



KICKING HORSE MOUNTAIN RESORT

MAIN WATER SYSTEM

Facility Number 12-098-00152

2022 ANNUAL WATER REPORT TO INTERIOR HEALTH

Date of Issue: May 12 2023

This report was produced on behalf of Kicking Horse Mountain Resort and Kicking Horse Mountain Utility Corporation Ltd. by Travis Jobin, Utility Manager

Kicking Horse Mountain Resort, 1500 Kicking Horse Trail, PO Box 839, Golden, BC, V0A 1H0



Potable Water System Operations Summary

The potable water system continues to operate well.

Operator Certification

- Utility Manager: Travis Jobin (Lvl 1 WD, EOCP cert # 7640)
Continued to act as the lead operator
- Sr. Utility Operator: Mark Skyring (Lvl 1 WD, EOCP cert #9184)
- Utility Operator – Charles Laumet (OIT) *Started in November*
- Utility Operator – Nathan Middleton (OIT) *January to September*

Long Term Plans for System Improvements

Long term plans for system improvements are dependent on the rate of expansion of the resort. The system will be enhanced by the addition of new wells over the coming years and when appropriate by the addition of another reservoir cell.

Emergency Response Plan

The emergency response plan was reviewed and updated in September 2022. The contact list has been revised periodically throughout the year as contact personnel and phone numbers changed.

Events in 2022

- Ongoing – We continued to troubleshoot our water system SCADA. Because the technology is 15+ years old it was determined we needed a full replacement.
- Well Monitoring – We continued to monitor Wells 3 and 4 for our GARP assessment.
- April 3 – ARV Fail on Purcell woods close. We were able to isolate the break in a manhole and had minimal downtime. The failure was due to freezing. We are trying to find a better replacement model as this has happened before.
- July 1 – While testing the pump in well 4 a part on the main switch failed. We lost our ability to operate the well. Well 3 was able to maintain the reservoir until we replaced the part on Jul 23.
- Oct 17-21 – Resort on Water conservation notice for pump testing on a future well. We turned off wells 3 and 4 and monitored the Reservoir. The reservoir was at 54% at the end of the week.



- Dec 5 – Total Coliform =1 on the WWTP sample. We informed Interior Health. The Admin sample was fine. We Chlorinated and flushed the reservoir and resampled Dec 7& 8. Both resamples passed.

Planned Activities for 2023

- SCADA System – We have lost functionality of our SCADA System and will be replacing it.
- Flow Meters – We will be replacing our 2 - 10” flowmeters for the distribution system.
- PRV Repair – We are finalizing our Confined Space procedures and will be getting a contractor to inspect and repair our village Pressure Reducing Valves.
- Hydrant Inspection – A contractor will be inspecting our village Fire Hydrants
- Well 7 – We will be monitoring this well for Bac-T and Turbidity. We are hoping to use it more regularly this year. We will be consulting with Interior Health before adding to production.

Water Quality Monitoring Program

Weekly samples were taken and tested for Total Coliform and E. Coli. Samples were processed at ALS Environmental in Calgary AB. Samples were collected at the Wastewater Treatment Plant and the Admin building.

	<i>WWTP</i>	<i>ADMIN</i>
5-Jan	<1	
10-Jan	<1	<1
13-Jan	<1	<1
18-Jan	<1	<1
25-Jan	<1	<1
1-Feb	<1	<1
8-Feb	<1	<1
15-Feb	<1	<1
22-Feb	<1	<1
1-Mar	<1	<1
14-Mar	<1	<1
17-Mar	<1	<1
22-Mar	<1	<1
5-Apr	<1	<1
12-Apr	<1	<1
19-Apr	<1	<1
26-Apr	<1	<1

	<i>WWTP</i>	<i>ADMIN</i>
6-Jul	<1	<1
13-Jul	<1	<1
20-Jul	<1	<1
28-Jul	<1	<1
3-Aug	<1	<1
10-Aug	<1	<1
17-Aug	<1	<1
23-Aug	<1	<1
31-Aug		<1
7-Sep	<1	<1
15-Sep	<1	<1
19-Sep	<1	<1
28-Sep	<1	<1
5-Oct	<1	<1
12-Oct	<1	<1
19-Oct	<1	<1
26-Oct	<1	<1



4-May	<1	<1
10-May	<1	<1
17-May	<1	<1
24-May	<1	<1
31-May	<1	<1
9-Jun	<1	<1
16-Jun	<1	<1
21-Jun	<1	<1
29-Jun	<1	<1

3-Nov	<1	<1
9-Nov	<1	<1
15-Nov	<1	<1
22-Nov	<1	<1
5-Dec	TC=1	<1
7-Dec	<1	<1
8-Dec	<1	<1
9-Dec	<1	
13-Dec	<1	<1
20-Dec	<1	<1
29-Dec	<1	<1

Legend:
 <1 <1 Total Coliform, <1 E.Coli
 TC=1 1 Total Coliform

Turbidity Monitoring

As part of GARP Assessment For Wells 3 and 4 we analyzed Turbidity Sampling at ALS Calgary.

	WELL 3	WELL 4
5-Jan	0.33	<0.10
11-Jan	0.24	<0.10
19-Jan	0.15	<0.10
30-Nov	<0.10	<0.10

Metals and Chemical Analysis

As part of GARP Assessment for Wells 3, 4 & 7 we analyzed the Metal and Chemical properties at ALS Calgary. Analysis are attached at the end of this report. All parameters were within the Canadian Drinking Water Guidelines.

Long Term Plans for System Improvements

We are currently performing a capacity assessment of the Water system. We are currently near our maximum bed units for the village. We performed pump testing on a well drilled in 2008 as well as a GARP assessment.

Emergency Response Plan



The emergency response plan was reviewed and updated in September 2022. The contact list has been revised periodically throughout the year as contact personnel and phone numbers changed.

END OF REPORT