

Blind River GS Monthly Report – June 2022

Production

Unit #1 (to Town Hall):

RGM: 00.00 kWh

RGM = Revenue Grade Meter

Unit #2 (to STP):

RGM: 9,465 kWh

Downtime

Unit #1 was down for the month. Engineers are planning visit to site for July.

Unit #2 was offline for 8 days at the beginning of the month due to the tail end of freshet. It was started as soon as the water level came up and stabilized at the head pond as the unit could then run without cavitation.

Maintenance

Over 40 hours onsite for regular maintenance service, and over 20 hours of on call coverage. A summary of the work completed includes:

- Mechanical gate adjustment and cable cleaning to remove lake debris and vegetation.
- Updating MNR on gate leakage and leakage under logs closest to gate. Allowing time to inspect under logs and will then plug with burlap plug – unable to plug mechanical gate leakage at hinge.
- Daily checks consisting of daily measurements and records, trash rack cleaning (heavy vegetation from river this time of year), observations, etc.
- General cleaning and sanitizing was performed regularly.
- Our contractor didn't have time to complete the Davit Crane inspection during their visit at the end of June, so it is scheduled to be done in the first few weeks of July. The harness, SRLs and slings that passed inspection have been returned to the site. One chainfall and sling were removed from service. MNR has the gantry and lifeline inspected annually.
- Alarm testing was completed on June 1st.
- Greasing completed on June 1st:
 - Generator 2, due again in 4 wks.
 - Pilot bearing on both turbines, due again in 4 wks.
 - Stay Ring and tie rod ends on both units, due again in 2 months.
 - Packing gland, due again in 6 months unless leakage dictates it is needed earlier.
 - *Adjustments to schedule are made for down time.*
- Fire Extinguishers were inspected at the end of the month. We had a temporary extinguisher in place while the Dam extinguisher was out for service. Town Dam extinguisher was returned on June 24th.
- Deficiency corrected from CSS Inspection on June 27th (repaired junction box cover).

Repair Work

Powerhouse:

- Exhaust fan will need to be replaced. Looking into specs and obtaining quotes to work into budget.
- We are looking into replacing bulbs where possible but may have to change out the ballast. Lighting is still adequate, so this will be scheduled when both units are down during the summer. Anticipate down time towards end of July at this time.
- We have been investigating water coming into the plant through the ceiling. There is a large tree outside that drops significant debris onto the roof of the powerhouse and often blocks the drainage (causing leakage due to roof setup). We have spoken to the owner of the motel, who does not object to us trimming it back, provided we don't remove it completely, provide adequate notice and aim to schedule it at 9am. It appears to be on crown land, so we are seeking approval from MNR also.

Unit #1:

- Engineering company to attend site in July to proceed with steps 1-3 of quote this year. This will provide us with the calculated headgate weight under hydraulic force and will provide the proper rating and method to repair the headgate anchor to facilitate operation and repairs. The quote needs a revision to reduce the amount, and then I will submit to Town for capital budget use.

Unit #2:

- Noticed production had dropped substantially and investigated the voltage output on June 14th. No issues found with unit, however headpond level was lower than it had been given it was the end of freshet. As the level came back up, production increased. We now periodically shut the unit down when the headpond level lowers and affects production due to lower head pressure at the intake. This allows the headpond time to recover during lower flows and avoids cavitation from dropping the level any further.

Other Issues

On June 23rd we noticed with all logs in the dam, the mechanical gate closed and Huron water level down so much, you can see the hinge leakage. After reviewing historical documents, it appears to have had some leakage since installation, but the leakage may have increased since the beginning. As Huron has been higher over the last few years, it has not been as easy to spot/monitor. From downstream we noticed the front sill under the logs of the bay next to the mechanical gate appears to be missing partially, as the logs appear to overhang and under them is the leakage that was previously investigated. Both of these observations were reported to the MNR. We will plug the gap under the logs with a burlap plug once approved, however we are unable to stop the leakage from the gate as it is from the hinge at the bottom.

Water Management

During this month, the Target Water Level range was from 0.60 to 0.66 and the Compliance Water Level range was also from 0.60 to 0.66. We are to stay within these 6cm from June 1st to September 30th.

We had 5 days where we were out of compliance slightly at the 557, but still in compliance at the Town Dam. The days were June 5th, 26th, 28th, 29th, and 30th. All logs were in last month and the gate was used

in addition to the turbine to manage the water this month. The gate was closed June 23rd, but was opened again slightly on the 30th to release additional water to return to compliance.

Figure 1 is a graph of the water level from June 1st to June 30th.

Figure 2 is the chart with the exact water levels and number of logs out (or equivalent).

