Kaimai Hydro-Electric Power Scheme Re-Consenting

Manawa Energy Limited

Part B – Appendices

B.05 – Appendix F - Existing Resource Consents

Consent Number: 02 0011

BAY OF PLENTY CATCHMENT COMMISSION

AND REGIONAL WATER BOARD

RIGHT IN RESPECT OF NATURAL WATER

Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission in its capacity as **REGIONAL WATER BOARD** for the Bay of Plenty Catchment Area, by a decision dated **4TH MARCH 1976 HEREBY** to

TRUSTPOWER LIMITED

SEE TRANSFER ~~KAIMAI HYDRO POWER~~

SEE TRANSFER ~~**TAURANGA ELECTRIC POWER BOARD AND TAURANGA CITY COUNCIL TAURANGA JOINT GENERATION COMMITTEE**~~

~~Spring Street~~	~~Private Bag~~	~~P O Box 759~~	~~P O Box 12023~~
~~TAURANGA~~	~~TAURANGA~~	~~GREERTON~~	~~TAURANGA~~

a right to

(a) **DAM THE MANGAPAPA RIVER ABOUT 800 METRES UPSTREAM OF ITS JUNCTION WITH THE OPUIAKI RIVER TO FORM A RESERVOIR** (Map reference N67:519425)

(b) **DIVERT WATER FROM THE RESERVOIR INTO A TUNNEL LEADING TO A POWERHOUSE.**

(c) **TAKE WATER FROM THE RESERVOIR, USE THE WATER FOR THE GENERATION OF ELECTRIC POWER, AND DISCHARGE WATER FROM THE POWERHOUSE INTO THE MANGAPAPA RIVER** (Map reference N67:521427)

(d) **DISCHARGE SURPLUS WATER FROM THE RESERVOIR OVER A SPILLWAY INCORPORATED IN THE DAM AND INTO THE ORIGINAL COURSE OF THE MANAGAPAPA RIVER.**

Subject to the following conditions:

1 **PURPOSE**

For the purpose of generating hydro-electric power.

2 **TAKING, USE AND DISCHARGE OF WATER:**

SEE CHANGE The rate of taking and use of water from the reservoir and the discharge from the powerhouse shall not exceed ~~24.2~~ 23.0 cubic metres per second. The rate of change of discharge from the power house shall not exceed ~~one (1)~~ fifteen (15) cubic metres per second per minute except under emergency conditions.

3 **RESERVOIR LEVELS**

3.1 The term "water level" shall in right mean the level of the water of the reservoir above Moturiki Datum and measured adjacent to the upstream face of the dam.

SEE CHANGE 3.2 The water level at the reservoir shall be maintained between ~~121~~ RL120 and ~~123~~ RL 123.5 metres under normal operating conditions.

3.3 Under emergency conditions the reservoir water level may be permitted to fall to 115.5 metres. Any occasion on which the reservoir level has fallen below 121 metres shall be reported to the Regional Water Board within 48 hours stating the level to which the reservoir fell, the duration at that level and the reason for the low level.

4 SPILLWAY

The discharge from the reservoir of surplus water not used for the generation of electricity shall be through spillway structures incorporated in the dam and into the original course of the Mangapapa River downstream of the dam. The spillway structures shall be of adequate capacity to pass safely a flood of 396 cubic metres per second (estimated 1000 year frequency) and shall have a crest level of 123.5 metres.

5 SCREENS AND BOOMS

5.1 Floating booms must be installed across the full width of the reservoir just upstream of the dam to safeguard persons using the lake for recreation.

5.2 The intake to the tunnel shall be fitted with a screen with a gap between bars of 100 millimetres.

6 OPERATIONAL RECORDS

The Grantee shall keep records of flows through the power station and over the spillway and of lake levels, and shall make these available to the Regional Water Board when requested to do so.

7 RESERVOIR CLEARING

All bush and scrub below the level of 123 metres in the reservoir area shall be cleared before reservoir filling commences.

8 WARNING DEVICES

8.1 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the powerhouse of the extent and frequency of variations in flow from the powerhouse.

8.2 The Grantee shall erect and maintain at appropriate sites signs sufficient to warn the public using the reservoir for recreation, of the possible variations in reservoir water level.

9 **SUPERVISION OF WORKS**

All planning, design, construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineer's Registration Act 1924.

10 **THE RIGHT** hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute and authority under any other Act, Regulation, or By-Law.

11 **THIS RIGHT** may be cancelled upon not less that twelve months notice in writing by the regional water board to the grantee, of in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires; but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

THIS RIGHT replaces Water right No.11 dated 29th August 1970.

DATED at Whakatane this 7th day of April 1976.

For and on behalf of the

Bay of Plenty Catchment Commission
And Regional Water Board

J D Carling
Secretary

VARIATION OF RIGHT

The above Right was varied in accordance with the decision of the Bay of Plenty Regional Water Board dated 7th November, 1985 as follows:

(i) Change 123 to 123.5 metres in Conditions 3.2 of the right.

