WHALE TAIL PIT EXPANSION PROJECT
NWB PUBLIC HEARING
FEBRUARY 12-13, 2020

AGNICO EAGLE

PRESENTATION SUMMARY

- Overview of Whale Tail Expansion Project
- Water Use and Management
- Waste Disposal and Management
- Adaptive Management
- Closure, Reclamation, and Security
- Water Compensation
- Revisions to Management and Monitoring Plans
- Overview of Proposed Licence Amendments
- Response to Final Written Submissions

OVERVIEW OF THE WHALE TAIL EXPANSION PROJECT

AGNICO EAGLE HISTORY AND APPROVED PROJECTS IN NUNAVUT

Event	Meadowbank	Whale Tail Pit	Whale Tail Pit Expansion	Meliadine
First gold discovery	1987	1972	1972	1972
AEM acquisition	2007	2007	2007	2010
AEM first drilling activity	2007	2013	2013	2010
Approval for construction	2007	2017	2019	2017
Construction period	2007-08-09-10	2018-19	2020	2017-18-19
Commercial production	2010	2019	2020	2019
End of production	2019	2022	Q4 2026**	**2033

** Based on current life of mine estimates

WHALE TAIL PIT APPROVED PROJECT

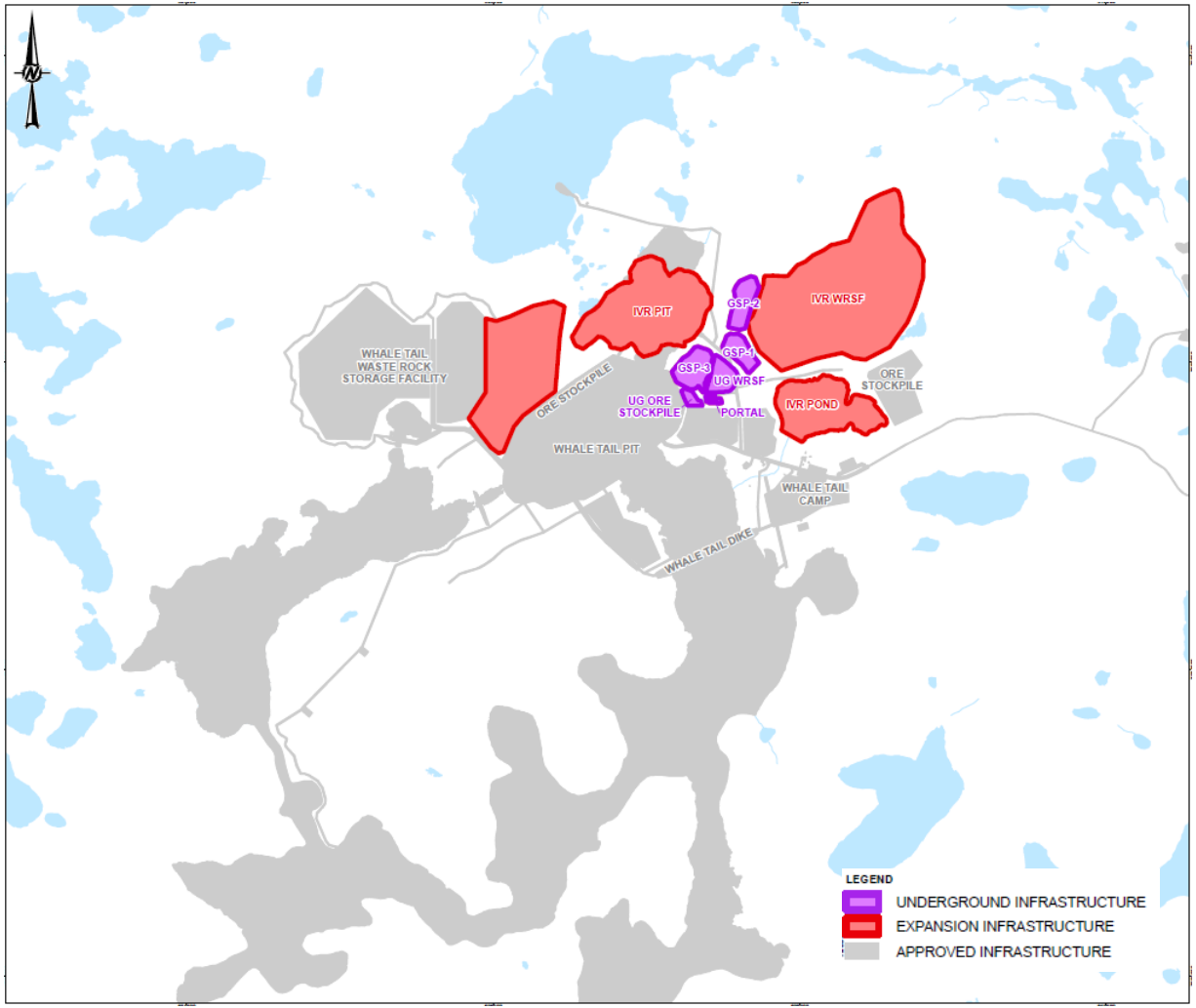
- **Whale Tail Pit Project approved and permitted** by Nunavut Impact Review Board Project Certificate No.008 on March 15, 2018 (herein referred to as the Approved Project)
- The **Type A Water Licence 2AM-WTP1826** was approved by the Minister on July 11, 2018 to begin construction and operation of the Whale Tail Pit
- As a **satellite operation**, the Whale Tail Pit is approved to operate and will continue to:
  - feed the Meadowbank Mill and Tailings Storage Facility
  - use associated Meadowbank Mine infrastructure under Project Certificate No. 004 and Type A Water Licence 2AM-MEA1526

