



New

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ᐃᓴᓐᓇᐃᓐᓇ: (867) 979-5653, ᓴᓐᓇᓐᓇ:

$\gamma_b \Delta^c \dot{\gamma} \cap \sigma^b \quad \wedge c_n \nabla^{\gamma_b} \gamma \nabla n \nabla^a l^a \sigma^b$

ᐅᓂᓄᓇᓂᓪᓗᑦ: This project involves the design and construction a new landfill and a new waste transfer station as part of the City of Iqaluit's Solid Waste Management Initiative. The existing landfill is rapidly running out of capacity to meet the waste disposal needs of Iqaluit and is currently projected to reach maximum levels in 2022/23. As a result, a new long-term landfill is required to meet the City's current and future needs. The waste transfer station will assist in extending the service life of the new landfill by diverting up to 44% of the waste with the future option to implement future waste reduction and recycling programs. The existing landfill is a traditional design with waste mixed with cover material and spread over an area. This approach can attract the local wildlife and can often results in loose/ lightweight waste such as plastic bags and paper blowing around and out of the site. At the new location this would result in garbage potentially being blown across the tundra. For site cleanliness, animal activity, odour and public perception regarding the existing landfill, this approach was not considered for the new landfill. An alternative to placing the waste in a landfill would be the use of an incinerator however there are many drawbacks to this approach. It is expensive to operate and the lack of availability of spare parts/ skilled labour to maintain it contribute to the expensive operating cost making it a non-feasible option. As a result, the new landfill will be a bale-fill design, meaning waste will be compacted into bales and wrapped in plastic at the waste transfer station and then stacked at the landfill. The new landfill will be located approximately 6km northwest of the City, while the Waste Transfer station will be located on the northern edge of Iqaluit, approximately 1km from the airport in an industrial area. At the Waste Transfer Station, wood and cardboard will be shredded and used in a biomass boiler to heat the facility. Scrap tires will be shredded and stored in shipping containers to be shipped south for recycling or used as cover material. Scrap steel will be compacted and stored in shipping containers to be shipped south for recycling as well and there will be an area for end-of-life vehicle to be decommissioned prior to being sent south for recycling. The waste transfer station will also include a compost area, a community re-use area and an area for residents to drop off household hazardous waste. The landfill will have a service life of 75 years with room to expand in the future.

DΔΛΠD: Ce projet comprend la conception et la construction d'un nouveau site d'enfouissement et d'un nouveau centre de transfert des déchets dans le cadre du projet de gestion des déchets solides d'Iqaluit. Le site d'enfouissement existant est de plus en plus à risque de se trouver à court de capacité pour répondre aux besoins de gestion des déchets d'Iqaluit. Les prévisions actuellement laissent entendre que le site atteindra son niveau maximum en 2022-2023. Par conséquent, un nouveau site d'enfouissement à long terme est nécessaire pour répondre aux besoins actuels et futurs de la Ville. Le centre de transfert des déchets aidera à prolonger la durée de vie utile du nouveau site d'enfouissement en redirigeant jusqu'à 44 % des déchets grâce à la future option qui mettra en œuvre d'éventuels programmes de réduction des déchets et de recyclage. Le site d'enfouissement existant est conçu selon un modèle classique où les déchets sont empilés et recouverts d'une couche de matériaux sur le site. Cette façon de faire peut attirer la faune locale et entraîne souvent la perte de déchets légers, comme les sacs de plastique et le papier qui s'envolent au vent dans et à l'extérieur du site. Sur le site, les déchets qui s'envoleraient pourraient atterrir dans la toundra. Pour des questions de salubrité des lieux, d'activités de la faune, d'odeur et de perceptions du public par rapport au site d'enfouissement existant, cette façon de faire a été écartée pour le nouveau site d'enfouissement. Une solution de substitution au site d'enfouissement sera l'incinération des déchets. Par contre, cette méthode présente bon nombre d'inconvénients : coûteuse à exploiter et manque de disponibilité quant aux pièces de rechange/à la main-d'œuvre qualifiée pour maintenir les opérations sont toutes des raisons qui contribuent à son coût d'exploitation élevé justifiant l'irréalisme de cette proposition. Par conséquent, le nouveau site d'enfouissement sera conçu pour faire des ballots de déchets. Concrètement, tous les déchets seront compactés et mis en ballots, puis emballés dans une membrane en plastique avant d'être empilés dans le site d'enfouissement. Le nouveau d'enfouissement sera situé à environ