J .D.CARLING
Secretary

VARIATION OF WATER RIGHT NO. 11

This right was varied in accordance with a decision of the Regional Water Board dated the 1st November 1979 by amending the rate of taking and use and the rate of change of discharge as set out in Condition 2 from 21.2 cubic metres per second to 23.0 cubic metres per second and from one (1) cubic metres per second per minute to fifteen (15) cubic metres per second per minute respectively.

Dated at Whakatane this 14th day of December, 1970

.

For and on behalf of
The Bay of Plenty Catchment Commission
And Regional Water Board

J.D. CARLING
Secretary

TRANSFER

The transfer of this Right from Tauranga Electric Power Board and Tauranga City Council (Tauranga Joint Generation Committee) to KAIMAI HYDRO POWER was recorded in the Minutes of the Bay of Plenty Regional Council, dated 21 February 1991.

J A Jones
General Manager

TRANSFER

The transfer of the whole of this resource consent from KAIMAI HYDRO POWER to TRUSTPOWER LIMITED was approved under delegated authority of the Bay of Plenty Regional Council, dated 28 November 1997.

R B Gardner
Manager Consents & Compliance

for J A Jones
General Manager

CHANGE

The change of this resource consent was approved under delegated authority of the Bay of Plenty Regional Council dated, 12 January 2006 as follows:

Reword condition 3.2 to read:

3.2 The water level at the reservoir shall be maintained between RL120m and RL123.5m under normal operating conditions.

A C Bruere
Manager Consents & Compliance

for W E Bayfield
Chief Executive

Consent Number: 02 0011

Consent Number: **02 3297**

Retyped on 31 August 1994 Renumbered 02 3297

BAY OF PLENTY CATCHMENT COMMISSION

AND REGIONAL WATER BOARD

RIGHT IN RESPECT OF NATURAL WATER

Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, by a decision dated 5th AUGUST 1976 HEREBY GRANTS to:

TRUSTPOWER LIMITED

SEE TRANSFER ~~KAIMAI HYDROPOWER~~

~~TAURANGA COUNCIL and TAURANGA ELECTRIC POWER BOARD~~

~~(THE TAURANGA JOINT GENERATION COMMITTEE)~~

~~Willow and Spring Street~~	~~P O Box 9105~~	Private Bag 12023
~~TAURANGA~~	~~Greerton~~	TAURANGA
	~~TAURANGA~~	

in respect of Ruahihi/McLaren Falls Power Scheme:

RIGHTS TO:

(a) i Dam the Mangakarengorengo River at map reference N67 519 441;

ii Divert up to 7.0 cubic metres of water per second into two tunnels at map reference N67 519 440;

iii Discharge the water into Lake McLaren at map reference N67 521 439;

iv Discharge surplus water over the dam into the original course of the Mangakarengorengo River.

(b) i Dam the Mangapapa River at map reference N67 524 443 to form Lake McLaren.

ii Divert up to 31.2 cubic metres of water per second into the Ruahihi Canal at map reference N67 525 445;

iii Discharge up to twenty five cubic metres per second of water by a gated channel from Lake McLaren into the original course of the Mangapapa River at or about map reference NZMS 260 U14 782 727.

~~Divert up to 14.2 cubic metres of water per second into the McLaren Falls Power Station intake at map reference N67:525.444.~~

iv Discharge surplus water from Lake McLaren over a spillway into the original course of the Mangapapa River.

SEE SURRENDER:

~~(c) i use up to 14.2 cubic metres of water per second from Lake McLaren to generate electricity in the McLaren Falls Power Station.~~

~~ii Discharge up to 14.2 cubic metres of water per second from the McLaren Falls Power Station into the Wairoa River.~~

(d) i Divert up to 38.5 cubic metres of water per second from Tributary One (Mairoa Stream at map reference N67:533 447.
ii Discharge the water into the Ruahihi Canal.
iii Discharge up to 52.8 cubic metres of water per second from the Ruahihi Canal into the original course of Tributary One.

(e) i Divert up to 13.0 cubic metres of water per second from Tributary Two at map reference N67:535 451.
ii Discharge the water into the Ruahihi Canal.

(f) i Divert up to 1.27 cubic metres of water per second from Tributary Three at map reference N67:539 455.
ii Discharge the water into the Ruahihi Canal.

(g) i Use up to 28 cubic metres of water per second to generate electricity in the Ruahihi Power Station.
ii Discharge the water from the power station into the Wairoa River at map reference N67:534 480.

Subject to the following conditions:

LEVEL DATUM

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

1 MANGAKARENGORENGO RIVER

SEE CHANGE 1.1 The dam across the Mangakarengorengo River shall be sited just downstream of the diversion points and shall have a crest level of ~~95.9~~ 95.3 metres.

1.2 The flow immediately downstream of the dam shall be maintained by the Grantee at no less than forty (40) litres per second.

