

## YUKON WATER BOARD

Pursuant to the *Waters Act* and *Regulation*, the Yukon Water Board hereby issues a water licence to:

**LICENSEE:** Yukon Energy Corporation

**CONTACT INFORMATION:** 2 Miles Canyon Road  
Whitehorse, Yukon Y1A 6S7

**LICENCE NUMBER:** HY24-061

**RENEWAL:** This Licence is a renewal of HY25-021

**UNDERTAKING:** Power, Class 4 **LICENCE TYPE:** A

**LOCATION:** Yukon River

**WATER MANAGEMENT AREA:** 02 Yukon

**PURPOSE:** Operation of the Whitehorse Rapids Generating Station and the Lewes Control Structure for the purposes of a hydroelectric power undertaking.

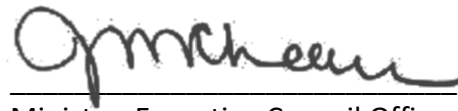
**EFFECTIVE DATE:** July 31, 2025

**EXPIRY DATE:** The earlier of July 30, 2045, or the effective date set out in the renewed licence.

This Licence is subject to the restrictions and conditions contained herein and to the restrictions and conditions contained in the *Waters Act* and *Regulation*.


Approved this 29 day of July 2025.

  
\_\_\_\_\_  
Witness

  
\_\_\_\_\_  
Minister, Executive Council Office  
Government of Yukon

Issued this 29 day of July 2025.

  
\_\_\_\_\_  
Digitally Signed  
Witness

  
\_\_\_\_\_  
Digitally Signed  
Chairperson, Yukon Water Board

---

**PART A        DEFINITIONS**

"Act" means *Waters Act* S.Y. 2003, c.19, as amended from time to time.

"Application" means Application for water licence HY24-061 including any additional submissions or updates submitted to the Board by the Licensee, up to the Effective Date of this Licence.

"Board" means the Yukon Water Board.

"CGVD" means Canadian Geodetic Vertical Datum.

"Dam Safety Guidelines" means the *Canadian Dam Safety Guidelines*, as amended from time to time, issued by the Canadian Dam Association.

"Dam Safety Inspection" means a dam safety inspection conducted in accordance with *Canadian Dam Safety Guidelines*, as amended from time to time.

"Dam Safety Review" means a dam safety review conducted in accordance with *Canadian Dam Safety Guidelines*, as amended from time to time.

"Emergency Preparedness Plan" means the *Whitehorse Rapids and Lewes River Dams Emergency Preparedness Plan* submitted as part of the Application and included in register HY24-061 as exhibit 1.38, and any subsequent updates.

"Elevation Data" means information that describes the height of a point or surface above or below a defined vertical reference datum.

"High Water" means the mean daily water elevation at Marsh Lake is greater than the Marsh Lake Full Supply Level.

"Ice Management Guidelines" means the *Marwell Ice Management SWP-042* submitted as part of the Application and included in register HY24-061 as exhibit 1.89, and any subsequent updates.

"Inspector" means a person designated as an Inspector under the Act.

"Lewes Boat Lock" means the structure labeled "Boat Lock" on Figure 1-4 in exhibit 1.3 included in register HY24-061.

"Lewes Control Structure" means the structure labeled "Lewes Control Structure" on Figure 1-4 in exhibit 1.3 included in register HY24-061.

“Lewes Fishway” means the structure labeled “Fishway” on page 3 in exhibit 10.38 included in register HY24-061.

“m<sup>3</sup>/s” means cubic metres per second.

“masl” means metres above sea level.

“MAMP” means the *Whitehorse Rapids Generating Station Relicensing Project: Monitoring and Adaptive Management Plan* submitted as part of the Application and included in register HY24-061 as part of exhibit 1.55, and any subsequent updates.

“MAMP Parties” means the Licensee, Carcross/Tagish First Nation, Kwanlin Dün First Nation and Ta'an Kwäch'än Council.

“Marsh Lake Full Supply Level” means 656.234 masl (CGVD28) as measured from Water Survey of Canada gauge 09AB004.

“Marsh Lake Low Supply Level” means 653.796 masl (CGVD28) as measured from Water Survey of Canada gauge 09AB004.

