

2025 DYE-M ANNUAL NUNAVUT WATER BOARD REPORT

**FOR THE
NORTH WARNING SYSTEM**

Contract # W8485-157352/001/NX
SOW Ref: 17.7

Document Number
17.7 NWB-DM-2025 , 16-Mar-2026

Prepared for
North Warning System & Assoc. Projects
Aerospace Equipment Program Directorate
455 Blvd de la Carrière, 11th Floor
Gatineau, Québec K1A 0K2

Prepared By

275 Slater Street, Suite 1600
Ottawa, Ontario, K1P 5H9

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EXECUTIVE SUMMARY

This 2025 Annual Report for the Nunavut Water Board (NWB) has been prepared by Nasittuq for the Department of National Defence in order to meet the requirements of Part B “General Conditions”, paragraph 1 of its licence 8BC-DYE-1929. This report covers 01 January to 31 December 2025.

Nasittuq is the Operations and Maintenance (O&M) Contractor for the North Warning System (NWS), including DYE-M, the North Warning System radar site located at Cape Dyer, Nunavut. In 2025 the site was visited quarterly by Nasittuq staff based in Iqaluit for preventive maintenance inspections and as required for other work. It is planned to be attended year-round in the future.

All water was taken from the melt-water water source, listed in the licence as “DYE-1(b)”. The quantity of water taken (**196.8 cubic metres**) was below the annual maximum of 3,000 cubic metres allowed by the licence.

Samples of the water contained in the berms of fuel storage facilities were tested on-site using hydrocarbon test strips and confirmed to be within effluent quality limits of the NWB licence before the water was pumped out of the berms.

In 2025 hazardous waste and waste oil was sent to an approved hazardous waste disposal site outside of Nunavut as required by the licence.

Non-hazardous domestic solid waste was flown out to the Logistics Support Site in Iqaluit and disposed of at Iqaluit’s landfill. Nasittuq has documented authorization from the community for receiving the waste.

Three spills to the environment occurred in 2025.

No progressive reclamation work was undertaken in 2025.

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1.0 INTRODUCTION

This 2025 Annual Report for the Nunavut Water Board (NWB) has been prepared by Nasittuq for the Department of National Defence in order to meet the requirements of Part B “General Conditions”, paragraph 1 of its licence 8BC-DYE0919 issued on 01-Sep-2019 and amended effective 14-April-2022. The amendment now allows for 3,000 cubic metres per year.

This report covers 01 January to 31 December 2025.

Nasittuq is the Operation and Maintenance (O&M) Contractor for the North Warning System (NWS), including DYE-M, the unattended (unmanned) NWS radar site located at Cape Dyer, Nunavut.

In 2025 the site was staffed over the summer and also visited quarterly in the winter by Nasittuq staff based in Iqaluit for preventive maintenance inspections and as required for other work.

1.1 Report Details

Licensee:	Department of National Defence, Government of Canada
Licence:	8BC-DYE-1929 – Type “B”
Location:	DYE-M North Warning System Site, Cape Dyer, Qikiqtani Region, Nunavut
Report Prepared by:	Alaina Leslie and reviewed by Don Beattie Nasittuq Corporation , 16-Mar-2026
Time period covered:	01 January to 31 December 2025

2.0 WATER USE

In 2025, **196.8 cubic metres** of water was drawn from the water source, with a daily maximum of **0.54 cubic metres**. All water was taken from the melt-water water source, listed in the licence as “DYE-1(b)”. The quantity of water taken was below the annual maximum of 3,000 cubic metres, and daily maximum of 299 cubic metres, allowed by the licence.

See Table 2-1 for the volume of water drawn from the water source at DYE-M each month in 2025.