1.3 The intakes of both tunnels shall be fitted with screens with a gap between bars of no greater than 150 millimetres.

1.4 Where necessary, to prevent access by stock, the Grantee shall provide fences on both sides of the Mangakarengorengo River between the dam referred to in condition 1.1 and the junction of the Mangakarengorengo and Mangapapa Rivers, and also on both sides of the channel between the outfall of the downstream tunnel and Lake McLaren. The extent of the fencing, and the standard, shall be to the satisfaction of the Regional Water Board

2 MANGAPAPA RIVER

2.1 The dam across the Mangapapa River to form Lake McLaren shall have a maximum height of twenty four (24) metres.

SEE CHANGE

2.2 The spillway crest level shall be ~~89.0~~ 88.8 metres. Surplus water from Lake McLaren shall be discharged over the spillway and into the original course of the Mangapapa River.

SEE CHANGE:

2.3 Floating booms shall be installed 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. The intake to the penstocks gated channel shall be fitted with screens with a gap between bars of no greater than ~~50~~ 30 millimetres.

2.4 Where necessary, to prevent access by stock to the Mangapapa River, the Grantee shall provide fences on the left bank of the river between the dam across the Mangapapa River and the junction of the Mangapapa and Mangakarengorengo Rivers. The extent of the fencing, and the standard, shall be to the satisfaction of the Regional Water Board.

SEE CHANGE:

~~2.5 The water level in Lake McLaren shall be maintained between 87.3 and 88.5 metres under normal operating conditions.~~

Under normal operating conditions the water in Lake McLaren shall be maintained between 87.45 and 8.65 metres. ~~except for the period from midnight to 4.00 pm on days when water flows are being released in terms of conditions 3.3 of this right when the upper limit shall be 88.5 88.95 metres.~~ Normal operating conditions and associated lake levels shall prevail during recreational water releases.

2.6 All bush and scrub between the levels of 87.8 and 89.0 metres in the reservoir area shall be cleared before the level of Lake McLaren is raised above its present maximum operating level. The clearing shall be carried out to the satisfaction of the Regional Water Board.

SEE CHANGE:

3 McLAREN FALLS GATED CHANNEL SPILLWAY

SEE CHANGE: ~~**McLAREN FALLS POWER STATION**~~

3.1 The rate of change of discharge from the McLaren Falls ~~Power Station~~ Gated Channel Spillway shall not exceed two (2) cubic metres per second per minute except under emergency conditions.

SEE CHANGE:

3.2 The Grantee shall erect and maintain suitably worded signs sufficient to warn the public in the reach of the Wairoa River between the McLaren Falls Dam and Ruahihi Power Station of the extent and frequency of variations in flow from the power station. A sound warning system shall be ~~installed and operated at the Power Station~~ operated prior to any opening of the gated channel spillway and be audible at the McLarens Falls Bridge.

SEE CHANGE:

3.3 Upon application by the Kaimai Canoe Club to ~~the Tauranga Join Generation committee, the Committee~~ Kaimai Hydro Power, the company shall, by releasing a continuous flow of up to twenty fivea cubic metres per second, ensure that there is a minimum flow of ~~twelve~~ fourteen cubic metres per second in the Wairoa River immediately downstream of the McLaren Falls Power ~~Station~~ Bridge. The flow shall be made available for a maximum of six (6) hours between the hours of 10.00 am and 4.00 pm to provide compensation water for canoeists, up to a maximum of twenty six (26) days per annum.

SEE SURRENDER:

SEE CHANGE:

3.4 The release of recreational flows shall be authorised by spilling over the Lake McLaren spillway until 30 December 1994. By that date the Grantee shall investigate alternative recreational flow release mechanisms, obtain appropriate authorisations to enable the construction, commissioning and operation of such mechanisms from the Regional Council. The authorised water release mechanism shall be operational on the first recreational release after 30 December 1994.

4 TRIBUTARY ONE (MAIROA STREAM)

4.1 The spillway to discharge excess water from the Ruahihi Canal to the original course of Tributary One shall be capable of safely passing a flow of 52.8 cubic metres per second.

4.2 The spillway crest level shall be 89.5 metres.

5 RUAHIHI CANAL

5.1 A floating boom shall be installed across the full width of the canal just upstream of the intake to the conduits to safeguard persons using the canal for recreation.

5.2 The intake of the conduits shall be fitted with screens with a gap between bars of no greater than 30 millimetres.

5.3 Before construction of the canal commences, the grantee shall submit construction plans to the Regional Water Board. Construction shall not commence until the written approval of the Board has been obtained. The plans submitted shall clearly show the following:

a Contours of all areas to be stripped or filled.
b Means of disposal of runoff from each working area.
c Measures intended to control runoff and sediment transport from the earthworks.
d Measures to be undertaken to return topsoil to worked areas and to replace vegetative cover.
e Means of draining completed works.