“Non-Acid Generating and Non-Metal Leaching” means rock with a paste pH  $\geq 5.0$ , a Neutralizing Potential: Acid Generation Potential Ratio (NPR)  $\geq 3:1$  and a sulphur content of  $< 0.3\%$ .

“Operations, Maintenance and Surveillance Manual” means the *Operations, Maintenance and Surveillance for Whitehorse Rapids Generating Station* submitted as part of the Application and included in register HY24-061 as exhibit 1.65, and any subsequent updates.

“or” includes “and”

“Power Canal” means the Watercourse labeled “Power Canal” on Figure 1-3 in exhibit 1.3 included in register HY24-061.

“Ramping Event” means the decrease of flow when the flow of the Yukon River is below 270 m<sup>3</sup>/s as amended from time to time in the Ramping Protocol.

“Ramping Protocol” means the *Flow Reduction Ramping Procedure- Whitehorse EMS-EJP-008* submitted as part of the Application and included in register HY24-061 as exhibit 1.12, and any subsequent updates.

“Ramping Rate” means the rate at which flows are increased or decreased from a control structure.

“Regulation” means the *Waters Regulation*, O.I.C. 2003/58, as amended from time to time.

“Rules” means the *Yukon Water Board Rules of Procedure 2021*, as amended from time to time.

“Schwatka Lake Full Supply Level” means 653.339 masl (CGVD28) as measured from Geodetic Survey of Canada benchmark 86G114A.

“Schwatka Lake Low Supply Level” means 652.272 masl (CGVD28) as measured from Geodetic Survey of Canada benchmark 86G114A.

“Spill Response Plan” means the *Whitehorse Hydro/Diesel/Sub-Station Spill Response Plan* that was submitted as part of the Application and included in register HY24-061 as exhibit 1.44, and any subsequent updates.

“Spillway” means the two structures labeled “Spillway” on Figure 1-3 in exhibit 1.3 included in register HY24-061.

“Tailrace Canal” means the Watercourse labeled “Unit #4 Tailrace Canal” on Figure 1-3 in exhibit 1.3 included in register HY24-061.

“Trade-off Analysis” means the decision-making process as described in Section 2.4 in exhibit 1.55 included in register HY24-061.

“Unit #1, #2 and #3 Powerhouse” means the structure labeled “Unit #1, #2 and #3 Powerhouse” on Figure 1-3 in exhibit 1.3 included in register HY24-061.

“Unit #4 Powerhouse” means the structures labeled “Unit #4 Powerhouse” on Figure 1-3 in exhibit 1.3 included in register HY24-061.

“VESEC” means valued environmental and socio-economic component.

“Waste” has the same meaning as in the Act.

“Watercourse” has the same meaning as in the Act.

“Whitehorse Rapids Dam” means the structure labeled “Main Dam” on Figure 1-3 in exhibit 1.3 included in register HY24-061.

“Whitehorse Rapids Generating Station” means the labeled structures collectively shown on Figure 1-3 in exhibit 1.3 included in register HY24-061.

“Whitehorse Rapids Fish Ladder” means the structure labeled “Fishway” on Figure 1-3 in exhibit 1.3 included in register HY24-061.

**PART B WATER USE AND DEPOSIT OF WASTE**

1. The Licensee is hereby authorized to:
  - a) store the flow of the Yukon River, except for a minimum flow of  $85 \text{ m}^3/\text{s}$ , behind the Whitehorse Rapids Dam and in the Power Canal;
  - b) store the flow of the Yukon River, except for a minimum flow of  $85 \text{ m}^3/\text{s}$ , behind the Lewes Control Structure;
  - c) divert the flow of the Yukon River through the Unit #1, #2 and #3 Powerhouse and the Unit #4 Powerhouse;
  - d) use water to a maximum daily mean flow of  $1.3 \text{ m}^3/\text{s}$ , at the Whitehorse Rapids Fish Ladder;
  - e) use water to a maximum daily mean flow of  $275 \text{ m}^3/\text{s}$ , calculated as a combined total of Unit #1, #2 and #3 Powerhouse and Unit #4 Powerhouse;as described in the Application, and subject to the conditions of this Licence.
2. Any deposit of Waste into a Watercourse is prohibited.

