



2AM-MRY-1325 Type A Water Licence Renewal

NWB Technical Meeting

December 3-4, 2024





MISSION

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Our mission is to become the lowest cost producer of high-grade iron ore in the world.

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VISION

אנחנו מודים לך על שיתוף הפעולה

Our vision is to safely and efficiently identify and develop resources within Baffin island, unlocking their wealth-generating potential for the benefit of all stakeholders.

[illegible]

VALUES

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Health & Safety

Safety as a value

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Integrity

Do what is right, not what is easy.

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 ለጋሁ ርዚሞ ሆኗል፣
 ለዚህም ምንጭ ምንጭ

Engage and Develop our People

Ժողովուրդի Դատարան
 Բժշկական Կենտրոն

Respect for all

$\Delta^b \wedge J\Gamma^b \dashv \sigma$ $\rho^b d\zeta \dot{\vdash} \sigma^b$

Environmental Stewardship

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Pursue Performance Excellence

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Presentation Summary

- Mary River Water Licence Renewal Overview
- Technical Overview
- Conclusion



Mary River Water Licence Renewal Overview

Mary River Water Licence History

Key Dates

- **June 10, 2013:** Issuance of Type 'A' Water Licence 2AM-MRY1325
- **July 21, 2015:** Issuance of Amendment No. 1 to Type 'A' Water Licence 2AM-MRY1325 (Early Revenue Phase)
- **June 26, 2024:** Renewal Application Submission