5.4 If it is found necessary to dewater the canal for normal maintenance purposes, the Grantee shall give at least twenty four (24) hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall co-operate to ensure that, wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

6 **RUAHIHI POWER STATION**

6.1 The rate of change of discharge from the Ruahihi Power Station shall not exceed five (5) cubic metres per second per minute except under emergency conditions.

6.2 The Grantee shall erect and maintain signs sufficient to warn the public in the reach of the Wairoa River, immediately downstream of the Power Station of the extent and frequency of variations in flow from the Power Station.

7 **SUPERVISION OF WORKS**

All planning, design, construction and operation of works associated with this right shall be supervised by Engineers duly registered and practicing pursuant to the Engineers Registration Act 1924.

8 **CONSTRUCTION AND MAINTENANCE WORKS**

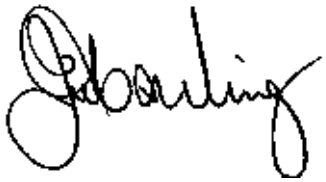
The Grantee shall take every care to the satisfaction of the Regional Water Board during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

9 **THE RIGHT** hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

10 **THIS RIGHT** may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires; but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

DATED at Whakatane this 7th day of February 1977.

For and on behalf of
The Bay of Plenty Catchment Commission
and Regional Water Board



J D CARLING
Secretary

VARIATION OF RIGHT

The above right was varied in accordance with the decision of the Bay of Plenty Regional Water Board dated 5 November 1987 as follows:

Change to condition 2.5 to read: "Under normal operating conditions the water level in Lake McLaren shall be maintained between 87.45 and 88.65 metres except for the period from midnight to 4.00 pm on days when water flows are being released in terms of condition 3.3 of this right when the upper limit shall be 88.5 metres.

P J GAVIN
Secretary

SURRENDER

The surrender of Part C of the above right was accepted by the Bay of Plenty Regional Council, dated 5 July 1990.

J A JONES
General Manager

TRANSFER

The transfer of this right from Tauranga City Council and Tauranga Electric Power Board (The Tauranga Joint Generation Committee) to KAIMAI HYDROPOWER was recorded in the Minutes of the Bay of Plenty Regional Council, dated 21 February 1991.

J A JONES
General Manager

Consent Number: 02 3297

CHANGE

The change of this permit was approved under delegated authority of the Bay of Plenty Regional Council, dated 12 August 1993, as follows:

Amend condition 2.5 by replacing 88.5 with 88.95.

Amend condition 3.3 by:

Replacing the continuous flow figure of up to "twelve (12)" cubic metres per second, with "twenty five".

Replacing the minimum flow figure of "twelve" cubic metres per second with "fourteen"

Insert a new condition 3.4 to read as follows:

3.4 The release of recreational flows shall be authorised by spilling over the Lake McLaren spillway until 30 December 1994. By that date the Grantee shall investigate alternative recreational flow release mechanisms, obtain appropriate authorisations to enable the construction, commissioning and operation of such mechanisms from the Regional Council. The authorised water release mechanism shall be operational on the first recreational release after 30 December 1994.

R B GARDNER
Manager Environmental Regulation and Monitoring

for J A JONES
General Manager

CHANGE

The change of this resource consent was approved under delegated authority of the Bay of Plenty Regional Council, dated 23 August 1994, as follows:

Delete condition "(b) iii Divert up to 14.2 cubic metres of water per second into the McLarens Falls Power Station intake at map reference N67 525 444."

Replace with new condition "(b) iii Discharge up to 25 cubic metres per second of water by a gated channel from Lake McLaren into the original course of the Mangapapa River at or about map reference NZMS 260 U14 782 727".

In condition 2.3 delete the words "Power Station" and replace with "Gated Channel Spillway", and delete the word "penstocks" and replace with "gated channel".

Also in condition 2.3 delete "50" (relating to screen spacing) and replace with "30".

Amend condition 2.5 as follows:

Delete the following:

"except for the period from midnight to 4.00 pm on days when water flows are being released in terms of condition 3.3 of this right when the upper limit shall be 88.95 metres".

Replace with:

".(full stop) Normal operating conditions and associated lake levels shall prevail during recreational water releases."

Delete the title:

3 MCLARENS FALLS POWER STATION

Replace with:

3 MCLARENS FALLS GATED CHANNEL SPILLWAY

In condition 3.1 delete "Power Station" and replace with "Gated Channel Spillway".

In condition 3.2 add the word "Dam" after McLarens Falls, and delete the "s" from "Power Stations".

The final sentence of condition 3.2 reads : "A sound warning system shall be installed and operated at the power station."

Delete "installed and operated at the power station". Replace with "operated prior to any opening of the gated channel spillway and be audible at the McLarens Falls Bridge."

In condition 3.3 delete "the Tauranga Joint Generation Committee the committee". Replace with "Kaimai Hydro Power, the company".

Also in condition 3.3 delete the works "Power Station" and replace with "Bridge".

R B GARDNER
Manager Environmental Regulation and Monitoring

for J A JONES
General Manager

TRANSFER

The transfer of the whole of this resource consent from KAIMAI HYDROPOWER to TRUSTPOWER LIMITED was approved under delegated authority of the Bay of Plenty Regional Council, dated 28 November 1997.