**PART C OPERATING CONDITIONS**

3. Notwithstanding conditions 4 and 5, a minimum instantaneous flow of  $85 \text{ m}^3/\text{s}$  must be maintained in the Yukon River downstream of the Lewes Control Structure and the Yukon River downstream of the Whitehorse Rapids Generating Station.
4. The Licensee may not allow the mean daily water elevation on Schwatka Lake to subceed the Schwatka Lake Low Supply Level or rise above the Schwatka Lake Full Supply Level.
5. If any of the Lewes Control Structure gates are lowered into the Yukon River, the Licensee may not allow the mean daily water elevation on Marsh Lake to subceed the Marsh Lake Low Supply Level or rise above the Marsh Lake Full Supply Level.
6. The Licensee must open all Lewes Control Structure gates between May 15 and August 15 each year except if:
  - a) the Licensee is conducting repairs of or maintenance to the Lewes Control Structure gates; or
  - b) on July 7, the mean daily water elevation of Marsh Lake is less than 654.820 masl (CGVD28), then up to twenty gates may be closed and at least ten gates must remain open; or
  - c) on July 21, the mean daily water elevation of Marsh Lake is less than 655.150 masl (CGVD28), then up to twenty gates may be closed and at least ten gates must remain open; or
  - d) on August 10, the mean daily water elevation of Marsh Lake is less than 655.650 masl (CGVD28), then up to twenty gates may be closed and at least ten gates must remain open.

- 
7. If after August 15 of each year, the mean daily water Elevation Data is above the Marsh Lake Full Supply Level then the Licensee must not close the gates until the mean daily water elevation is equal to or less than the Marsh Lake Full Supply Level.
  8. Each year, within three days of the date on which the Licensee raises all of the Lewes Control Structure gates, the Licensee must notify the Board and the Inspector in writing.
  9. Each year, within 72 hours of the first time the Licensee lowers any of the Lewes Control Structure gates into the Yukon River, the Licensee must notify the Board and the Inspector in writing.
  10. The Licensee must undertake maintenance and repairs to the Whitehorse Rapids Fish Ladder and the Lewes Fishway.
  11. When there is no ice impeding the flow of water, the Licensee must ensure that the Whitehorse Rapids Fish Ladder is open and allows fish to pass.
  12. The Licensee must ensure that the Lewes Fishway is open and allows fish to pass from April 1 to November 15 each year.
  13. The Licensee is prohibited from conducting any in-water maintenance, reconstruction of or repairs to the Lewes Boat Lock.
  14. The Licensee must use riprap that is hard, dense, angular, Non-Acid Generating and Non-Metal Leaching quarry stone or boulders, free of seams, cracks, structural defects and contaminants, freeze-thaw resistant, non-slaking and free of fine-grained materials including silt and sand.
  15. By December 31, 2025, the Licensee must install survey monuments at the Lewes Control Structure, the Lewes Fishway, the Lewes Boat Lock, and on each side of the embankment adjacent to the Lewes Control Structure.
  16. The Licensee must monitor the survey monuments referenced in condition 15 for movement and provide the Elevation Data monitoring results to the professional engineer referenced in condition 54.
  17. By December 31, 2025, the Licensee must install and operate a continuous water flow monitoring device with a minimum measurement accuracy of  $0.1 \text{ m}^3/\text{s}$  within the Whitehorse Rapids Fish Ladder.
  18. The results of the continuous flow monitoring referenced in condition 17 must be reported in the quarterly and annual reports.

---

Operational Plans

19. By May 1, 2026, Licensee must submit to the Board an updated Operations, Maintenance and Surveillance Manual.
20. By May 1, 2026, the Licensee must submit to the Board an updated Emergency Preparedness Plan.

