Demande de la CNER faisant l’objet d’un examen préalable #126463

Water quality and fish health near Kugluktuk

Type de demande :	New
Type de projet:	Scientific Research
Date de la demande :	Friday, June 12, 2026
Period of operation:	from 2026-06-09 to 2037-03-25
Promoteur du projet:	Amanda Dumond Kugluktuk Angoniatit Association PO Box 309 Kugluktuk NU X0B 0E0 Canada Téléphone :: 867-982-4908, Télécopieur ::

DÉTAILS

Description non technique de la proposition de projet

Anglais: The Coppermine River provides drinking water for the community of Kugluktuk, as well as critical freshwater habitat for Arctic Char and Dolly Varden Char, which are important year-round sources of nutritious country food for Inuit harvesters. Local fishers and community members from Kugluktuk have raised concerns about the impacts of climate change and upstream resource development on water quality, water temperature, water level, and health of char in the Coppermine River, as well as in other freshwater systems that are used by community members from Kugluktuk. In response to community concerns, the Kugluktuk HTO is either the proponent or the host institution for several sampling programs that are related to water quality and fish health in the area. To reduce administrative burden for the HTO and regulators, we are submitting one project for all sampling programs over the next decade where the HTO is the proponent and/or the host institution. There are three main activities to research and monitor water quality and fish health: 1. Water sampling in the Coppermine River and tributaries. Water samples will be collected and submitted for analysis of nutrients and metals. Water sampling may be expanded to other freshwater systems in the future if funds allow and if there is interest from the community. 2. Monitoring water temperature and water level. Two to three water level and temperature loggers will be installed along the lower reaches of the Coppermine River. Metal housings for the loggers (with footprints less than 0.5 m2) will be bolted into bedrock to ensure consistency in logger locations among years. Loggers may be installed in other freshwater systems in the future if funds allow and if there is interest from the community.3. Collection of biological samples from fish harvested by local, subsistence fishers. Biological samples may include tissues (to be analyzed for metals), fin clips (for DNA analysis), otoliths (fish ear bones, to determine fish ages), and physical measurements (e.g., length, weight, sex). Fish will be collected from the Coppermine River, as well as other freshwater and marine systems used by local fishers. Information will be used by the community to learn about the char species that are harvested in the local fishery and to monitor char over time.

