



## WATER LICENCE ANNUAL REPORT

DEASE ARM, GREAT BEAR LAKE  
WATER LICENCE NO. S19L3-001  
REPORTING YEAR: 2023

Report Prepared for:  
**GREAT BEAR LAKE LODGE LTD.**

Prepared by:  
**PLUMMER'S ARCTIC LODGES**

Version 1.2  
Jan 2025  
Great Bear Lake, Northwest Territories

950 Bradford St.  
Winnipeg, MB R3H 0N5  
T 204.774.5775  
[www.plummerslodges.com](http://www.plummerslodges.com)

## VERSION CONTROL & REVISIONS

Version	Date	Issue Type	Filename	Description
V1.0	Mar 31, 2024	Final	Great Bear Lake Lodge Ltd. - 2023 Annual Water Licence Report.docx	Original Document.
V1.1	May 31, 2024	Final	Great Bear Lake Lodge Ltd. - 2023 Annual Water Licence Report.docx	Updated section 7 subsection 6 to include a summary of wildlife encounters (Table 7).
V1.2	Jan 28, 2025	Final	Great Bear Lake Lodge Ltd. - 2023 Annual Water Licence Report.docx	Updated column 4 of table 3 to the correct volumes.

## TABLE OF CONTENTS

1	INTRODUCTION.....	1
2	SUMMARY OF ENGAGEMENT ACTIVITIES.....	2
3	SUMMARY OF CONSTRUCTION ACTIVITIES.....	2
4	SUMMARY OF MAINTENANCE ACTIVITIES.....	2
5	SUMMARY OF ACTIVITIES – WASTE MANAGEMENT PLAN.....	2
6	SUMMARY OF WATER USE.....	4
7	SURVEILLANCE NETWORK PROGRAM SUMMARY.....	4
8	SUMMARY OF ACTIVITIES – SPILL CONTINGENCY PLAN.....	6
9	SUMMARY OF ACTIVITIES – CLOSURE AND RECLAMATION PLAN.....	6
10	SUMMARY OF ACTIONS TAKEN.....	6
11	DETAILS REQUESTED BY THE BOARD.....	6

## 1 INTRODUCTION

Beginning March 31, 2020, and no later than every March 31 thereafter, the Licensee shall submit an Annual Water Licence Report to the Board. The Report shall be in accordance with the requirements of Schedule 1, Condition 1. The Annual Water Licence Report referred to in Part B, Condition 16 of this Licence shall include, but not be limited to, the following information:

- a) A summary of engagement activities conducted in accordance with the approved Engagement Plan, in Part B, condition 17 of this Licence, undertaken during the previous calendar year and shall include a brief description of activities planned for the forthcoming year.
- b) A summary of Construction activities conducted in accordance with Part E of this Licence, undertaken during the previous year calendar year.
- c) A summary of modifications and/or major maintenance work carried out on the water supply facilities, sewage disposal facilities, and solid waste disposal facilities, including all associated structures.
- d) A summary of activities conducted in accordance with the approved Waste Management Plan, required in Part H, condition 2 of this Licence, undertaken during the previous calendar year.
- e) The monthly and annual quantities in cubic meters of each and all Waste discharged.
- f) The monthly and annual quantities of water usage from the issuance/anniversary date of the Water Licence along with the calendar year's usage.
- g) Tabular summaries of all data generated under the Surveillance Network Program, including:
  - i. Rationale for SNP stations where samples were not collected.
  - ii. Exact coordinates for each established SNP station.
  - iii. A tabular summary of all data collected under the SNP.
  - iv. Information regarding the calibration and status of the meters and devices referred to in Part B, condition 14 of this Licence; and
  - v. A tabular summary of cumulative water use.
- h) A summary of activities conducted in accordance with the approved Spill Contingency Plan, required in Part G, condition 3 of this Licence, undertaken during the previous calendar year, including:
  - i. A list and description for all Unauthorized Discharges that occurred during the previous calendar year, including the date, NWT spill number, volume, location, summary of the circumstances and follow-up actions taken, and status (i.e., open or closed), in accordance with the reporting requirements in Part G, condition 5 of this Licence; and
  - ii. An outline of any spill training and communications exercises carried out during the previous calendar year.
- i) A summary of activities conducted in accordance with the Closure and Reclamation Plan, required in Part I of this Licence, completed during the year, a summary of updates or changes made, and an outline of any work anticipated for the next year.
- j) A summary of actions taken to address concerns, non-conformances, or deficiencies in any reports filed by an Inspector; and
- k) Any other details on Water use or Waste disposal requested by the Board by November 1st of the year being reported.