WHALE TAIL PIT EXPANSION PROJECT

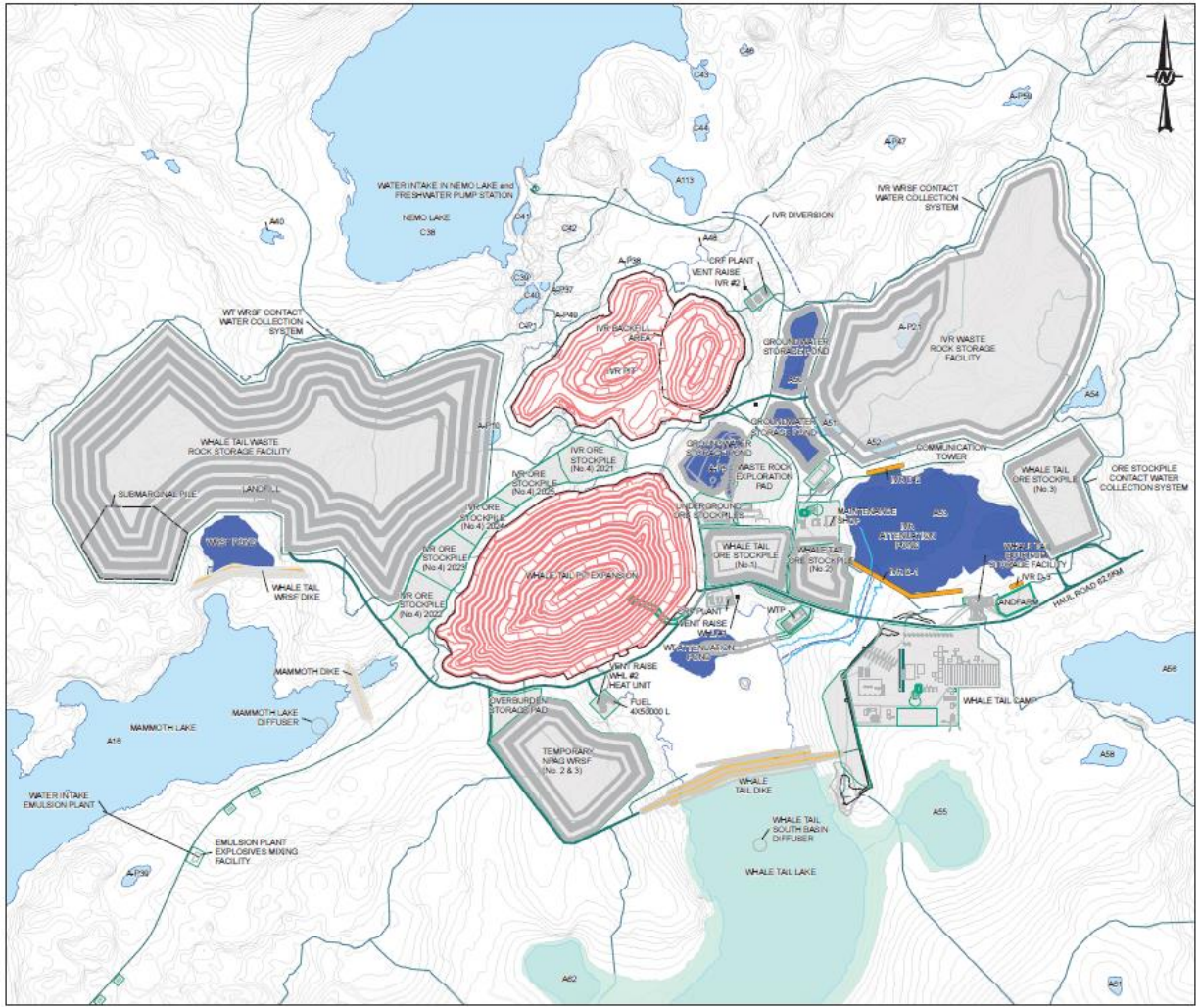
- Agnico Eagle is seeking approval to **expand and extend the Whale Tail Pit Project** through a reconsideration of NIRB Project Certificate No. 008 and Type A Water Licence Amendment to include the:
  - Expansion of the Whale Tail Pit
  - IVR Pit; and
  - Underground mine
- The deposits will be mined, and ore will be stockpiled and then hauled to the approved infrastructure at Meadowbank Mine for milling
- Life of Mine will be increased by **4 years**
- A positive ministerial decision for the NIRB reconsideration process was received on January 22, 2020

WHALE TAIL PIT EXPANSION

- 2019 – 2020 – Continue operating Whale Tail Pit, as approved while reviewing the Expansion Reconsideration and Type A Water Licence
- 2020 – 2022 – Begin operation of the expanded Whale Tail Pit, IVR pit stripping and build infrastructure
- 2020 – 2025 – Operate Whale Tail Pit Expansion
- 2026 – 2042– Closure – Pit Flooding
- 2043 – Post-Closure



Whale Tail Pit Approved and Expansion Project Infrastructure


WATER INTAKE IN NEMO LAKE and FRESHWATER PUMP STATION
NEMO LAKE
C38
IVR DIVERSION
IVR WRSF CONTACT WATER COLLECTION SYSTEM
CRF PLANT VENT RAISE IVR #2
WT WRSF CONTACT WATER COLLECTION SYSTEM
IVR BACKFILL AREA
GROUNDWATER STORAGE POND
IVR WASTE ROCK STORAGE FACILITY
WHALE TAIL WASTE ROCK STORAGE FACILITY
SUBMARGINAL PILE
LANDFILL
WRSF POND
WHALE TAIL WRSF DIKE
IVR ORE STOCKPILE (No.4) 2021
IVR ORE STOCKPILE (No.4) 2025
IVR ORE STOCKPILE (No.4) 2024
IVR ORE STOCKPILE (No.4) 2023
IVR ORE STOCKPILE (No.4) 2022
WASTE ROCK EXPLORATION PAD
UNDERGROUND ORE STOCKPILES
COMMUNICATION TOWER
WHALE TAIL ORE STOCKPILE (No.3)
ORE STOCKPILE CONTACT WATER COLLECTION SYSTEM
WHALE TAIL ORE STOCKPILE (No.1)
WHALE TAIL ORE STOCKPILE (No.2)
WHALE TAIL EXPANSION
WATER ASSESSMENT POND
WTP
LANDFARM
HAUL ROAD 62.9KM
MAMMOTH DIKE
MAMMOTH LAKE DIFFUSER
MAMMOTH LAKE
WHALE TAIL CAMP
OVERBURDEN STORAGE PAD
FUEL 4X50000 L
TEMPORARY NPAG WRSF (No. 2 & 3)
WHALE TAIL DIKE
WHALE TAIL SOUTH BASIN DIFFUSER
WHALE TAIL LAKE
WATER INTAKE EMULSION PLANT
EMULSION PLANT EXPLOSIVES MIXING FACILITY

