

# KAIMAI HYDRO-ELECTRIC POWER SCHEME

## ~~RESPONSE CONDITIONS IN RESPONSE TO~~ ~~COMMENTS - 12 FEBRUARY 2026~~ EXPERT PANEL'S DRAFT CONDITIONS - 2404 MAY ~~APRIL 2026~~

The following resource consents are required for the continued operation, use and maintenance of the Kaimai Hydro-Electric Power Scheme (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. Ngatuhoa Stream (via the Ngatuhoa 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. Ngatuhoa Stream to the Ngatuhoa Canal;
  - vii. Ngatuhoa 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. Ngatuhoa Stream (via the Ngatuhoa 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 RM25-0606-/01 (attached as **Appendix A**).
- 1.2 The activities authorised by these resource consents must 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 prevail.
- 1.3 The consent holder must ensure that any persons engaged in activities authorised by these resource consents are made aware of the conditions of this resource consent (including any certified management and / or monitoring plans and the obligations they impose on the consent holder), 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 certified in accordance with condition 1.5, must 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, or in the event that the consent holder seeks to update or amend an existing management and / or monitoring plan for re-certification, the consent holder must submit the proposed or updated management and / or monitoring plan within the timeframe set out in the relevant condition below (where specified) and may not implement the management / monitoring measures associated with the proposed or updated plan until receiving written confirmation from the Bay of Plenty Regional Council that the plan has been certified or re-certified.
- 1.6 The certification or re-certification of any management and / or monitoring plan required by the conditions of these resource consents by the Bay of Plenty Regional Council is limited to ensuring that must be based upon whether the respective management and / or monitoring plan meets the objective(s) set out in the relevant conditions ~~and~~ well as the information requirements of the relevant condition.

#### **Flow Monitoring**

- 1.7 The consent holder must 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 B** to this resource consent. Each of the water measurement sites / systems must 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 must take all practicable measures to ensure that the water measurement sites / systems set out in **Appendix B** 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 must repair any defective water measurement sites / systems, as soon as practicable, to ensure they are fully functional.
- 1.10 After any failure of any of the water measurement sites / systems set out in **Appendix B**, 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 B** must ~~be 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~~ ~~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 ~~that with~~ the proposed amendments ~~meet the requirements of these conditions~~.

### **Public Access**

~~1.12.13~~ The Consent Holder must maintain the nature and scope of public access to parts of the Scheme as described in the Application, subject to any modifications reasonably necessary to meet operational and safety requirements. For the avoidance of doubt, this condition does not limit the consent holder increasing or improving access.

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

~~1.131.14~~ The Bay of Plenty Regional Council may, in [~~November 2027~~~~enter month / year~~] and then once every five years thereafter within three months of the anniversary of this consent ~~commencing~~, 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 purposes:

- (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, ~~including as a result of monitoring required by the resource consent conditions~~; 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-prevent~~ or ~~reduce-minimise~~ 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.

#### ***Emergency Conditions***

~~1.15~~ For the purposes of Conditions ~~5.24, 6.1, 7.2, 9.45~~ and 11.2, "Emergency Conditions" exist when:

- ~~a. The operation of the 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 Scheme.~~

## **2 EASTERN DIVERSIONS**

### ***Residual Flows***

- 2.1 Within one year of the commencement of the ~~these~~ resource consents, 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~~ ~~these~~ resource consents, 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.

## **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 Opuiaki 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 must maintain a screen across the intake to Tunnel 4 in the Opuiaiki River with an aperture not exceeding 150 mm.
- 3.9 The consent holder must 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 must 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 must 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 must 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 must 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) All of December, January and February;
- when the minimum water level of Lake Mangaonui must not drop below 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 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.
- 4.7 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**

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

### **Maintenance of Lloyd Mandeno Canal**

- 4.9 In the event that there is a need to lower the water level of the Lloyd Mandeno Canal for any purpose, except as provided for by condition 4.10, the consent holder must 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.
- 4.10 In circumstances when there is a need to completely dewater the Lloyd Mandeno Canal, or sections of the canal, such that a minimum water depth of 0.2 m cannot be maintained, the consent holder must submit a Freshwater Fish Salvage and Relocation Plan to the Bay of Plenty Regional Council for certification at least 20 working days prior to the dewatering activity.