Français: n/a

Inuktitut: n/a

Inuinnaqtun: Una Kugluktumi Kuuk immiktakviokataktok tatvani nunaptingni Kugluktumi, tatvataok huli imaagiktok nayogagiyaat tahapkua ikalukpiit tatvalu tahapkua ikaluit Dolly Varden-mik attikaktot ihuukit, tahapkua ukkiugalok nikkitaongmata nikkigivagait tahapkua Inuinait angunahuaktot. Nunakatigit ikalukhioktit tatvalu hapkua Kugluktukmiotat ihomalutikakpalikmiyot ikpingnaktomik hila allangukpaliatitlugo tatvalu taima tatvani kuukmi immap kanogininganik, immap unnakninganik, immaukaumaninganik, tatvalu anniakutikaligiaghaita tahapkua ikalukpiit tatvani Kugluktumi Kuukmi, tatvalu ahiani kaningani immagiktut kuukani atoktaokataktuni Kugluktukmioniit. Kiotjutigiyomavlutjuk tahapkua nunaliitni ihomalutaoyot, ukkua Kugluktumi Anguniaktit Katimayiit HTO-kut naliaknik attuni havagiyaat ikkayoghiotihimavlutjuk uvalunin havakataoyut tahapkuninga kaffinik naunaiyainikut havagiyaoyunik pitjutigivlugit tahapkua immap kanogingninganik tatvalu ikalukpiit anniakutikaligiaghaita tahamani kuukani. Tahapkua akkiliktogiakaktot akkitokpalangitangita HTO-kunut havakatigiyaitlo, tunnihiniaktugot ataohinakmik toghiktotighamik laisikhamik tamatkiklugit tahapkua naunaiyaotaoyut havaghat kaffinik ukkiunik hivunighami tahapkua HTO-kut ikkayoghiotihimayot tatvalu/uvalunin havaktitiniaktitlugit. Pingahuyut tahapkua havagiyaoloakniaktot naunaiyainikut tatvalu takkukikataklugo tahamna immap kanogininga tatvalu ikaluit anniakutikagiakhaita: 1. Immap kanogininganik naunaiyainik tatvani Kugluktukmi Kuukmi tatvalu kuukiktuni, Immap naunaiyaotait katikhuktaokatakniaktot tunniyaokataklutik kaoyihaktioyonut takkuktakhait kanoginingitnik haviktakagiakhaitalo. Immap naunaiyaotait ahinnilo taima takkuuktauniagungnakhiyut manikatuakat tatvalu havagiyaoyumakpat tatvanga nunaliitnin. 2. Takkuukataklugit immap unnakninganik tatvalu immap immaukaumaninganik. Malguk pingahutluniit immap unnakninganik tatvalu kanok immaukaumayakhaitnik naunaiyaitinik illiugaktauniaktot natkani tahaffuma Kukluktumi Kuukmi. Havigaliknik ighikvighaitnik (tahapkua] angitilangit mikkiyunuit 0.5 m2) tahapkua ikkutaktaolutik kikiaktoktauniaktot kaiktumut taima aolagaakniaktot tahapkuak nayogagiyait tatvani ukkiuni hivunighamit. Tahapkua immap naunaiyaotait illiugaktaoniaktot allani kuukani immagiktuni manikatuakat tatvalu piyomakpatjuk hapkua nunakatigit.3. Katighuktauhimayot naunaiyaotighat illuliit ikaluit tahapkua nunakatigiktot ikalukhimayaitnit. Tahapkua ikaluit illuhiit illaliutivakmiyait

gapkua takkait ammikluitlu takkuktauyughat haviktakagiaghaita), angutaitlu (Auktaktauyughat), hiutait (ikaluit hiutait, naunaiyaotighat kanok ikaluit ukkiukagiagait), tatvalu ikaluit takkitingit uktakhugit (uktutigilugit, takkitiningitnik, ukkumaitilaakhugitlu, aknauyaghaita angutauyaghaita naunaiyaghugit). Ikaluit katighuktauniaktot tatvanga Kugluktumi Kuuk-min, tahapkunangalu ahianit immagiktunit kuukaniit tagiokmutlo kuukaniit hiituyunit ikalukhiokviovaktunit. Tahapkua naunaiyaotait atoktaoniaktot nunaliitni iliitukhaitjutigilugit tahapkua allatkiit ikaluit tahamani nunami ikalukhioktut angutait tatvalu takkukataklugit kakugungugaikpat.

Personnel

Personnel on site: 2

Days on site: 500

Total Person days: 1000

Operations Phase: from 2026-06-09 to 2037-03-25

Activités

Emplacement	Type d'activité	Statut des terres	Historique du site	Site à valeur archéologique ou paléontologique	Proximité des collectivités les plus proches et de toute zone protégée
Lakes on Melville Creek	Scientific/International Polar Year Research	Inuit Owned Surface Lands	Area is used for hunting and trapping	Unknown	70 km from Kugluktuk
Ocean areas	Scientific/International Polar Year Research	Marine	Area is used for fishing, harvesting, and travel	Unknown	Within 220 km of Kugluktuk
Coppermine River	Scientific/International Polar Year Research	Crown	Area is used for fishing and drinking water. The river passes through crown land, Inuit Owned Lands (surface and subsurface), and commissioners land (near Kugluktuk)	Bloody Falls is an important historic and archaeological location, located in a territorial park along the Coppermine River	Kugluktuk is located at the mouth of the river. Kugluk/Bloody Falls Territorial Park is about 17 km upstream of the river mouth
Upstream lake at Bernard Harbour	Scientific/International Polar Year Research	Crown	Part of the lake shore is on Inuit Owned Land (surface). Traditional fishing location and location of past research and restoration activities.	Unknown	100 km from Kugluktuk
Dismal Lakes	Scientific/International Polar Year Research	Crown	Part of the lake shore is on Inuit Owned Land (surface). Area is used for hunting and travel.	Unknown	95 km from Kugluktuk
Tributaries of the Coppermine River (Kendall River and Melville Creek)	Scientific/International Polar Year Research	Crown	Melville Creek is also located on Inuit Owned Land (surface). These areas are used for hunting, trapping, and travel.	Unknown	70 (Melville) and 95 (Kendall) km from Kugluktuk
Rivers flowing into Grays Bay (Anialik River, Wentzel River)	Scientific/International Polar Year Research	Crown	Area is used for fishing and hunting. Dolphin-Union	Unknown	170 km from Kugluktuk