WHALE TAIL PIT EXPANSION

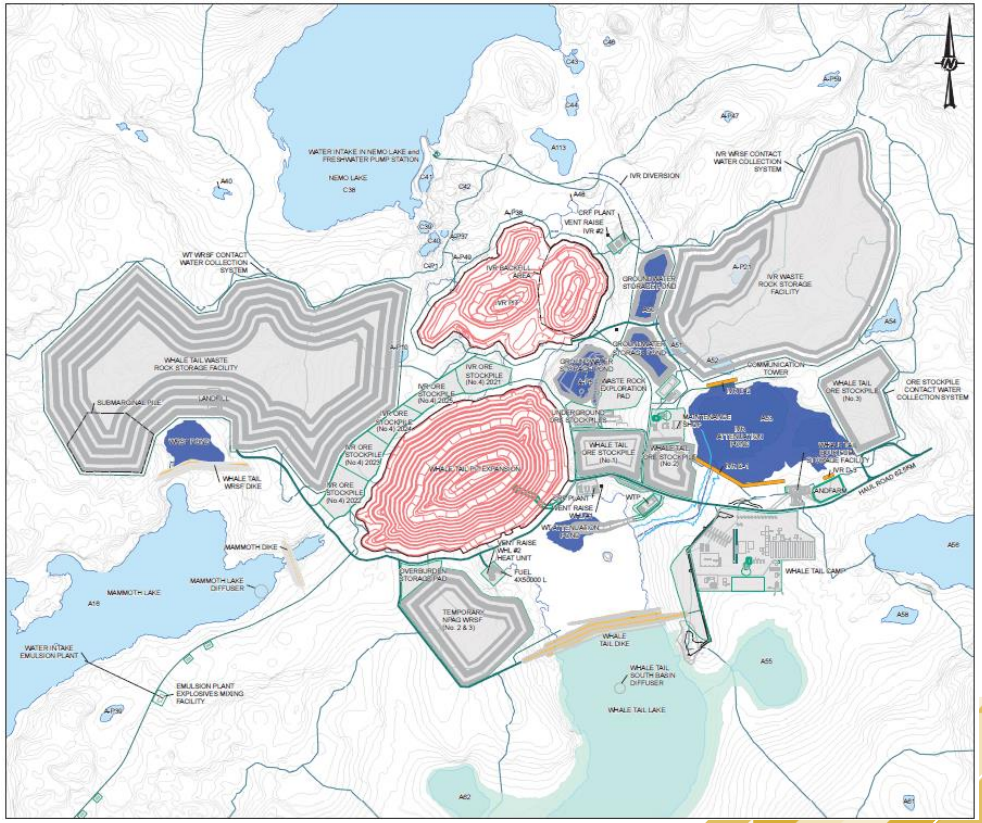
- To summarize the Whale Tail Pit Expansion Project, we present the following video – 3D rendering of the Project

3D rendering

WATER USE AND MANAGEMENT

WATER MANAGEMENT

- **Surface contact water**
  - Pits
  - Waste Rock Storage Facilities and Water Collection System
  - Attenuation Ponds
  - Operational Water Treatment Plant
  - Receivers
- **Underground contact water**
  - Underground mine
  - Groundwater Storage Ponds
  - Waste Rock Storage Facilities
  - Saline Water Treatment Plant
  - Receivers



WATER USE DURING OPERATIONS

Purpose	Approved Project		Expansion Project	
	Volume (Annual)	Source	Volume (Annual)	Source
Consumption (domestic camp use) Dust suppression (site)	191,750 m^3 45,750 m^3	Nemo Lake	209,544 m^3	Nemo Lake
Dewatering (Completed under Fisheries and Oceans Canada authorization)	0 m^3		153,735 m^3	A53 and other lakes listed as per Application
Drilling	0 m^3		109,135 m^3	Small ponds/lakes proximal to drilling sites as per application
Emulsion plant	2,500 m^3	Unnamed lake	2,500 m^3	Mammoth Lake
Dust suppression (Haul Road) – Transferred from Licence 8BC-AEA1525	109,135 m^3	Small ponds / lakes proximal to Haul Road	109,135 m^3	Small ponds/lakes proximal to Haul Road
Subtotal	240,000 m^3 + 109,135 m^3		584,049 m^3	
Contingency (20%)	0 m^3		116,810 m^3	
Total	240,000 m^3 + 109,135 m^3		700,859 m^3	

WATER USE DURING CLOSURE

Purpose	Approved Project		Expansion Project	
	Volume (Annual)	Source	Volume (Annual)	Source
Re-flooding	10,637,400 m^3	Whale Tail South Basin	10,655,000 m^3	Whale Tail South Basin
Re-flooding	0 m^3		1,710,000 m^3	Lake D1
Consumption	17,600 m^3	Whale Tail Lake South Basin	14,672 m^3	Nemo Lake
Subtotal	10,655,000 m^3		12,379,672 m^3	
Contingency (20%)	0 m^3		2,475,934 m^3	
Total	10,655,000 m^3		14,855,606 m^3	

WATER MANAGEMENT DURING WET YEARS

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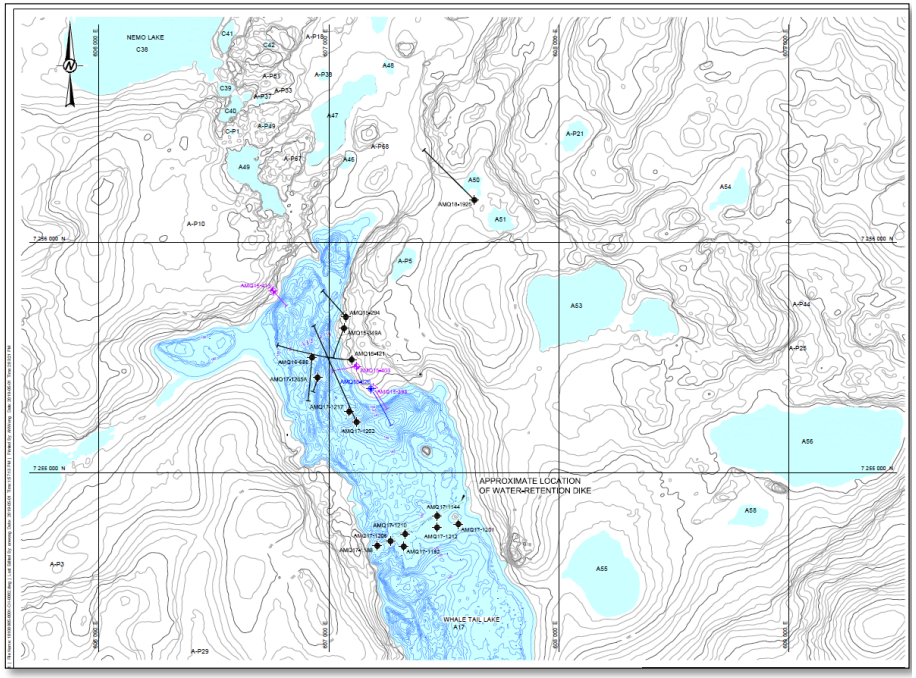
Table 1 : Exceedance Volumes for Different Scenarios in 2020