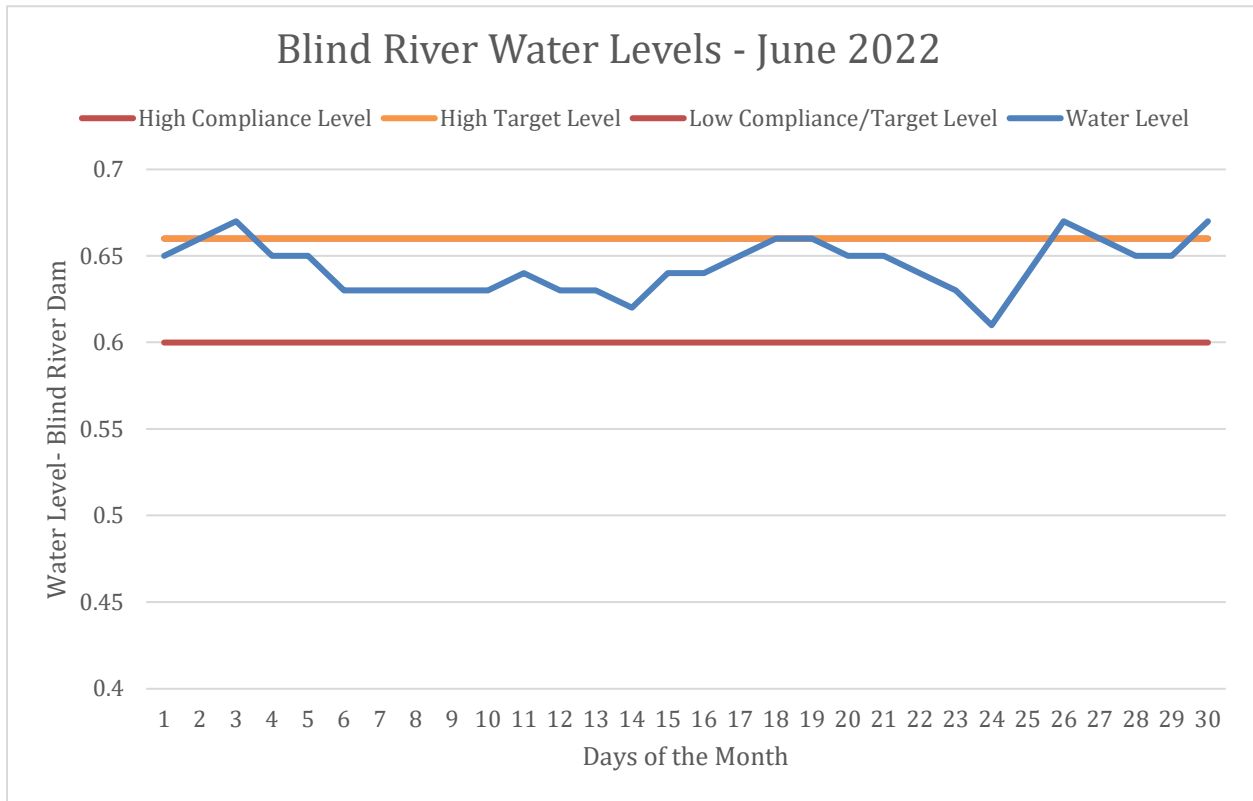


Figure 1: Water Level Graph

2022 MONTHLY WATER LEVEL LOG				
Generating Station:	Town Dam	Month:	June	
WMP Compliance Range:			.60 to .66 mStaff	
Date	Water Level	Ruler	Logs Out & Equivalent Flow	Comments/Actions
June 1, 2022	0.65	557	5	60% chance of 5-10mm rain forecasted as of 2022-05-26
June 2, 2022	0.66	557	5	
June 3, 2022	0.67	557	5.5	
June 4, 2022	0.65	557	5.5	
June 5, 2022	0.65	557	5.5	
June 6, 2022	0.63	557	7	20-50mm rain forecasted over 24h as of this morning (100%)
June 7, 2022	0.63	557	6	
June 8, 2022	0.63	557	6	
June 9, 2022	0.63	557	6	
June 10, 2022	0.63	557	6	
June 11, 2022	0.64	557	6	10-15mm rain forecasted overnight
June 12, 2022	0.63	557	6	
June 13, 2022	0.63	557	6	
June 14, 2022	0.62	557	5	
June 15, 2022	0.64	557	5	Severe thunderstorm watch. 90% chance of 10-15mm overnight. Matindenda logs all in.
June 16, 2022	0.64	557	4	
June 17, 2022	0.65	557	4	
June 18, 2022	0.66	Dam	4	Off last night. 557 = 1 cm over
June 19, 2022	0.66	557	2	
June 20, 2022	0.65	557	4	
June 21, 2022	0.65	557	4	
June 22, 2022	0.64	557	3	
June 23, 2022	0.63	557	2	All logs in (1 unit on)
June 24, 2022	0.61	Dam	0	
June 25, 2022	0.64	557	0	
June 26, 2022	0.67	557	2	Started Unit
June 27, 2022	0.66	Dam	2	
June 28, 2022	0.65	Dam	2	557 over 1cm
June 29, 2022	0.65	Dam	2	557 over 1cm

June 30, 2022	0.67	557	3	
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Figure 2: Water Level Chart