

WASTE MANAGEMENT PLAN

Gwich'in Rachel Reindeer Wellness Camp



Updated 2022

TABLE OF CONTENTS

- 1 Waste Management Plan Purpose and Scope.....2
- 2 Wellness Camp - Overview2
- 2.1 Facility Description3
- 3 Waste4
- 3.1 Types of Waste5
 - 3.1.1 Combustible Solid Wastes5
 - 3.1.2 Non-combustible Solid Wastes5
 - 3.1.3 Sewage & Greywater5
 - 3.1.4 Hazardous Wastes6
- 4 Waste Management Planning Summary7
- 5 Waste Management Reviews and Updates.....7

1 WASTE MANAGEMENT PLAN PURPOSE AND SCOPE

Gwich'in Tribal Council (GTC) is committed to minimizing the impact of its activities on the environment and to protect communities, people, the land, and wildlife from unacceptable environmental risk. GTC believes that preventative maintenance activities will reduce the likelihood of an environmental concern.

Although the activities at the Gwich'in Rachel Reindeer Wellness Camp (the Wellness Camp) generally have a very low degree of impact upon the environment, we recognize the need for diligence and innovation in the management of our activities to ensure minimal impact to the environment.

This Waste Management Plan (the Plan) allows for the identification of wastes produced during the operation of the Wellness Camp and outlines the procedures employed to manage the wastes. The execution of the Plan will mitigate the effect of waste on the environment, including the aesthetics and use of the land. Additionally, the Plan is designed to employ practices that are in the best interest of the public and in compliance with all applicable acts, regulations, authorizations, land use permits and water licenses.

This Plan is to become effective immediately upon approval its approval by the Gwich'in Land and Water Board.

2 WELLNESS CAMP - OVERVIEW

This document outlines the waste management practices employed by GTC at its Wellness Camp.

The land use area is approximately 0.5 ha in size and is located on Gwich'in Private Lands on the east bank of the Mackenzie River's East Branch. It is located within Parcel B and is approximately 10.4 km S/SW of Inuvik, NT (Figure 1). The coordinates for the Wellness Camp are: 68°16'2.95"N, 133°46'15.32"W.

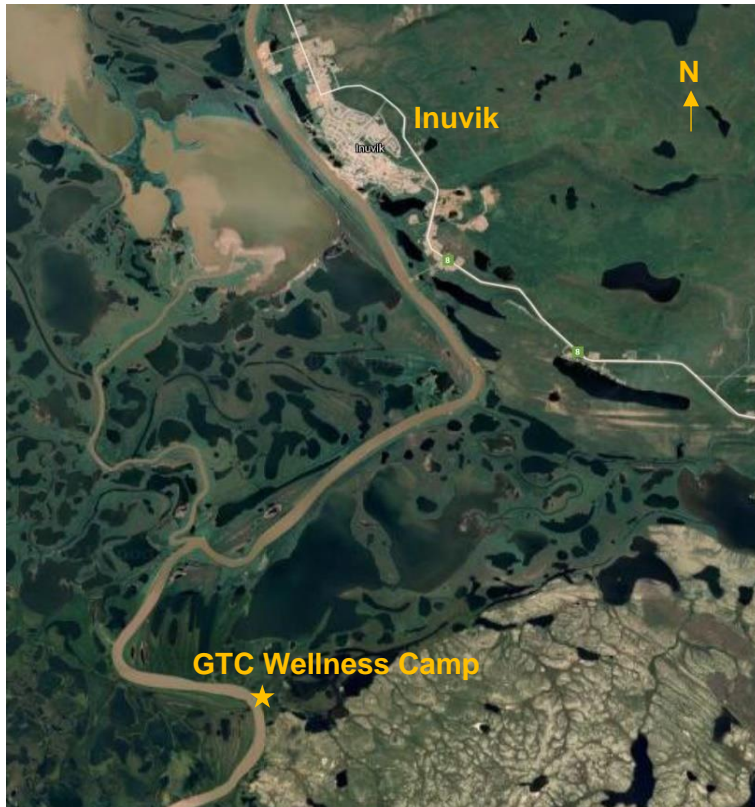


Figure 1 – Location of the Gwich'in Wellness Camp relative to Inuvik, NT.

2.1 Facility Description

The camp contains five buildings. These include the main building, the power plant, the drinking water treatment plant, the wastewater treatment plant and the maintenance person's living quarters (Figure 2). Please see the Project Description for further details on the site's characteristics and facilities.



Figure 2 – Locations of relevant Wellness Camp waste management infrastructure.

3 WASTE

GTC posts and promotes the general rules such as the following throughout all camp operations:

- 1) *Please make use of the garbage receptacles around camp and do not litter - everyone is responsible for keeping the area clean;*
- 2) *No garbage is to be left in the camp area at any time;*
- 3) *Cigarette butts should be extinguished, saved and disposed of properly in the appropriate receptacle and not thrown on the ground; and*
- 4) *Garbage should be bagged and be returned to Inuvik and should be placed in the Town of Inuvik municipal solid waste facility or brought to an appropriate disposal facility.*

3.1 Types of Waste

Several types of waste will be generated in the daily operation of the Wellness Camp. The types of waste that may be generated during camp operations include:

- combustible solid wastes (e.g., paper, cardboard, untreated wood);
- non-combustible solid wastes (e.g., food waste, plastics);
- sewage and greywater; and
- hazardous wastes.