			caribou cross from Victoria Island to the mainland in this area.		
Kugaryuak River	Scientific/International Polar Year Research	Crown	One bank of the river is located on Inuit Owned Land (surface). Popular fishing location, with a bear fence at the river mouth around community campsite.	Unknown	75 km from Kugluktuk
Aptalok Lake	Scientific/International Polar Year Research	Crown	Area is used for fishing and hunting	Unknown	75 km from Kugluktuk
Nakyoktok River	Scientific/International Polar Year Research	Inuit Owned Surface Lands	Part of the river bank is on crown land. An outpost camp was located near the river mouth. The area is used for fishing and hunting.	Unknown	200 km from Kugluktuk
Upstream lakes at Nakyoktok	Scientific/International Polar Year Research	Crown	Area is used for fishing and hunting	Unknown	200 km from Kugluktuk
Nulahugyuk Creek	Scientific/International Polar Year Research	Inuit Owned Surface Lands	Traditional fishing location and location of past research and restoration activities. A cabin is located near the river.	Unknown	100 km from Kugluktuk
Tree River	Scientific/International Polar Year Research	Inuit Owned Surface Lands	Popular fishing location. A commercial fishing lodge is located along the river.	Past location of Hudson's Bay post and RCMP station	135 km from Kugluktuk

Engagement de la collectivité et avantages pour la région

Collectivité	Nom	Organisme	Date de la prise de contact
Kugluktuk	Amanda Dumond	Kugluktuk Hunters and Trappers Organization (proponent)	2026-03-16

Autorisations

Indiquez les zones dans lesquelles le projet est situé:

Transboundary
Kitikmeot

Autorisations

Organisme de régulation	Description des autorisations	État actuel	Date de l'émission/de la demande	Date d'échéance
Pêches et Océans Canada	Licence to fish for scientific purposes	Applied, Decision Pending		
Institut de recherche du Nunavut	Research license	Not Yet Applied		

Project transportation types

Transportation Type	Utilisation proposée	Length of Use
Water	Small (12-25 foot) boats will be used to access sampling locations during the open-water season and snow machines during the ice-covered season. At most 3 boats/snow machines will be used at one time for sampling activities.	
Land	2 ATVs will be used to access sampling locations along established trails. Up to 3 snow machines will be used to access sampling locations in the ice-covered season.	

Project accomodation types

Temporary Camp

Utilisation de matériel

Équipement à utiliser (y compris les perceuses, les pompes, les aéronefs, les véhicules, etc.)

Type d'équipement	Quantité	Taille – Dimensions	Utilisation proposée
Small boats	3	12-25 feet	Access sampling locations during open-water season. At most 3 boats will be used at one time for sampling activities.
ATV	2	2-up	Access sampling locations along established trails. At most 2 ATVs will be used at one time for sampling activities.
Snow machine	3	2-up	Access sampling locations during ice-covered season. At most 3 snow machines will be used at one time for sampling activities.
Cordless hammer drill	1	5/8	Drill holes in bedrock to bolt housings for water level loggers
Helicopter	1	AStar or Long Ranger	A helicopter may be used to access sampling locations that are difficult to access by boat or snow machine