NUNAVUT WATER BOARD

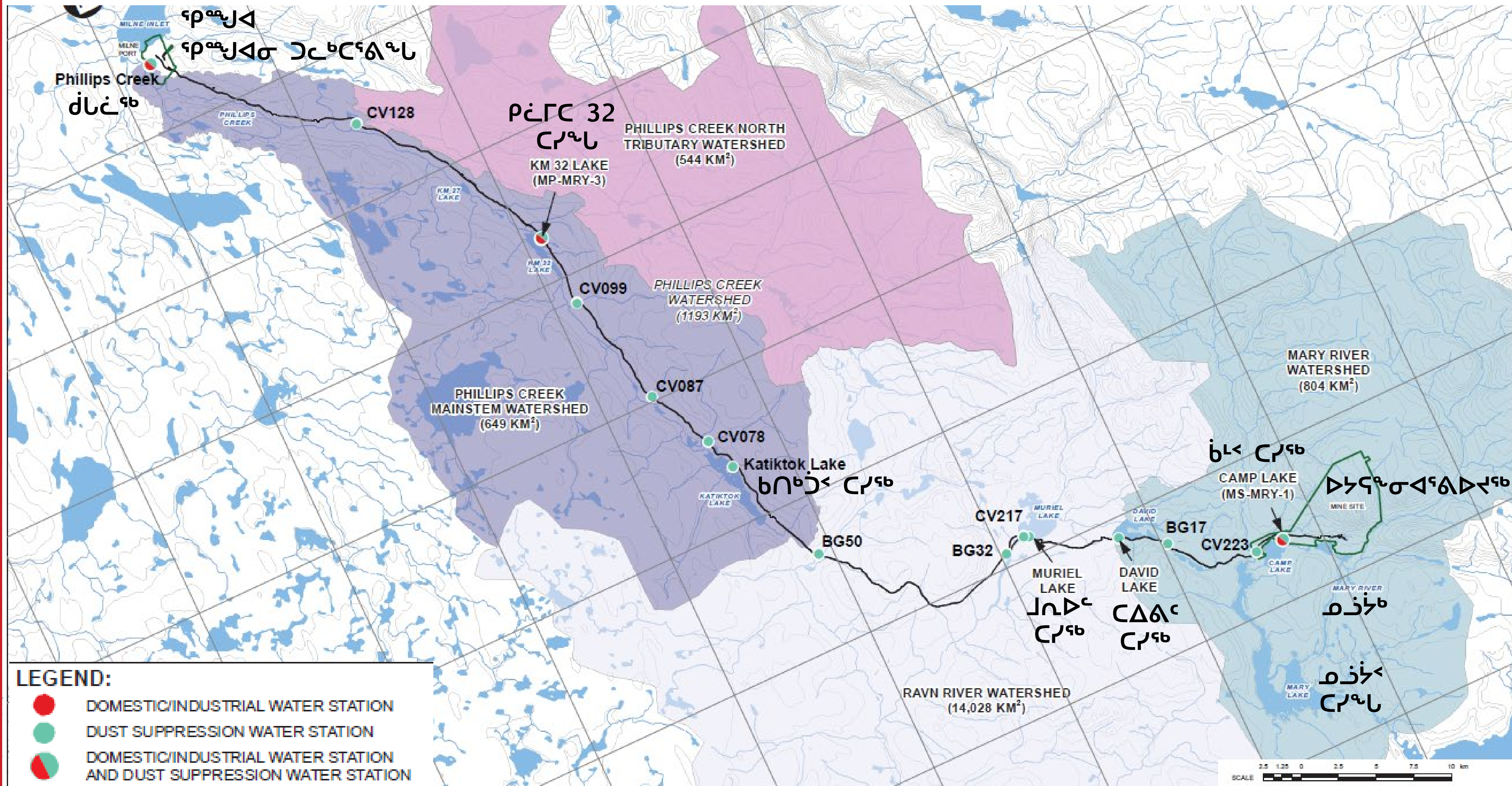
WATER LICENCE NO: 2AM-MRY1325

Water Licence Renewal Overview

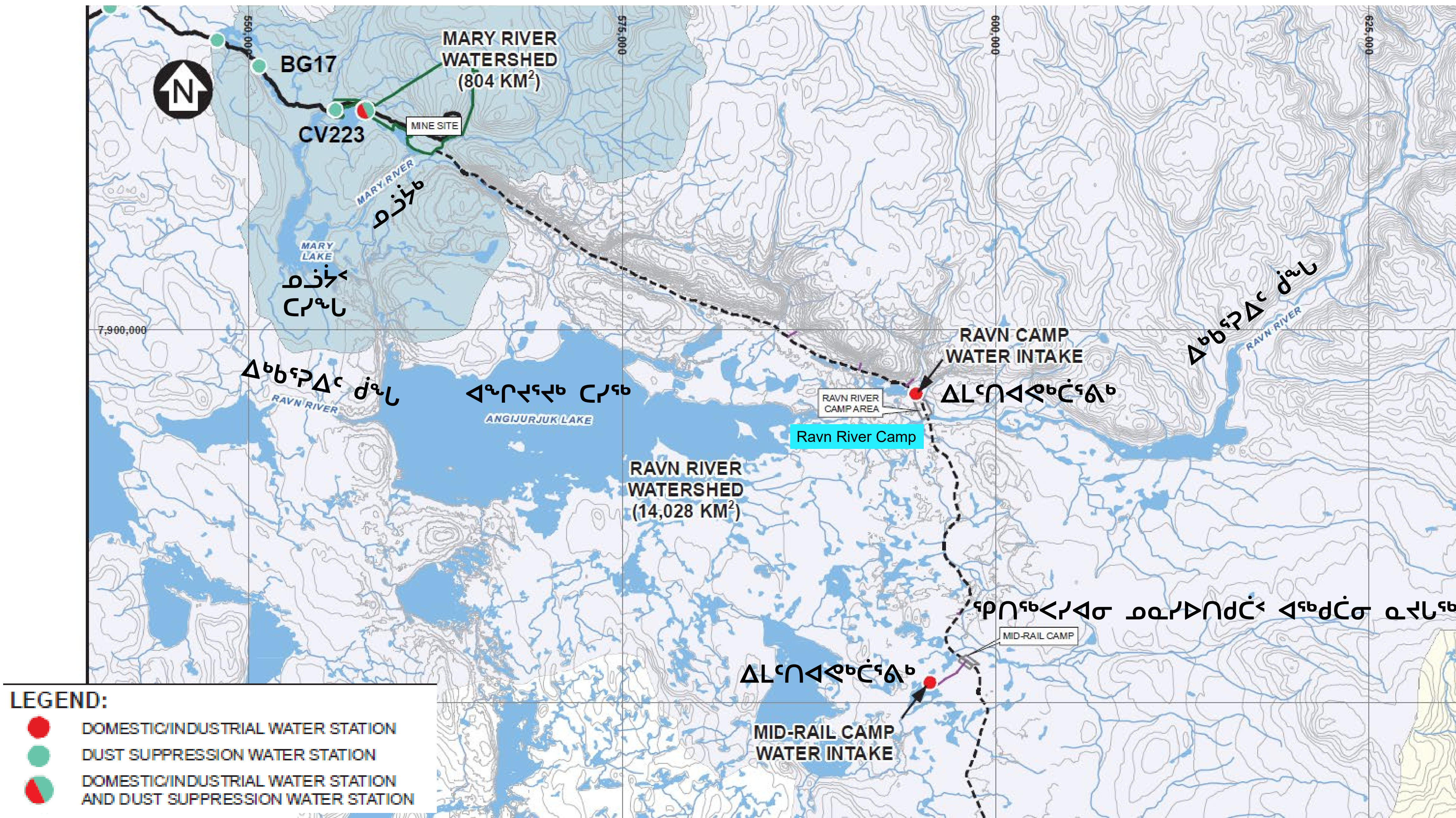
- Requesting a 15-year term
- No substantive changes to current licence terms and conditions requested as part of the water licence renewal
 - Minor improvements to improve functionality
- Management Plans for current operations provided for reference, already subject to annual review
- Current licence issued based on Project Certificate (PC) 005, everything in scope of PC is included in the current water licence



