

# PROPOSED CONSENT CONDITIONS FOR THE KAIMAI HYDRO-ELECTRIC POWER SCHEME

14 January 2026

The following resource consents are required for the continued operation, use and maintenance of the Kaimai Hydro-Electric Power Scheme:

Under section 13(1)(a), 14(3)(a) and 15(1)(a) of the Resource Management Act 1991 and Rule WQ 20 of the Bay of Plenty Regional Natural Resources Plan to undertake the following activities as controlled activities in the Omanawa River, Ruakaka Stream, Mangapapa River, Opuiaki River, Tuawharawhara Stream, Ngatuhua Stream, Ngatuhua Canal, Awakotuku Stream, Lake Mangaonui, Scott's Dry Gully, Lloyd Mandeno Canal, Mangapapa River, Lake Matariki, Mangakarengorengo River, Lake McLaren, Ruahihi Canal and the Wairoa River:

- A. The damming of water in:
- i. Omanawa River (via the Omanawa Weir);
  - ii. Ruakaka Stream (via the Ruakaka Drop Pipe Structure);
  - iii. Mangapapa River (via the Mangapapa Weir);
  - iv. Opuiaki River (via the Opuiaki Weir);
  - v. Tuawharawhara Stream (via the Tuawharawhara Drop Pipe Structure);
  - vi. Ngatuhua Stream (via the Ngatuhua Canal);
  - vii. Awakotuku Stream (via the Awakotuku Drop Pipe Structure);
  - viii. Mangaonui River (via the Mangaonui Dam);
  - ix. Scott's Dry Gully (via the Scotts' Dry Gully Dam);
  - x. Mangapapa River (via the Matariki Dam);
  - xi. Mangakarengorengo River (via the Mangakarengorengo Weir);
  - xii. Mangapapa River / Wairoa River (via the McLaren Falls Dam); and
  - xiii. Ruahihi Tributaries 1A, 1, 2 and 3 (via the Ruahihi Canal).
- B. The use and maintenance of existing structures in the bed of:
- i. Omanawa River (via the Omanawa Weir);
  - ii. Ruakaka Stream (via the Ruakaka Drop Pipe Structure);
  - iii. Mangapapa River (via the Mangapapa Weir);

- iv. Opuiaki River (via the Opuiaki Weir);
  - v. Tuawharawhara Stream (via the Tuawharawhara Drop Pipe Structure);
  - vi. Ngatuhua Stream (via the Ngatuhua Canal);
  - vii. Awakotuku Stream (via the Awakotuku Drop Pipe Structure);
  - viii. Mangaonui River (via the Mangaonui Dam);
  - ix. Scott's Dry Gully (via the Scotts' Dry Gully Dam);
  - x. Mangapapa River (via the Matariki Dam);
  - xi. Mangakarengorengo River (via the Mangakarengorengo Weir);
  - xii. Mangapapa River / Wairoa River (via the McLaren Falls Dam); and
  - xiii. Ruahihi Tributaries 1A, 1, 2 and 3 (via the Ruahihi Canal).
- C. The take, use and diversion of water for hydro-electricity purposes from:
- i. Omanawa River to Tunnel 1;
  - ii. Ruakaka Stream to Tunnel 2;
  - iii. Mangapapa River to Tunnel 3;
  - iv. Opuiaki River to Tunnel 4;
  - v. Tuawharawhara Stream to Tunnel 4;
  - vi. Ngatuhua Stream to the Ngatuhua Canal;
  - vii. Ngatuhua Canal to Tunnel 5;
  - viii. Awakotuku Stream to Tunnel 5;
  - ix. Lake Mangaonui to Tunnel 6;
  - x. Lloyd Mandeno Canal to the Lloyd Mandeno Power Station;
  - xi. Lake Matariki to the Lower Mangapapa Power Station;
  - xii. Mangakarengorengo River to Lake McLaren;
  - xiii. Lake McLaren to the Ruahihi Canal; and
  - xiv. Ruahihi Canal to the Ruahihi Power Station.
- D. The discharge of water and contaminants to:
- i. Omanawa River (via the Omanawa Weir);
  - ii. Ruakaka Stream (via the Ruakaka Drop Pipe Structure);
  - iii. Mangapapa River (via the Mangapapa Weir);

- iv. Opuiaki River (via the Opuiaki Weir);
- v. Tuawharawhara Stream (via the Tuawharawhara Drop Pipe Structure);
- vi. Ngatuhua Stream (via the Ngatuhua Weir);
- vii. Awakotuku Stream (via the Awakotuku Drop Pipe Structure);
- viii. Mangaonui River (via the Mangaonui Dam);
- ix. Scott's Dry Gully (via the Scotts' Dry Gully Dam);
- x. Mangapapa River (via the Lloyd Mandeno Power Station, Lower Mangapapa Power Station and Matariki Dam);
- xi. Mangakarengorengo River (via the Mangakarengorengo Weir);
- xii. Lake McLaren (via the Mangakarengorengo Intake Tunnel);
- xiii. Mangapapa River / Wairoa River (via the McLaren Falls Dam); and
- xiii. Ruahihi Tributary 1 (via the Ruahihi Canal); and
- xiv. Wairoa River (via the Ruahihi Power Station).

