᓂᕐᒥᒃ ᖃᐅᔨᓴᐃᓂᖅ

- ᑐᙵᕕᒋᓗᒋᑦ ᐃᒪᓕᕆᓂᕐᒧᑦ ᖃᐅᔨᓴᕐᓂᕐᒥᑦ ᑑᕚᓪ ᑰᖓᓂ ᑰᑉᐸᓕᐊᔪᑦ ᑎᑎᖅᓯᒪᔪᓂ ᖃᐅᔨᓴᖅᑕᐅᓂᑯᓂ, ᐱᓕᕆᐊᓕᒃ ᑐᑭᐅᒪᑦᑎᐊᖅᑐᖅ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐊᑐᐊᒐᖓᓂ ᐃᒥᕐᒥ ᐊᓂᐊᑎᑦᑎᓂᕐᒧᑦ
  - ᑲᓇᑕᒥᑦ ᐃᖃᓗᓕᕆᔨᒃᑯᑦ, ᑲᓇᑕᒥᑦ ᓱᓇᑐᐃᓐᓇᐃᑦ ᒥᒃᓵᓄ ᐅᖃᐅᓯᔨᒃᑯᑦ, ᓱᓇᑐᐃᓐᓈᓄᑦ ᐅᖃᐅᓯᓂᕐᒧᑦ ᐅᓂᑉᑳᖅ: *ᐱᓕᕆᐊᕐᒧᑦ ᐋᖅᑭᐅᒪᔪᖅ ᖃᐅᔨᓴᐃᓂᕐᒧᑦ ᐋᒪᓂᖅᖃᑎᑦᑖᖅᑐᓂᑦ ᑯᕕᔪᓂᑦ ᐃᔭᓇ ᐊᖅᑭᓂᕈᓗᓄᑦ ᐃᑲᔪᐃᓂᕐᒧᑦ ᑲᓇᑕᒥᑦ ᐃᖃᓗᓕᕆᔾᑯᓐᓂᕐ*, 2013/017


Fisheries and Oceans Canada
Pêches et Océans Canada

ᐱᓕᕆᐊᓄᑦ ᐅᖃᐅᓯᔅᓴᐃᑦ:
Technical Comments:

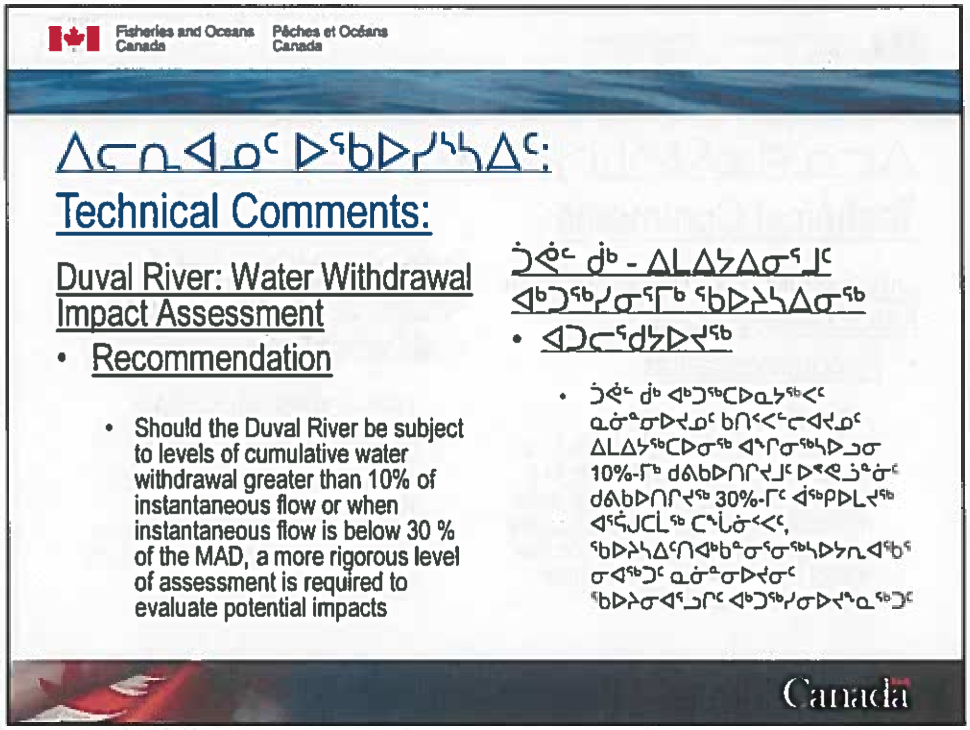
Duval River: Water Withdrawal Impact Assessment