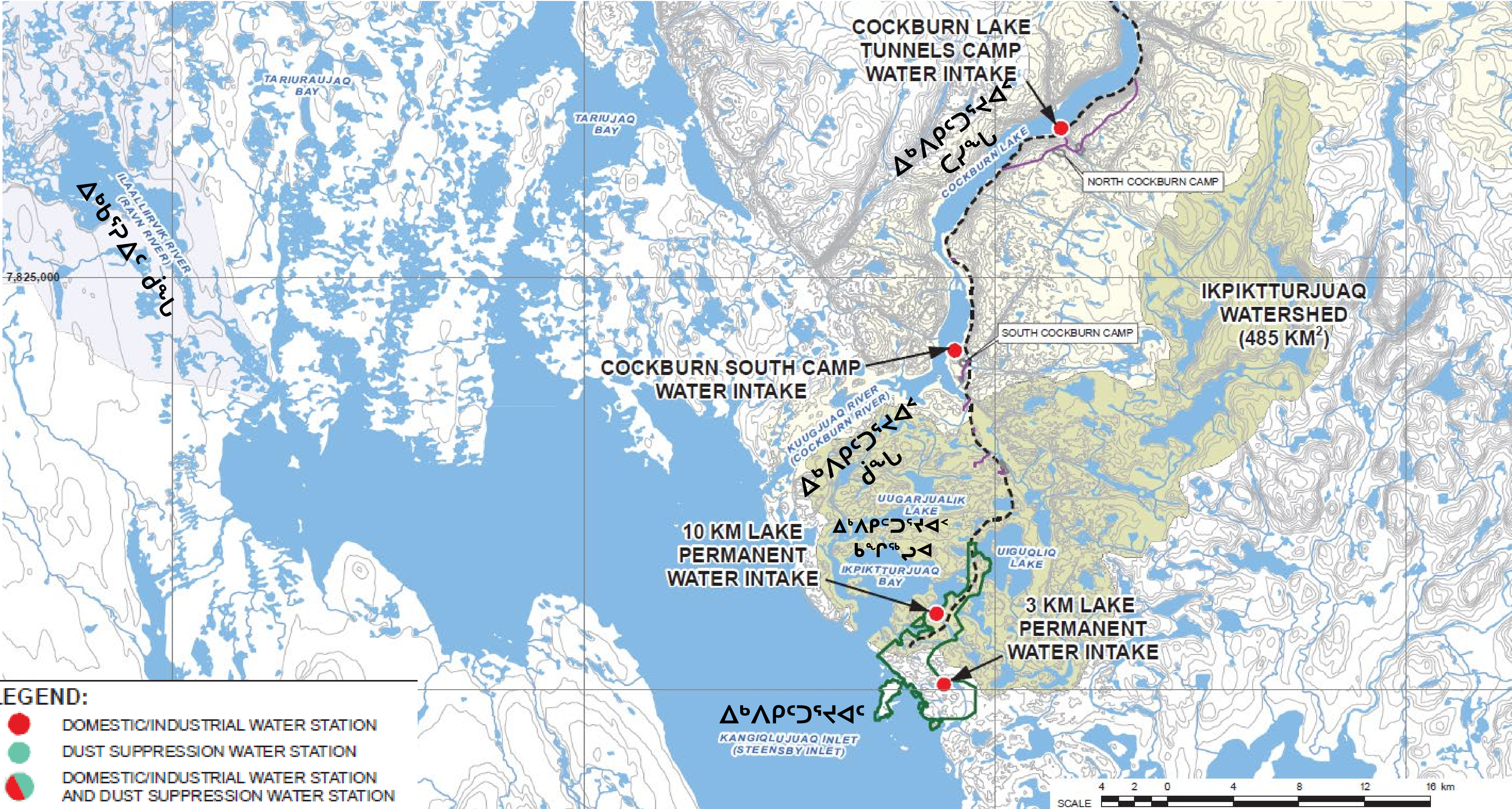
Approved Water Stations



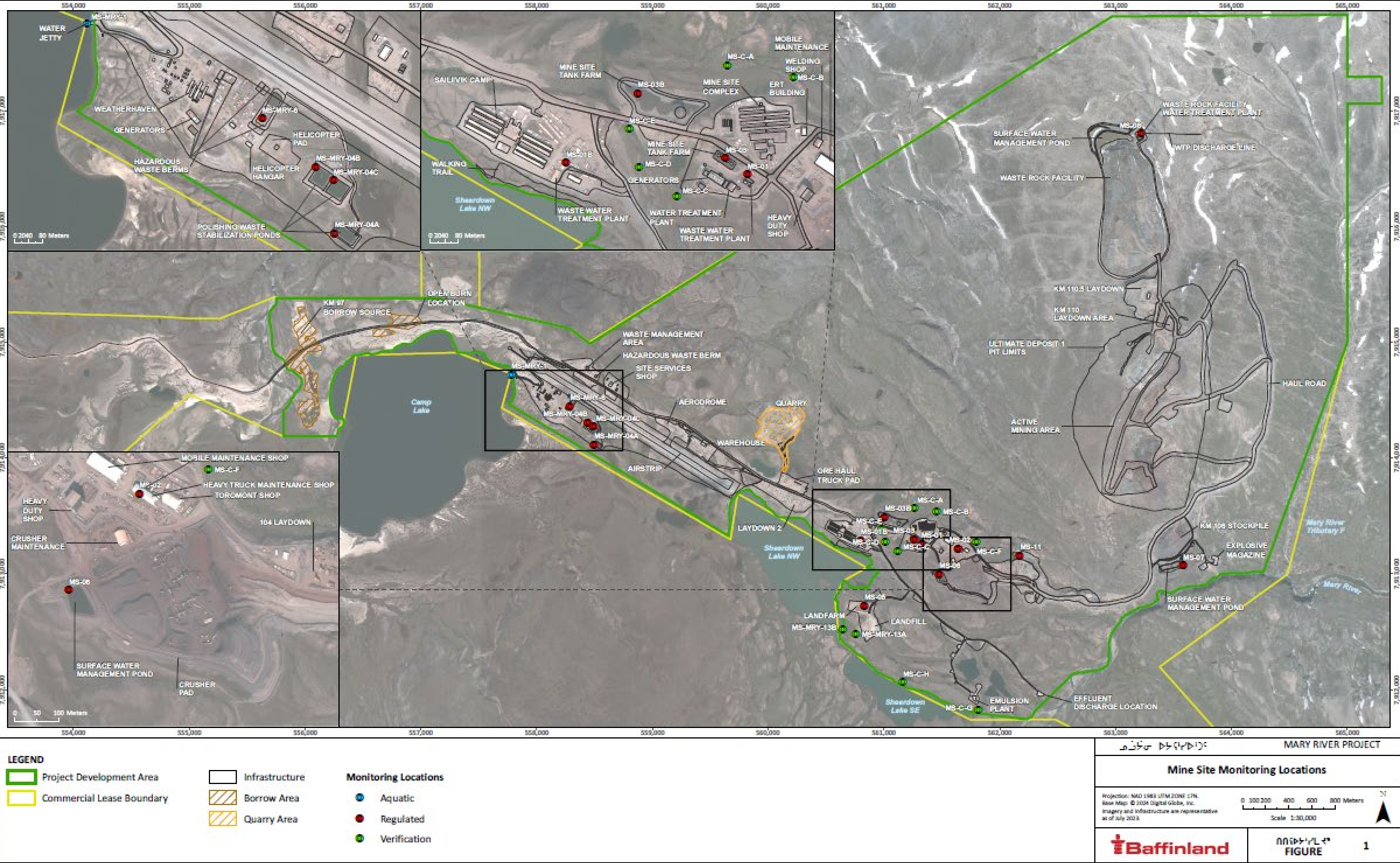
Approved Water Stations - Steensby



Approved Water Stations - Steensby



Monitoring Locations – Mine Site



Monitoring Locations

- Aquatic
- Regulated
- Verification

See larger poster

Monitoring Locations – Milne Port



Monitoring Locations

-  Aquatic
-  Regulated
-  Verification

See larger poster

Water Licence Monitoring Team

- Site Environment Team
 - 7 Inuit technician and specialists
 - 4 QIA environmental monitors



Freshwater Monitoring Programs

- Aquatic Effects Monitoring Program (AEMP)
 - Surveillance Network Program (SNP)
 - Environmental Effects Monitoring (EEM)
 - Core Receiving Environment Monitoring Program (CREMP)
 - Lake Sedimentation Monitoring Program
 - Dustfall Monitoring Program
- Hydrometric Monitoring
- Groundwater Monitoring
- Tote Road Monitoring Program (TRMP)