## 2 SUMMARY OF ENGAGEMENT ACTIVITIES

- a) A summary of engagement activities conducted in accordance with the approved Engagement Plan, in Part B, condition 17 of this Licence, undertaken during the previous calendar year and shall include a brief description of activities planned for the forthcoming year.

All affected parties (Délįnę Got'ine Government) were contacted throughout the season and the engagements can be referenced in the engagement log. No major questions or concerns were noted by any of the affected parties about the water licence. Before the commencement of the upcoming 2024 season, an update will be sent to the Délįnę Got'ine Government including notification of the upcoming season as well as job postings.

Great Bear Lake Lodge starting in the Spring of 2021 has been trying, and to date, unsuccessfully coordinate a Traditional Knowledge Study for the Great Bear Lake Lodge area to be completed with the Délįnę Got'ine Government before the Water Licence renewal in 2024. Great Bear Lake Lodge will continue to communicate with representatives from Délįnę to have one completed.

## 3 SUMMARY OF CONSTRUCTION ACTIVITIES

- b) A summary of Construction activities conducted in accordance with Part E of this Licence, undertaken during the previous year calendar year.

There were no construction activities during the 2023 operating season.

## 4 SUMMARY OF MAINTENANCE ACTIVITIES

- c) A summary of modifications and/or major maintenance work carried out on the water supply facilities, sewage disposal facilities, and solid waste disposal facilities, including all associated structures.

During the inspections of the water supply facilities, sewage disposal facilities, and solid waste disposal facilities throughout the 2023 operating season, there were no deficiencies documented. Therefore, no major maintenance activities or modifications were completed. Minor routine maintenance is completed throughout the season as needed.

## 5 SUMMARY OF ACTIVITIES – WASTE MANAGEMENT PLAN

- d) A summary of activities conducted in accordance with the approved Waste Management Plan, required in Part H, condition 2 of this Licence, undertaken during the previous calendar year.

All waste streams were managed following the approved waste management plan. All non-combustible and non-sewage waste was segregated and transported to Yellowknife to an approved waste disposal facility.

e) The monthly and annual quantities in cubic meters of each and all Waste discharged.

**Table 1 Quantities of Solid Waste Discharged to the Solid Waste Disposal Facilities**

Month	Volume of Sewage Solids (m <sup>3</sup> )	Volume of Ash (m <sup>3</sup> )
January	0	0
February	0	0
March	0	0
April	0	0
May	0	0
June	0	0
July	0	0
August	0	0
September	10.2	1
October	0	0
November	0	0
December	0	0
<b>Totals</b>	<b>10.2</b>	<b>1</b>

**Table 2 Quantities of Sewage Discharged to Sewage Disposal Facilities**

Month	Type of Waste	Volume of Waste (m <sup>3</sup> )	Location of Discharge
January	N/A	0	N/A
February	N/A	0	N/A
March	N/A	0	N/A
April	N/A	0	N/A
May	N/A	0	N/A
June	Greywater/Sewage	24.5	Septic Tank/Cobble Field
July	Greywater/Sewage	193.5	Septic Tank/Cobble Field
August	Greywater/Sewage	193.5	Septic Tank/Cobble Field
September	Greywater/Sewage	10.5	Septic Tank/Cobble Field
October	N/A	0	N/A
November	N/A	0	N/A
December	N/A	0	N/A
<b>Totals</b>	-	<b>422</b>	-

## 6 SUMMARY OF WATER USE

- f) The monthly and annual quantities of water usage from the issuance/anniversary date of the Water Licence along with the calendar year's usage.

**Table 3 Water Usage**

Month	Volume from Water Intake at Great Bear Lake Lodge Ltd. (m <sup>3</sup> )	Volume of water from any other source (m <sup>3</sup> )	Total Volume (m <sup>3</sup> )
January	0	0	0
February	0	0	0
March	0	0	0
April	0	0	0
May	0	0	0
June	115.5	0	115.5
July	175	0	175
August	175	0	175
September	65.5	0	65.5
October	0	0	0
November	0	0	0
December	0	0	0
<b>Totals</b>	<b>531</b>	<b>0</b>	<b>531</b>

Please refer to Table 6 in Section 7 subsection 5 for cumulative water use.