3.1.1 Combustible Solid Wastes

Combustible solid wastes may be either removed from the Wellness Camp and disposed of at the Inuvik Solid Waste Facility, or they may be burnt onsite in an open burn barrel.

The burning of any combustible materials at the site will require a dedicated attendant to remain beside the burn barrel at all times.

Non-hazardous ash wastes from the burn barrels would be scattered in the surrounding forested areas, at least 30 m from any waterbodies.

The GTC will adhere to ENR's Opening Burning Guideline (1993), *Municipal Solid Wastes Suitable for Open Burning*.

3.1.2 Non-combustible Solid Wastes

Food and organics, garbage, and other non-combustible solid household wastes will be bagged and stored in strong, leak-proof containers within a dedicated area of the main building until removal from the camp area, as quickly as possible. The storage capacity of the building is approximately 100 square feet and is expected to safely house these wastes for a period of at least one week, even with the camp operating at full capacity.

All garbage and household materials will be removed from the camp as quickly as possible, to reduce the potential of attracting wildlife to the camp area, and for health and safety purposes. The frequency of food waste removal will depend on the frequency of people traveling back and forth from the site. Such wastes will at a minimum be double-bagged when the items are heavier and/or wet.

3.1.3 Sewage & Greywater

Sewage and greywater are treated on-site in the wastewater treatment plant. The capacity of the holding tanks in the wastewater treatment plant (Figure 2) are:

- sewage holding tank: 7, 200 litres (1,584 gallons);
- ultrafiltration tank: 4,400 litres (968 gallons);
- clearwell and effluent tanks: 3,200 litres (704 gallons); and

- solids (sludge) tank: 3,600 litres (792 gallons).

During the treatment process, waste liquids are separated from waste solids. The liquids go through a filtration and disinfection process (i.e., purification; see the Wastewater Treatment Plant Manual) before discharge into the environment in a wooded area approximately 30 m away from the building, to the north-east, over 100 m from any waterbodies' ordinary high-water mark (Figure 2). The sludge is accumulated in the sludge tank. The sludge tank will be pumped out at least once a year by a vacuum truck during the ice roadseason and will be deposited at the Town of Inuvik's sewage facilities (i.e., the sewage lagoon).


In the event that the wastewater treatment plant is not operational, there are two new outhouses at the Wellness Camp for visitors to use (Figure 2). They are honey-bucket outhouses; there are no pits dug beneath them. If they are used, the waste will be transported to Inuvik and disposed of appropriately at the municipal landfill, adhering to proper procedures as outlined by the Town of Inuvik. By only using honey buckets in the outhouses, there are no anticipated impacts to the environment through the release of any kinds of wastes.

3.1.4 Hazardous Wastes

During the Wellness Camp's operations, hazardous wastes in the form of waste oil will be generated. Onsite, these materials will be securely contained within a sealed leak-proof container and then will be transported off-site. A spill contingency kit will be located nearby, in case of any leaks. The waste materials will be removed from the camp regularly, and given to Northland Builders Ltd. in Inuvik, for use in their oil burning furnaces.

Communications received directly from Northland Builders confirms their ability and willingness to receive the Wellness Camp's waste oils:

Waste Oil Request from GTC Wellness Camp

 Rob Adams <radams@northlandbuilders.ca>
To: Christina Martin
Cc: Kelly McLeod - GTC

You replied to this message on 2022-07-07 9:08 AM.

Good Morning Christina,

We currently run a waste oil furnace in the shop at 74 navy road.






We understand that the Wellness Camp on east branch owned by the Gwich'in Tribal Council sometimes has a requirement to dispose of waste oil. I am requesting that if this requirement comes up to please contact myself as we would be able to run any waste oil through the furnace.

Please let me know if you have any questions.

Thank you Christina,

Regards,

Rob Adams, President
Northland Builders Ltd
Phone 780 982 1551

 Reply
  Reply All
  Forward
 
 

Thu 2022-07-07 8:49 AM

Any hazardous wastes generated in the event of a fuel spill will be managed and disposed of in accordance with the Wellness Camp's Fuel Spill Contingency Plan.

4 WASTE MANAGEMENT PLANNING SUMMARY

The management, storage and disposal of the various wastes that are generated during the Wellness Camp's operations are summarized and presented in Table 1.

Table 1 – Summary of Waste Management at the Wellness Camp

Waste Type	Storage	Disposal	Treatment Method	Disposal Location
Combustible solid wastes	Indoors (inside main building, locked shed)	Onsite	Burn barrel (e.g., papers, untreated wood)	Burn barrel onsite
Non-combustible solid waste	Indoors (inside main building, locked shed)	Offsite	N/A	Municipal solid waste facility, Inuvik
Sewage, greywater	Wastewater treatment plant	Onsite	Liquids – separation from solids, then purification	Purified liquids discharged into the environment
		Offsite	Solids – separation from liquids, then stored	Municipal sewage waste facility, Inuvik
	Honey-bucket outhouses	Onsite	Removal from site	Municipal sewage waste facility, Inuvik
Hazardous wastes (waste oil)	45-gallon drums in shed	Offsite	N/A	Northwind Industries for use in waste oil furnaces, Inuvik

5 WASTE MANAGEMENT REVIEWS AND UPDATES

This Waste Management Plan will be reviewed before, during and after on-site activities to determine any adjustments that may be required. It will also be reviewed annually to ensure ongoing compliance with current regulations, legislation, and licensing conditions, as waste management strategies are updated over time.