- Based on a pumping rate of 32 L/s, cumulative water withdrawal will not exceed 10% of instantaneous flow at any time and no water will be withdrawn when instantaneous flow is below 30% of the mean annual discharge (MAD)

ᑑᕚᓪ ᑰᒃ - ᐃᒪᐃᔭᐃᓂᕐᒧᑦ ᐊᒃᑐᖅᓯᓂᕐᒥᒃ ᖃᐅᔨᓴᐃᓂᖅ

- ᑯᕕᖅᑕᐃᓂᖅᑲᖅᑎᕐᑐᒍ 32 ᓖᑕᓂᒃ/s-ᑕᒪᓂᒃ, ᑲᑎᑉᐸᓕᐊᔪᑦ ᐃᒪᐃᔭᐃᓂᕐᒧᑦ ᐅᖓᑕᐅᑦᑎᔾᔪᙱᑦᑐᖅ 10%-ᒥᒃ ᑯᕕᑲᐅᑎᒋᔪᒧᑦ ᖃᖓᒃᑯᑐᐃᓐᓇᖅ ᐊᒻᒪᓗ ᐃᒪᐃᔭᖅᑕᐅᓂᐊᖅᑐᖅ ᑯᕕᑲᐅᑎᒋᔭᖅ 30% ᑕᓐᒫᓃᑉᐸᑦ ᐋᖅᑭᐅᒪᔪᖅ ᐊᕐᕌᒍᑕᒫᖅ ᑯᕕᓂᐅᔪᒥᑦ (MAD)

Canada


Fisheries and Oceans Canada
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ᐱᓕᕆᐊᓄᑦ ᐅᖃᐅᓯᔅᓴᐃᑦ:
Technical Comments:

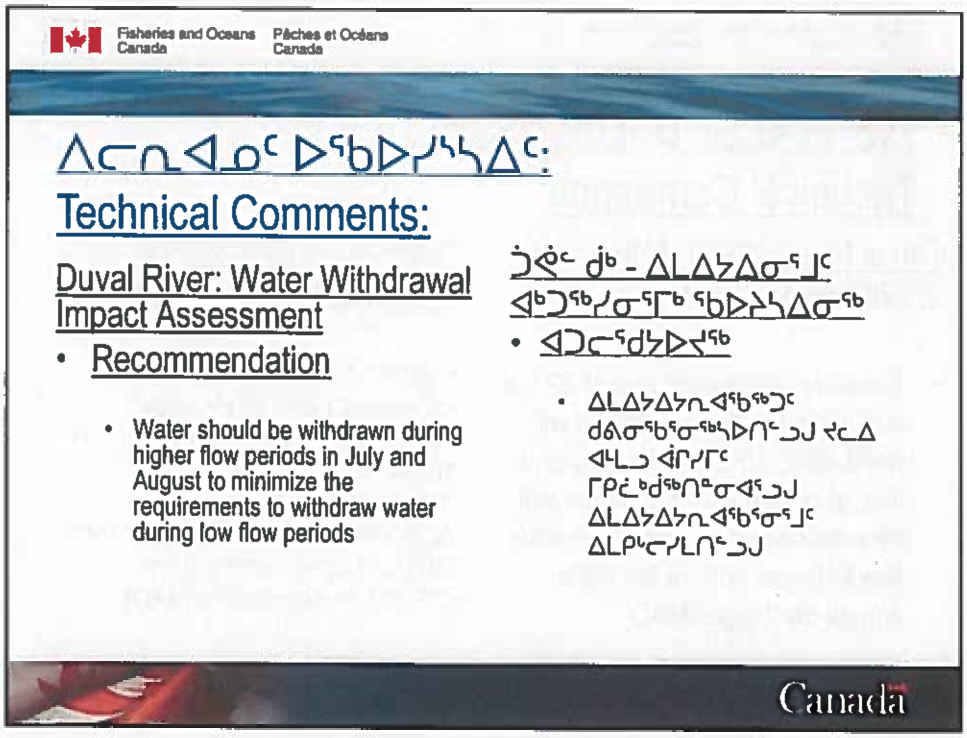
Duval River: Water Withdrawal Impact Assessment