Ice Management

21. The Licensee must follow the Ice Management Guidelines.

Ramping

22. The Licensee must follow the Ramping Protocol, except in unforeseen or emergency circumstances.
23. In unforeseen or emergency circumstances, if the Licensee is unable to follow the Ramping Protocol, the Licensee must notify the Board, the Inspector, Department of Fisheries and Oceans Canada, Carcross/Tagish First Nation, Kwanlin Dün First Nation and Ta'an Kwäch'än Council within 48 hours of a Ramping Event.
24. The notification referenced in condition 23 must be in writing and must include:
  - a) a rationale for why the circumstances were unforeseen or constituted an emergency; and
  - b) the actions taken to salvage fish, if salvage was necessary.
25. The Licensee must notify the Board, the Inspector, Department of Fisheries and Oceans Canada, Carcross/Tagish First Nation, Kwanlin Dün First Nation and Ta'an Kwäch'än Council in writing seven days prior to a planned Ramping Event.
26. By November 30, 2026, the Licensee must submit to the Board, Department of Fisheries and Oceans Canada, Carcross/Tagish First Nation, Kwanlin Dün First Nation and Ta'an Kwäch'än Council an updated Ramping Protocol.
27. The updated Ramping Protocol referenced in condition 26 must:
  - a) be developed in collaboration with the Department of Fisheries and Oceans Canada, Carcross/Tagish First Nation, Kwanlin Dün First Nation and Ta'an Kwäch'än Council;
  - b) include a geographic scope between the Lewes Control Structure and the confluence of the Yukon River and the Takhini River;
  - c) develop a maximum rate for the increase of flows;
  - d) in collaboration with the Department of Fisheries and Oceans Canada, Carcross/Tagish First Nation, Kwanlin Dün First Nation and Ta'an Kwäch'än Council, identify important aquatic habitat sites within the geographic scope defined in paragraph b); and
  - e) be tested and verified prior to finalization.

Fish Passage

28. By December 31, 2026, the Licensee must submit to the Board an operations plan for the Whitehorse Rapids Fish Ladder and the Lewes Fishway.
29. The operations plan for the Whitehorse Rapids Fish Ladder and the Lewes Fishway must include operational and monitoring activities related to water use, maintenance requirements, and inspection schedules.

Spills and Unauthorized Discharges

30. The Licensee must follow the Spill Response Plan.
31. The Licensee must have personnel trained on the Spill Response Plan.
32. By December 31, 2026, the Licensee must submit an updated Spill Response Plan to the Board.
33. The Spill Response Plan must include a procedure for addressing spills by the Licensee of fuel, chemicals, oils or other hazardous substances on the Yukon River.
34. The Licensee must carry fuel spill response kits and have personnel trained on the Spill Response Plan at all locations where fuel, chemicals, oils or other hazardous substances will be stored and where refueling will occur.
35. Spill response kits must be able to contain, clean up, and dispose of the volumes of fuel, chemicals, oils or other hazardous substances being stored.
36. The Licensee must notify the Board, Carcross/Tagish First Nation, Kwanlin Dün First Nation and Ta'an Kwäch'än Council in writing of a spill no later than 10 days after the date that a spill occurred.
37. The Licensee must maintain a logbook of all spills of fuels, chemicals, oils or other hazardous substances, and the logbook must be made available at the request of an Inspector.
38. The logbook must include, but not necessarily be limited to the:
  - a) date and time of the spill;
  - b) substance spilled;
  - c) approximate amount spilled;
  - d) location of the spill;
  - e) distance between the spill and the nearest Watercourse; and
  - f) remedial measures taken to contain and clean-up the spill area or to cease the spill.
39. The Licensee must report all spills as part of the annual report.



40. The Licensee must maintain a complete inventory of chemicals, fuels, oils and other hazardous materials and their locations.

#### **PART D      REPORTING**

41. The Licensee must upload electronic copies of all reports and deliverables required by this Licence to the Board's online registry, Waterline. Electronic copies may only be submitted in a format approved by the Board.
42. When water Elevation Data or water flow data are reported in the quarterly or annual reports, the Licensee must specify for each data location, if applicable, the:
  - a) coordinates;
  - b) Licensee station name;
  - c) Water Survey of Canada station name;
  - d) Government of Yukon station name; or
  - e) any calculations used to report the data.
43. When Elevation Data is provided to the Board, the Licensee must specify what CGVD is being used and provide a conversion tool between CGVD28 and CGVD2013 for public use.
44. The Licensee must submit to the Board all valid permits required to operate the Whitehorse Rapids Generating Station, the Lewes Control Structure, the Lewes Fishway, and the Lewes Boat Lock during the term of this Licence.
45. If the permits referenced in condition 44 have not been issued, the Licensee must report annually to the Board on the status of the outstanding permits.