## 1. GENERAL CONDITIONS

### *General*

- 1.1 The activities authorised by this resource consent are located as shown on BOPRC Consent Plan **RMXX-XXXX/01** (attached as [Appendix A](#)).
- 1.2 The activities authorised by these resource consents [mustshat](#) be undertaken in general accordance with the information provided in "Kaimai Hydro-Electric Power Scheme, Fast-track Approvals Act Application for Resource Consent" by Mitchell Daysh (September 2025), and any subsequent amendments and further information provided to the Environmental Protection Authority. In the event of any conflict or discrepancy between the information in these documents and the conditions of this resource consent, the conditions shall be determinative.
- 1.3 The consent holder [mustshat](#) ensure that any persons engaged in activities authorised by these resource consents are made aware of the conditions of this resource consent (including any management and / or monitoring plans), and the necessary measures required for compliance with the conditions.
- 1.4 A copy of these resource consents, and all certified management and / or monitoring plans, [mustshat](#) be available and produced without unreasonable delay upon request from a servant or agent of the Bay of Plenty Regional Council.

### **Certification**

- 1.5 Where any condition of these resource consents requires the consent holder to submit a management and / or monitoring plan for certification to the Bay of Plenty Regional Council, the consent holder [mustshatt](#) submit the management and / or monitoring plan within the timeframe set out in the relevant condition below and may not implement the management / monitoring measures associated with the plan until receiving written confirmation from the Bay of Plenty Regional Council that the plan has been certified.
- 1.6 The certification of any management and / or monitoring plan required by the conditions of these resource consents by the Bay of Plenty Regional Council [mustshatt](#) be based upon whether the respective management and / or monitoring plan meets the objective(s) set out in the relevant conditions as well as the information requirements of the relevant condition.

### **Flow Monitoring**

- 1.7 The consent holder [mustshatt](#) measure and monitor the take, diversion and discharge of water from the Kaimai Hydro-Electric Power Scheme in accordance with the water measurement sites / systems set out in **Appendix BA** to this resource consent. Each of the water measurement sites / systems [mustshatt](#) be installed and operated to the satisfaction of the Bay of Plenty Regional Council, and must:
- (a) Be installed and maintained in accordance with the manufacturer's specifications (where applicable);
  - (b) Be installed at a location that will ensure the entire take, diversion or discharge is able to be measured;
  - (c) Be sealed and tamper-proof (where applicable);
  - (d) Be suited to the qualities of the water it is measuring (such as temperature, algae content and sediment content);
  - (e) Installed at an appropriate location for the variable being measured to maximize data quality; and
  - (f) Be maintained to an accuracy of  $\pm 10\%$ .
- 1.8 The consent holder [mustshatt](#) take all practicable measures to ensure that the water measurement sites / systems set out in **Appendix BA** are fully functional at all times. Any failure of any of the water measurement sites / systems shall be reported to the Bay of Plenty Regional Council within 72 hours.
- 1.9 The consent holder [mustshatt](#) repair any defective water measurement sites / systems, [as soon as practicable](#), to ensure they are fully functional, ~~as soon as practicable~~.

1.10 After any failure of any of the water measurement sites / systems set out in **Appendix BA**, confirmation that the system is fully functional must be provided to the Bay of Plenty Regional Council within 72 hours of repairs and the water measurement site / system must be verified within two months of the repairs or replacement being completed.

1.11 Any water data recorded by, and submitted from, any recording devices as part of the water measurement sites / systems set out in **Appendix BA** must meet the following requirements:

- (a) Data shall be submitted to the Bay of Plenty Regional Council on a daily basis;
- (b) Data shall be submitted with a maximum interval between readings of 15 minutes, or in accordance with the National Environmental Monitoring Standard (NEMS) requirements, whichever is the more stringent;
- (c) Data shall be supplied in an automated file transfer format approved by the Bay of Plenty Regional Council;
- (d) Data shall be submitted to a destination defined by the Bay of Plenty Regional Council; and
- (e) Data shall be recorded and transferred using a 'machine to machine' electronic format meeting Bay of Plenty Regional Council requirements.

1.12 The water measurement sites / systems set out in Appendix B may only be altered or updated where the consent holder has proposed an amendment and the Bay of Plenty Regional Council has confirmed in writing that it is satisfied with the proposed amendments.

#### **Review of Consent Conditions**

1.13 The Bay of Plenty Regional Council may, in [enter month / year] and then once every five years thereafter within three months of the anniversary of this consent, serve notice on the consent holder under section 128(1)(a)(i), (ii) or (iii), or (1)(b), or (1)(ba) of the Resource Management Act 1991 of its intention to review the conditions of this consent for any of the following purpose:

- (a) To deal with any adverse effect on the environment which may arise from the exercise of this resource consent and which is appropriate to deal with at a later stage; and / or
- (b) To enable any levels, flows, rates, or standards set in a relevant National Environmental Standard, National Planning Standard or Operative Regional Plan to be met; and / or
- (c) To require the adoption of the best practicable option for any discharge permit to remove or reduce any adverse effects on the environment.

The consent holder [must](#) pay the Bay of Plenty Regional Council the fair and reasonable costs associated with a review.

## 2 EASTERN DIVERSIONS

### *Residual Flows*

- 2.1 [Within one year of the commencement of this resource consent,](#) the consent holder must maintain a residual flow in the Omanawa River, immediately downstream of the Omanawa Weir, of not less than 150 litres per second.
- 2.2 [Within one year of the commencement of this resource consent,](#) the consent holder must maintain a residual flow in the Mangapapa River immediately downstream of the Mangapapa Weir, of not less than 100 litres per second.