Table 2-1: Monthly Raw Water Usage at DYE-M in 2025

Month	Raw water usage (m ³)
January	0
February	0
March	0
April	0
May	0
June	11.7
July	0
August	48
September	18.1
October	40.3
November	78.7
December	0
TOTAL	196.8

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3.0 HAZARDOUS WASTE AND WASTE OIL DISPOSAL

In 2025 hazardous waste and waste oil was sent to an approved hazardous waste disposal site outside of Nunavut as required by the licence.

The movement of hazardous waste outside of Nunavut is regulated under both the *Transportation of Dangerous Goods Regulations* (TDG) and the *Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations* (XBR).

Table 4-1: Hazardous Waste and Waste Oil Sent for Disposal from DYE-M in 2025

TDG shipping name	Description	Manifest # (TCN)	Movement Document	Quantity
Not Regulated	Waste Ash Not TDG Regulated	51166, 51166, 51158, 51158, 51158, 51159, 51159, 51159, 51159	IZ01979-7	8 Drums
Not Regulated	Waste fuel contaminated soil Not TDG Regulated	51166, 51162, 51162, 51162	IZ01979-7	8 Drums
Not Regulated	Waste glycol (drum) Not TDG Regulated	51167, 51167, 51167, 51167, 51162	IZ01979-7	8 Drums
Not Regulated	Waste oil contaminated soil Not TDG Regulated	51174	IZ01979-7	8 Drums
Not Regulated	Waste oil filters Not TDG regulated	51174, 51174, 51158	IZ01979-7	8 Drums
Not Regulated	Waste oil Not TDG regulated	51160, 51160, 51160, 51160, 51161, 51161, 51161, 51161, 51165, 51165, 51165	IZ01979-7	8 Drums
Not Regulated	Waste Scrap Metal Not TDG Regulated	51166	IZ01979-7	8 Drums
Not Regulated	Waste sewage sludge Not Regulated	51174	IZ01979-7	8 Drums
Waste Aerosols	Waste aerosols (flammable)	51168	IZ01979-7	8 Drums
Waste Fuel, Aviation, Turbine Engine Mixture	Waste tank bottom water/ tank cleaning effluent Waste fuel, aviation, turbine engine mixture	51163, 51163, 51163, 51163, 51164, 51164, 51164, 51164	IZ01979-7	8 Drums
Waste Paint	Waste paint flammable Waste paint	51168	IZ01979-7	8 Drums

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Waste Solids Containing Flammable Liquid, N.O.S. (Fuel, Aviation, Turbine Engine)	Waste oily rags Waste solids containing flammable liquids, n.o.s (fuel, aviation, turbine engine)	51168, 51168	IZ01979-7	8 Drums
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4.0 NON-HAZARDOUS SOLID WASTE DISPOSAL

Non-hazardous domestic solid waste was flown out to the Logistics Support Site in Iqaluit and was disposed of at Iqaluit’s landfill. Nasittuq has documented authorization from the community for receiving the waste.

See **Table 4-1** for the quantity of waste generated.

Table 4-1: Non-hazardous Domestic Solid Waste Sent for Disposal from DYE-M in 2025

Month	Waste Generated (kg)
January	113
February	14
March	0
April	0
May	0
June	454
July	824
August	1506
September	386
October	295
November	368
December	0
TOTAL	3960

5.0 MONITORING PROGRAM

In 2025, a monitoring program was implemented at DYE-M as required by the water licence. The monitoring program included the following:

1. Volume of raw water drawn from the water Supply Lake (DYE-1(a)). No water was drawn from the water lake in 2025.
2. Volume of raw water drawn from the melt water source (DYE-1(b)). The information from this monitoring program is shown in **Section 2.0 Water Use**. The volume of water drawn was within the limit stated in the water licence.
3. Quality of sewage discharged from the final discharge point of the sewage disposal facility (DYE-2). The location of the sewage effluent outfall is shown in **Annex B**. Two sumps for the sewage outfall were constructed in 2010. The outfalls were not discharged in 2024 and therefore no sampling was required. **Annex C** has been left blank.