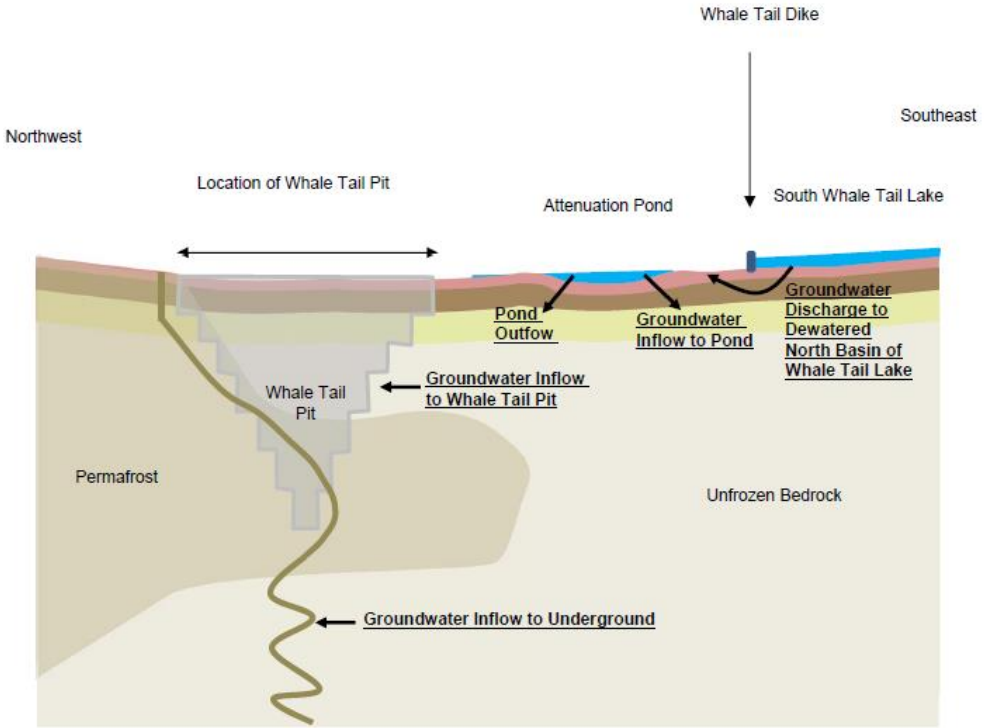
	Volume exceedance for 1:10 years wet scenario (m^3)	Volume exceedance for 1:100 years wet scenario (m^3)
1950-2018 climate data set	145,000	232,000
2000-2018 climate data set	161,000	499,000

Table 2 : Storage Capacity of Water Infrastructure

	Capacity (m^3)	1950-2018 Climate, 1:10 year	1950-2018 Climate, 1:100 year	2000-2018 Climate, 1:10 year	2000-2018 Climate, 1:100 year
Quarry 1	343,000	X	X	X	X
GSP 1	263,000				Y
Total	606,000	X	X	X	X+Y