### *Take and Diversion of Water*

- 2.3 Subject to compliance with Condition 2.1 above, the consent holder may take and divert water at a rate of up to 7.79 cubic metres per second from the Omanawa River into Tunnel 1 for hydro-electricity generation purposes.
- 2.4 The consent holder may take and divert water at a rate of up to 283 litres per second from the Ruakaka Stream into Tunnel 2 for hydro-electricity generation purposes.
- 2.5 Subject to compliance with Condition 2.2 above, the consent holder may take and divert water at a rate of up to 14.2 cubic metres per second from the Mangapapa River into Tunnel 3 for hydro-electricity generation purposes.

### *Intake Screens*

- 2.6 The consent holder must maintain a screen across the intake to Tunnel 1 in the Omanawa River with an aperture not exceeding 150 mm.
- 2.7 The consent holder must maintain a screen across the intake to Tunnel 2 in the Ruakaka Stream with an aperture not exceeding 100 mm.
- 2.8 The consent holder must maintain a screen across the intake to Tunnel 3 in the Mangapapa River with an aperture not exceeding 150 mm.

## 3 WESTERN DIVERSIONS

### *Residual Flows*

- 3.1 The consent holder must maintain a residual flow in the Opuiaki River, immediately downstream of the Opuiaki Weir, of not less than 280 litres per second.

- 3.2 The consent holder must maintain a residual flow in the Ngatuhua Stream, immediately downstream of the Ngatuhua Weir, of not than 60 litres per second.

#### ***Take and Diversion Limits***

- 3.3 Subject to compliance with condition 3.1 above, the consent holder may take and divert water at a rate of up to 8.5 cubic metres per second from the Opuiki River into Tunnel 4 for hydro-electricity generation purposes.
- 3.4 The consent holder may take and divert water at a rate of up to 283 litres per second from the Tauwharawhara Stream into Tunnel 4 for hydro-electricity generation purposes.
- 3.5 Subject to compliance with condition 3.2 above, the consent holder may take and divert water at a rate of up to 14.2 cubic metres per second from the Ngatuhua Stream into the Ngatuhua Canal for hydro-electricity generation purposes.
- 3.6 The consent holder may take and divert water at a rate of up to 14.2 cubic metres per second from the Ngatuhua Canal into Tunnel 5 for hydro-electricity generation purposes.
- 3.7 The consent holder may take and divert water at a rate of up to 425 litres per second from the Awakōtuku Stream into Tunnel 5 for hydro-electricity generation purposes.

#### ***Intake Screens***

- 3.8 The consent holder shall maintain a screen across the intake to Tunnel 4 in the Opuiki River with an aperture not exceeding 150 mm.
- 3.9 The consent holder shall maintain a screen across the intake to Tunnel 4 in the Tauwharawhara Stream with an aperture not exceeding 100 mm.
- 3.10 The consent holder shall maintain a screen across the intake to the Ngatuhua Canal in the Ngatuhua Stream with an aperture not exceeding 100 mm.
- 3.11 The consent holder shall maintain a screen at the intake to Tunnel 5 at the end of the Ngatuhua Canal with an aperture not exceeding 150 mm.
- 3.12 The consent holder shall maintain an intake screen with an aperture not exceeding 30 mm upstream of the drop from the Ngatuhua Canal to Tunnel 5.
- 3.13 The consent holder shall maintain a screen across the intake to Tunnel 5 in the Awakotuku Stream with an aperture not exceeding 100 mm.

## **4 KAIMAI 5 POWER STATION AND LAKE MANGAONUI**

- 4.1 The consent holder may discharge water at a rate of up to 14.2 cubic metres per second from the Kaimai 5 Power Station (at the outlet of Tunnel 5) to Lake Mangaonui.

4.2 The consent holder must ensure that the water level of Lake Mangaonui is maintained between RL 277.8 m and RL 281.3 m (Moturiki Datum), except during:

- (a) Weekends – between 6 am Saturday and midnight Sunday;
- (b) Public holidays (as defined in the Holidays Act 2003) – between 6am and midnight; and
- (c) December, January and February;

when the minimum water level is RL 278.5 m (Moturiki Datum).

4.3 Notwithstanding condition 4.2, the consent holder may lower the minimum water level of Lake Mangaonui to RL 277 m (Moturiki Datum) during tunnel inspections and maintenance activities.

4.4 The consent holder must manage the rate of water level change in Lake Mangaonui so that it does not exceed 500 mm per hour.

#### ***Take and Diversion Limits***

4.5 The consent holder may take and divert water at a rate of up to 14.2 cubic metres per second from Lake Mangaonui into the Lloyd Mandeno Canal for hydro-electricity generation purposes.

#### ***Discharge Rates***

4.6 The consent holder ~~shall~~[must](#) manage the rate of change of discharge from the Lake Mangaonui spillway to the Mangaonui Stream to not exceed 1 cubic metre per second per minute.

4.6 The consent holder may discharge water at a rate of up to 17 cubic metres per second from the Scott's Dry Gully spillway to the Mangaonui Stream.

#### ***Intake Screens***

4.7 The consent holder ~~shall~~[must](#) maintain a screen across the intake to the Lloyd Mandeno Canal with an aperture not exceeding 30 mm.

## **5 LLOYD MANDENO POWER STATION**

5.1 The consent holder may discharge water at a rate of up to 14.2 cubic metres per second from the Lloyd Mandeno Power Station into the Mangapapa River.

5.2 The consent holder must manage the rate of change of discharge from the Lloyd Mandeno Power Station into the Mangapapa River to not exceed 2 cubic meter per second per minute, except during emergency ~~condition~~[events](#).