4. Accumulated rain and meltwater contained in the berms of fuel storage facilities was analyzed with hydrocarbon test strips and confirmed to be within the effluent quality limits listed in the water licence, Part D, prior to discharge (DYE-3). The coordinates and the results of the analysis are shown in **Annex D**. All samples met the effluent requirements of the water licence, Part D.
5. Final Discharge Point from the Landfarm (DYE-4). No landfarm has been established at DYE-M, so this monitoring station remains inactive.

6.0 SPILLS (UNAUTHORIZED DISCHARGES)

There were three spills to the environment at DYE-M in 2025. See the table below for the summary of each spill.

The Spill Contingency Plan was successfully implemented.

Table 6-1: Unauthorized Discharges at DYE-M in 2025

Date, NT-NU Spill #	Product	Quantity	Cause and follow-up action	On-site location
25-Jul-2025, Spill # NTNU 2025-306	Jet-A1	2 L	A leaking connection on the pipeline at the beach tanks caused a leak of 2L on the inlet valve of Tank W22J.	Beach tanks (66o35'42.23"N 61o38'38.64"W)
08-Oct-2025, Spill # NTNU 2025-407	Jet-A1	4 L	While clearing snow at the DYE-M Summit site, a Dozer ruptured a hydraulic line resulting in a spill of 4L. The operator shut down the dozer and staff removed impacted snow into drums for off-site disposal.	Summit near SGTs (66 39' 53"N, 61 21' 24" W)
25-Jul-2025, Spill # NTNU 2025-306	Jet-A1	2 L	A leaking connection on the pipeline at the beach tanks caused a leak of 2L on the inlet valve of Tank W22J.	Beach tanks (66o35'42.23"N 61o38'38.64"W)

7.0 REVISIONS TO THE SPILL CONTINGENCY PLAN

The Spill Contingency Plan was updated on **27-Mar-2026**. An updated copy of the Spill Contingency Plan has been submitted to the NWB with this annual report.

8.0 PROGRESSIVE RECLAMATION WORK UNDERTAKEN

No progressive reclamation work was undertaken in 2025.

9.0 ACRONYMS

Table 9-1: Acronyms

Acronym	Definition
n.o.s.	not otherwise specified
NWB	Nunavut Water Board

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Acronym	Definition
NWS	North Warning System
PCB	Polychlorinated Biphenyl
TDGR	Transportation of Dangerous Goods Regulations
XBR	Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations



ANNEX A. HAZARDOUS WASTE AND WASTE OIL DISPOSAL

The movement documents are included below.

MOVEMENT DOCUMENT / MANIFEST DOCUMENT DE MOUVEMENT / MANIFESTE

IZ01979-7

Movement Document / Manifest Reference No.
N° de référence du document de mouvement / manifeste

0AO1979-1

Carrier Certification: I certify that I have received waste or recyclable material from the generator/consignor for delivery to the receiver/consignee as set out in Part A and that the information contained in Part B is complete and correct.
Attestation du transporteur: J'atteste avoir reçu les déchets ou matériaux recyclables du producteur/expéditeur en vue de leur livraison au réceptonnaire/destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.

Receiver/consignee certification: I certify that the information contained in Part C is correct and complete.
Attestation du réceptonnaire/destinataire: J'atteste que tous les renseignements à la partie C sont exacts et complets.

3	6	4	5	30	9	10	31	32	33	34	35			
Prev. Code	UN No. / N° NU	Shipping name / Appellation/désignation	Class / Classe / Sub. Classe / Sous-classe	Packaging type / Gr. d'emballage / Catégorie	Quantity shipped / Quantité expédiée	Units / L or / ou kg / Litres	Packaging / Containers / Codes int. / ext.	Phys. state / Etat phys.	Quantity received / Quantité reçue	Units / Litres	Comments / Commentaires	Handling / Code / Code de Manutention	Shipment / Envoi / Accepted / Refusé	Decont. / Pack. / Veh.
(i)	1263	Waste Paint	3	iii	160	L	1 01	L						
(ii)	1863	WASTE - AVIATION TURBINE ENGINE, mixture (cleaning effluent)	3	iii	2880	L	16 01	L						
(iii)	--	WASTE - OIL FILTERS - NR	--	--	275	kg	3 01	S						
(iv)	--	WASTE - JET-A1 FUEL CONTAMINATED SOIL - NR	--	--	550	kg	5 01	S						