- Recommendation
  - Should the Duval River be subject to levels of cumulative water withdrawal greater than 10% of instantaneous flow or when instantaneous flow is below 30 % of the MAD, a more rigorous level of assessment is required to evaluate potential impacts

ᑑᕚᓪ ᑰᒃ - ᐃᒪᐃᔭᐃᓂᕐᒧᑦ ᐊᒃᑐᖅᓯᓂᕐᒥᒃ ᖃᐅᔨᓴᐃᓂᖅ

- ᐊᑐᓕᖁᔭᐅᔪᖅ
  - ᑑᕚᓪ ᑰᒃ ᐊᒃᑐᖅᑕᐅᓇᔭᖅᐸᑦ ᓇᓃᓐᓂᐅᔪᓄᑦ ᑲᑎᑉᐸᓪᓕᐊᔪᓄᑦ ᐃᒪᐃᔭᖅᑕᐅᓂᖅ ᐊᖏᓂᖅᓴᐅᓗᓂ 10%-ᒥᒃ ᑯᕕᑲᐅᑎᒋᔪᒧᑦ ᐅᕝᕙᓘᓐᓃᑦ ᑯᕕᑲᐅᑎᒋᔭᖅ 30%-ᒥᑦ ᐋᖅᑭᐅᒪᔪᖅ ᐊᕐᕌᒍᑕᒫᖅ ᑕᓐᒫᓃᑉᐸᑦ, ᖃᐅᔨᓴᐃᑦᑎᐊᒃᑲᓐᓂᕐᓂᖅᓴᐅᔭᕆᐊᖃᖅ ᓂᐊᖅᑐᑦ ᓇᓃᓐᓂᐅᔪᓂᑦ ᖃᐅᔨᓂᐊᕐᓗᒋᑦ ᐊᒃᑐᖅᓯᓂᐅᔪᓐᓇᖅᑐᑦ

Canada



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ᐱᓕᕆᐊᓄᑦ ᐅᖃᐅᓯᖅᓴᐃᑦ:
Technical Comments:

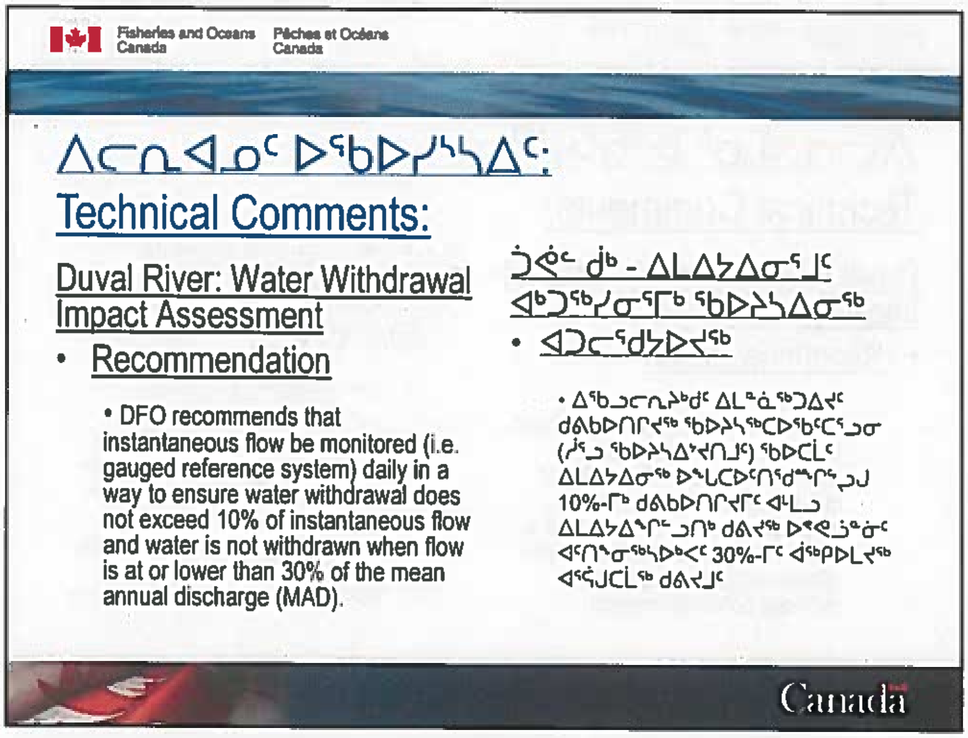
Duval River: Water Withdrawal Impact Assessment

- Recommendation
  - Water should be withdrawn during higher flow periods in July and August to minimize the requirements to withdraw water during low flow periods

ᑑᕚᓪ ᑰᒃ - ᐃᒪᐃᔭᐃᓂᕐᒧᑦ ᐊᒃᑐᖅᓯᓂᕐᒥᒃ ᖃᐅᔨᓴᐃᓂᖅ

- ᐊᑐᓕᖅᑯᔭᐅᔪᖅ
  - ᐃᒪᐃᔭᐃᔭᕆᐊᖃᖅᑐᑦ ᑯᕕᓂᖃᕐᓂᖅᓴᐅᑎᓪᓗᒍ ᔪᓚᐃ ᐊᒻᒪᓗ ᐋᒋᓯᒥᑦ ᒥᑭᓛᒃᑰᖅᑎᓐᓂᐊᕐᓗᒍ ᐃᒪᐃᔭᐃᔭᕆᐊᖃᕐᓂᕐᒧᑦ ᐃᒪᑭᓪᓕᓯᒪᑎᓪᓗᒍ

Canada



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ᐱᓕᕆᐊᓄᑦ ᐅᖃᐅᓯᖅᓴᐃᑦ:
Technical Comments:

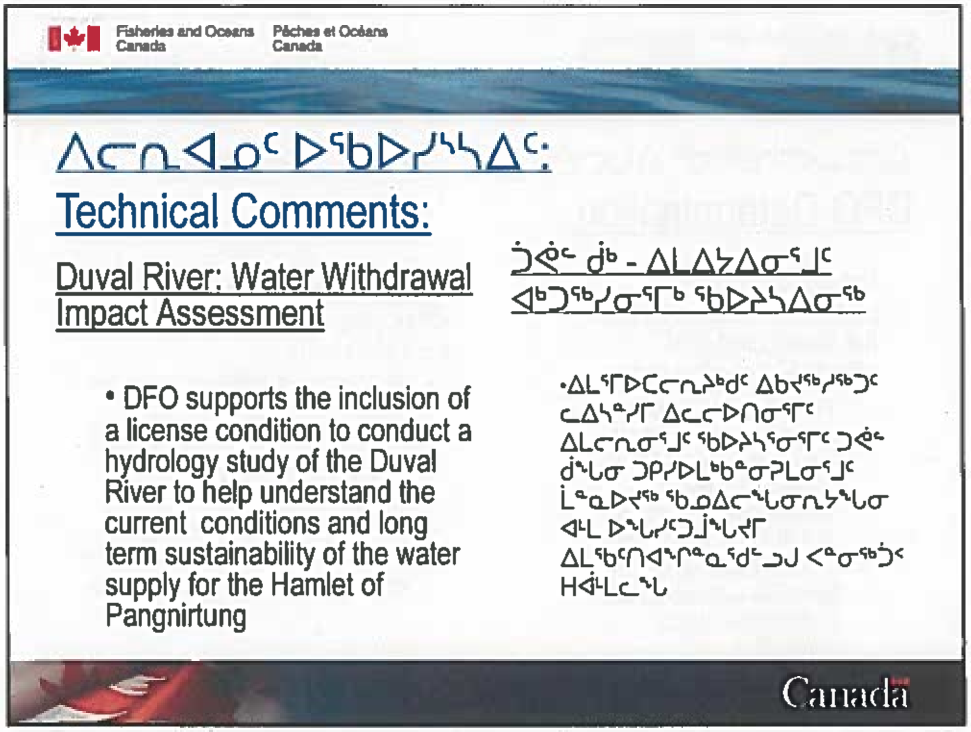
Duval River: Water Withdrawal Impact Assessment