Aquatic Effects Monitoring Program (AEMP)

- Monitoring freshwater lakes and streams in the receiving environment
 - Water samples
 - Studies on sediment, benthic invertebrates and fish
- Data is compared geographically, temporally, and against benchmarks
- Methods: water sampling, electrofishing, gill nets, sediment traps



Aquatic Effects Monitoring Program - Lakes

- Lake sampling includes:
 - Field parameter depth profile
 - Water quality samples at different depths
 - Secchi disk measurements



Aquatic Effects Monitoring Program - Lakes

- Winter sampling at lakes under the ice at various depths



Aquatic Effects Monitoring Program - Streams

- Stream sampling includes sites near and far from the mine site



Sediment Sampling

- Understand rates of sediment deposition from the Project
- Collect and deploy sample containers on the lake bed near the mine
- Collect sediment core samples



Surveillance Network Program (SNP)

- Surface water monitoring in streams adjacent to site
- Water quality monitoring from pond discharges



Community Engagement

- Engagement carried out by Inuit-led team
- Communication about Mary River Project in Inuktitut and English, following and respecting Inuit oral traditions
- Ongoing engagement regarding on the Mary River Project
- Inuit knowledge

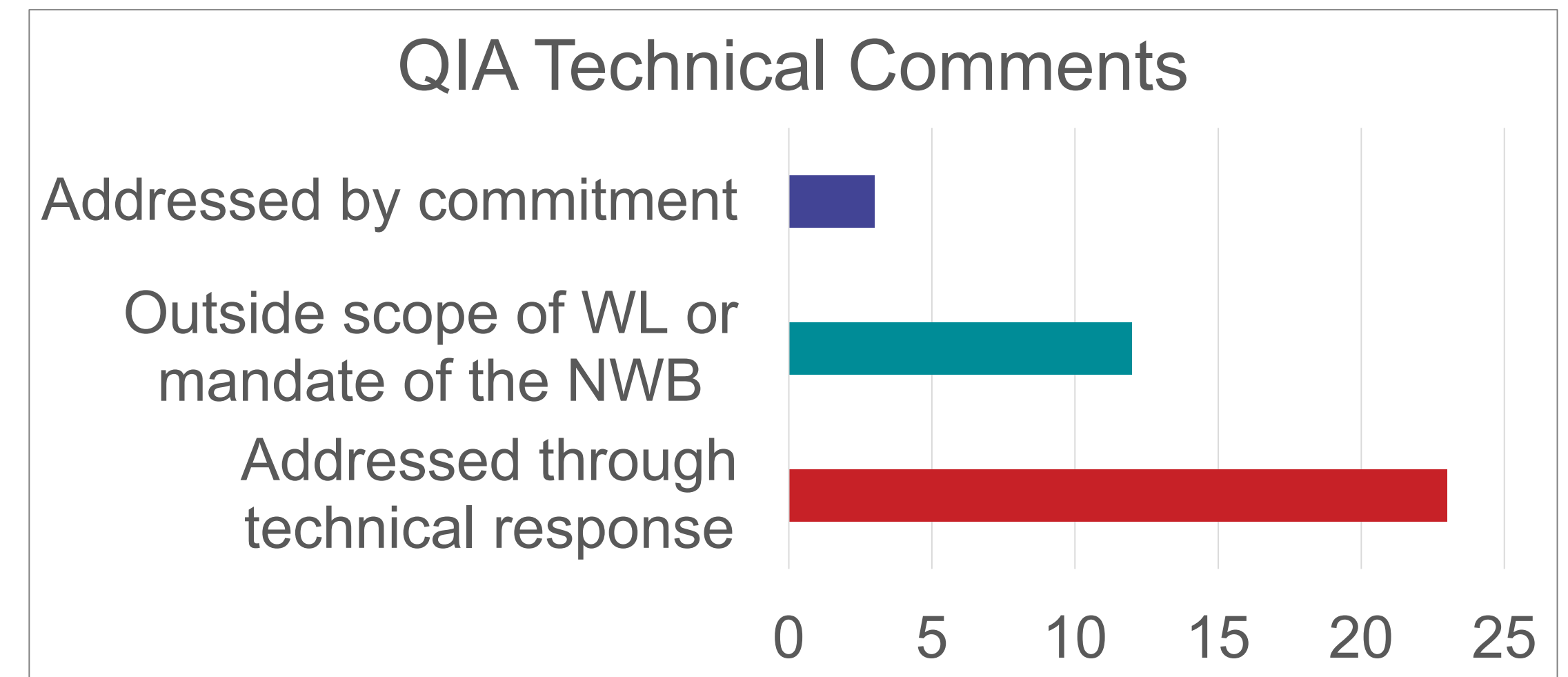


Technical Submissions

Qikiqtani Inuit Association

38 technical
comments

- Key topics:
 - Aquatic monitoring data
 - Adaptive Management
 - Management plans
 - Monitoring programs and locations
 - Steensby components
 - Parameters of Potential Concern levels
 - Sediment and erosion control
 - Potential effects on aquatic habitat
 - Waste Rock Facility
 - Inuit Objectives, Indicators, Tresholds and Responses
 - Inuit Qaujimajatuqangit and Inuit engagement