Advice Note:

For the purpose of Condition 5.2, emergency conditions exist when:

- a. The operation of the Kaimai Hydro-Electric Power Scheme has been compromised as a result of maintenance or a fault on any generator, associated control, or communications equipment or the transmission network; or
- a-b. An event outside the control of the consent holder occurs, such as a flood, earthquake, volcanic eruption, tsunami, forest fire, cyber-attack, or deliberate vandalism or sabotage to the Kaimai Hydro-Electric Power Scheme.

## **6 LAKE MATARIKI**

- 6.1 The consent holder must ensure that the water level of Lake Matariki is maintained between RL 120 m and RL 123.5 m (Moturiki Datum), except in emergency ~~conditions~~situations where water levels will be no less than RL 115.5 m (Moturiki Datum).

Advice Note:

For the purpose of Condition 6.1, emergency conditions exist when:

- a. The operation of the Kaimai Hydro-Electric Power Scheme has been compromised as a result of maintenance or a fault on any generator, associated control, or communications equipment or the transmission network; or
- b. An event outside the control of the consent holder occurs, such as a flood, earthquake, volcanic eruption, tsunami, forest fire, cyber-attack, or deliberate vandalism or sabotage to the Kaimai Hydro-Electric Power Scheme.

- 6.2 The consent holder ~~shall~~must advise the Bay of Plenty Regional Council within 48 hours of any events where the level of Lake Matariki falls below minimum RL 120 m (Moturiki Datum), including the reason for the low lake level and the duration of the low levels.

### **Take and Diversion Limits**

- 6.3 The consent holder may take and divert water at a rate up to 23 cubic metres per second from Lake Matariki to the Lower Mangapapa Power Station for hydro-electricity generation purposes.

### **Warnings and Signage**

- 6.4 Floating booms must be installed across the full width of Lake Matariki, just upstream of the Matariki Dam, to safeguard persons using the lake for recreation.

- 6.5 The consent holder [shall must](#) maintain signage at suitable locations around Lake Matariki to clearly warn the public of potential variations in lake levels as a result of hydro-electricity operations.

#### **Intake Screens**

- 6.6 The consent holder [shall must](#) maintain a screen across the intake to the Lower Mangapapa Power Station with an aperture not exceeding 100 mm.

## **7 LOWER MANGAPAPA POWER STATION**

- 7.1 The consent holder may discharge water at a rate of up to 23 cubic metres per second from the Lower Mangapapa Power Station to the Mangapapa River.
- 7.2 The consent holder [shall must](#) manage the rate of change of discharge to not exceed 15 cubic metres per second per minute from the Lower Mangapapa Power Station to the Mangapapa River, except during emergency [conditions/situations](#).

#### *Advice Note:*

#### *For the purpose of Condition 7.2, emergency conditions exist when:*

- a. [The operation of the Kaimai Hydro-Electric Power Scheme has been compromised as a result of maintenance or a fault on any generator, associated control, or communications equipment or the transmission network; or](#)*
- b. [An event outside the control of the consent holder occurs, such as a flood, earthquake, volcanic eruption, tsunami, forest fire, cyber-attack, or deliberate vandalism or sabotage to the Kaimai Hydro-Electric Power Scheme.](#)*

## **8 MANGAKARENGORENGO RIVER**

#### **Residual Flow**

- 8.1 The consent holder must maintain a residual flow in the Mangakarengorengo River, immediately downstream of the Mangakarengorengo Weir, of not less than 40 litres per second.

#### **Take and Diversion Limits**

- 8.2 Subject to compliance with condition 8.1 above, the consent holder may take and divert up to 7 cubic metres of water per second from the Mangakarengorengo River for hydro-electricity generation purposes.

### **Intake Screens**

- 8.3 The consent holder ~~shall~~**must** maintain a screen across the intake in the Mangakarengorengo River with an aperture not exceeding 150 mm.

## **9 LAKE MCLAREN**

- 9.1 The consent holder must ensure that the water level of Lake McLaren is maintained between RL 87.45 m and RL 88.65 m (Moturiki Datum) in normal operating conditions.

- 9.2 For the avoidance of doubt, the recreational water releases required in accordance with condition 9.6 are considered to be normal operating conditions.

### **Residual Flow**

- 9.3 Within one year of the commencement of this resource consent, The consent holder must maintain a residual flow in the Wairoa River, immediately downstream of the McLaren Falls Dam, of not less than 150 litres per second.

### **Take and Diversion Limits**

- 9.4 Subject to compliance with condition 9.2 above, the consent holder may take and divert water at a rate of up to 31.2 cubic metres per second from Lake McLaren to the Ruahihi Canal for hydro-electricity generation.

### **Discharge Rates**

- 9.5 The consent holder ~~shall~~**must** manage the rate of change of any discharge from the McLaren Falls Gated Channel Spillway to the Wairoa River to not exceed 2 cubic metres per second per minute, except during emergency conditions.

#### Advice Note:

#### For the purpose of Condition 9.5, emergency conditions exist when:

- a. The operation of the Kaimai Hydro-Electric Power Scheme has been compromised as a result of maintenance or a fault on any generator, associated control, or communications equipment or the transmission network; or
- b. An event outside the control of the consent holder occurs, such as a flood, earthquake, volcanic eruption, tsunami, forest fire, cyber-attack, or deliberate vandalism or sabotage to the Kaimai Hydro-Electric Power Scheme.

### **Intake Screens**

- 9.6 The consent holder ~~shall~~**must** maintain a screen across the intake to the Lloyd Mandeno Canal with an aperture not exceeding 30 mm.