Décrivez l'utilisation du carburant et des marchandises dangereuses

Décrivez l'utilisation de carburant :	Type de carburant	Nombre de conteneurs	Capacité du conteneur	Quantité totale	Unités	Utilisation proposée
Gasoline	fuel	10	5	50	Gallons	Transportation by boat, ATV, and/or snow machine to sampling locations. Fuel will not be cached and only the necessary quantity of fuel will be transported for a given trip (< 50 gallons)
Other	fuel	6	1	6	Gallons	White gas for cooking and heating during brief overnight trips

Consommation d'eau

Quantité quotidienne (m3)	Méthodes de récupération de	Emplacement de récupération

	l’eau proposées	de l’eau proposé
0	Reusable water jugs	Freshwater systems near sampling locations that require camping overnight (1-4 days) to access

Déchets

Gestion des déchets

Activités du projet	Type des déchets	Quantité prévue	Méthode d'élimination	Procédures de traitement supplémentaires
Scientific/International Polar Year Research	Eaux grises	3 gallons/day	Shallow pit	Food particles will be filtered out. Grey water will be poured into shallow pit, dug > 50 m away from water.
Scientific/International Polar Year Research	Eaux usées (matières de vidange)	1 gallon/day	Containment and disposal at Hamlet facilities	Human waste will be contained, transported back to Kugluktuk, and disposed in Hamlet facilities

Répercussions environnementales :

Environmental impacts are predicted to be minimal. To limit the possibility of a fuel spill, all fueling (boats, ATVs, snow machines, helicopter) will be done in the community of Kugluktuk when possible. Additional fuel required for longer trips will be transported and stored securely upright, out of direct sunlight and away from any sources of combustion. Logger housings will be made of metal and will be bolted into bedrock. Loggers and housings will be removed at the end of the project. No materials will be left on the land following the research project. Biological samples will be collected from char captured through the subsistence fishery in Kugluktuk, so no disposal or waste of char carcasses is required. The majority of project transportation will be by boat or snow machine, so terrestrial impacts will be limited. All ATV travel will be on durable surfaces and using pre-existing trails. Helicopter travel will maintain a minimum altitude of 500 m, except for take-off and landing, to avoid disturbing wildlife. All sampling will be conducted by local harvesters and land users, who will avoid activities that impact wildlife and harvesting practices. Some sampling locations may require overnight travel and camping (typically 1-4 nights). Camps will typically have 1-3 tents with 2-4 individuals, so impacts of the camps will be minimal. Greywater will be disposed of on-site, and waste from the camps will be transported back to Kugluktuk for disposal. As indicated below, effects on aquatic species/wildlife and water quality are considered to be positive, because findings will identify impacts from climate change, resource use, and other factors, and can be used for future monitoring, management, and potential restoration and/or mitigation.

Additional Information

SECTION A1: Project Info

SECTION A2: Allweather Road

SECTION A3: Winter Road

SECTION B1: Project Info

SECTION B2: Exploration Activity

SECTION B3: Geosciences

SECTION B4: Drilling

SECTION B5: Stripping

SECTION B6: Underground Activity

SECTION B7: Waste Rock

SECTION B8: Stockpiles

SECTION B9: Mine Development

SECTION B10: Geology

SECTION B11: Mine

SECTION B12: Mill

SECTION C1: Pits

SECTION D1: Facility

SECTION D2: Facility Construction

SECTION D3: Facility Operation

SECTION D4: Vessel Use

SECTION E1: Offshore Survey

SECTION E2: Nearshore Survey

SECTION E3: Vessel Use

SECTION F1: Site Cleanup

SECTION G1: Well Authorization

SECTION G2: Onland Exploration

SECTION G3: Offshore Exploration

SECTION G4: Rig

SECTION H1: Vessel Use

SECTION H2: Disposal At Sea

SECTION I1: Municipal Development

Description de l'environnement existant : Environnement physique

There is an established road, boardwalk, and trail that connects Kugluktuk to Kugluk/Bloody Falls Territorial Park. Other trails exist on hard-packed surfaces at some sampling locations, such as Nakyoktok and Bernard Harbour. A commercial fishing lodge and small airstrip is located at Tree River. Water gauges are located at the Tree River and ~ 100 km upstream in the Coppermine River. Numerous privately owned cabins are located throughout the area. Community cabins are located at Bernard Harbour and Grays Bay.