The Freshwater Fish Salvage and Relocation Plan must be prepared by a suitably qualified and experienced freshwater ecologist, ~~and shall be prepared~~ in consultation with Department of Conservation, Fish and Game New Zealand, and the Mana Whenua Kaitiaki Rōpū (or Ngāti Ranginui Iwi Society Incorporated, Ngāti Hangarau, Ngāti Kahu, Ngāti Pango, Ngāti Rangī, Ngāi Tamarāwaho, Ngāti Hinerangī, Ngāti Raukawa and Pirirākau in the event that the none of the groups take up the invitation to form the Mana Whenua Kaitiaki Rōpū in accordance with Condition 15.1).

The objective of the Freshwater Fish Salvage and Relocation Plan is to identify the practices and procedures to be adopted to prevent or minimise the loss of native fish and trout during any dewatering activity within the Lloyd Mandeno Canal (where a minimum water depth of 0.2 m cannot be maintained).



The Freshwater Fish Salvage and Relocation Plan must include, as a minimum:

- (a) The timing and duration of fish capture;
- (b) The methodologies to capture fish;
- (c) The methodologies to ensure effects on fish from any dewatering are minimised;
- (d) The identification of proposed relocation sites for native fish and trout respectively;
- (e) The recording of fish relocations for the purpose of providing information to the New Zealand Freshwater Fish Database;
- (f) Storage and transport measures, including measures to prevent predation and harm during relocation;
- (g) Euthanasia methods for any diseased or pest species; and
- (h) Copies of all relevant permits and permissions.

## 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 ~~E~~emergency ~~C~~conditions.

*Advice Note:*

~~5.3 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~~
- ~~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 ~~E~~emergency ~~C~~conditions where the water level of the lake must not drop below RL 115.5 m (Moturiki Datum).

*Advice Note:*

~~6.1 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 must advise the Bay of Plenty Regional Council within 48 hours of any events where the level of Lake Matariki falls below RL 120 m (Moturiki Datum), including the reason for the low lake level and the expected 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 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 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 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 ~~E~~emergency ~~C~~conditions.

~~Advice Note:~~

- ~~7.3 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 must maintain a screen across the intake in the Mangakarengorengo River with an aperture not exceeding 90 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.

*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*



9.2 Within one year of the commencement of ~~this~~these resource consents, 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**

9.3 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**

9.4 The consent holder 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~~Emergency ~~Conditions~~Conditions.

#### ~~Advice Note:~~

~~9.5 For the purpose of Condition 9.4, 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**

~~9-69.5~~ The consent holder must maintain a screen across the intake to the Lloyd Mandeno Canal with an aperture not exceeding 30 mm.

#### **Recreational Releases**

~~9-79.6~~ Upon application by the Kaimai Canoe Club, the consent holder must 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 must be made available by the consent holder ~~for 6 hours~~, between 10 am and 4 pm, for up to a maximum of 26 days per annum.

~~9-89.7~~ The consent holder must 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**

~~9-99.8~~ 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.

~~9-109.9~~ The consent holder must 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.

~~9-119.10~~ Prior to any discharge from the McLaren Falls Gated Channel Spillway, the consent holder must operate a sound warning system that is audible from the McLaren Falls Bridge. The sound warning must provide the public with sufficient time to vacate the area affected by the discharge.

## **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.

### **Maintenance**

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 10.4, the consent holder must 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.

10.4 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 must submit a Freshwater Fish Salvage and Relocation Plan to the Bay of Plenty Regional Council for certification at least 20 working days prior to the dewatering activity.



The Freshwater Fish Salvage and Relocation Plan must be prepared by a suitably qualified and experienced freshwater ecologist, and shall be prepared in consultation with Department of Conservation, Fish and Game New Zealand, and the Mana Whenua Kaitiaki Rōpū (or Ngāti Ranginui Iwi Society Incorporated, Ngāti Hangarau, Ngāti Kahu, Ngāti Pango, Ngāti Rangī, Ngāi Tamarāwaho, Ngāti Hinerangī, Ngāti Raukawa and Pirirākau in the event that the none of the groups take up the invitation to form the Mana Whenua Kaitiaki Rōpū in accordance with Condition 15.1).

The objective of the Freshwater Fish Salvage and Relocation Plan is to identify the practices and procedures to be adopted to prevent or minimise the loss of native fish and trout during any dewatering activity within the Ruahihi Canal (where a minimum water depth of 0.2 m cannot be maintained).

The Freshwater Fish Salvage and Relocation Plan must include, as a minimum:

- (b) The timing and duration of fish capture;
- (b) The methodologies to capture fish;
- (c) The methodologies to ensure effects on fish from any dewatering are minimised;
- (d) The identification of proposed relocation sites for native fish and trout respectively;
- (e) The recording of fish relocations for the purpose of providing information to the New Zealand Freshwater Fish Database;
- (f) Storage and transport measures, including measures to prevent predation and harm during relocation;
- (g) Euthanasia methods for any diseased or pest species; and
- (h) Copies of all relevant permits and permissions.