### **Recreational Releases**

- 9.7 Upon application by the Kaimai Canoe Club, the consent holder [shattmust](#) maintain a recreational release discharge of up to 25 cubic metres per second from the McLaren Falls Gated Channel Spillway so as to ensure that there is a minimum flow of 14 cubic metres per second in the Wairoa River immediately downstream of the McLaren Falls Bridge.

The recreational release [shattmust](#) be made available by the consent holder for a maximum of 6 hours, between 10 am and 4p m, for up to a maximum of 26 days per annum.

- 9.8 The consent holder [shattmust](#) make available lake level data for Lake McLaren and river flow data for the Wairoa River downstream of the McLaren Falls Bridge on its website to enable recreational users of Lake McLaren and the Wairoa River to understand lake levels and river flows before potentially commencing any recreational activities.

### **Warnings and Signage**

- 9.9 Floating booms must be maintained across the intake to the McLaren Falls Power Station Gated Channel Spillway and across the full width of the Lake McLaren spillway to safeguard persons using the lake for recreation.
- 9.10 The consent holder [shattmust](#) maintain signage at suitable locations in the reach of the Wairoa River between McLaren Falls Dam and the Ruahihi Power Station to clearly warn the public of the extent and frequency of potential variations in river flows due to recreational releases and hydro-electricity operations.
- 9.11 Prior to any discharge from the McLaren Falls Gated Channel Spillway, the consent holder [shattmust](#) operate a sound warning system that is audible from the McLaren Falls Bridge.

## **10 RUAHIHI CANAL**

### **Take and Diversion Limits**

- [10.1](#) The consent holder may take and divert the full flow of water from Ruahihi Tributaries 1, 1A, 2 and 3 into the Ruahihi Canal for hydro-electricity generation purposes.

### **Discharge**

- [10.2](#) [The consent holder must manage any discharge from the Ruahihi Canal Spillway to Ruahihi Tributary 1 to not exceed 52.8 cubic metres per second.](#)

~~10.1~~

### **Maintenance**

- ~~10.2~~[10.3](#) In the event that there is a need to lower the water level of the Ruahihi Canal for any purpose, and except as provided for by condition 10.3, the consent holder [shattmust](#)

maintain a minimum water depth of 0.2 m in the canal [and monitor canal water quality for temperature and dissolved oxygen](#) for the purposes of the preservation of aquatic life during dewatering activities.

~~10.3~~10.4 In circumstances when there is a need to completely dewater the Ruahihi Canal, or sections of the canal, such that a minimum water depth of 0.2 m cannot be maintained, the consent holder [shall must](#) invite Fish and Game New Zealand, [INSERT HAPŪ] to provide recommendations and / or take action to ensure that tuna, trout and any other forms of aquatic life are salvaged and transferred to other nearby natural waters where possible.

#### **Intake Screens**

~~10.4~~10.5 The consent holder [shall must](#) maintain a screen across the intake to the Ruahihi Power Station in the Ruahihi Canal with an aperture not exceeding 30 mm.

~~10.5~~10.6 A floating boom must be installed across the full width of the Ruahihi Canal just upstream of the intake to the Ruahihi Power Station to safeguard persons using the canal for recreation.

### **11 RUAHIHI POWER STATION**

11.1 The consent holder may discharge water at a rate of up to 28 cubic metres per second from the Ruahihi Power Station to the Wairoa River.

11.2 The consent holder [shall must](#) manage the discharge of water from the Ruahihi Power Station to the Wairoa River so that the rate of discharge does not increase or decrease by more than ~~than~~ 5 cubic metres per second per minute, except during emergency conditions.

#### Advice Note:

For the purpose of Condition 7.2, emergency conditions exist when:

a. The operation of the Kaimai Hydro-Electric Power Scheme has been compromised as a result of maintenance or a fault on any generator, associated control, or communications equipment or the transmission network; or

b. An event outside the control of the consent holder occurs, such as a flood, earthquake, volcanic eruption, tsunami, forest fire, cyber-attack, or deliberate vandalism or sabotage to the Kaimai Hydro-Electric Power Scheme.

#### **Warning Signage**

11.3 The consent holder [shall must](#) maintain signage at suitable locations downstream of the Ruahihi Power Station to clearly warn the public of potential variations in river levels and flows as a result of operations at the power station.

### **12 SEDIMENT MONITORING**

- 12.1 Within six months of the grant of this resource consent, the consent holder ~~shall~~must submit a Sediment Monitoring Plan prepared by a suitable qualified and experienced geomorphologist to the Bay of Plenty Regional Council for certification. The Sediment Monitoring Plan must be prepared with input from a suitably qualified and experienced geomorphologist, and the objective of the Sediment Monitoring Plan shall be to:
- (a) Monitor any long-term changes in sediment continuity in the Wairoa River Catchment that may be a result of the continued operation of the Kaimai Hydro Electric Power Scheme.
- 12.2 In order to achieve the objective established in Condition ~~12.1~~12.1 above, the Sediment Monitoring Plan must, as a minimum, address the following matters:
- (a) A summary of the baseline geomorphic conditions in the Wairoa River (WAI-3) and Omanawa River (OMW-4) upstream and downstream of the Ruahini Power Station;
  - (b) The monitoring methodology for:
    - i. Baseline bathymetric and topographical surveys of the Wairoa River (WAI-3) and Omanawa River (OMW-4) upstream and downstream of the Ruahini Power Station;
    - ii. Five-yearly bathymetric and topographical surveys of the Wairoa River (WAI-3) and Omanawa River (OMW-4);
    - iii. The detection of geomorphic change on the beds and the banks of the Wairoa River (WAI-3) and Omanawa River (OMW-4); and
    - iv. Targeted site assessments for any 'hot spots' of geomorphic change of the Wairoa River (WAI-3) and Omanawa River (OMW-4).
  - (c) Reporting requirements to the Bay of Plenty Regional Council, which must:
    - i. Presents, summarises and analyses the monitoring results from each survey;
    - ii. Assesses any geomorphic changes in the Wairoa River due to the ongoing operation of the Kaimai HEPS, major flood events, or longer-term trends as survey data becomes available over five-yearly intervals; and
    - iii. Provides recommendations regarding the methodology for the ongoing monitoring surveys (including the frequency of surveys over the life of this consent), and recommendation to manage sediment or erosion effects caused by the continued operation of the Kaimai Hydro-Electric Power Scheme.