Description de l'environnement existant : Environnement biologique

Arctic Char and/or Dolly Varden Char are present in all waterbodies. Dolly Varden farther west are listed as a species of special concern under the Species at Risk Act, but populations near Kugluktuk are not listed. Research on fish health, species composition, and demographics will allow monitoring of Arctic Char and Dolly Varden over time, and will be used to manage the local fishery. Impacts on fish are therefore expected to be positive. Caribou migrate throughout the area. Sampling activities are for fish and water only, and should not interfere with caribou migration or calving.

Description de l'environnement existant : Environnement socio-économique

All sampling locations are used by community members from Kugluktuk, for fishing, hunting, trapping, and travel. Some tourism activities also occur near Kugluktuk, and a commercial fishing lodge is located at the Tree River. Cultural sites are located throughout the region, and an important historic site is located at Kugluk/Bloody Falls Territorial Park, about 17 km upstream in the Coppermine River. Sampling activities will provide employment for community members, who will conduct all sampling and coordination of activities. Results will have a positive impact on human health and community well-being, because they will inform the health of fish and water, including the safety for human consumption.

Miscellaneous Project Information

Identification des répercussions et mesures d'atténuation proposées

Environmental impacts are predicted to be minimal. To limit the possibility of a fuel spill, all fueling (boats, ATVs, snow machines, helicopter) will be done in the community of Kugluktuk when possible. Additional fuel required for longer trips will be transported and stored securely upright, out of direct sunlight and away from any sources of combustion. Logger housings will be made of metal and will be bolted into bedrock. Loggers and housings will be removed at the end of the project. No materials will be left on the land following the research project. Biological samples will be collected from char captured through the subsistence fishery in Kugluktuk, so no disposal or waste of char carcasses is required. The majority of

project transportation will be by boat or snow machine, so terrestrial impacts will be limited. All ATV travel will be on durable surfaces and using pre-existing trails. Helicopter travel will maintain a minimum altitude of 500 m, except for take-off and landing, to avoid disturbing wildlife. All sampling will be conducted by local harvesters and land users, who will avoid activities that impact wildlife and harvesting practices. Some sampling locations may require overnight travel and camping (typically 1-4 nights). Camps will typically have 1-3 tents with 2-4 individuals, so impacts of the camps will be minimal. Greywater will be disposed of on-site, and waste from the camps will be transported back to Kugluktuk for disposal.

Répercussions cumulatives

Project activities are expected to have minimal impacts, so no cumulative effects are expected.