#### Annual Reports

46. The Licensee must submit annual reports to the Board.
47. The initial annual report must include the information required in condition 48 beginning on the Effective Date of this Licence until December 31, 2025, and must be submitted to the Board on or before May 1, 2026. Subsequent reports must be submitted to the Board on or before May 1 of the year following the year being reported.
48. Annual reports must include the following information:
  - a) monthly mean, monthly maximum, and monthly minimum of the mean daily flows of:
    - i) Yukon River downstream of the Lewes Control Structure;
    - ii) Yukon River downstream of Whitehorse Rapids Generating Station;
    - iii) Yukon River at Marwell (Whitehorse);
    - iv) Unit # 4 Powerhouse;
    - v) Unit #1, #2, and #3 Powerhouse;
    - vi) Spillway; and
    - vii) Whitehorse Rapids Fish Ladder;

- b) monthly mean, monthly maximum, and monthly minimum of the mean daily water Elevation Data of:
  - i) Schwatka Lake;
  - ii) Marsh Lake;
  - iii) Bennett Lake;
  - iv) Tagish Lake; and
  - v) Tailrace Canal;
- c) number of gates in the open position each day at the Lewes Control Structure;
- d) MAMP reporting, per condition 77;
- e) all Ramping Events, including information on the applied Ramping Rate, aquatic life observations, and estimate of the number of fish killed (if any);
- f) dates when the Whitehorse Rapids Fish Ladder was opened and closed;
- g) dates when the Lewes Fishway was open and allowed fish to pass;
- h) maintenance of and repairs made to the Whitehorse Rapids Fish Ladder and the Lewes Fishway;
- i) any updates to the operations plan for the Whitehorse Rapids Fish Ladder and the Lewes Fishway;
- j) any updates to the Ice Management Guidelines;
- k) any updates to the Ramping Protocol;
- l) any updates to the Operations, Maintenance and Surveillance Manual;
- m) any updates to the Emergency Preparedness Plan;
- n) any updates to the Spill Response Plan;
- o) the completion status of each recommendation or study from the latest Dam Safety Review, with rationale and proposed completion timelines for any uncompleted recommendations or study;
- p) the status of the geotechnical stability of the Lewes Boat Lock;
- q) outcomes of any third-party dam safety audit;
- r) results of and rationale for decisions made in the Trade-off Analysis related to mitigations or operational changes that impact or relate to water;
- s) the status of any outstanding authorizations required by condition 45; and
- t) any directions received from the Inspector and all corrective actions taken by the Licensee.

#### Quarterly Reports

- 49. The Licensee must submit quarterly reports to the Board.
- 50. The quarterly reports must cover the periods ending March 31, June 30, September 30 and December 31 of each year and be submitted to the Board within 30 days of the end of each reporting period.
- 51. Quarterly reports must include the following information:
  - a) mean daily flows of:
    - i) Yukon River downstream of the Lewes Control Structure;
    - ii) Yukon River downstream of Whitehorse Rapids Generating Station;

- iii) Yukon River at Marwell (Whitehorse);
- iv) Unit # 4 Powerhouse;
- v) Unit #1, #2, and #3 Powerhouse;
- vi) Spillway; and
- vii) Whitehorse Rapids Fish Ladder;
- b) mean daily water Elevation Data of:
  - i) Schwatka Lake;
  - ii) Marsh Lake;
  - iii) Bennett Lake;
  - iv) Tagish Lake; and
  - v) Tailrace Canal;
- c) number of gates in the open position each day at the Lewes Control Structure.

#### Dam Safety Reports

- 52. Each year, the Licensee must carry out a Dam Safety Inspection of the Whitehorse Rapids Generating Station, the Lewes Control Structure, the Lewes Fishway, and the Lewes Boat Lock.
- 53. In 2025, the Dam Safety Inspection must be carried out by a qualified, professional engineer, licensed to practice in the Yukon.
- 54. During the years 2026 to 2045, the Dam Safety Inspection must be carried out by a third-party, qualified, professional engineer, licensed to practice in the Yukon.
- 55. By November 30 of each year, the Licensee must submit to the Board and the Inspector the Dam Safety Inspection report that relates to the current year.
- 56. The Dam Safety Inspection reports must include the information referenced for Dam Safety Inspections by the Dam Safety Guidelines and update the recommendations concordance table from the latest Dam Safety Review report.
- 57. Every five years, or more often if recommended as a result of any Dam Safety Inspection, the Licensee must carry out a Dam Safety Review of the Whitehorse Rapids Generating Station, the Lewes Control Structure, the Lewes Fishway, and the Lewes Boat Lock.
- 58. The Dam Safety Review must be carried out by a third-party, qualified, professional engineer, licensed to practice in the Yukon.
- 59. The Licensee must submit the first Dam Safety Review report to the Board by November 30, 2025. The Licensee must submit subsequent Dam Safety Review reports to the Board by November 30 of the year in which the Dam Safety Review was conducted.
- 60. The Dam Safety Review reports must include the information referenced for Dam Safety Reviews by the Dam Safety Guidelines.