12.3 The Bay of Plenty Regional Council shall review the monitoring reports and determine whether any changes to the monitoring methodology and frequency of monitoring is required.

The Bay of Plenty Regional Council shall also determine whether there is a need to serve notice on the consent holder of its intention to review the conditions of this resource consent

[in accordance with Sections 128 to 131 of the Resource Management Act 1991 in order to implement changes to the management of sediment or erosion effects caused by the continued operation of the Kaimai Hydro-Electric Power Scheme.](#)

### **13 NATIVE FISH PASSAGE MANAGEMENT PLAN**

[13.1 Within two years of the commencement of these resource consents, the consent holder must submit a Native Fish Passage Management Plan to the Bay of Plenty Regional Council for certification. The Native Fish Passage Management Plan must be prepared with input from a suitably qualified and experienced freshwater ecologist, and the objectives of the plan shall be to:](#)

[\(a\) The objectives of the Native Fish Management Plan shall be to:](#)

Ensure that the Kaimai Hydro-Electric Power Scheme provide for the passive passage, where practicable, of native fish species upstream and downstream of [the structures associated with the Kaimai Hydro-Electric Power Scheme](#);

[\(b\) Provide for the salvage of tuna entrained within the Ruahihi Canal and other areas identified through the Native Fish \[Passage\]\(#\) Management Plan;](#)

[\(c\) Establish a framework for the monitoring of the success of any passage or salvage measures that are implemented; \[and\]\(#\)](#)

[\(d\) Establish the respective roles of the consent holder, \[\\[INSERT HAPŪ ENTITIES\\]\]\(#\) in the implementation of the Native Fish \[Passage\]\(#\) Management Plan.](#)

[13.2 In order to achieve the objectives established in Condition 13.1 above, the Native Fish Passage Management Plan must, as a minimum, address the following matters:](#)

[\(a\) Detail the native fish species that will or are likely to interact with the structures associated with the Kaimai Hydro-Electric Power Scheme, and the timing of their upstream and downstream movement through the seasons;](#)

[\(b\) The nature of the existing impediment to upstream and downstream passage presented by the structures associated with the Kaimai Hydro-Electric Power Scheme;](#)

[\(c\) The passive migration measures that will be implemented in order to facilitate the upstream and downstream movement of native fish species past the structures associated with the Kaimai Hydro-Electric Power Scheme;](#)

[\(d\) The alternative techniques that may be utilised to facilitate the upstream and downstream movement of native fish species, where monitoring and trialing](#)

demonstrates that some of the passive migration measures are ineffective or not practicable;

- (e) The detailed design and location of tuna traps;
- (f) The period in each year over which the trap and transfer programme will be operated;
- (g) The methodology to be used in the transfer of tuna, including identifying suitable locations for the transfer of species to suitable areas;
- (h) The measures to be undertaken to enhance tuna survival during the transfer and post release periods;
- (i) The process by which the effectiveness of the various measures that will be implemented will be reviewed and adjusted if necessary;
- (j) The opportunities to incorporate Matauranga Māori into the design and monitoring of the Native Fish Passage Management Plan; and
- (k) The respective roles of the consent holder, [INSERT HAPU ENTITIES] (if they accept the invitation to collaborate in achieving the objective of the Native Fish Passage Management Plan) in ensuring that the structures associated with the Kaimai Hydro-Electric Power Scheme provide for the passage of native fish species upstream and downstream.

## **14 WATER TEMPERATURE MONITORING**

14.1 Within six months of the commencement of these resource consents, the consent holder must implement comparative monitoring of water temperature in the Mangakarengorengo River upstream and downstream of the Mangakarengorengo Weir.

The purpose of the monitoring is to confirm that the residual flow required in accordance with Condition 8.1 is suitable to protect aquatic communities (both invertebrates and native fish) against elevated water temperatures. Temperature should be recorded at 15-minute intervals using submerged loggers, positioned as follows:

- (a) One just upstream of the intake gates to Lake McLaren; and
- (b) One approximately 300 m downstream of the intake gates in a pool that is located on a sharp bend in the channel of the Mangakarengorengo River.

14.2 Water temperature monitoring should occur continually in the Mangakarengorengo River between 1 November and 31 March for two years.

At the completion of two years of water temperature monitoring, the consent holder must commission a monitoring report by a suitably qualified and experienced freshwater ecologist that:

- (a) Presents, summarises and analyses the monitoring results from the two years of water temperature monitoring in the Mangakarengorengo River; and
- (b) Assesses how the residual flow affects water temperatures in the Mangakarengorengo River relative to water temperatures occurring in the section of the river upstream of the Mangakarengorengo Weir; and
- (c) Provides recommendations regarding the effectiveness of the residual flow, and whether changes to the residual flow are recommended, or whether additional monitoring is recommended if the monitoring results are inconclusive

14.3 The Bay of Plenty Regional Council shall review the monitoring report and determine whether any changes to the residual flow required in accordance with Condition 8.1 is suitable to protect aquatic communities (both invertebrates and fish) against elevated water temperatures.