TDGR additional info
Info additionnelle RTMD: 1-888-CAN-UTEC OR 613-996-6666

Special Handling / Manutention spéciale: As follows / Ci-dessus: 22 24-hour Number / Numéro 24 heures: 705-494-2011 X3400

Date Shipped / Date d'expédition: Year / Année: 2025, Month / Mois: 05, Day / Jour: 15, Time / Heure: 11:00 AM

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OA01979-1

MOVEMENT DOCUMENT / MANIFEST
DOCUMENT DE MOUVEMENT / MANIFESTE

A Generator / consigneur name Nom de producteur / expéditeur NASITTUQ CORP 22 WING BLDG 109 HORNELL HEIGHTS CAN P0B1P0		Unique Identification Number Numéro d'identification unique NUG100003		B Carrier name Nom de transporteur		Unique Identification Number Numéro d'identification unique		Reference No., or other movement documents/manifests used / N° de référence des autres documents de mouvement / manifestes IZ01979-7																					
E-mail / Courriel électronique NWS-ENVIRONMENT@NASITTUQ.COM Tel. No. / N° de tél 705-494-2011 X 3400		City / Ville Prov. Country / Postal code / Pays / Code postal		Mailling addr. / Adr. postale City / Ville Prov. Country / Postal code / Pays / Code postal		E-mail / Courriel électronique Tel. No. / N° de tél		Receiver/consignee information same as in Part A Les renseignements du réceptionnaire/destinataire sont les mêmes qu'à la Partie A <input type="checkbox"/> Yes / Oui <input type="checkbox"/> No, complete the box below / Non, remplir la case ci-dessous																					
Shipping facility company name / Nom de l'entreprise de l'installation de l'envoi NWS DYE-M		Unique Identification Number Numéro d'identification unique		Vehicle / Véhicule Registration No. / N° d'immatriculation Prov.		C Receiver/consignee name Nom de réceptionnaire/destinataire		Unique Identification Number Numéro d'identification unique																					
Shipping facility addr. / Adr. de l'installation d'envoi CAPE DYER, NU		City / Ville Prov. Country / Postal code / Pays / Code postal		Trailer - Rail car No. 1 1' remorque - wagon		Receiving facility addr. / Adr. de l'installation de réception City / Ville Prov. Country / Postal code / Pays / Code postal		E-mail / Courriel électronique Tel. No. / N° de tél																					
E-mail / Courriel électronique Tel. No. / N° de tél		Intended receiver / consignee name Nom de réceptionnaire / destinataire prévu QKIQTAAALUK ENVIRONMENTAL 7410 16 01-0348154 40169006		Trailer - Rail car No. 2 2' remorque - wagon		Port of entry Point d'entrée		Port of exit Point de sortie																					
Mailling addr. / Adr. postale 3955 CHEATLAUNDF ENTRANCE 1 SUITE 200 BROSARD QC CAN J4Z 3V4		City / Ville Prov. Country / Postal code / Pays / Code postal		Date		Date		Carrier Certification: I certify that I have received waste or recyclable material from the generator/consignor for delivery to the receiver/consignee as set out in Part A and that the information contained in Part B is complete and correct. Attestation du transporteur: j'atteste avoir reçu les déchets ou matières recyclables du producteur/expéditeur en vue de leur livraison au réceptionnaire/destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.																					
E-mail / Courriel électronique Tel. No. / N° de tél		Receiving facility company name / Nom de l'entreprise de l'installation de réception QC		Unique Identification Number Numéro d'identification unique		Name of authorized person (print) Nom de l'agent autorisé (caractère d'imprimerie)		Tel. No. / N° de tél																					