- Recommendation
  - DFO recommends that instantaneous flow be monitored (i.e. gauged reference system) daily in a way to ensure water withdrawal does not exceed 10% of instantaneous flow and water is not withdrawn when flow is at or lower than 30% of the mean annual discharge (MAD).

ᑑᕚᓪ ᑰᒃ - ᐃᒪᐃᔭᐃᓂᕐᒧᑦ ᐊᒃᑐᖅᓯᓂᕐᒥᒃ ᖃᐅᔨᓴᐃᓂᖅ

- ᐊᑐᓕᖅᑯᔭᐅᔪᖅ
  - ᐃᖃᓗᓕᕆᔩᒃᑯᑦ ᐃᒪᓐᓈᖅᑐᐃᔭᑦ ᑯᕕᑲᐅᑎᕆᔭᖅ ᖃᐅᔨᓴᖅᑕᐅᖃᑦᑕᕐᓗᓂ (ᓰᕐᓗ ᖃᐅᔨᓴᐃᔾᔪᑎᒧᑦ) ᖃᐅᑕᒫᑦ ᐃᒪᐃᔭᐃᓂᖅ ᐅᖓᑕᐅᑦᑎᖅᑯᙱᑦᓗᒍ 10%-ᒥᒃ ᑯᕕᑲᐅᑎᕆᔭᒥᑦ ᐊᒻᒪᓗ ᐃᒪᐃᔭᐃᙱᓪᓗᑎᒃ ᑯᕕᔭᖅ ᐅᕝᕙᓘᓐᓃᑦ ᐊᑦᑎᖕᓂᖅᓴᐅᒃᐸᑦ 30%-ᒥᑦ ᐋᖅᑭᐅᒪᔪᖅ ᐊᕐᕿᒍᑕᒫᖅ ᑯᕕᔪᒧᑦ

Canada



Fisheries and Oceans Canada
Pêches et Océans Canada

ᐱᓕᕆᐊᓄᑦ ᐅᖃᐅᓯᔅᓴᐃᑦ:

Technical Comments:

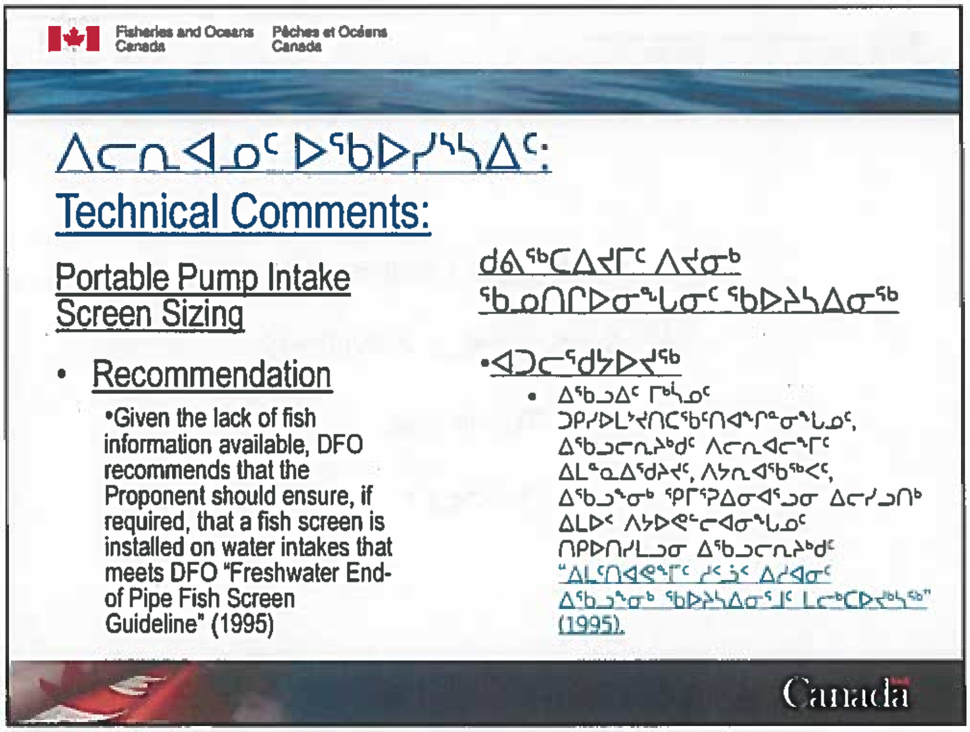
Duval River: Water Withdrawal Impact Assessment

- DFO supports the inclusion of a license condition to conduct a hydrology study of the Duval River to help understand the current conditions and long term sustainability of the water supply for the Hamlet of Pangnirtung

ᑑᕓᓪ ᑰᒃ - ᐃᒪᐃᔭᐃᓂᕐᒧᑦ ᐊᒃᑐᖅᓯᓂᕐᒥᒃ ᖃᐅᔨᓴᐃᓂᖅ

- ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐃᑲᔪᖅᓱᖅᑐᑦ ᓚᐃᓴᓐᓯᒥ ᐃᓚᓕᐅᑎᓂᕐᒥᑦ ᐃᒪᓕᕆᓂᕐᒧᑦ ᖃᐅᔨᓴᕐᓂᕐᒥᑦ ᑑᕓᓪ ᑰᖓᓂ ᑐᑭᓯᐅᒪᒃᑲᓐᓂᕈᒪᓂᕐᒧᑦ ᒫᓐᓇᐅᔪᖅ ᖃᓄᐃᓕᖓᓂᕆᔭᖓᓂ ᐊᒻᒪ ᐅᖓᓯᕐᑐᒨᖓᔪᒥ ᐃᒪᖃᑦᑎᐊᖏᓐᓇᕐᑯᓪᓗᒍ ᐸᓐᓂᖅᑑᑉ Hᐋᒻᒪᓚᖓ

Canada



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Pêches et Océans Canada

ᐱᓕᕆᐊᓄᑦ ᐅᖃᐅᓯᔅᓴᐃᑦ:

Technical Comments:

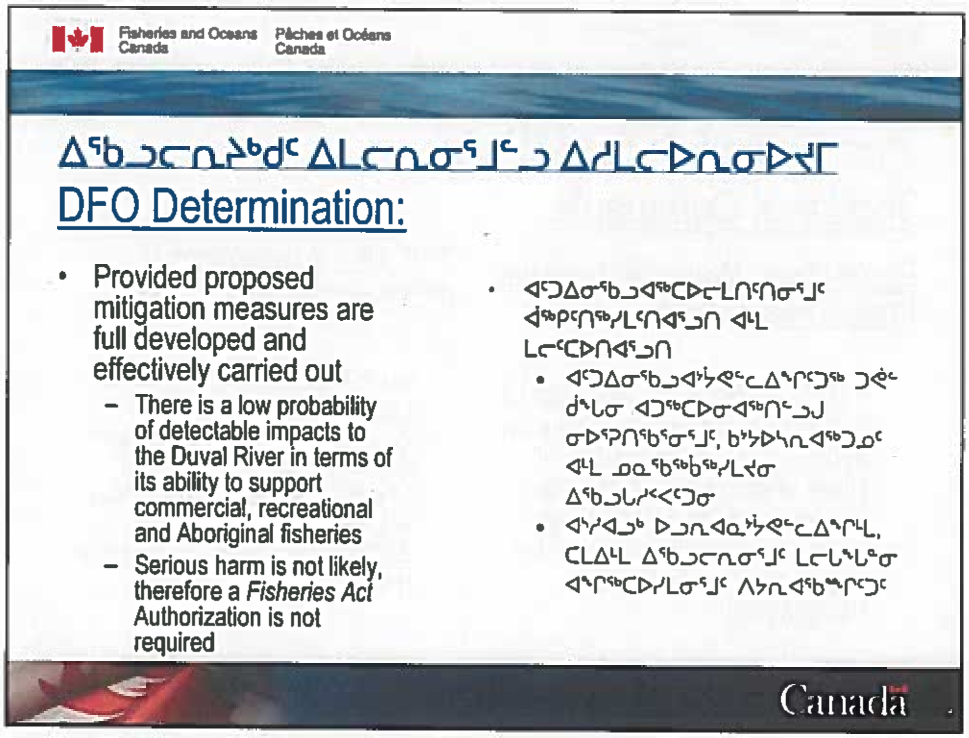
Portable Pump Intake Screen Sizing

- Recommendation
  - Given the lack of fish information available, DFO recommends that the Proponent should ensure, if required, that a fish screen is installed on water intakes that meets DFO "Freshwater End-of Pipe Fish Screen Guideline" (1995)

ᑯᕕᖅᑕᐃᔪᒥᑦ ᐱᔪᓂᒃ ᖃᓄᑎᒋᐅᓂᖓᓂᑦ ᖃᐅᔨᓴᐃᓂᖅ

- ᐊᑐᓕᖅᑯᔭᐅᔪᖅ
  - ᐃᖃᓗᐃᑦ ᒥᒃᓵᓄᑦ ᑐᑭᓯᐅᒪᔾᔪᑎᑕᖅᑎᐊᖏᓐᓂᖓᓄᑦ, ᐃᖃᓗᓕᕆᔨᒃᑯᑦ ᐱᓕᕆᐊᓕᖕᒥᑦ ᐃᒪᓐᓇᐃᖅᑯᔨᔪᑦ, ᐱᔭᕆᐊᖅᑲᖅᐸᑦ, ᐃᖃᓗᖕᓂᒃ ᕿᒥᕈᐃᓂᐊᖅᑐᓂ ᐃᓕᓯᑐᑎᒃ ᐃᒪᐅᑉ ᐱᔭᐅᕖᓕᐊᓂᖓᓄᑦ ᑎᑭᐅᑎᓯᒪᑐᓂ ᐃᖃᓗᓕᕆᔨᒃᑯᑦ "ᐃᒪᑦᑎᐊᕙᖕᒥᑦ ᓱᑉᓗᑉ ᐃᓯᐊᓂᑦ ᐃᖃᓗᖕᓂᒃ ᖃᐅᔨᓴᐃᓂᕐᒧᑦ ᒪᓕᒃᑕᐅᔪᒃᓴᖅ" (1995).

Canada



Fisheries and Oceans Canada Pêches et Océans Canada

ᐃᖅᑲᓗᓚᓇᔨᒃᑯᑦ ᐃᒪᓚᓇᓂᖅᒧᑦᓄ ᐃᓯᒪᓚᐅᓇᓂᐅᔭᒥ
DFO Determination:

- Provided proposed mitigation measures are full developed and effectively carried out
  - There is a low probability of detectable impacts to the Duval River in terms of its ability to support commercial, recreational and Aboriginal fisheries
  - Serious harm is not likely, therefore a *Fisheries Act* Authorization is not required