The Bay of Plenty Regional Council shall also determine whether there is a need to serve notice on the consent holder of its intention to review the conditions of this resource consent in accordance with Sections 128 to 131 of the Resource Management Act 1991 in order to implement changes to the management of sediment or erosion effects caused by the continued operation of the Kaimai Hydro-Electric Power Scheme.

#### 13.15 MANA WHENUA KAITIAKI RŌPŪ

~~13.15.1~~ Within 90 working days following the commencement of these resource consents, the consent holder ~~shall~~ invite mandated representatives of [INSERT HAPŪ ENTITIES] (with a maximum of 2 per entity) to participate in a Mana Whenua Kaitiaki Rōpū for the Kaimai Hydro-Electric Power Scheme.

~~13.215.2~~ The Mana Whenua Kaitiaki Rōpū ~~shall~~ must operate throughout the exercise of the resource consents or until such time as the mandated representatives of [INSERT HAPŪ ENTITIES] determine it is no longer required. At any time, any mandated representatives may choose to withdraw its entity from participation in the ~~is~~ Mana Whenua Kaitiaki Rōpū by providing ~~a letter to written confirmation to the consent holder applicant~~ and ~~the Bay of Plenty Regional Council.~~

~~13.315.3~~ The purpose of the Mana Whenua Kaitiaki Rōpū is to facilitate engagement between the consent holder and [INSERT HAPŪ ENTITIES] in respect of the activities authorised by these resource consents, and in relation to enabling mana whenua to:

(a) Maintain their relationship with the Wairoa River Catchment;

~~(b) Have involvement in the preparation and implementation of the Sediment Monitoring Plan and the Native Fish Management Plan.~~

Be kept informed on any additional environmental monitoring undertaken by the \_\_\_\_\_ consent holder as part of the exercise of these resource consents; and

(c) \_\_\_\_\_ Provide recommendations to, and request responses from, the consent holder in \_\_\_\_\_ respect of the matters listed above or other matters that the Mana Whenua Kaitiaki \_\_\_\_\_ Rōpū may raise from time-to-time.

15.4 In addition to condition 142.3 above, the consent holder ~~shall~~must invite the Mana Whenua Kaitiaki Rōpū to contribute to the development and implementation of a Native Fish Passage Management Plan for the Kaimai Hydro-Electric Power Scheme required in accordance with Condition 13.1.

The invitation to the Mana Whenua Kaitiaki Rōpū must be made within six months of the commencement of these resource consents. A copy of all correspondence provided to [INSERT HAPŪ ENTITIES] in accordance with this condition must also be forwarded to the Bay of Plenty Regional Council.

~~The objectives of the Native Fish Management Plan shall be to:~~

- ~~(a) Ensure that the Kaimai Hydro-Electric Power Scheme provide for the passive passage, where practicable, of native fish species upstream and downstream of \_\_\_\_\_;~~
- ~~(b)(a) Provide for the salvage of tuna entrained within the Ruahini Canal and other areas identified through the Native Fish Management Plan;~~
- ~~(c)(a) Establish a framework for the monitoring of the success of any passage or salvage measures that are implemented;~~
- ~~(d)(a) Establish the respective roles of the consent holder, [INSERT HAPŪ ENTITIES] in the implementation of the Native Fish Management Plan.~~

~~13.4~~15.5 The consent holder shall:

- (a) Be responsible for convening the meetings of the Mana Whenua Kaitiaki Rōpū; and
- (b) \_\_\_\_\_ Cover the administrative costs associated with the establishment and operation of \_\_\_\_\_ the meetings and the contribution of the Mana Whenua Kaitiaki Rōpū to the \_\_\_\_\_ development and implementation of the Native Fish Passage Management Plan.

The consent holder must maintain records of key interactions, issues, agreements, and any outcomes reached and implemented through the Mana Whenua Kaitiaki Rōpū. A summary of these records must be provided annually to the Council for the purposes of the Council's annual compliance reporting

~~13.5~~15.6 The consent holder must invite the Mana Whenua Kaitiaki Rōpū to meet at least two times per year (with the first meeting to be scheduled within 12 months following the

commencement of the resource consents) or a lesser frequency as agreed by the Mana Whenua Kaitiaki Rōpū (and advised to the Bay of Plenty Regional Council).

#### **14.16 CONSENT TERM**

~~14.16.1~~ This resource consent shall expire on [35 years from the date of grant].

#### **ADVICE NOTES:**

1. *Notification and reporting as required by the conditions of this resource consent shall be directed (in writing) to the Regulatory Compliance Manager, Bay of Plenty Regional Council, PO Box 364, Whakatane, 3158 or email notify@boprc.govt.nz and should include the resource consent number [insert consent number].*
2. *The consent holder is advised that non-compliance with consent conditions may result in enforcement action against the consent holder and/or their contractor(s).*
3. *The consent holder shall pay the Bay of Plenty Regional Council any administrative charges, which are fixed in accordance with section 36 of the Resource Management Act 1991.*
4. *If you wish to continue this activity upon the expiry date of this permit, a new application should be lodged at least six months prior to the expiry date of this permit. Applying at least six months before the expiry date may enable you to continue to exercise this permit until a decision is made, and any appeals are resolved, on the replacement application.*
5. *Should the site in respect of which this consent is granted be sold, a transfer of the consent to the new owner or occupier of the site must take place. The named consent holder will be responsible for any breach of conditions and compliance costs relating to the consent which occur before the transfer of the consent. The transfer of the holder's interest in a consent has no effect until written notice of the transfer is given to the Bay of Plenty Regional Council.*