E-mail / Courriel électronique Tel. No. / N° de tél		Receiving facility addr. / Adr. de l'installation de réception QC		City / Ville Prov. Country / Postal code / Pays / Code postal		Year / Année Month / Mois Day / Jour		Signature																					
Proq. code Code proq.		UN No. N° NU		Shipping name Appellation réglementaire		Class / Classe (UN, Class.) (Classe) (N°)		Packing category (UN, Class.) (Catégorie) (N°)		Toxic by inhalation Toxique par inhalation		Quantity shipped Quantité expédiée		Units L or / ou kg Unités		Packaging / Containment Codes (int., ext.) Phys., state Etat phys.		Quantity received Quantité reçue		Units L or / ou kg Unités		Comments Commentaires		Handling Code / Code de manutention		Shipment / Envoi Accepted / Refused Accepté / Refusé		Discout. Cont., Veh. Cont., Véhic.	
(f)		--		WASTE ASH- NR		--		--		--		810		kg		9 01 S													
(g)		--		WASTE - SCRAP METAL- NR		--		--		--		6750		kg		3 07 S													
(h)		--		WASTE GLYCOL - NR		--		--		--		720		L		4 01 L													
(i)		--		WASTE OIL - NR		--		--		--		2160		L		12 01 L													
Permit No. N° de permis		Permit Line No. N° de ligne de permis		Shipment Envoi		D or R code Code D ou R		C code Code C		Basel Annex VIII or OECD Code Annexe VIII de Bâle ou Code OCDE		H code Code H		Y code Code Y		National code in country of Code national du pays d' Export Importation		Customs codes Codes de douanes		Receiver/consignee certification: I certify that the information contained in Part C is correct and complete. Attestation du réceptionnaire/destinataire: j'atteste que tous les renseignements à la partie C sont exacts et complets.		Name of authorized person (print) Nom de l'agent autorisé (caractère d'imprimerie)		Tel. No. / N° de tél		Signature			
(f)																													
(g)																													
(h)																													
(i)																													
Generator/consignor certification: I certify that the information contained in Part A is correct and complete. I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/certified, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. Attestation du producteur/expéditeur: j'atteste que tous les renseignements à la partie A sont exacts et complets. Je déclare que le contenu de ce chargement est décrit ci-dessus de façon complète et exacte par la désignation officielle de transport et qu'il est convenablement classé, emballé, marqué, étiqueté, muni de plaques-étiquettes et à tous égards bien conditionné pour être transporté conformément aux réglementations internationales et nationales applicables.		Name of authorized person (print) Nom de l'agent autorisé (caractère d'imprimerie)		Tel. No. / N° de tél 705-494-2011x3400		Signature		TDGR additional info Info additionnelle RTMD 1-888-CAN-UTEC OR 613-996-6666		Special Handling / Manipulation options <input type="checkbox"/> Attached / Cléjoint <input type="checkbox"/> As follows / Comme:		24-Hour Number Numéro 24 heures 705-494-2011 X3400		Date Shipped / Date d'expédition Year / Année Month / Mois Day / Jour		Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.		Scheduled arrival date / Date d'arrivée prévue Year / Année Month / Mois Day / Jour											
(f)																													

ECCC XBR v1.1 (2022/08) Additional carriers and waste lines on reverse / Transporteurs et lignes de déchets additionnels au verso Copy / Copie / Colour / Couleur