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Post-Closure Phase: from to

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Waste Transfer Station Location	Other	Municipal	The site was owned by the Government of Nunavut and used to store crushed and shredded metal drum refuse produced by the military prior to 1993. The City gained control on the land in 1993 and a site cleanup was performed. The site is currently used as storage by local contractors for various material including tar waste drums and storage of some chemical and oil-based products. It is also used as a training area for the City's Fire Department.	The site consists of 1.13ha of land that has been graded and graveled and is currently being used for storage. A field visit confirmed that the lands are flat and unremarkable and suggest that they had limited potential for archaeological site prior to recent disturbances. The project site is interpreted to have limited potential to impact significant archaeological sites and no further archaeological work is recommended.	The waste transfer station is located in the community of Iqaluit and is approximately 1.5km from the Sylvia Grinnell Territorial Park.
New Landfill Location	Landfill	Commissioners	This site was previously Commissioner's Land but the City has transferred the area designated for the landfill to the City.An ATV trail crosses the west side of the Side and this trail will be the location of a new access road (approved as part of a previous NIRB application). This trail is used by locals to access hunting and fishing areas to the north of the site. The site is reportedly used by locals for berry picking, dog walking, picnicking and camping.	Both an archaeological overview (AOA) and impact (AIA) assessment were performed on the site. The AOA indicated that the landfill area is not interpreted as an area of high potential for yet undiscovered sites, but there is still a potential for unrecorded significant sites and a field investigation (AIA) is recommended. During the AIA, a pedestrian survey was conducted of areas having a high archaeological	Iqaluit is the nearest community to the project site, approximately 8km away. The closest protected area is the Sylvia Grinnell Territorial Park, approximately 4.5km away.

				potential however no archaeological sites were observed in the landfill study area.	
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የግብርና ምርመራ	Joel Fortier – Environmental Assessment Coordinator	Qikiqtani Inuit Association	2018-11-23
የግብርና ምርመራ	General Public	Public Consultation Event	2018-11-15

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ᐃᓄᐅᑦᐳᑦ ᐃᓄᐅᑦᐳᑦ ᐃᓄᐅᑦᐳᑦ	Aeronautical Assessment Form for Obstacle Evaluation	Active	2018-09-04	2020-03-04
ᐃᓄᐅᑦᐳᑦ	Government of Nunavut Department of Health - Conditional approval of the project based on timely sharing of technical documents for Health review, conformity to the Public Health Act and General Sanitation Regulations	Active	2018-08-16	
ᐃᓄᐅᑦᐳᑦ	NAV Canada - Waste Transfer Station Assessment	Active	2018-10-02	2019-10-02
ᐃᓄᐅᑦᐳᑦ ᐃᓄᐅᑦᐳᑦ ᐃᓄᐅᑦᐳᑦ ᐃᓄᐅᑦᐳᑦ	The City has an existing water license (3AM - IQA1626). This water license currently covers the operation of the existing landfill. An amendment will be issued to incorporate the new landfill.	Not Yet Applied	2016-06-17	2026-06-16

### Project transportation types

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Air	Some material will likely be brought to the Iqaluit International Airport using commercial air freight.	
Water	Material will likely be brought to Iqaluit via the commercial sea-lifts	
Land	Material will be brought to site using existing roads (Waste Transfer Station) and a new road (landfill) that was applied under a separate NIRB application (14QN039)	

## Project accommodation types

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Excavator	1	12ft x 16ft	Excavate foundation for Waste Transfer Station and construct the landfill
Dump Truck	2	10ft x 20ft	Import fill material for new landfill
Bulldozer	1	10ft x 16ft	Grade the new landfill
Truck and Trailer	1	10ft x 60ft	Transport material and equipment to both sites
Pick up Trucks	4	10ft x 15ft	Trasnpport staff between the project sites

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Diesel	fuel	1	2000	2000	Gallons	A fuel truck will likely be used to re-fuel the equipment at the sites
Gasoline	fuel	1	2000	2000	Gallons	Used to fuel the pickups trucks and vehicles relying on gasoline, likely by gass station in town or a contractor's private fuel supply at their yard.