GROUNDWATER MANAGEMENT





CURRENT AND ADDITIONAL LOCATIONS FOR DISCHARGE OF TREATED EFFLUENT

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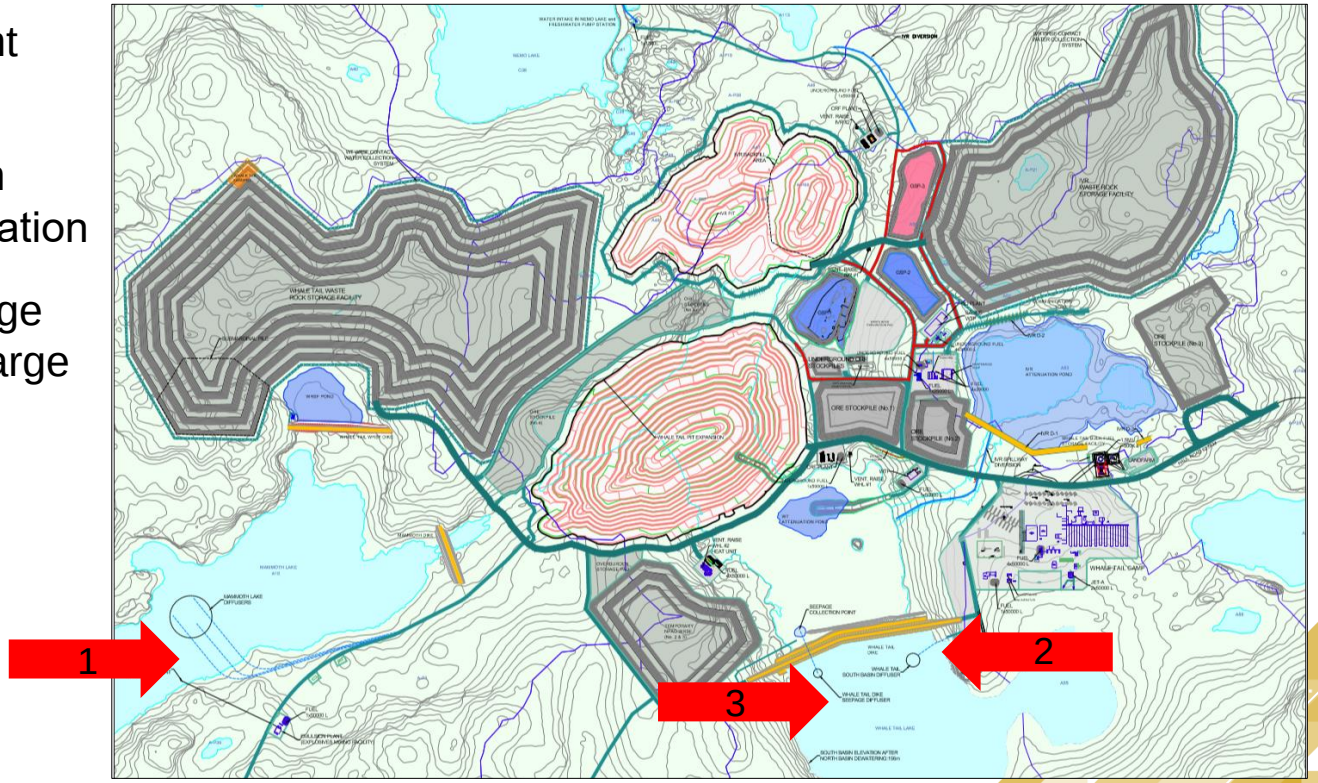
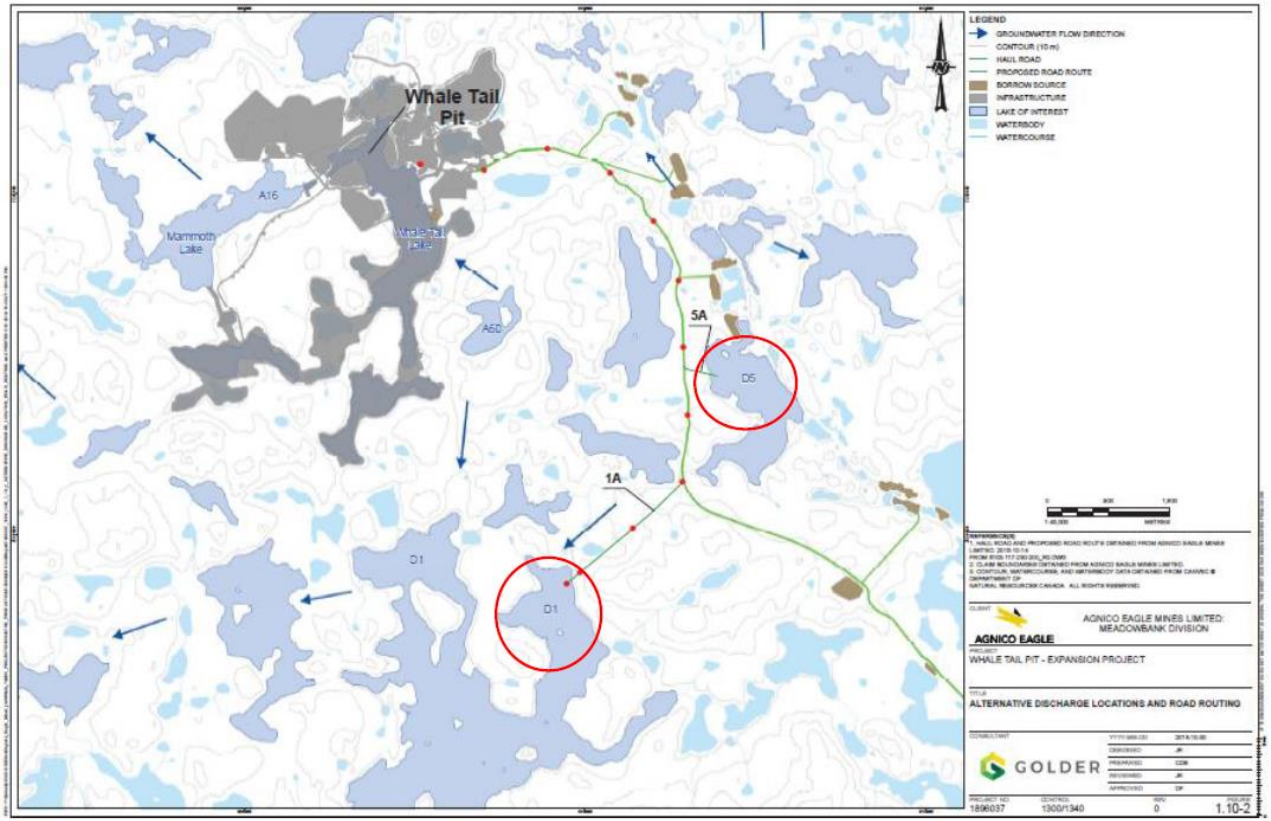
1. Mammoth Lake Effluent Discharge Location
2. Whale Tail South Basin Effluent Discharge Location
3. Whale Tail Dike Seepage Collection Pond Discharge Location



ALTERNATIVE LOCATIONS FOR DISCHARGE OF TREATED EFFLUENT



WATER BALANCE AND WATER QUALITY FORECAST

- Agnico Eagle completed the Project assessment by running a variety of water quality models which include:
  - Operations, closure, and post-closure site and downstream receiving environment water quality
  - Models with varying optimization conditions
  - Pit lake and receiver hydrodynamic models
  - Climate change scenarios RCP6.0 and RCP8.5
  - 1-10 and 1-100 year flood event scenarios
  - Cryo-concentration effects
  - Contamination of the WRSF thermal cover with high arsenic leachable material
- The results of each of these continue to provide show water quality is expected to meet operational and post-closure objectives
- Additionally, site monitoring data collected during the operations and closure phases will be used to annually recalibrate and update the site water quality models to validate projected post-closure conditions
  - Before entering the post-closure phase, Agnico Eagle will have at least 24 years of data and updated water quality predictions from monitoring through operations and closure

WASTE DISPOSAL AND MANAGEMENT

WASTE MANAGEMENT

- Description of infrastructure for disposal of different types of waste:
  - Storage of waste rock in existing Whale Tail and new IVR and Waste Rock Storage Facilities
  - Storage of overburden materials within Waste Rock Storage Facility and/or within Non-Potentially Acid Generating overburden stockpile
  - Operation of existing landfill
  - Construction and operation of new Incinerator/Composter and Landfarm
  - Disposal of hazardous material in approved offsite facilities

WASTE ROCK MANAGEMENT

- Waste rock management practices proposed are consistent with the Approved Project waste management strategy
- Approximately 167.8 MT of waste rock will be generated by the Whale Tail Project
- Waste rock material is sampled and tested to verify Acid-Rock Drainage and Metal Leaching potential in support of waste segregation (>40,000 samples/year)
- NPAG/NML material to be used for Construction and put aside for capping
- PAG material to be placed in Waste Rock Storage Facility and encapsulated within NPAG/NML material during progressive closure and closure
- Underground waste rock temporarily stored on surface before being returned underground as backfill material
- Waste rock storage facility will be monitored to demonstrate geochemical stability, safe environmental performance and efficiency of the waste management procedure