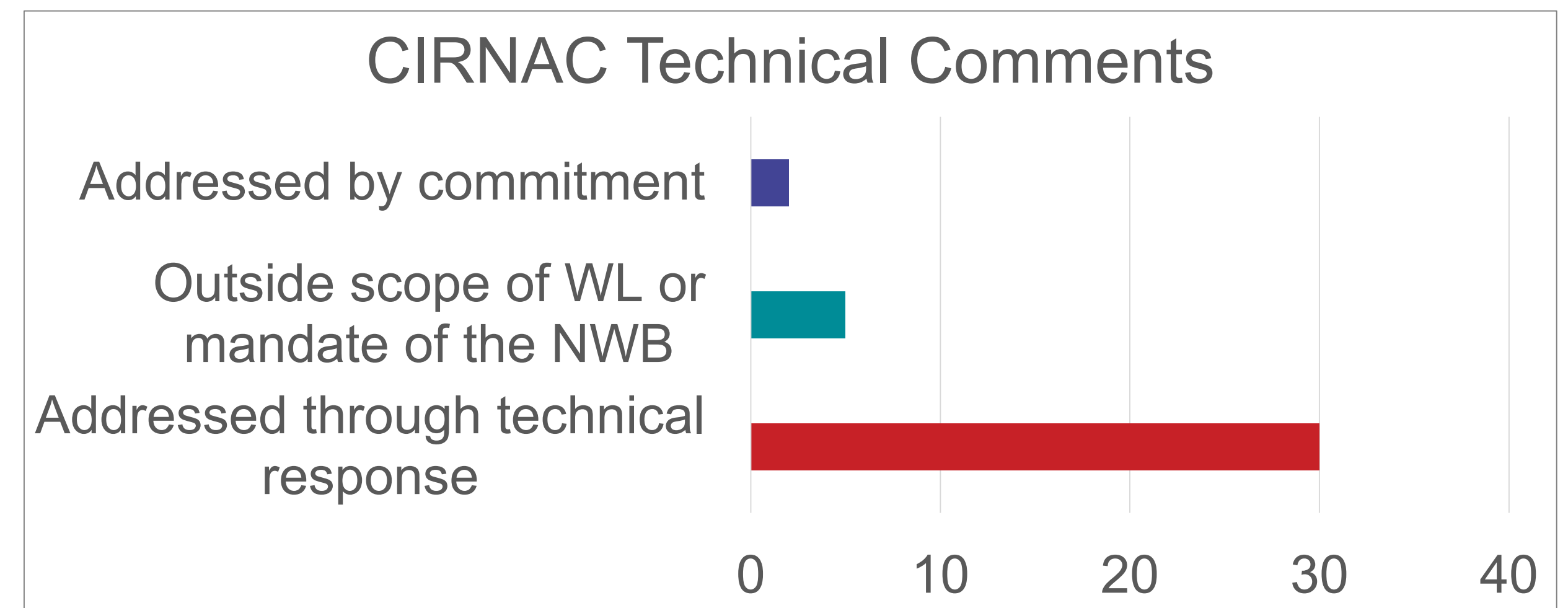
Crown-Indigenous Relations and Northern Affairs



Crown-Indigenous Relations
and Northern Affairs Canada
Relations Couronne-Autochtones
et Affaires du Nord Canada

37 technical
comments

- Key topics:
 - Management and monitoring plans
 - Dustfall monitoring
 - Water monitoring and sampling locations
 - Surface water management
 - Water balance model
 - Waste Rock Facility thermal modelling
 - Water quality data
 - Interim Closure and Reclamation Plan
 - Mine schedule
 - Mineral lease licences
 - Water intake facilities
 - Ice roads
 - Water storage tanks
 - Water management design



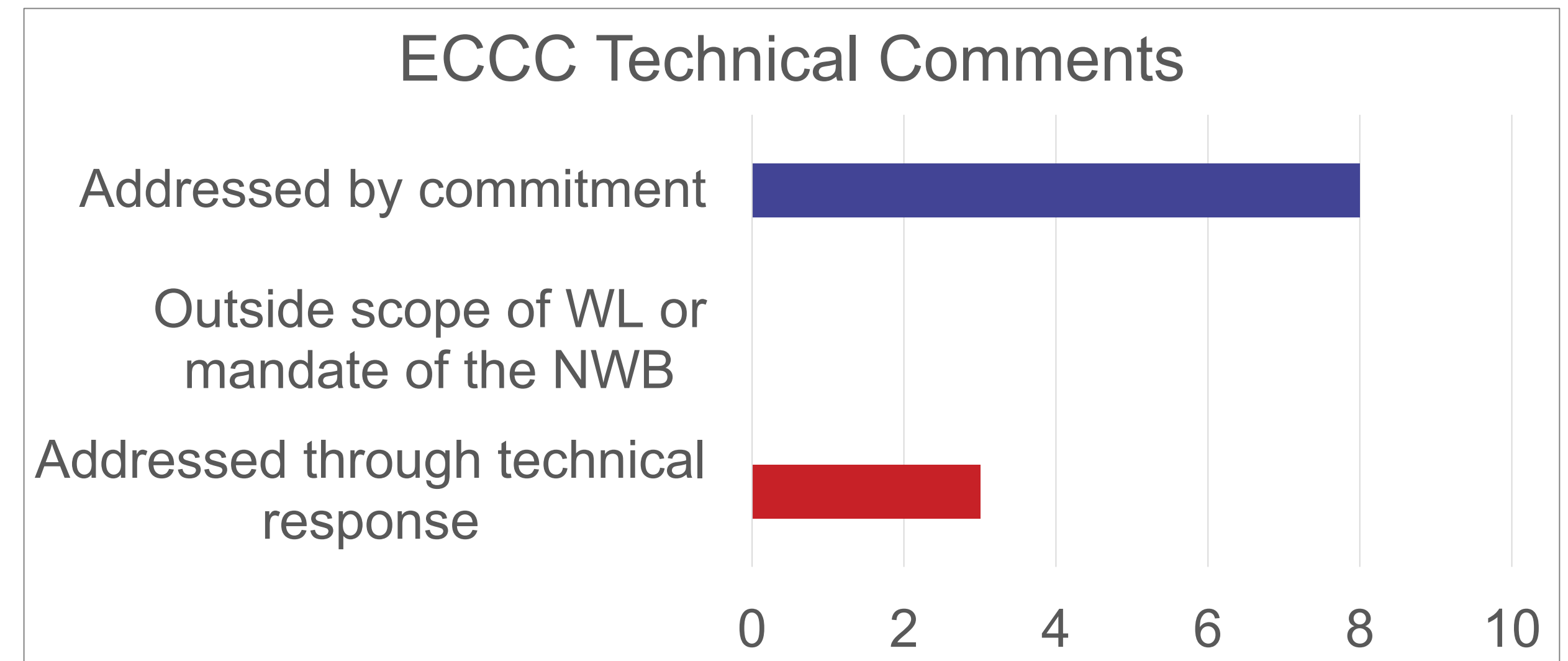
Environment and Climate Change Canada



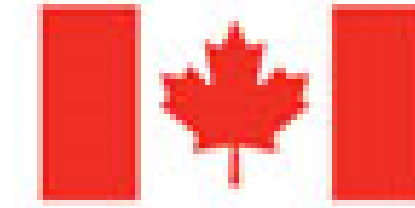
Environment and
Climate Change Canada
Environnement et
Changement climatique Canada