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<b>ᐱᑕᓕᔨᔭᐅᓈᑦᓂᑦ</b>		<b>ᓴᖃᑯᐳᑦᓂᑦᓴᙶᐅᑦ</b>	<b>ᐊᑲᑕᖃᑕᓈᓈᑦ</b>	
Site Cleanup/Remediation	ᐅᙶᓴᐳᑦᓂᓄᑦᓴᐅᑦ ᓸᐁᓈᓈᑦ ᐋᑐᑕᐅᔪᓚᓷᓷᑦᓴᑦᓴᑦᓂᑦ, ᓇᑲᓴᓄᓈᑦ	20 cubic meters	If soil at the Waste Transfer Station is contaminated, it will need to be disposed at a soil treatment facility.	N/A

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A predicted environmental impact at the landfill will be the effect on the drainage in the area and the small shallow ponds around the site. The landfill will need to implement a leachate collection system and a liner to collect any leachate and properly treat it. The bale fill design will inherently have a cleaner leachate than traditional landfills because all of the waste is wrapped in plastic. As well, an electric fence will surround the site to help protect the site from wildlife. The bale fill design should minimize the amount of wildlife attracted to the site. The landfill is located in an area used for camping, skiing and berry picking, due to the bale fill design, there should be minimal odour in the summer months and virtually no blowing litter, leaving the area in good condition for residents to continue their previous activities. At the Waste Transfer Station(Other in the drop down menu), household hazardous waste will be collected and stored in designated containers to be properly disposed/ recycled, as well as automotive fluids. Both the landfill and the waste transfer station will provide employment opportunities to the communities during the construction and operations phases. By implementing this projects, the City of Iqaluit will obtain two new critical pieces of infrastructure that will help the City manage its waste properly and positively contribute to overall human health in the area. During the construction of the waste transfer station, there will be construction noise however since it is located in an industrial area, the effect on residents should be minimal.

# **Additional Information**

## **SECTION A1: Project Info**

Under NIRB file number 14QN039 the access road to a new granular deposit will be constructed. This access road will also be used to service the new landfill.

## **SECTION A2: Allweather Road**

Under NIRB file number 14QN039 the access road to a new granular deposit will be constructed. This access road will also be used to service the new landfill.

## **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**

The archaeology investigation yielded no culturally significant site on the landfill or the waste transfer

### Miscellaneous Project Information

**LANDFILL:** Bales of waste from the waste transfer station will likely be transported daily to the landfill. The area where the landfill is was irregularly visited by vehicles, which will now occur on a daily basis, and equipment at the landfill will be operated to handle the bales. There will be an increase in noise at this location, as well, in the areas close to the road, there may be dust accumulation that was disturbed on the road and settled adjacent to the road. The road providing access to the landfill will also provide access to the public to this area of the land. It was previously only accessible by ATV or snowmobile. By providing easier access, more people may travel to this area for recreational purposes.

**WASTE TRANSFER STATION:** This site was previously used as general contractor storage and as the fire training site for the City's fire department. There may be contaminants in the soil from the previous land uses that would need to be remediated before the site was constructed. This will be an industrial site in an area that already considered an industrial area. The amount of noise generated by this facility should

not significantly increase the overall noise level generated in the area. The facility will increase the traffic to this area but it is primarily business around the site, the added traffic should not be an issue.

## Impacts

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$$(P = \langle b \rangle \Delta \langle p \rangle \cap \langle a \rangle \langle b \rangle^c, N = \langle b \rangle \langle p \rangle \setminus \langle c \rangle \langle a \rangle \langle b \rangle^c \setminus \langle c \rangle \langle p \rangle \setminus \langle p \rangle \langle b \rangle \langle c \rangle \langle a \rangle \langle p \rangle^c \setminus, M = \langle b \rangle \langle p \rangle \setminus \langle c \rangle \langle a \rangle \langle b \rangle^c \setminus \langle c \rangle \langle p \rangle \setminus \langle p \rangle \langle b \rangle \langle c \rangle \langle a \rangle \langle p \rangle^c \setminus, U = \langle b \rangle \langle p \rangle \setminus \langle c \rangle \langle a \rangle \langle p \rangle^c \setminus)$$

1	polygon	New Landfill Location
2	polygon	Waste Transfer Station Location

- |   |         |                                 |
|---|---------|---------------------------------|
| 1 | polygon | New Landfill Location           |
| 2 | polygon | Waste Transfer Station Location |