61. On or before December 31, 2025, the Licensee must provide to the Board verification from a third-party, qualified, professional engineer, licensed to practice in the Yukon that the Lewes Boat Lock is geotechnically stable.
62. If third-party geotechnical verification of the Lewes Boat Lock is not provided in accordance with condition 61, the Licensee must provide the Board with a timeline as to when verification will be provided from a third-party, qualified, professional engineer, licensed to practice in the Yukon.

## **PART E        MONITORING AND ADAPTIVE MANAGEMENT**

63. The Licensee must update the MAMP in collaboration with Carcross/Tagish First Nation, Kwanlin Dün First Nation and Ta'an Kwäch'än Council.
64. In addition to the specific MAMP requirements in this Licence, the MAMP must also include the following:
  - a) a process to collaborate with Carcross/Tagish First Nation, Kwanlin Dün First Nation and Ta'an Kwäch'än Council through the development, implementation, reporting, and updating of the MAMP;
  - b) a collaborative process for:
    - i) annual review of the monitoring results and adaptive management plans and actions;
    - ii) review of the thresholds, triggers and actions to ensure their effectiveness and allow for modification as required;
    - iii) provision of information to Carcross/Tagish First Nation, Kwanlin Dün First Nation and Ta'an Kwäch'än Council on how the goals of the MAMP are being met; and
    - iv) developing work plans for filling information gaps;
  - c) the results of a community-based monitoring program which must be done in collaboration with Carcross/Tagish First Nation, Kwanlin Dün First Nation and Ta'an Kwäch'än Council;
  - d) process for developing all thresholds, triggers, and actions for the VESECs listed in Table 2-1 of the MAMP;
  - e) for the following VESECs related to water, the methodology for developing thresholds, triggers, and actions:
    - i) fish and fish habitat, including ramping;
    - ii) wetlands;
    - iii) erosion; and
    - iv) water quality;
  - f) the methodology for developing thresholds, triggers, and actions for sedimentation.
65. By May 1, 2027, the Licensee must submit an updated MAMP to the Board.
66. The updated MAMP referenced in condition 65 must include:

- a) finalized Appendices A to K as referenced in the List of Appendices on page 7 of the MAMP;
- b) for the following VESECs related to water, thresholds, triggers, and actions:
  - i) fish and fish habitat, including ramping;
  - ii) wetlands;
  - iii) erosion; and
  - iv) water quality;
- c) thresholds, triggers, and actions for sedimentation;
- d) water elevation thresholds and triggers using Elevation Data from water level monitoring;
- e) a protocol, supplemental to *Operational Practice: Southern Lakes and Schwatka Lake Water Management* included in the Application as exhibit 6.12, that includes:
  - i) a decision-making framework and actions to be taken by the Licensee at specific High Water thresholds; and
  - ii) a plan that describes how the Licensee will communicate with the public and governments in response to specific High Water thresholds;
- f) bathymetric survey methodology for the erosion and sediment monitoring program to evaluate spatial and temporal variability;
- g) an updated water monitoring program that includes:
  - i) when the Whitehorse Rapids Fish Ladder is open:
    - a. continuous temperature monitoring of the resting pool in the Whitehorse Rapids Fish Ladder as referenced in *(Final) Fish Passage Alternative Analysis Report for Yukon Energy Whitehorse Rapids Generating Station* included in register HY24-061 as exhibit 6.17 at page 29;
    - b. continuous temperature monitoring of the Yukon River located near monitoring location FL-DS1 as referenced in Figure 8-1: Creosote Monitoring Locations at page 98 of the MAMP; and
    - c. continuous temperature monitoring of Schwatka Lake located near monitoring location FL-US1 as referenced in Figure 8-1: Creosote Monitoring Locations at page 98 of the MAMP;
  - ii) in addition to monitoring station FL-MID1 in exhibit 1.55, one additional water quality monitoring station located within the Whitehorse Rapids Fish Ladder;
  - iii) quality assurance and quality control (QA and QC) water quality sample collection;
  - iv) monitoring turbidity along the following reaches of the Yukon River to evaluate the relationship between the fluctuation of water levels or flows on water quality:
    - a. upstream of the Lewes Control Structure;
    - b. between the Lewes Control Structure and the Whitehorse Rapids Generating Station; and
    - c. downstream of the Whitehorse Rapids Generating Station;
- h) monitoring of ice upstream of the Lewes Control Structure to evaluate the effects of winter drawdown on the continuity and condition of the ice and on VESECs; and
- i) an updated wetland monitoring program that includes:
  - i) indicator wetlands including Lewes Marsh, Monkey Beach, Nares Lake Wetland,