- ᐊᕐᑐᐃᓂᖅᑲᓗᐊᖅᑕᐅᓚᒪᑎᑦᑎᓂᖅᒧᑦ ᐋᖅᑭᑦᑎᖅᓯᒪᑦᑎᐊᖅᓗᑎ ᐊᒻᒪ ᒪᓕᑦᑕᐅᑎᐊᖅᓗᑎ
  - ᐊᕐᑐᐃᓂᖅᑲᓗᐊᔾᔭᕙᓚᐃᓐᒥᕐᑐᖅ ᑐᕚᕐ ᑰᖕᒐᓂ ᐊᑐᖅᑕᐅᓂᐊᖅᑎᓪᓗᒍ ᓂᐅᕐᕈᑎᖅᑲᕐᓂᕐᒧᑦ, ᑲᔾᔪᐅᓯᓇᐊᖅᑐᓄᑦ ᐊᒻᒪ ᓄᓇᖅᑲᖅᑲᖅᓯᒪᔭᓂ ᐃᖅᑲᓗᒐᓯᐸᕐᑐᓂ
  - ᐊᔾᓯᐊᓗᒃ ᐅᓗᓇᐊᓇᔾᔭᕙᓚᐃᓐᒥᓪᓚ, ᑕᒪᐃᓐᒪ ᐃᖅᑲᓗᓚᓇᓂᖅᒧᑦ ᒪᓕᒐᓐᒐᓐᓂ ᐊᓐᒥᖅᑕᐅᓯᒪᓂᖅᒧᑦ ᐱᔭᓇᐊᖅᑲᖕᒥᑦᑐᑦ

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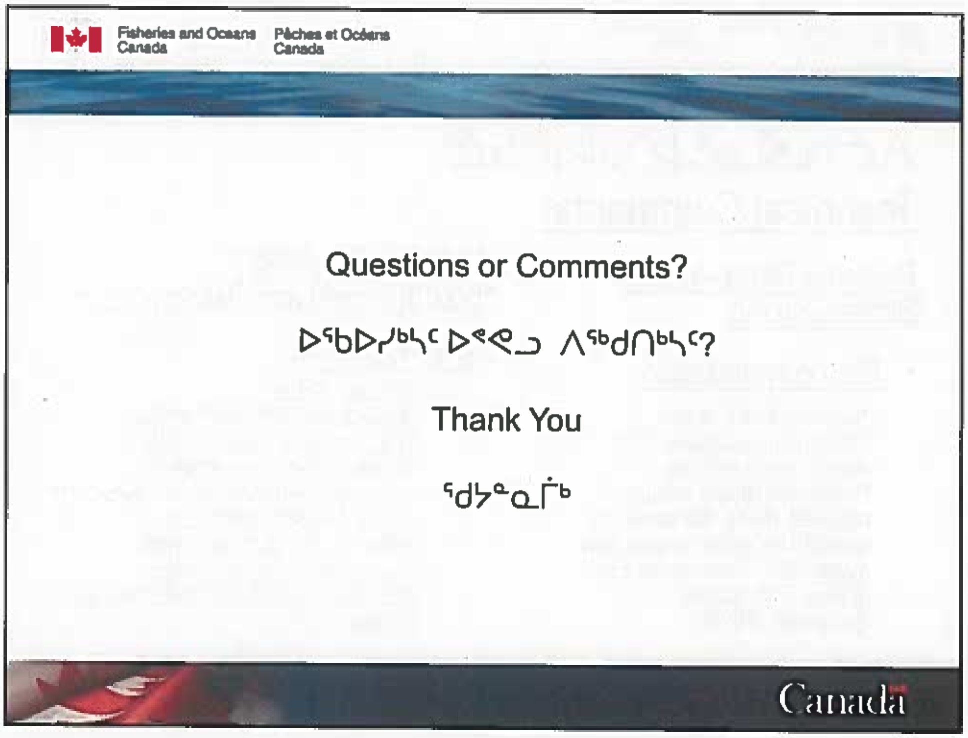

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Questions or Comments?

ᐅᖅᑲᐅᓯᒃᓴᑦ ᐅᕝᕙᓗ ᐱᖅᑯᑎᒃᓴᑦ?

Thank You

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