11 technical
comments

- Key topics:
 - Sediment and erosion control
 - Management plans
 - Effects to aquatic environment
 - Discharge criteria
 - Monitoring locations



Fisheries and Oceans Canada

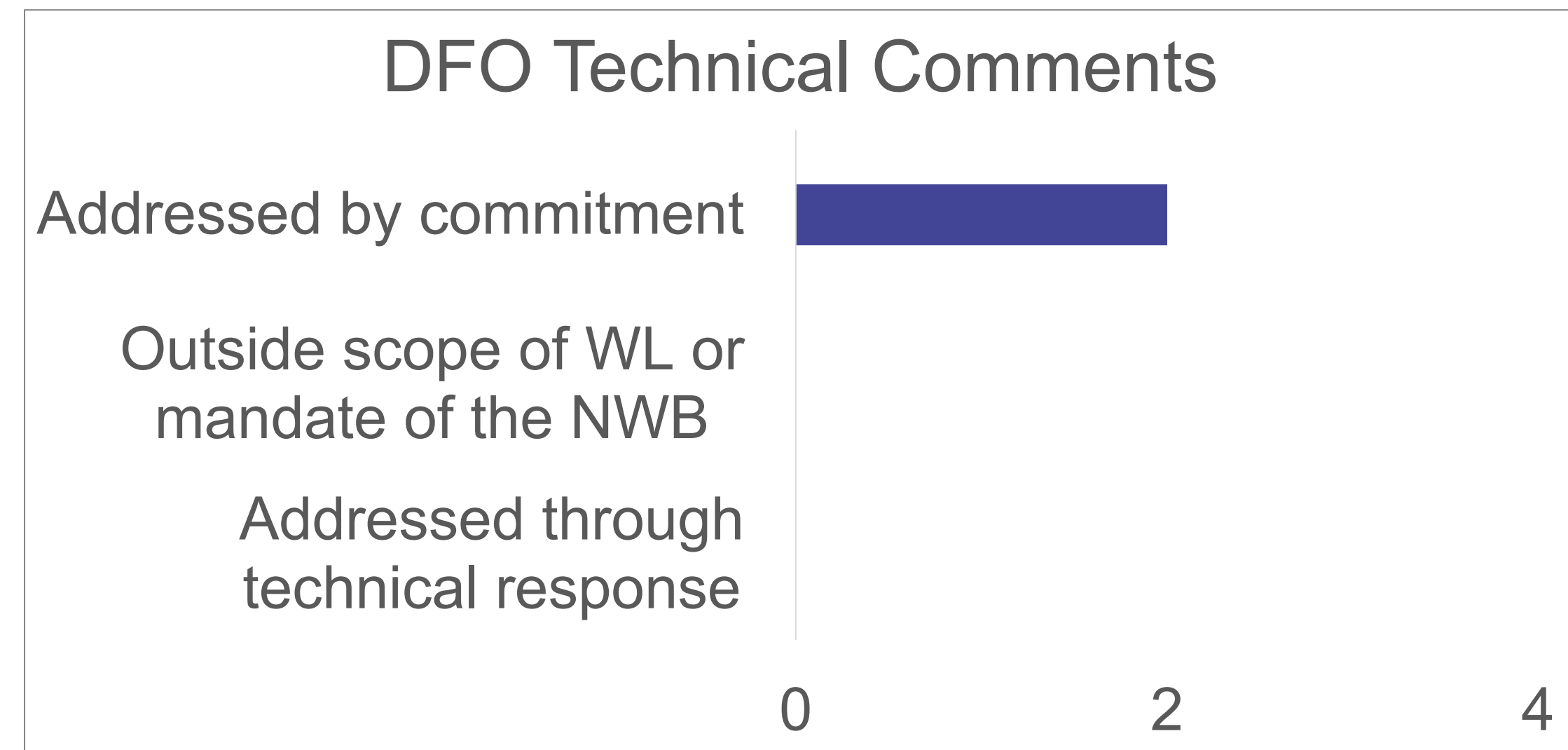


Fisheries and Oceans
Canada

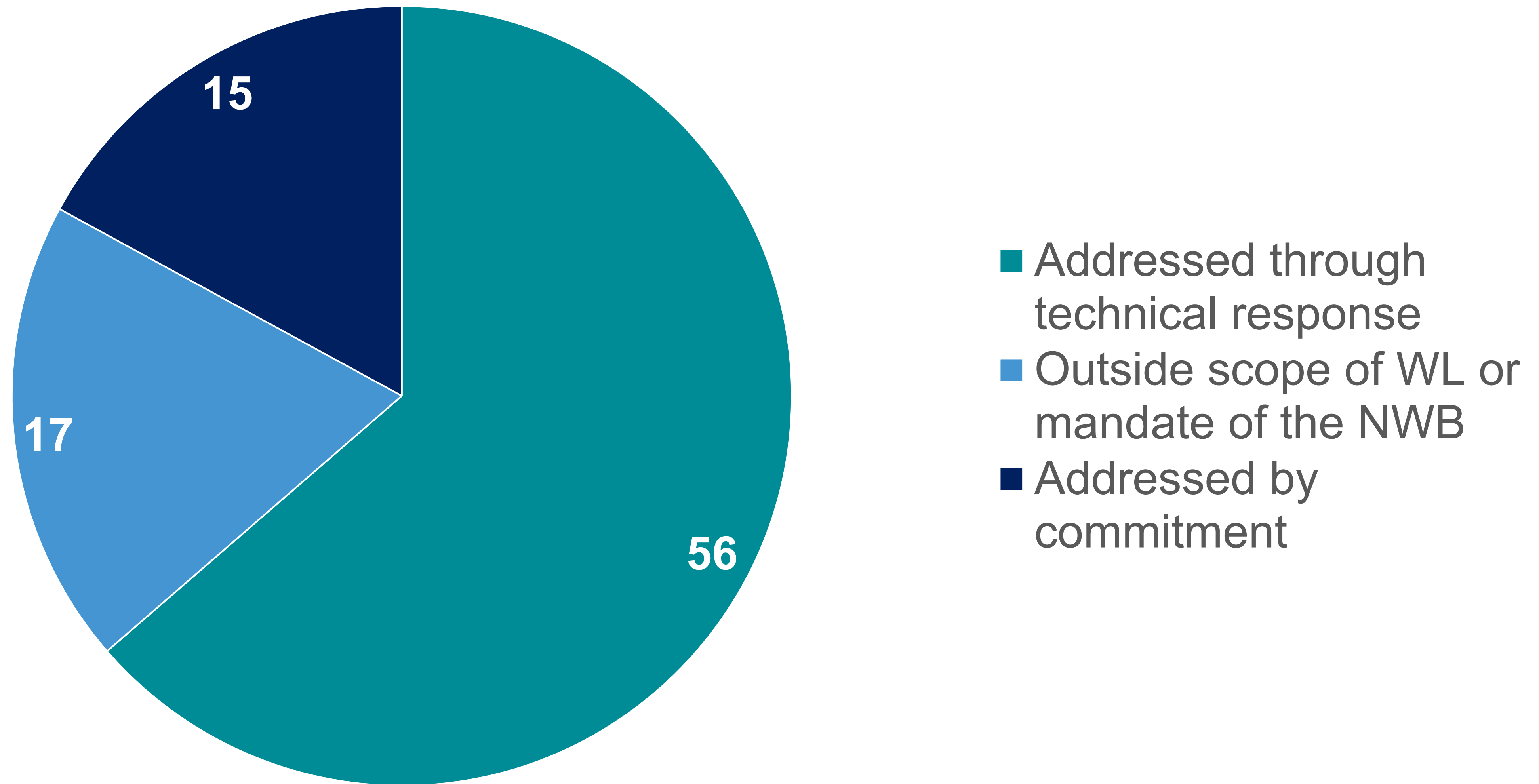
Pêches et Océans
Canada

2 technical
comments

- Key topics:
 - Impacts to aquatic environment
 - Sediment and erosion control



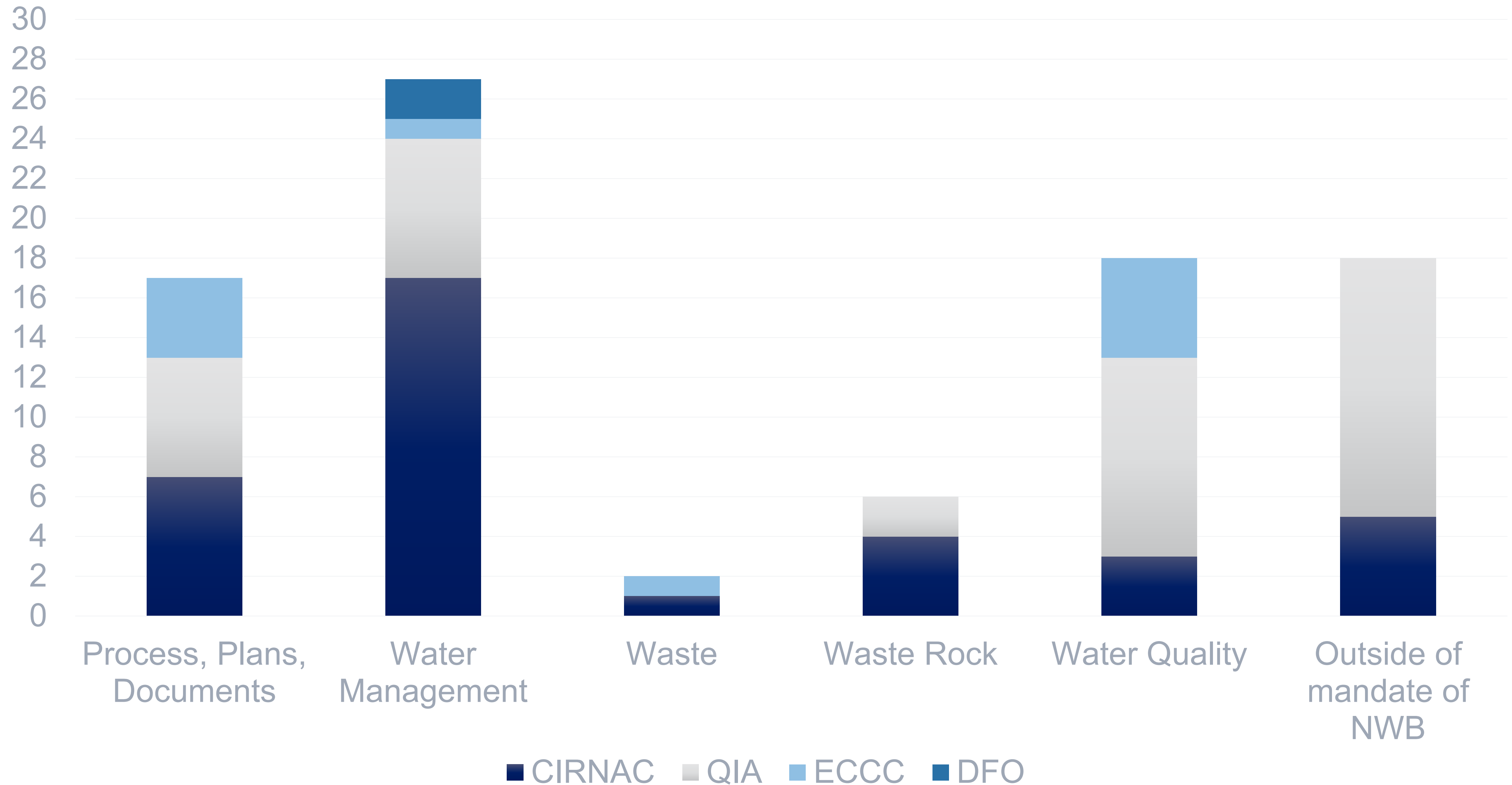
Technical Comment Summary



Technical Comments Summary

Addressed by commitment	Addressed through technical response		Outside scope of WL or mandate of the NWB
CIRNAC R-06	CIRNAC R-01	QIA-TR-1	CIRNAC R-02
CIRNAC R-13	CIRNAC R-07	QIA-TR-4	CIRNAC R-03
QIA-TR-2	CIRNAC R-08	QIA-TR-5	CIRNAC R-04
QIA-TR-7	CIRNAC R-09	QIA-TR-6	CIRNAC R-05
QIA-TR-20	CIRNAC R-10	QIA-TR-8	CIRNAC R-32
ECCC #1	CIRNAC R-11	QIA-TR-9	QIA-TR-3
ECCC #2	CIRNAC R-12	QIA-TR-10	QIA-TR-25
ECCC #5	CIRNAC R-14	QIA-TR-11	QIA-TR-27
ECCC #6	CIRNAC R-15	QIA-TR-12	QIA-TR-28
ECCC #7	CIRNAC R-16	QIA-TR-13	QIA-TR-29
ECCC #8	CIRNAC R-17	QIA-TR-14	QIA-TR-31
ECCC #9	CIRNAC R-18	QIA-TR-15	QIA-TR-32
ECCC #11	CIRNAC R-19	QIA-TR-16	QIA-TR-34
DFO-TRC-01	CIRNAC R-20	QIA-TR-17	QIA-TR-35
DFO-TRC-02	CIRNAC R-21	QIA-TR-18	QIA-TR-36
	CIRNAC R-22	QIA-TR-19	QIA-TR-37
	CIRNAC R-23	QIA-TR-21	QIA-TR-38
	CIRNAC R-24	QIA-TR-22	
	CIRNAC R-25	QIA-TR-23	
	CIRNAC R-26	QIA-TR-24	
	CIRNAC R-27	QIA-TR-26	
	CIRNAC R-28	QIA-TR-30	
	CIRNAC R-29	QIA-TR-33	
	CIRNAC R-30	ECCC #3	
	CIRNAC R-31	ECCC #4	
	CIRNAC R-33	ECCC #10	
	CIRNAC R-34		
	CIRNAC R-35		
	CIRNAC R-36		
	CIRNAC R-37		

Technical Comment Theme



Key Themes – Management Plans



Steensby Component



Erosion and Sediment Control



Inuit Knowledge and Inuit Water Rights



Annual Security Review



Commitments

Party who raised (TC #)	Commitment
CIRNAC R-06	Baffinland will provide updated figures to reflect the most up to date information for all routine and permitted sampling locations on November 18, 2024 to the NWB and intervenors.