THERMAL MODELLING FOR WASTE ROCK STORAGE FACILITY DESIGN

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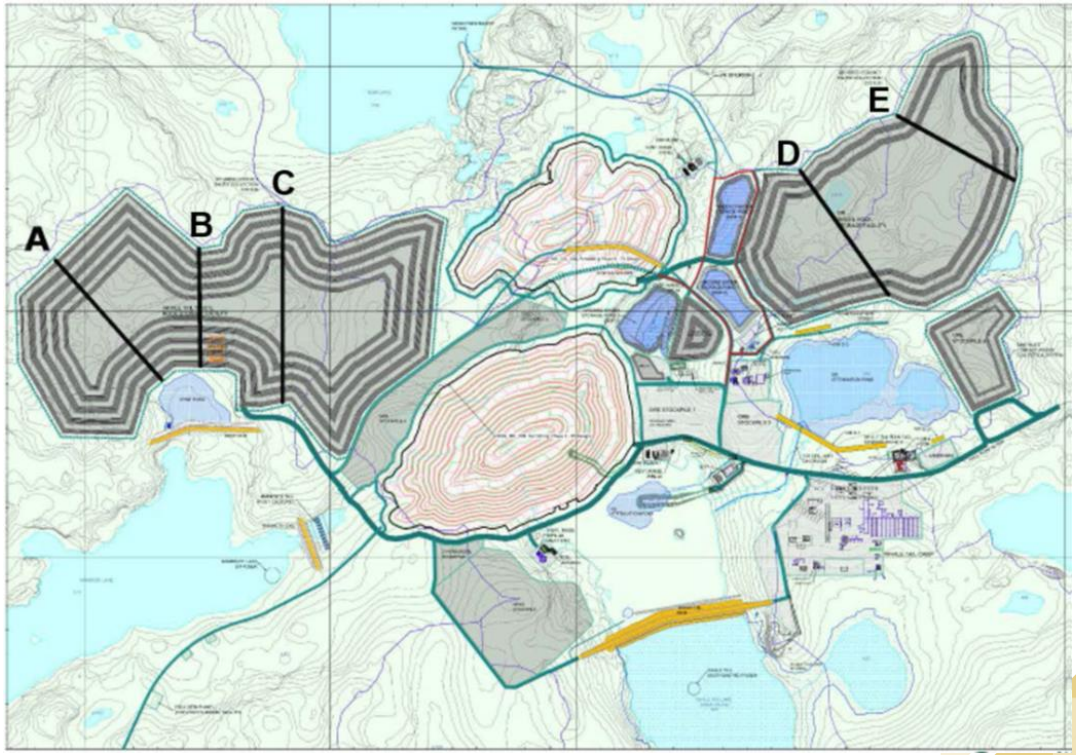
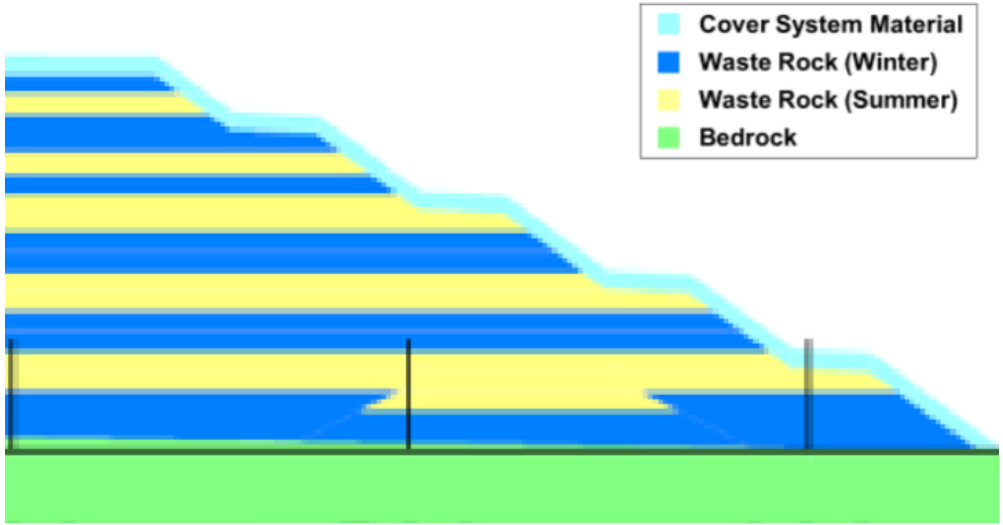
- Hydrological Conceptual Model
- Enhanced and Updated through Coupled Thermal - Hydrologic Numerical Modelling
  - High Infiltration Capacity
  - Low Runoff Capacity
  - Very Low Basal Seepage