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

- 10.5 The consent holder must maintain a screen across the intake to the Ruahihi Power Station in the Ruahihi Canal with an aperture not exceeding 30 mm.
- 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 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 5 cubic metres per second per minute, except during ~~E~~emergency ~~C~~conditions.

*Advice Note:*

~~11.3 For the purpose of Condition 11.2, 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

~~11.4~~11.3 The consent holder 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 ~~P~~power ~~S~~tation.

## 12 SEDIMENT MONITORING

12.1 Within six months of ~~the grant of~~ this resource consent ~~commencing~~, the consent holder must submit a Sediment Monitoring Plan prepared by a suitably 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 plan shall be to monitor any long-term changes in sediment continuity in the Wairoa River Catchment that may be a result of the continued operation of the Scheme so as to assist in the identification of any required mitigation measures.

~~(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 above, the Sediment Monitoring Plan must, as a minimum, ~~address~~include the following matters:

- (a) A summary of the baseline geomorphic conditions in the Wairoa River (WAI-3) and Omanawa River (OMW-4);



- (b) The monitoring methodology for:
- i. Baseline bathymetric and topographical surveys of the Wairoa River (WAI-3) and Omanawa River (OMW-4);
  - 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) The requirement to prepare a Sediment Monitoring Report every five years to the Bay of Plenty Regional Council, which must:
- i. Present, summarises and analyses the monitoring results from each survey;
  - ii. Assess 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. Provide recommendations regarding the methodology for the ongoing monitoring surveys (including the frequency of surveys over the life of this consent), and recommendations to manage sediment or erosion effects caused by the continued operation of the ~~Kaimai Hydro-Electric Power Scheme~~.

~~12.3 The Consent Holder must implement the certified Sediment Monitoring Plan.~~

~~12.4 In the event that the Sediment Monitoring Report includes recommendations to manage sediment or erosion effects caused by the continued operation of the Scheme (see Condition 12.2(c)iii) the Consent Holder must provide (with the Report) detail as to how it is proposing to respond to the recommendations and the reasons for its response.~~

~~The proposed response must be submitted to the Bay of Plenty Regional Council for review and written confirmation and must not be implemented until that written confirmation has been provided. For the purposes of this condition, written confirmation means written notice from the Bay of Plenty Regional Council that it is satisfied the proposed response is consistent with the purpose of the monitoring set out in condition 12.1 and addresses the recommendations in the monitoring report.~~

~~Advice Note~~

*The Bay of Plenty Regional Council shall review the Sediment Monitoring Reports provided on a five yearly basis 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 (see Condition 1.143).*

### **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) Ensure that the ~~Kaimai Hydro-Electric Power~~ Scheme provides 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 and the Mana Whenua Kaitiaki Rōpū (or Ngāti Ranginui Iwi Society Incorporated, Ngāti Hangarau, Ngāti Kahu, Ngāti Pango, Ngāti Rangī, Ngāi Tamarāwaho, Ngāti Hinerangi, Ngāti Raukawa and Pirirākau in the event that the none of the groups take up the invitation to form the Mana Whenua Kaitiaki Rōpū in accordance with Condition 15.1) 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 Mātauranga Māori into the design and monitoring of the Native Fish Passage Management Plan; and
- (k) The respective roles of the consent holder and the Mana Whenua Kaitiaki Rōpū (or Ngāti Ranginui Iwi Society Incorporated, Ngāti Hangarau, Ngāti Kahu, Ngāti Pango, Ngāti Rangī, Ngāi Tamarāwaho, Ngāti Hinerangi, Ngāti Raukawa and Pirirākau in the event that the none of the groups take up the invitation to form the Mana Whenua Kaitiaki Rōpū in accordance with Condition 15.1) in ensuring that the structures associated with the ~~Kaimai Hydro-Electric Power~~ Scheme provide for the passage of native fish species upstream and downstream.

13.3 A draft copy of the Native Fish Passage Management Plan must be provided to the Department of Conservation for review and comment. ~~The draft plan must be provided to the Department of Conservation~~ at least 30 working days before the consent holder intends to submit the Native Fish Passage Management Plan to the Bay of Plenty Regional Council for certification (in order to allow suitable time for the Department to review the draft plan).