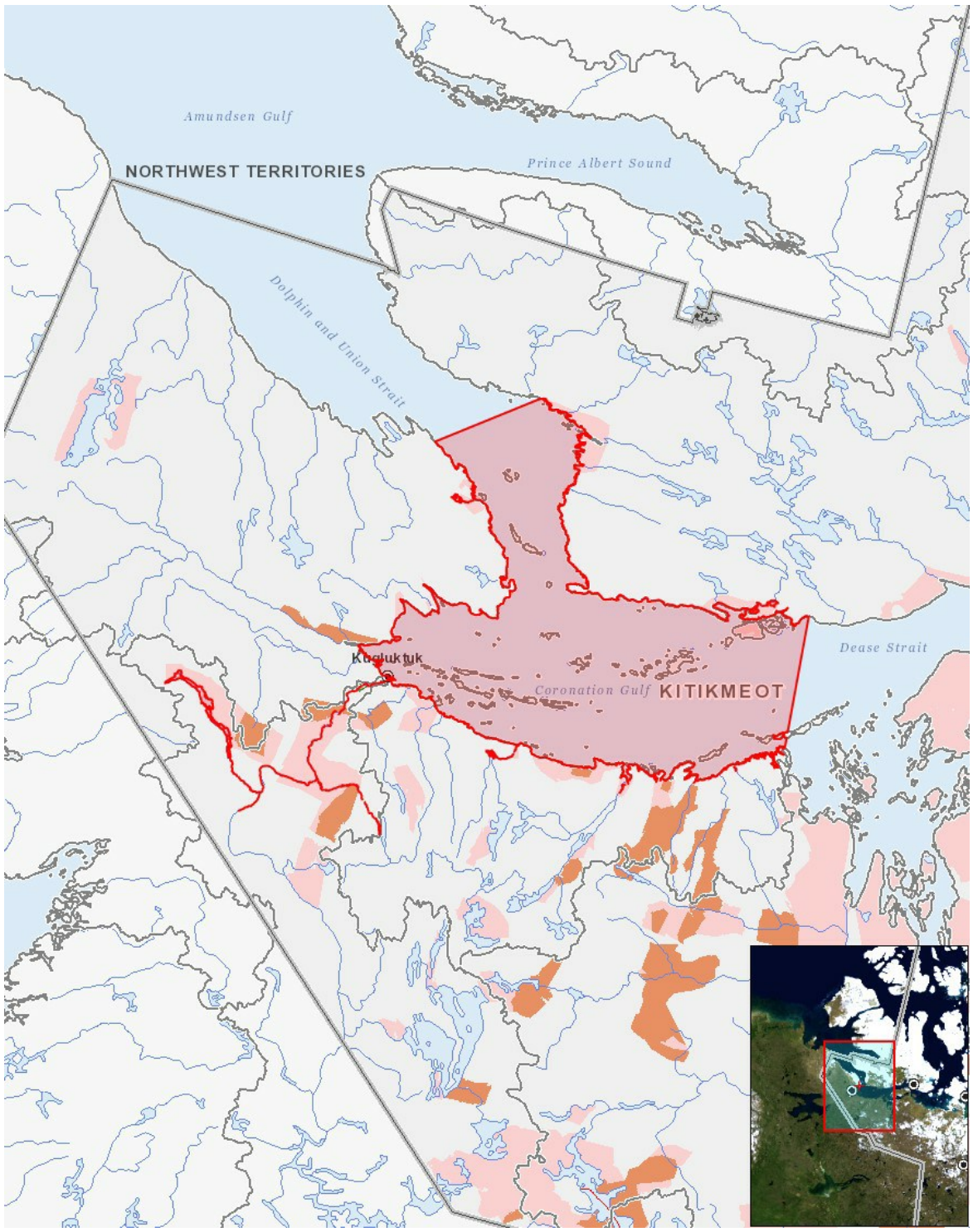
Impacts

Identification des répercussions environnementales

	PHYSICAL	Designated environmental areas	Ground stability	Permafrost	Hydrology / Limnology	Water quality	Climate conditions	Eskers and other unique or fragile landscapes	Surface and bedrock geology	Sediment and soil quality	Tidal processes and bathymetry	Air quality	Noise levels	BIOLOGICAL	Vegetation	Wildlife, including habitat and migration patterns	Birds, including habitat and migration patterns	Aquatic species, incl. habitat and migration/spawning	Wildlife protected areas	SOCIO-ECONOMIC	Archaeological and cultural historic sites	Employment	Community wellness	Community infrastructure	Human health
Construction																									
-			-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-
Exploitation																									
Scientific/International Polar Year Research			U	-	-	-	P	-	-	-	-	-	-	-		M	P	-	P	-		U	P	P	-	P
Désaffectation																									
-			-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-

(P = Positive, N = Négative et non gérable, M = Négative et gérable, U = Inconnue)

Site du projet



Liste des géométries de projet

1	polygon	Aptalok Lake
2	polygon	Upstream lake at Bernard Harbour
3	polygon	Dismal Lakes
4	polygon	Lakes on Melville Creek
5	polygon	Upstream lakes at Nakyoktok
6	polygon	Ocean areas
7	polyline	Coppermine River
8	polyline	Tributaries of the Coppermine River (Kendall River and Melville Creek)
9	polyline	Rivers flowing into Grays Bay (Anialik River, Wentzel River)
10	polyline	Kugaryuak River

11	polyline	Nakyoktok River
12	polyline	Nulahugyuk Creek
13	polyline	Tree River