- 
- Tagish River Wetland, McIntyre Creek Wetland and Shallow Bay;
- ii) consideration of other wetland habitat sites and wetland classes that may be adversely affected by the activities in this Licence;
  - iii) methods and monitoring of ecosystem components to characterize potential effects to those components; and
  - iv) wetland monitoring that considers wetland use by fish, birds, muskrats, moose, vegetation communities and traditional use plants.
67. The Licensee must update the erosion monitoring program as referenced in Section 9 of the MAMP to include sedimentation monitoring, herein referred to as the “erosion and sedimentation monitoring program”.
68. Within two years of the Effective Date of this Licence, the Licensee must conduct a bathymetric survey to inform the erosion and sedimentation monitoring program.
69. The Licensee must conduct a minimum of three bathymetric surveys at a minimum frequency of every five years beginning in 2027.
70. The Licensee must provide the results of all bathymetric surveys conducted by the Licensee as well as a comparative analysis between survey results and available historical data to the Board.
71. In the years 2028, 2033, and 2038, and in accordance with condition 72, the Licensee must conduct a drone survey to inform the erosion and sedimentation monitoring program.
72. When the flow of the Yukon River between the Lewes Control Structure and the confluence of the Yukon River and the Takhini River is greater than 600 m<sup>3</sup>/s, the Licensee must conduct a drone survey, in the following year, to inform the erosion and sedimentation monitoring program.
73. The Licensee must provide the results of all drone surveys conducted by the Licensee as well as a comparative analysis between survey results and available historical data to the Board.
74. The Licensee must submit to the Board by December 31, 2025, the schedule for the completion and implementation of the following:
- a) fish passage options analysis;
  - b) interim fish passage management plan;
  - c) fish passage management plan;
  - d) entrainment mortality management plan;
  - e) interim entrainment mortality management plan;
  - f) updated Ramping Protocol;
  - g) fish habitat management plan;
  - h) impingement mortality management plan; and

- 
- i) fish and fish habitat sediment transport assessment.
75. The schedule required by condition 74 and any updates must be submitted to the Board, Carcross/Tagish First Nation, Kwanlin Dün First Nation and Ta'an Kwäch'än Council.
76. Each year, the Licensee must report to the Board, Carcross/Tagish First Nation, Kwanlin Dün First Nation and Ta'an Kwäch'än Council, on activities related to the MAMP.
77. The MAMP annual reporting must include the following information:
- a) monitoring activities conducted that year and the results;
  - b) evaluation on how monitoring activities are meeting the program objectives;
  - c) instances where a threshold is exceeded;
  - d) development of new thresholds or triggers;
  - e) development of new mitigations;
  - f) changes to the monitoring plans;
  - g) changes to timelines for the development of monitoring programs;
  - h) evaluation of the most recent version of the Ramping Protocol;
  - i) in a year a bathymetric survey is conducted, evaluation of the bathymetric survey data per condition 70;
  - j) in a year a drone survey is conducted, evaluation of the drone survey data per condition 73;
  - k) any updates or reporting activities related to fish impingement mitigations, fish entrainment mitigations, mitigations to improve fish passage, and mitigations to improve fish habitat, including but not limited to work from the following:
    - i) fish passage options analysis;
    - ii) interim fish passage management plan;
    - iii) fish passage management plan;
    - iv) entrainment mortality management plan;
    - v) interim entrainment mortality management plan;
    - vi) fish habitat management plan;
    - vii) impingement mortality management plan; and
    - viii) fish and fish habitat sediment transport assessment;
  - l) for each monitoring program, identify components where consensus is reached with the MAMP Parties and where consensus is not reached; and
  - m) plain language summaries related to fish passage and mortality due to entrainment, ramping, and stranding.
78. The Licensee must submit to the Board for Review and Approval an updated MAMP on the following schedule:
- a) on or before May 1, 2030;
  - b) on or before May 1, 2035; and
  - c) on or before May 1, 2040.