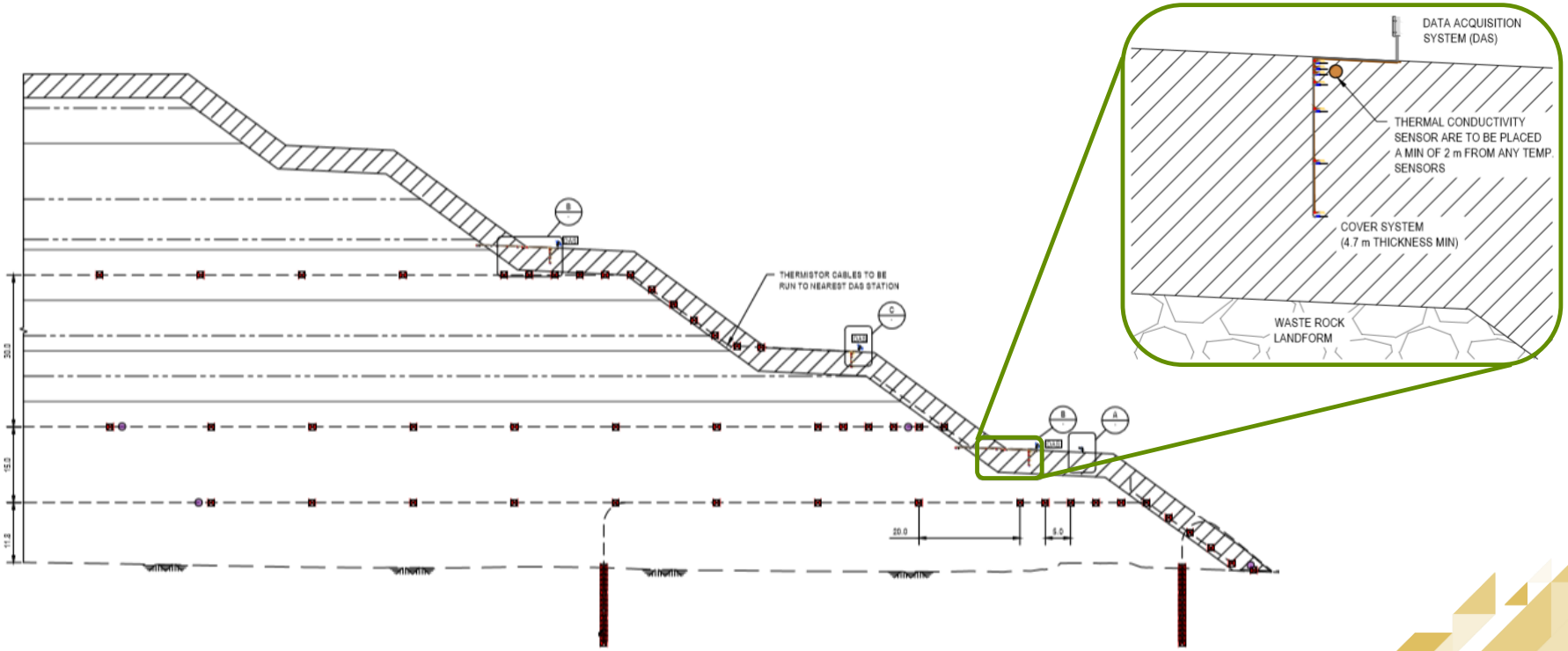


THERMAL MODELLING FOR WASTE ROCK STORAGE FACILITY DESIGN

- Some interflow occurs through infiltration along the slope of the lowest bench of the WRSF
- This flow path interacts with the entire 4.7 m depth of the cover system, along a maximum flow path of approximately 10 m
- Interflow does not interact with the potentially acid generating and metal leaching waste rock
- Interveners comments included in final design submitted December 20, 2019



RESEARCH-ORIENTED MONITORING PLAN



ADAPTIVE MANAGEMENT

ADAPTIVE MANAGEMENT PLAN

- Adaptive Management requires continuous monitoring in order to validate prediction models and evaluate whether existing plans are protective. In effect, it results in a feedback loop for continuous improvement
- Since the technical meeting, meetings were held with KivIA, CIRNAC, DFO, NWB, and ECCC to develop an Adaptive Management Plan (December 3, 2019, January 8, 2020). Final version for approval was submitted to the NWB on January 30, 2020
- Fruitful discussions were held on:
    - Definitions
    - Threshold and triggers and options for adaptive management actions
    - Adaptive Management Decision Tree
- For greater clarity, all actions and management strategies described in the approved Adaptive Management Plan are included in the Scope of the Type A Water Licence (see Part A, Item 1) and can proceed without modification or amendment to the Type A Water Licence

ADAPTIVE MANAGEMENT PLAN

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Table 3: Receiver Water Quality Adaptive Management Strategy.

Adaptive Management Level	Threshold	Management Strategy
Level 0 (Normal operating condition)	-	• Continue monitoring as per Water Quality and Flow Monitoring Plan. • Update water balance and water quality forecast as part of the Annual Report.
Level 1 (Area of concern)	Difference between predicted base case values and two subsequent exceedances above level 0 in water quality measured values in the receiver are 20% or greater AND Two subsequent exceedances above Level 0 in water quality measured values in the receiver are less than 80% of the CCME Water Quality Guidelines for the Protection of Aquatic Life criteria or site-specific water quality objectives	• Continue Level 0 management strategy. • Complete analysis of site wide water quantity and quality data to identify and assess cause(s) of the difference(s) and reported to the NWB. • Report results of data review in annual reporting to the NWB including implications on the Water management plan and the evaluation of potential mitigation strategies such as: o Enhance water treatment plant efficiency and reduce maximum effluent discharge concentration by 10%; and o Review water management practices to stay within assimilative capacity of the receivers; o Discharge in the two receivers simultaneously (Mammoth and Whale Tail South Basin) to reduce overall loading per receiver.
Level 2 (Area of concern)	Difference between predicted base case values and two subsequent exceedances above Level 1 in water quality measured values in the receiver are 20% or greater AND Two subsequent exceedances in Level 1 water quality measured values in the receiver are between 80% and 100% of the CCME Water Quality Guidelines for the Protection of Aquatic Life criteria or site-specific water quality objectives	• Continue Level 1 management strategy • Report results of data review to the NWB in the Annual Report, including implications on the Water management plan and the evaluation of potential mitigation strategies such as: o Enhance water treatment plant efficiency and reduce maximum effluent discharge concentration by 20%; o Reassess monitoring frequency needs; o Look at opportunity to use new treatment technologies; • Implement in-line water treatment process in the areas of concerns to reduce contaminant at the source; • Move discharge location to an approved receiver (Mammoth or Whale Tail South Basin). • Complete assessment of potential discharge in lakes D1 or D5 in case level 3 is reached, with approval from the NWB as per NIRB Project Certificate Conditions.
Level 3 (High Risk situation)	Difference between predicted base case values and two subsequent exceedances in Level 2 water quality measured values in the receiver are 20% or greater, AND	• Continue Level 2 management strategy. • Report results of data review in the Annual Report to the NWB including implications on the Water management plan and the evaluation of potential mitigation strategies such as: o Review overall water management strategy to stay within assimilative capacity of the receivers; o Implement new water treatment unit; and

ADAPTIVE MANAGEMENT PLAN

Adaptive Management Level	Threshold	Management Strategy
	Two subsequent exceedances in Level 2 water quality measured values in the receiver are between 100% and 120% of the CCME Water Quality Guidelines for the Protection of Aquatic Life criteria or site-specific water quality objectives	○ Move discharge location in an approved receiver in Lakes D1 or D5, with approval from the NWB as per NIRB Project Certificate Condition. • Continue monitoring in the original receiver to evaluate if they recover and define threshold to restart using them.
Level 4 (Emergency situation)	Difference between predicted base case values and two subsequent exceedances in Level 3 water quality measured values in the receiver are 20% or greater, AND Two subsequent exceedances in Level 3 water quality measured values in the receiver are above 120% of the CCME Water Quality Guidelines for the Protection of Aquatic Life criteria or site-specific water quality objectives	• Continue Level 3 management strategy. • Report results of detailed data review in the Annual Report to the NWB, including implications on the Water management plan and the evaluation of potential mitigation strategies such as: ○ Move discharge location in an approved receiver or in Lakes D1 or D5; and ○ Suspended effluent discharge until receiver recovery. • Continue monitoring in the original receiver to evaluate if they recover and define thresholds to restart using them. • Evaluate potential new discharge location to resume operation.