R B Gardner
Manager Consents & Compliance

for J A Jones
GENERAL MANAGER

Change

The change of this consent was approved under delegated authority of the Bay of Plenty Regional Council, dated 23 November 2000, as follows:

In condition 1.1 amend the crest level to 95.3 metres.

In condition 2.2 amend the crest level to 88.8 metres.

R B Gardner
Manager Consents & Compliance

for J A Jones
Chief Executive

Resource Consent

Resource Consent 20195-AP

Following the processing of the Application received on the 24 March 1975, the Bay of Plenty Regional Council has granted the applicant(s):

Trustpower Limited

Consent(s) to:

20195.1.01-WU	Use Surface Water	Expiry	1 October 2026
20195.1.02-WU	Use Surface Water	Expiry	1 October 2026
20195.1.03-DC	Discharge to Water	Expiry	1 October 2026
20195.1.04-DC	Discharge to Water	Expiry	1 October 2026
20195.10.01-WU	Use Surface Water	Expiry	1 October 2026
20195.10.02-WU	Use Surface Water	Expiry	1 October 2026
20195.10.03-DC	Discharge to Water	Expiry	1 October 2026
20195.10.04-DC	Discharge to Water	Expiry	1 October 2026
20195.11.01-WU	Use Surface Water	Expiry	1 October 2026
20195.11.02-DC	Discharge to Water	Expiry	1 October 2026
20195.2.01-WU	Use Surface Water	Expiry	1 October 2026
20195.2.02-WU	Use Surface Water	Expiry	1 October 2026
20195.2.03-DC	Discharge to Water	Expiry	1 October 2026
20195.2.04-DC	Discharge to Water	Expiry	1 October 2026
20195.3.01-WU	Use Surface Water	Expiry	1 October 2026
20195.4.01-WU	Use Surface Water	Expiry	1 October 2026
20195.4.02-WU	Use Surface Water	Expiry	1 October 2026
20195.4.03-DC	Discharge to Water	Expiry	1 October 2026
20195.4.04-DC	Discharge to Water	Expiry	1 October 2026
20195.4.05-DC	Discharge to Water	Expiry	1 October 2026
20195.5.01-WU	Use Surface Water	Expiry	1 October 2026
20195.5.02-WU	Use Surface Water	Expiry	1 October 2026
20195.5.03-DC	Discharge to Water	Expiry	1 October 2026
20195.5.04-DC	Discharge to Water	Expiry	1 October 2026
20195.6.01-WU+	Use Surface Water	Expiry	1 October 2026
20195.6.02-WU	Use Surface Water	Expiry	1 October 2026
20195.6.03-DC	Discharge to Water	Expiry	1 October 2026
20195.6.04-DC	Discharge to Water	Expiry	1 October 2026
20195.6.05-DC	Discharge to Water	Expiry	1 October 2026
20195.7.01-WU	Use Surface Water	Expiry	1 October 2026
20195.7.02-WU	Use Surface Water	Expiry	1 October 2026
20195.7.03-DC	Discharge to Water	Expiry	1 October 2026

20195.7.04-DC	Discharge to Water	Expiry	1 October 2026
20195.8.01-WU	Use Surface Water	Expiry	1 October 2026
20195.8.02-WU	Use Surface Water	Expiry	1 October 2026
20195.8.03-DC	Discharge to Water	Expiry	1 October 2026
20195.8.04-DC	Discharge to Water	Expiry	1 October 2026
20195.9.01-WU	Use Surface Water	Expiry	1 October 2026
20195.9.02-WU	Use Surface Water	Expiry	1 October 2026
20195.9.03-DC	Discharge to Water	Expiry	1 October 2026
20195.9.04-DC	Discharge to Water	Expiry	1 October 2026

CH16-00235	Final Approval	13 March 2017
CH-20195.1.01	Approved	10 August 1991
CH-20195.1.02	Approved	4 May 1999
CH-20195.1.03	Approved	21 November 2000
CH-20195.1.04	Approved	9 February 2009
CH-20195.1.05	Approved	5 May 2010
CH-20195.1.06	Approved	8 February 2010
CH-20195.2.01	Approved	5 November 1987
CH-20195.2.02	Incorporated	
CH-20195.9.01	Approved	14 October 1997

The consent(s) are subject to the conditions specified on the attached schedule(s) for each activity. Advice notes are also provided as supplementary guidance, and to specify additional information to relevant conditions.

The Resource Consent hereby authorised is granted under the Resource Management Act 1991 does not constitute an authority under any other Act, Regulation or Bylaw.

DATED at Whakatane this 5th day of August 1976

For and on behalf of The Bay of Plenty Regional Council

M Macleod

Mary-Anne Macleod
Chief Executive

The change of the whole of this resource consent was approved under delegated authority of the Bay of Plenty Regional Council dated 13 March 2017

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Dam the Opuiaki Stream at map reference N67:483 343**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

Change: 2

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the

Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second.