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B Carrier name Nom de transporteur		Unique Identification Number Numéro d'identification unique		23	
Mailing addr. / Adr. postale		City / Ville		Prov.	
Country / Postal code / Pays / Code postal		Country / Postal code / Pays / Code postal			
E-mail / Courrier électronique		Tel. No. / N° de tél			
Vehicle / Véhicule		Registration No. / N° d'immatriculation		Prov.	
Trailer - Rail car No. 1 1 ^{er} remorque - wagon					
Trailer - Rail car No. 2 2 ^e remorque - wagon					
Part of entry Point d'entrée		Part of exit Point de sortie		25	
Date		Date			
Carrier Certification: I certify that I have received waste or recyclable material from the generator/consignor for delivery to the receiver/consignee as set out in Part A and that the information contained in Part B is complete and correct. Attestation du transporteur: j'atteste avoir reçu les déchets ou matières recyclables du producteur/expéditeur en vue de leur livraison au réceptionnaire/destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.					
Name of authorized person (print) Nom de l'agent autorisé (caractère d'imprimerie)		Tel. No. / N° de tél			
Year / Année		Month / Mois		Day / Jour	
Signature		Signature		Signature	

Additional waste lines information / Lignes d'informations supplémentaires de déchet

A													C			
Proc. code Code proc.	UN No. N° NU	Shipping name Appellation réglementaire		Class / Classe Classe	Packing category Cat. d'emballage	Toxic by inhalation Toxicité par inhalation	Quantity shipped Quantité expédiée	Units Unités	Packaging / Contenant No. / N°	Phys. stat. Etat phys.	Quantity received Quantité reçue	Units Unités	Comments Commentaires	Handling Code de manipulation	Shipment / Envoi Accepté / Refusé	Decont. Painc. / Vilt.
(v)	----	WASTE OILY RAGS NR		--	-	----	200	kg	2 01 S							
(vi)		WASTE - OIL CONTAMINATED SOIL NR		--	-	-	150	kg	1 01 S							
(vii)		WASTE - SCRAP METAL - NR		--	-	-	150	kg	1 01 S							
(viii)		WASTE - SEWAGE SLUDGE - NR		--	-	-	150	kg	1 01 S							
Permit No. N° de permis		Permit Line No. N° de ligne de la permis		Shipment Envoi	Of / De	D or R code Code D ou R	C code Code C	Base/Annex VIII or OECD Code Annexe VIII de Bâle ou Code OCDE	H code Code H	Y code Code Y	National code in country of Code national du pays d' Importation	Customs codes Codes de douanes				
(v)																
(vi)																
(vii)																
(viii)																

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ANNEX B. SEWAGE OUTFALL LOCATION (DYE-2) WITH COORDINATES



Figure 9-1: Coordinates of Sewage Outfall Location (DYE-2): 66° 39' 51.26"N, 61° 21' 16.54"W



ANNEX C. ANALYSIS OF DISCHARGED SEWAGE EFFLUENT

The sewage outfall sump was not discharged in 2025 and therefore samples were not required.

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ANNEX D. LOCATION OF BERMED FUEL STORAGE FACILITIES

Table D-1 contains the locations and sampling dates for the wastewater discharged from the bermed fuel storage facilities.

Table D 1: Location of Bermed Fuel Storage Facilities and Date Sampled in 2024

Berm	Location on-site	Discharge Latitude ¹	Discharge Longitude	Date
DYE W20A	Summit	66°40'00.13"N	61°21'25.76"W	5-Jun-2025
DYE W22K, W22J, W22I &W20B	Summit	66°39'53.59"N	61°21'23.78"W	5-Jun-2025

¹ Final discharge point of bermed fuel storage facility

ANNEX E. ANALYSIS OF BERM WATER²

Accumulated rain and meltwater in the bulk fuel storage tank berms at DYE-M was analysed using hydrocarbon test strips as per the approved QA/QC Plan for Berm Water Sampling as stated in the water licence 8BC-DYE1929, PART D, Item 12. The photo log of the hydrocarbon test strips is included below.

Photo Log



Figure 9-2: DYE W20A, 5-Jun-2025

² Effluent from bermed fuel storage facilities.



Figure 9-3: DYE W22K, W22J, W22I & W20B, 5-Jun-2025

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