CLOSURE, RECLAMATION AND SECURITY

CLOSURE AND RECLAMATION

- Updates to Interim Closure and Reclamation Plan
- Final Closure and Reclamation Plan
- Water Quality and reconnection of flooded pit lake
- Site Specific Water Quality Objectives
- Adaptive Management Plan for Closure

SECURITY

- Reclamation Cost Estimate
  - Approved Project Type A: $26,286,000
  - Approved + Expansion Project Type A: $50,663,508
  - Type B: $1,200,650
- Security Management Agreement

WATER COMPENSATION

REVISIONS TO MANAGEMENT AND MONITORING PLANS

MANAGEMENT AND MONITORING PLANS

- New Plans Created to Address Expansion Project activities:
  1. Adaptive Management Plan
  2. Conceptual Whale Tail Pit Expansion Offsetting Plan
  3. Landfarm Design and Management Plan
  4. Incinerator and Composter Waste Management Plan
- All other plans submitted with the Water Licence Amendment were updates of existing plans to capture Expansion Project activities
- Agnico Eagle is asking for the Board to approve all of these plans with the issuance of the amended licence

MANAGEMENT AND MONITORING PLANS

- Agnico Eagle is committed to updating the following plans following issuance of amended Water Licence 2AM-WTP1826:
  - Whale Tail Pit Waste Rock Management Plan (V5, May 2019)
  - Whale Tail Pit Water Management Plan (V4, May 2019)
  - Whale Tail Pit Interim Closure and Reclamation Plan (V3, December 2019)
  - Spill Contingency Plan (V7, April 2019)
  - Hazardous Materials Management Plan: Meadowbank Mine Site, Whale Tail Pit Site, Baker Lake Facilities (V4, May 2019)
  - Emergency Response Plan (V1, May 2019)

OVERVIEW OF PROPOSED LICENCE AMENDMENTS

OVERVIEW OF PROPOSED LICENCE AMENDMENTS

- Suggested Amended Licence submitted to NWB on December 20, 2019
- Recommendations received from Interveners on January 23, 2020
- Revised Suggested Amended Licence submitted to NWB on January 30, 2020, taking into account Final Written Submissions
- Agnico Eagle recommends its draft to the Board for approval

SITE PREPARATION

RESPONSE TO FINAL WRITTEN SUBMISSIONS

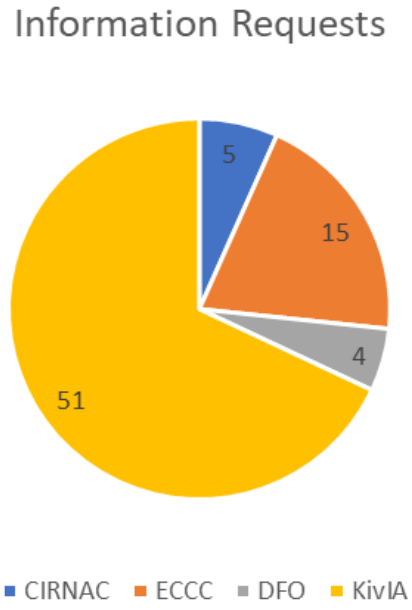
COMPLIMENTARY MEETINGS

Date	Stakeholders	Location	Topics discussed
September 19, 2019	ECCC	Edmonton and conference call	Technical Comments
September 20, 2019	KivIA	Winnipeg and conference call	Technical Comments
September 24-25, 2019	CIRNAC	Iqaluit	Technical Comments
September 30, 2019	KivIA and DFO	Edmonton and Yellowknife	Fisheries Offsetting Plan
November 12, 2019	ECCC	Ottawa and conference call	Schedule 2
December 2, 2019	KivIA and CIRNAC	Ottawa and conference call	Financial Security and Closure
December 3, 2019	KivIA, CIRNAC, ECCC	Ottawa and conference call	Adaptive Management
December 13, 2019	ECCC, DFO, KivIA	Montreal and conference call	Schedule 2, Fisheries Offsetting Plan
January 7, 2020	KivIA	Winnipeg	Financial Security
January 8, 2020	KivIA, CIRNAC, NWB, ECCC	Winnipeg and conference call	Adaptive Management
January 23, 2020	CIRNAC	Conference call	Financial Security
February 4, 2020	CIRNAC	Conference call	Financial Security

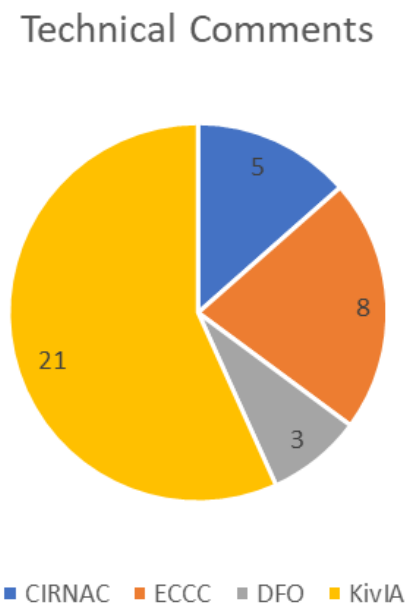
Note: Additional informal conference calls where also held with various Interveners

FINAL WRITTEN SUBMISSION SUMMARY

Total of 75 Information Requests in August 2019

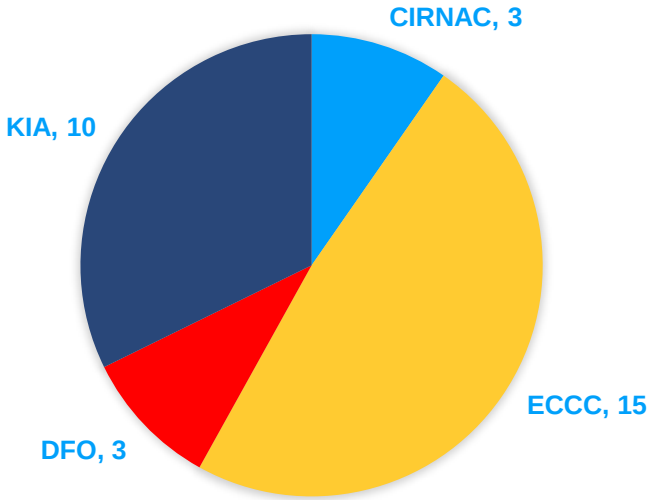


Total of 37 Technical Comments in September 2019



FINAL WRITTEN SUBMISSION SUMMARY

Received a total of 31 Final Written Submissions in January 2020



Agnico Eagle considers all these issues as resolved following submission of our response package.

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MATNA - THANK YOU