The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation.

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, Divert up to 8.50 cubic metres of water per second into a tunnel**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0 metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku Weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90 mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the

Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa Weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa Weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation.

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction and Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge the water into the Ngatuhoa Stream at map reference N67:501 350**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

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(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation.

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction and Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge surplus water over the dam into the original course of the Opuiaki Stream**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;
- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations

that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and

- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to

the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Dam Scotts Dry Gully at map reference N67:523 383 to form a small lake**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Divert up to 14.2 cubic metres of water per second into a canal**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge the water into a canal and then into penstocks leading to the Lloyd Mandeno Power Station at map reference N67:529 401**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0 metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the

Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second.

The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge surplus water over a spillway into a gully leading to the original course of the Mangaonui Stream**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0 metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the

Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second.

The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Use up to 14.2 cubic metres of water per second to generate electricity in the Lloyd Mandeno Power Station**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge the water from the power station into the Mangapapa River at map reference N67:529 401**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Dam the Tauwharawhara Stream at map reference N67:489 346**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 Tne at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Divert up to 283 litres of water per second into a tunnel**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge the water into the Ngatuhoa Stream at map reference N67:501 350**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge surplus water over the dam into the original course of the Tauwharawhara Stream**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

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- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

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6 Omanawa River

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12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

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14 This Right

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Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- Pursuant to Section 21 (3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to DAM THE OMANAWA RIVER AT FOUR SITES

subject to the following conditions:

1 Purpose

1.0 For the purpose of raising water levels to provide an effective stock barrier.

2 The Dams

2.0 THE DAMS shall consist of concrete aprons containing inflatable neoprene bags. The overall height of the structures shall be approximately two (2) metres when the bags are inflated.

3 Construction

3.0 The Grantee shall notify the Regional Water Board Engineer prior to the construction of each dam.

4 Clearing

4.0 All bush and scrub below the water level of the lake formed upstream of each dam shall be cleared to the satisfaction of the Regional Water Board Engineer before lake filling commences.

5 Operating Procedure

5.0 The Grantee shall ensure that the dams (neoprene bags) will automatically deflate during flood conditions and shall provide facilities for re-inflation of the dams to ensure an effective stock barrier is maintained.

6 Maintenance

6.0 For the purpose of ensuring a sufficient depth of water in the lakes to provide an effective stock barrier the Grantee shall, whenever necessary, drain the lakes to flush out silt deposits.

7 The Dams

7.0 THE DAMS shall be constructed so as not to prevent the free access of trout in the lower reaches of the Omanawa River.

8 Map References

8.0 Map reference of dam sites –

N67:550499
N57:553490
N67:556473
N67:558469

9 The Right

9.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

10 This Right

10.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, he interests of lawful users of water, or the interests of future applicants for water rights so requires; but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Dam the Ngatuhoa Stream at map reference N67:501 350**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Divert up to 14.2 cubic metres of water per second into a canal and then a tunnel**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge the water into Mangaonui Lake at map reference N67:518 363**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 he intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge surplus water over the dam into the original course of the Ngatuhoa Stream**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 5.5 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Use up to six cubic metres of water per second to generate electricity in the tunnel five outlet power station**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 he Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Dam the Awakotuku Stream at map reference N67:505 359**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation.

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervison of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction and Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Divert up to 425 litres of water per second into a tunnel**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction and Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge the water into Mangaonui Lake at map reference N67:518 363**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

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6 Omanawa River

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8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second.

The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

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12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

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14 This Right

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Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge the surplus water over the dam into the original course of the Awakotuku Stream**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0 metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall

be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;
- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for

koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and

- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Dam the Mangaonui Stream at map reference N67:520 371 to form Mangaonui Lake**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Divert up to 14.2 cubic metres of water per second into a tunnel**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge the water into a lake formed by damming Scott's Dry Gully**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge surplus water over a spillway into the original course of the Mangaonui Stream**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;
- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for

koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and

- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge up to 12 14.2 cubic metres per second water flow to generate electricity through the Tunnel 6 outlet turbine power station**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0 metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the

Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

Change: 6

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second.

The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Dam the Omanawa River at map reference N67:570 348**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction and Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Divert up to 7.79 cubic metres of water per second into a tunnel**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction and Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge the water into the Mangapapa River at map reference N67:535 360**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.5 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.1 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.1 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.1 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.1 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge surplus water over the dam into the original course of the Omanawa River**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;
- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for

koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and

- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.1 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.1 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.1 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.1 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Dam the Ruakaka Stream at map reference N67:554 358**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
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6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

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8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

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9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second.