CIRNAC R-13	Baffinland supports a change in the financial security review frequency for the Mary River Project. Baffinland commits to engage with CIRNAC and QIA on this specific item prior to the technical meeting, and will provide the NWB with an update at the technical meeting which addresses frequency and potential revised WL conditions, should the NWB agree.
QIA-TR-2	Baffinland will define the general intent of professions judgement and the rationale to be included when it is exercised within Baffinlands annual reports. Where professional judgement is applied in relation to TARPs, Baffinland will be prepared to share its detailed rationale if requested.
QIA-TR-7	Prior to the beginning of construction, Baffinland will reactivate the monitoring locations along the Steensby Railway to verify and supplement historical measurement data.
QIA-TR-20	Baffinland will provide updated water sampling and monitoring location figures within the next version of the SWAEMP. This update will include updated water monitoring locations and flow directions.

Commitments

Party who raised (TC #)	Commitment
ECCC #1	A comprehensive follow up report for water quality monitoring at the seep location as well as downstream receiving environment station D1-05 will be provided to ECCC, CIRNAC and QIA in Q4 2024.
ECCC #2	Baffinland will incorporate applicable features subject to the WL from the SMP and TRMP into the next revision of the SWAEMP , following the NWB normal course of annual reporting, which occurs in parallel with the renewal process. Applicable features to be included into the SWAEMP will include WQ Site monitoring stations and schedules, Monitoring group parameters
ECCC #5	The abbreviation BTE will be corrected in Section 3.1 of the next revision of the Fresh Water Supply, Sewage, and Wastewater Management Plan, which will be issued with the NWB QIA Annual Report for Operations in 2025 .
ECCC #6	Baffinland will adopt the below FEQGs as the discharge criteria for benzene, ethylbenzene, toluene and xylene at the Project.

Commitments

Party who raised (TC #)	Commitment