13.4 The consent holder must prepare an annual report to the Bay of Plenty Regional Council no later than 30 September each year with input from a suitably qualified and experienced freshwater ecologist, and in collaboration with the Mana Whenua Kaitiaki Rōpū, (or Ngāti Ranginui Iwi Society Incorporated, Ngāti Hangarau, Ngāti Kahu, Ngāti Pango, Ngāti Rangī, Ngāi Tamarāwaho, Ngāti Hinerangi, Ngāti Raukawa and Pirirākau in the event that the none of the groups take up the invitation to form the Mana Whenua Kaitiaki Rōpū in accordance with Condition 15.1).

The report shall present the results of any monitoring / recording of passive passage of native fish and the salvage of tuna entrained in the ~~Kaimai Hydro-Electric Power~~ Scheme, and provide comment on:

- (a) The efficacy of the passive migration measures implemented;



- (b) The efficacy of the trap and transfer programme; and
- (c) The proposed measures intended to be implemented over the following 12 months with respect to passive migration measures and the refinement of the trap and transfer programme.

A copy of the monitoring report must also be provided to the Department of Conservation at the same time it is provided to the Bay of Plenty Regional Council.

## 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 3660 m downstream of the intake gates in a pool that is located on a sharp bend in the channel of the Mangakarengorengo River.

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

- 14.2 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.~~

14.4 Where the water temperature monitoring report includes recommendations (including where results are inconclusive and further monitoring is recommended), the consent holder must provide, with the report, details of how it proposes to respond to the recommendations and the reasons for that response.

The proposed response must be submitted to the Bay of Plenty Regional Council for review and written confirmation and must not be implemented until that written confirmation has been provided. For the purposes of this condition, written confirmation means written notice from the Bay of Plenty Regional Council that it is satisfied the proposed response is consistent with the purpose of the monitoring set out in condition 14.1 and addresses the recommendations in the monitoring report.

## **15 MANA WHENUA KAITIAKI RŌPŪ**

- 15.1 Within 90 working days following the commencement of these resource consents, the consent holder must invite mandated representatives of Ngāti Ranginui Iwi Society Incorporated, Ngāti Hangarau, Ngāti Kahu, Ngāti Pango, Ngāti Rangī, Ngāi Tamarāwaho, Ngāti Hinerangi, Ngāti Raukawa and Pirirākau (with a maximum of 2 per entity) to participate in a Mana Whenua Kaitiaki Rōpū for the ~~Kaimai Hydro-Electric Power~~ Scheme.
- 15.2 The Mana Whenua Kaitiaki Rōpū must operate throughout the exercise of the resource consents or until such time as the mandated representatives of Ngāti Ranginui Iwi Society Incorporated, Ngāti Hangarau, Ngāti Kahu, Ngāti Pango, Ngāti Rangī, Ngāi Tamarāwaho, Ngāti Hinerangi, Ngāti Raukawa and Pirirākau determine it is no longer required. At any time, any mandated representatives may choose to withdraw its entity from participation in the Mana Whenua Kaitiaki Rōpū by providing written confirmation to the consent holder and the Bay of Plenty Regional Council.
- 15.3 The purpose of the Mana Whenua Kaitiaki Rōpū is to facilitate engagement between the consent holder and Ngāti Ranginui Iwi Society Incorporated, Ngāti Hangarau, Ngāti Kahu, Ngāti Pango, Ngāti Rangī, Ngāi Tamarāwaho, Ngāti Hinerangi, Ngāti Raukawa and Pirirākau 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) 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 156.3 above, the consent holder 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 134.1.

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 Ngāti Ranginui Iwi Society Incorporated, Ngāti Hangarau, Ngāti Kahu, Ngāti Pango, Ngāti Rangī, Ngāi Tamarāwaho, Ngāti Hinerangī, Ngāti Raukawa and Pirirākau- in accordance with this condition must also be forwarded to the Bay of Plenty Regional Council.

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

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).

15.7 ~~Where these conditions enable or require engagement with the Mana Whenua Kaitiaki Rōpū (including conditions 4.10, 10.4 and 15.1) and any entity entitled to be part of the Rōpū decides not to join, or to leave, the Rōpū, the Consent Holder must invite that entity to engage with the Consent Holder in relation to the matters set out in condition 15.3. consult with:~~

~~the relevant entity; and~~

~~the Mana Whenua Kaitiaki Rōpū.~~

## 16 CONSENT TERM

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](mailto: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.*



**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 Ruahihi 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	9.45	<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	9.23	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	
Ruahihi Canal	Level	10.3 - 10.4	Ruahihi Canal Intake level sensor.	15-minute intervals	As requested	