79. Notwithstanding the schedule set out in condition 78, at the request of the Board, the Licensee must submit an updated MAMP to the Board for Review and Approval.
80. The Licensee must monitor water elevation and water flow as set out in Schedule A of this Licence and report the monitoring results in the quarterly and annual report as required.

## **PART F        COMPENSATION**

81. By August 29, 2025, the Licensee must provide compensation to the claimant named in exhibit 10.39 of register HY24-061 in the amount referenced in exhibit 10.39.
82. By November 28, 2025, in accordance with the Rules the Licensee must submit to the Board:
  - a) the proposed community compensation agreement between the Licensee and Carcross/Tagish First Nation; and
  - b) the methodology used to establish community compensation for Carcross/Tagish First Nation.
83. The Licensee must provide compensation to the Carcross/Tagish First Nation in the manner and by the date determined by the Board.

## **PART G        GENERAL CONDITIONS**

### Other Laws

84. No condition of this Licence limits the applicability of any statutory authority.
85. Where there is a discrepancy between the Application and this Licence, the conditions of this Licence shall prevail.
86. Where a Fisheries and Oceans Canada site specific authorization is required and any conditions of that authorization conflict with conditions in this Licence, the conditions of the Fisheries and Oceans Canada site specific authorization shall prevail.

### Non-Compliance

87. In the event that the Licensee fails to comply with any condition of this Licence, the Board may, with the approval of the Minister and subject to the Act, cancel the Licence.

### Correspondence

88. Where any direction, notice, order, or report under this Licence is required to be in writing, it must be given:



- a) To the Licensee, if delivered, e-mailed, or mailed by registered mail to the address identified on page 1 of this Licence, and shall be deemed to have been given to the Licensee on the day it was delivered or e-mailed, or seven days after the day it was mailed as the case may be; or
- b) To the Board, if left at, e-mailed, or sent by registered mail to the following postal address, email address or number, as the case may be:

Yukon Water Board  
Suite 106, 419 Range Road  
Whitehorse, Yukon Y1A 3V1

Email: [ywb@yukonwaterboard.ca](mailto:ywb@yukonwaterboard.ca)

and shall be deemed to have been given to the Board on the day it was left, e-mailed, or seven (7) days after the day it was mailed, as the case may be.

89. The Board or the Licensee may, by notice in writing, change its address for delivery.
-

## Schedule A

## STATION LOCATION AND MONITORING REQUIREMENTS

Station Description	Quarterly reporting		Annual reporting	
	Mean daily water Elevation Data (masl)	Mean daily flow (m <sup>3</sup> /s)	Monthly water Elevation Data (masl)	Monthly flow (m <sup>3</sup> /s)
Yukon River downstream of the Lewes Control Structure	-	Md	-	Mm, min, max
Yukon River downstream of the Whitehorse Rapids Generating Station	-	Md	-	Mm, min, max
Yukon River at Marwell (Whitehorse)	-	Md	-	Mm, min, max
Unit #4 Powerhouse	-	Md	-	Mm, min, max
Unit #1, #2, and #3 Powerhouse	-	Md	-	Mm, min, max
Spillway	-	Md	-	Mm, min, max
Whitehorse Rapids Fish Ladder	-	Md	-	Md
Schwatka Lake	Md	-	Mm, min, max	-
Marsh Lake	Md	-	Mm, min, max	-
Bennett Lake	Md	-	Mm, min, max	-
Tagish Lake	Md	-	Mm, min, max	-
Tailrace Canal	Md	-	Mm, min, max	-
Station Description	Quarterly Reporting		Annual Reporting	
Lewes Control Structure	Ng		Ng	

## Legend

Code	Description
Md	Daily mean value
Mm	Monthly mean of Md
min	Monthly minimum of Md
max	Monthly maximum of Md
Ng	Number of gates in the open position