The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

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11 Supervision of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction and Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Divert up to 283 litres of water per second into a tunnel**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction and Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge the water into the Mangapapa river at map reference N67:535 360**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction and Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge surplus water over the dam into the original course of the Ruakaka Stream**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction and Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Dam the Mangapapa River at map reference N67:535 360**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision of Works

11.0 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction and Maintenance Works

12.0 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.0 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.0 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Divert up to 14.2 cubic metres of water per second into a tunnel**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.1 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.1 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.1 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.1 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge the water into Mangaonui Lake at map reference N67:526 367**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
- Undertake a baseline survey of locations, size and numbers of koura during the summer period of 2009/2010 and prepare a summary report of the results of the survey for submission to the Chief Executive Officer, Bay of Plenty Regional Council;

- Establish Koura refuge features in the adjusted littoral zone to provide additional cover for koura populations in the lower water level (RL 277.8 metres). These features shall be established at locations identified in the baseline survey report as hosting koura populations that will likely be affected by the change in minimum lake operating level. They will be established within 3 months of supplying the report of the baseline survey to the Bay of Plenty Regional Council; and
- Undertake further monitoring surveys of koura population 1 and 3 years after establishment of the refuge features and supply of factual reports on population locations, sizes and numbers of koura to the Bay of Plenty Regional Council.

(f) Should the monitoring surveys indicate that the amended operating regime may be having an adverse effect on the location, size or number of koura population the consent authority may review condition (e) in accordance with s.128 of the Resource Management Act 1991. As a result of the review, the consent authority may require the consent holder to undertake additional measures as may be identified to restore the koura population to baseline levels.

(g) The consent holder shall establish eel refuge locations in the adjusted littoral zone to provide additional shelter for eels in the vicinity of the Waitaia Lodge and other locations. Details of the number, location and type of material of such refuges shall be provided to the Chief Executive Officer, Bay of plenty Regional Council, for approval prior to carrying out the work.

(h) The consent holder shall ensure that water supply to the Waitaia Lodge is maintained. Should there be a need to alter the location of the water supply intake because of the amended operating lake level, the costs of undertaking this work will be borne by the consent holder.

5.6 The turbine at the Tunnel 6 outlet power station shall be constructed as detailed in Drawing No's 51-28277-SK217-22 Rev H referenced as B.O.P.R.C. Report Plan Numbers 20195-1/1 – 4.

6 Omanawa River

6.1 The Omanawa weir shall have a maximum height of 4.8 metres and a spillway crest level of 293.6 metres. The weir shall be constructed as shown in Drawing No, 209M/C 1 submitted with the application.

6.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

6.3 The intake shall be fitted with a fish ladder to provide adequate access to the Omanawa River upstream of the weir for fish in the tunnel connecting the Omanawa and Mangapapa Rivers.

7 Ruakaka Stream

7.1 The Ruakaka Weir shall have a maximum height of 1.5 metres and a crest level of 294.0 metres.

7.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

8 Mangapapa River

8.1 The Mangapapa weir shall have a maximum height of 3.7 metres and a spillway crest level of 284.2 metres. The crest level of the Dashboards shall be 285.1 metres. The crest level of the Dashboards shall be 285.1 metres. The weir shall be constructed as shown in Drawing No. 209M/E2 submitted with the application.

8.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

8.3 The Grantee shall carry out any work on the intake structure required to ensure the free passage of fish between the Mangapapa River upstream of the weir and Mangaonui Lake.

9 Scott's Dry Gully

9.1 The dam across Scott's Dry Gully shall have a maximum height of 15 metres and a crest level of 278.0 metres.

9.2 The spillway from the lake shall be capable of discharging up to 17 cubic metres of water per second. The water shall be discharged into the gully leading to the Mangaonui Stream. For safety reasons the

spillway structure shall display a sign warning of its existence and dangers associated with it.

9.3 An energy dissipating structure to the written approval of the Regional Water Board shall be fitted to the discharge and of the spillway. The Grantee shall undertake any erosion control measures considered necessary by the Regional Water Board in the reach between the spillway discharge point and the Mangaonui Stream.

9.4 Deleted under Variation

9.5 If it is found necessary to dewater the canal for normal maintenance purposes. the Grantee shall give at least 24 hours prior notice to the Tauranga Acclimatisation Society or the appropriate Statutory Body, and shall cooperate to ensure that wherever possible, trout and other forms of aquatic life are protected by the construction of suitable holding pools or by other appropriate measures.

9.6 The intake to the power station penstocks shall be fitted with a screen with a gap between bas of no greater than 30 millimetres.

A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

10 Lloyd Mandeno Power Station

10.1 The rate of change of discharge from the power-house shall not exceed two (2) cubic metres per second per minute, except under emergency conditions.

10.2 The Grantee shall erect and maintain signs sufficient to warn the public in the area immediately downstream of the power-house of the extent and frequency of variations in the flow from the power-house.

11 Supervision Of Works

11.1 All planning, design construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

12 Construction And Maintenance Works

12.1 The Grantee shall take every care, to the satisfaction of the Regional Water Board, during all construction and maintenance works, to ensure that pollution of waterways is not caused by material resulting from the works entering the waterways.

