

WASTE MANAGEMENT PLAN

Gwich'in Rachel Reindeer Wellness Camp



Updated 2022

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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.

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.

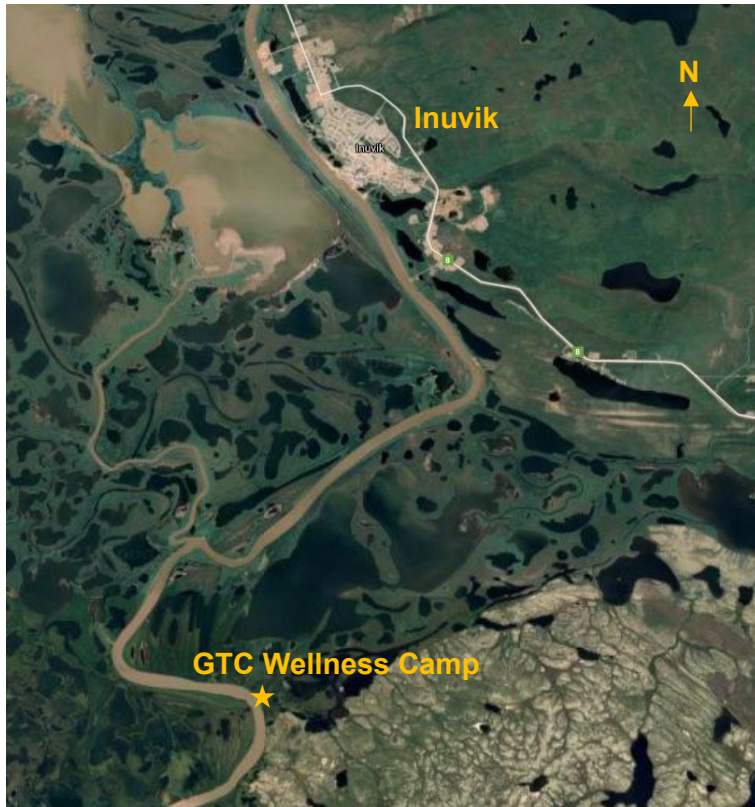


Figure 1 – Location of the Gwich'in Wellness Camp relative to Inuvik, NT.

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 Wellness Camp 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:

- food, garbage and household waste;
- human waste; and

- other waste (e.g., used oil).

3.1.1 Food, Garbage and Household Waste

Food, garbage and household wastes may be handled two ways at the Wellness Camp, depending on staff and volunteer capacity, and duration of stay at the site. All waste items 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.

For short-term visits, or if there is no capacity for burning wastes on-site during longer visits, then waste food, 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.

For longer term stays, the food, garbage and household wastes may be segregated into waste streams, with designation for either burning on-site in a burn barrel (e.g., organic materials) in accordance with all applicable open-burning regulations, or removal off-site for disposal at the Inuvik Solid Waste Disposal Facility (e.g., plastics).

3.1.2 Human Waste & Greywater

Human waste 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 50 m away from the building. 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 is an outhouse at the Wellness Camp for visitors to use. It is a pit house, with a hole dug beneath it into the earth to facilitate natural decomposition processes for the wastes.

In the event that any honey buckets 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.

3.1.3 Other Wastes

The GTC has initiated the process of removing items that no longer serve a purpose to the

Wellness Camp’s programs and hauling them back to Inuvik to be disposed of appropriately.

With respect to waste hydrocarbons, such as dirty fuel or waste oil, these materials will be securely contained within a sealed leak-proof container and 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 Northwind Industries in Inuvik, for use in their oil burning furnaces.

Any 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
Food, garbage, household wastes	Indoors (inside main building, locked shed)	Onsite	Burn barrel (e.g., papers, organics)	Burn barrel onsite
		Offsite	N/A	Municipal solid waste facility, Inuvik
Human waste, 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
Human waste	Pit outhouse	Onsite	Natural decomposition in pit toilet	Outhouse at Wellness Camp
	Honey buckets	Offsite	N/A	Remove and bring to Inuvik for disposal
Waste hydrocarbons	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.