~~6:~~ [Advice note with definition(s) for 'emergency conditions']

**APPENDIX A**

**RESOURCE CONSENT LOCATION MAP**

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**APPENDIX B**

**WATER MEASUREMENT SITES / SYSTEMS FOR THE KAIMAI HYDRO-ELECTRIC POWER SCHEME**

<b>Waterbody / Structure</b>	<b>Parameter</b>	<b>Condition</b>	<b>Monitoring Methodology</b>	<b>Monitoring Frequency</b>	<b>Submission Frequency</b>
K5 PS	Discharge	4.1	Flow supplied from MW to flow rating conversion	Real time	Daily
Lloyd Mandeno PS	Discharge	5.1	Flow supplied from Lloyd Mandeno PS MW to flow rating conversion	Real time	Daily
Lloyd Mandeno PS	Discharge rate of change	5.2	Lloyd Mandeno PS MW to flow rating conversion.  Consent holder to report the maximum 1-minute ramp change in the preceding hour, every hour.  BOPRC to check that the maximum ramp rate per hour does not exceed 2 m <sup>3</sup> /s.	Real time	Daily
Lower Mangapapa PS	Discharge	7.1	Flow supplied from Lower Mangapapa PS MW to flow rating conversion.	Real time	Daily
Lower Mangapapa PS	Discharge rate of change	7.2	Flow supplied from Lower Mangapapa PS MW to flow rating conversion.  Consent holder to report the maximum 1-minute ramp change in the preceding hour, every hour.  BOPRC to check that the maximum ramp rate per hour does not exceed 15m <sup>3</sup> /s.	Real time	Daily
Ruahiri PS	Discharge	11.1	Flow supplied from Ruahiri PS MW to flow rating conversion.	Real time	Daily

Ruahihi PS	Discharge rate of change	11.2	<p>Flow supplied from Ruahihi PS MW to flow rating conversion.</p> <p>Consent holder to report the maximum 1-minute ramp change in the preceding hour, every hour.</p> <p>BOPRC to check that the maximum ramp rate per hour does not exceed 5 m<sup>3</sup>/s.</p>	Real time	Daily
McLaren Fall spillway	Discharge rate of change	9.5	<p>Flow supplied from gate opening to flow relationship at the McLaren Falls Gated Channel Spillway.</p> <p>Report the maximum 1-minute ramp change in the preceding hour, every hour.</p> <p>Compliance to check that the maximum ramp rate per hour does not exceed 2 m<sup>3</sup>/s</p>	Real time	Daily
Ruahihi Canal spillway	Discharge	10.2	<p>Flow supplied from Level to flow relationship.</p> <p>In the event of a spill over Ruahihi Spillway, the consent holder to supply BOPRC with the 15-minute spill flow data for the period of the spill event.</p>	15-minute intervals	Daily
Opuaki River	Residual flow	3.1	Level to flow relationship	15-minute intervals	Daily
Ngatuhaoa River	Residual flow	3.2	Pipe flow meter	15-minute intervals	Daily
Mangakerenorenga River	Residual flow	8.1	Level to flow relationship	15-minute intervals	Daily

Mangapapa River	Residual flow	2.2	To be installed and monitoring methodology to be agreed with BOPRC prior to installation.	15-minute intervals	Daily	
Omanawa River	Residual flow	2.1	To be installed and monitoring methodology to be agreed with BOPRC prior to installation.	15-minute intervals	Daily	
McLaren Falls	Residual flow	9.3	To be installed and monitoring methodology to be agreed with BOPRC prior to installation.	15-minute intervals	Daily	
Lake Mangaonui	Level	4.2 (a-c)	Level sensors at Tunnel 6 intake and spillway.	Real time	Every 6 months in October and April	
		4.3				
		4.4				
Lake Matariki	Level	6.1	Level sensors at intake.	Real time	Daily	
		6.1 (emergency)				Within 48 hours of emergency event
		6.2				Within 48 hours of event
Lake McLaren	Level	9.1	Level sensors at canal intake and spillway.	Real time	Daily	
Ruahiji Canal	Level	10.3 - 10.4	Ruahiji Canal Intake level sensor.	15-minute intervals	As requested	

Site	Monitoring Approach
Opuiaiki River Residual Flow	Level to flow relationship
Ngatuhua Canal and Intake	Level to flow relationship
Ngatuhua River Residual Flow	Pipe flow meter
K5 Power Station Discharge	MW to flow rating conversion
Mangapapa River Residual Flow	Flow calculation based on head level and gate position

Omanawa River Residual Flow	Flow meter on syphon
Lake Mangaonui Level	Level sensors at Tunnel G intake and spillway
Lloyd Mandeno Power Station Discharge	Lloyd Mandeno Power Station MW to flow rating conversion
Lake Matariki Level	Level sensors at intake
Lower Mangapapa Power Station Discharge	Lower Mangapapa Power Station MW to flow rating conversion
Mangakarengorengo River Residual Flow	Level to flow relationship
McLaren Falls Spillway	Level to flow relationship downstream of McLarens Falls
Lake McLaren Residual Flow	Flow calculation based on head level and gate position
Lake McLaren Levels	Level sensors at dam intake and spillway
Ruahiri Canal Intake	Ruahiri Power Station MW to flow relationship
Ruahiri Power Station Discharge	Ruahiri Power Station MW to flow rating conversion