13 The Right

13.1 THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

14 This Right

14.1 THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

Advice Notes

1 Level Datum

All levels referred to in this water right are given in metres above mean sea level at Moturiki (Moturiki Datum).

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 5 August 1976, **hereby grants**:

A resource consent:

- **Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, to Discharge surplus water over the dam into the original course of the Mangapapa River**

subject to the following conditions:

1 Opuiaki Stream

1.1 The Opuiaki Weir shall have a maximum height of 4.5 metres and a spillway crest level of 299.0 metres. The weir shall be constructed as shown in Drawing No 341/74 submitted with the application.

1.2 The intake shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

1.3 The intake shall be fitted with a fish ladder to provide adequate access to the Opuiaki Stream upstream of the weir for fish in the tunnel connecting the Opuiaki and Ngatuhoa Streams.

1.4 Compensation Water:

1.4.1 The Grantee shall at all times release a flow of water of not less than 280 litres per second through the weir to provide compensation water for the downstream reach.

1.5 As far as practicable all bush and scrub upstream of the Opuiaki weir and below a level of 299.0 metres shall be cleared before lake filling commences. The cleaning shall be carried out to the satisfaction of the Regional Water Board.

2 Tauwharawhara Stream

2.1 The Tauwharawhara weir shall have a maximum height of 1.5 metres and a crest level of 312.8 metres.

2.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3 Ngatuhoa Stream

3.1 The Ngatuhoa weir shall have a maximum height of 1.6 metres and a spillway crest level of 292.0 metres, and shall be constructed as shown in drawing number 209m/62A submitted with the application.

3.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

3.3 The Grantee shall at all times release a flow of not less than 60 litres per second through the weir to provide compensation water for the downstream reach, including the waterfall known as Tapiri Moko.

3.4 As far as practicable, all bush and scrub upstream of the Ngatuhoa weir and below a level of 292.0

metres shall be cleared before lake filling behind the permanent weir commences. The clearing shall be carried out to the satisfaction of the Regional Water Board.

3.5 At the end of the Ngatuhoa Canal, the intake to the tunnel shall be fitted with a screen with a gap between bars of no greater than 150 millimetres.

3.6 At a point upstream of the drop from the Ngatuhoa Canal to the tunnel entrance, the Grantee shall install a screen with a gap between bars of no greater than 30 millimetres.

3.7 The turbine at the tunnel five outlet power station shall be constructed as detailed in plan number 914 07 submitted with the application.

4 Awakotuku Stream

4.1 The Awakotuku weir shall have a maximum height of 1.5 metres and a crest level of 293.0 metres.

4.2 The intake shall be fitted with a screen with a gap between bars of no greater than 100 millimetres.

5 Mangaonui Lake

5.1 The dam across the Mangaonui Stream forming the Mangaonui Lake shall have a maximum height of 27 metres and a crest level of 283.8 metres.

5.2 The dam spillway shall have a crest level of 279.5 metres and be fitted with steel hydraulic gate/s as per design drawings 20195-1/5 and 20195-1/6 with a crest level of 281.3 metres. When fully opened the gates will have a local level of 279.59 metres (90mm above the sill). The gate shall be rated and open at a rate to control the increase in down stream flows to less than 1 cumec per minute. The spillway shall be capable of passing all flood flows at a water level not exceeding 283.8 metres.

5.3 The intake structure shall be fitted with a screen with a gap between bars of no greater than 61 0 millimetres.

5.4 Deleted under Variation

5.5 (a) The water level in Lake Mangaonui shall be maintained between the levels of RL 281.3 metres and 277.8 metres (Moturiki Datum) except during-

(I) Weekends between 6am Saturday to midnight Sunday;
(ii) Public Holidays, being a day defined in section 44(1) of the Holidays Act 2003, between 6am and midnight; and
(iii) The months of December, January and February; and
(iv) Inspections and maintenance activities of the Kaimai Hydro Electric Power Scheme Tunnels that are undertaken in accordance with Change of Conditions application CH16-00235 dated 17 February 2017.

(b) During the periods referred to in (a)(i), (ii) and (iii), the minimum water levels shall be RL 278.5 metres (Moturiki Datum). During the period referred to in (a)(iv), the minimum water level shall be RL 277 metres (Moturiki Datum).

(c) The rate of change of the water level shall not exceed 500 millimetres per hour.

(d) The consent holder shall provide for the time-based monitoring of the lake levels to demonstrate compliance with the provisions of (a), (b) and (c). The consent holder shall provide a report to the Chief Executive Officer of the Bay of Plenty Regional Council in April and October of each year covering the preceding six months period.

(e) The consent holder shall undertake the necessary investigations to document the existing koura population and monitor the effects of the proposed change in lake level operating conditions on these populations. In establishing this programme the consent holder shall have an appropriately qualified person/s:

- Prepare a methodology for undertaking the population survey and establishing the monitoring regime and provide this to the Chief Executive Officer, Bay of Plenty Regional Council, for approval prior to commencement;
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