## 7 SURVEILLANCE NETWORK PROGRAM SUMMARY

- g) Tabular summaries of all data generated under the Surveillance Network Program, including:
- i. Rationale for SNP stations where samples were not collected.

Only one sample was collected during the 2023 operating season due to the emergency evacuation order in Yellowknife.

- ii. Exact coordinates for each established SNP station.

**Table 4 SNP Station Coordinates**

SNP Station	Latitude	Longitude
SNP Station 15-1 (Water Intake)	66.708654	-119.682016
SNP Station 15-2	66.709878	-119.670334

- iii. A tabular summary of all data collected under the SNP.

**Table 5 Summary of SNP Data Analysis at SNP Station 15-2**

Parameter	Sample 1 June 20, 2023	Sample 2
Nitrite as Nitrogen	< 0.0010 mg/L	-
Biochemical Oxygen Demand	< 2 mg/L	-
Organic Carbon, Total	2.1 mg/L	-
Nitrate as Nitrogen	0.0514 mg/L	-
Phosphorous, Total	< 0.002 mg/L	-
Solids, Total Suspended	< 3 mg/L	-
Nitrate + Nitrite as Nitrogen	0.0520 mg/L	-
Coliforms, Fecal	< 1 mg/L	-

Sample 2 was not collected due to the Yellowknife evacuation order.

- iv. Information regarding the calibration and status of the meters and devices referred to in Part B, condition 14 of this Licence; and

The meter monitoring water use at Great Bear Lake Lodge was operational and calibrated during the 2023 operating season.

- v. A tabular summary of cumulative water use.

**Table 6 Cumulative Water Use**

Year	Water Use (m <sup>3</sup> )
2021	559
2022	823
2023	531
<b>Total</b>	<b>1913</b>

- vi. Part C Section 33 of the Land Use Permit states that the permittee shall conduct an annual monitoring program that documents:
  - i. Wildlife encounters and sightings of caribou, bears, moose, muskoxen, furbearers,
  - ii. Migratory birds and waterfowl sightings, breeding evidence,
  - iii. Indicators of disturbance

**Table 7 Wildlife Monitoring Summary**

Parameter	2021	2022	2023
Wildlife Encounters	None	None	None
Migratory Bird Encounters	None	None	None
Indicators of Disturbance	None	None	None



## 8 SUMMARY OF ACTIVITIES – SPILL CONTINGENCY PLAN

- h) A summary of activities conducted in accordance with the approved Spill Contingency Plan, required in Part G, condition 3 of this Licence, undertaken during the previous calendar year, including:
  - i. A list and description for all Unauthorized Discharges that occurred during the previous calendar year, including the date, NWT spill number, volume, location, summary of the circumstances and follow-up actions taken, and status (i.e., open or closed), in accordance with the reporting requirements in Part G, condition 5 of this Licence; and

No unauthorized discharges occurred during the 2023 operating season.

- ii. An outline of any spill training and communications exercises carried out during the previous calendar year.

All staff underwent a site-specific orientation upon arriving at Great Bear Lake Lodge including the designation of a spill commander and alternate, the locations of the spill contingency plan on-site, and the locations of the spill response equipment and how to use it.

## 9 SUMMARY OF ACTIVITIES – CLOSURE AND RECLAMATION PLAN

- i) A summary of activities conducted in accordance with the Closure and Reclamation Plan, required in Part I of this Licence, completed during the year, a summary of updates or changes made, and an outline of any work anticipated for the next year.

There are currently no plans to end or suspend operations at Great Bear Lake Lodge. No closure or reclamation activities occurred, therefore, the closure and reclamation plan is not applicable at this time.

## 10 SUMMARY OF ACTIONS TAKEN

- j) A summary of actions taken to address concerns, non-conformances, or deficiencies in any reports filed by an Inspector; and

Due to the emergency evacuation order from the forest fires affecting Yellowknife, Great Bear Lake Lodge was evacuated, and an inspection and subsequent report were not completed by inspectors.

## 11 DETAILS REQUESTED BY THE BOARD

- k) Any other details on Water use or Waste disposal requested by the Board by November 1st of the year being reported.

As of November 1, 2023, there were no additional details requested by the board.