ECCC #7	Baffinland will issue a draft Schedule I with the requested information added on November 18th, 2024 to the NWB for consideration as part of these proceedings.
ECCC #8	Baffinland will issue a draft Schedule I with this information added on November 18th, 2024 to the NWB for review as part of these proceedings. The most recent revision of the SWAEMP was issued prior to the KM105 Pond being constructed. Water Licence monitoring locations will be updated in the next revision of the SWAEMP.
ECCC #9	Baffinland will clarify the AEMP Benchmark for aluminum is based on total concentrations in future revisions/updates of the AEMP.
ECCC #11	The requested administrative updates for minor corrections will be made in the next revisions to the referenced plans and management plans, to be submitted on March 31, 2025, following the NWB normal course of annual reporting, which occurs in parallel with the renewal process.

Commitments

Party who raised (TC #)	Commitment
DFO-TRC-01	Baffinland will include a summary table with all proposed watercourse crossings (road and rail culverts and bridges) in the next update to the SWAEMP for crossing locations along the Tote Road. The review of the SWAEMP will occur by March 31, 2025, following the NWB normal course of annual reporting, which occurs in parallel with the renewal process.
DFO-TRC-02	<p>Baffinland will implement erosion and sediment control training is required for personnel involved with the planning, installation, and maintenance of ESC measures. In-house Erosion and Sediment Control Awareness training is being developed for personnel involved in ESC activities and will be rolled-out during winter 2024-25.</p> <p>Topics covered will include:</p> <ul style="list-style-type: none"> • Legislation that governs erosion and sediment • Types of erosion • Factors that influence erosion • Erosion and Sediment control BMPs • Installation of BMPs

Conclusion

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THANK YOU

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