



BAY OF PLENTY
REGIONAL COUNCIL
TOI MOANA

Consent Holder Annual Report - April 2023

Okere Gates (consent 65979) and Ōhau Weir (consent 65980)

Bay of Plenty Regional Council
Operations Publication 2023/02
1 April 2023

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ISSN: 1176-5550 (Print)
ISSN: 1179-9587 (Online)

Acknowledgements

Bay of Plenty Regional Council's (BOPRC) Environmental Data Services (EDS) Rivers & Drainage (R&D) and Survey Team are acknowledged for their efforts in data management, maintenance and monitoring and Graeme O'Rourke specifically for his patience and guidance in explaining the purpose and operation of the Okere Gates and Ōhau Weir.

Their work includes technical support, establishment of survey control, cross section surveys, staff gauge monitoring, the installation and removal of the Ōhau Weir stoplogs and general maintenance of structures.



Figure 1 Ōhau Weir stoplogs – ready for BOPRC Rivers and Drainage staff and contractors to reinstall when lake levels are lower - 26 January 2023

Executive summary

This report covers the 12 months of lake operations from 1 April 2022 to 31 March 2023 (referred to as 'this time' or 'this period') and will discuss:

- Consenting requirements
 - Lake levels – Rotorua and Rotoiti
 - Flow rates – Ōhau Channel vs Okere Gates/Kaituna River
- Operational issues
- Stakeholder consultation
- Complaints and investigations
- Conclusions

Resource Consents 65979 and 65980 approve the continued placement, operation and maintenance of the Okere Gates and the Ōhau Channel Weir structures that are located at the outlets of Lake Rotoiti and Lake Rotorua respectively.

Lake levels are directly related to rainfall and higher than normal rainfall commenced in June 2022 and continued throughout the reporting period. Lake Rotorua reached the trigger level of RL (Reduced Level) 279.966 m to remove the stoplogs on 2 June 2022 and the Ōhau Channel stoplogs were removed on 9 June 2022. Lake Rotorua levels were close to or above the consented maximum level of RL 280.076 m for the entire winter period.

Lake Rotoiti levels were held within the 'main operating range' of RL 279.10 m to RL 279.20 m for 190 days or 52.1% of the time. Rotoiti levels were then below RL 279.10 m for 55 days and above RL 279.20 m for 120 days. The lake never reached the consented minimum level of RL 279.00 m, although the maximum consented level of RL 279.4 m was exceeded for 13 days between 29 January 2023 and 14 February 2023.

Okere Gates outflows were greater than Ōhau Channel inflows for 100% of the period. This is a primary objective of the consent to ensure water from Lake Rotorua does not mix with the main water body of Lake Rotoiti. The Ōhau Diversion Wall also assists in this objective in channeling outflows directly into the Okere Arm/Te Akau Bay area.

The hearing for the low lake level trial of Lake Rotoiti was completed in September 2022. The proposal considers lowering Lake Rotoiti close to its historic minimum level of RL 278.850 m. Although the trial was expected to commence after Easter 2023, higher than normal lake levels were experienced all year and the trial will now look at commencing after Easter 2024.

There were no operational difficulties or formal complaints received by Council's regulatory authority arm with any local concerns addressed promptly. High lake levels resulted in flooding of some properties around the lake edge and Rotoiti beaches, and lake level staff gauges continue to be monitored and photographed regularly to provide a robust and visual record of the lake environment for present and future reporting.

For this reporting period, Kaituna River 'flows' were available to rafting for 202 days or 55.3% of the year and communication with rafters was co-ordinated to assist in their business planning. Communication continued to be maintained across the various interest groups including Iwi, Kaituna River Rafting, Rotorua Tourism and various lakeside residents over this period.

Rotorua Te Arawa Lakes Operational Liaison Group (RTALOLG) held their AGM in Rotorua on 25 July 2022 where general business and the annual report was presented.

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Document control

Document information

Document name:	Consent Holder Annual Report on Okere Gates (Consent 65979) and Ōhau Weir (Consent 65980) – 1 April 2023
Contact person:	Graeme O'Rourke, Survey Team Leader
Status:	Final

Document review

Review timeframe:	N/A
Reviewers:	N/A

Document history

Author	Description of change	Date	Version
Penny MacCormick, Graeme O'Rourke	Issued as Final	13 June 2023	Final

Distribution control

Person	Role	Date of issue	Version
Mark Townsend	Engineering Manager	13 June 2023	Final

Authorised by: Mark Townsend .  Date: 13 June 2023

Reviewed by: Mark Townsend .  Date: 13 June 2023

Part 1:

Introduction

1.1 Background

As the Consent Holder, Bay of Plenty Regional Council's Integrated Catchments Group is required to submit an annual report by 1 June each year, on the operation and performance of the Okere Gates and Ōhau Channel Weir, in accordance with Resource Consent (RC 65979) Condition 15 and (RC 65980) Condition 12.

The 35-year resource consents for Ōhau Weir and Okere Gates were renewed and approved in March 2012, and subsequently updated in July 2020 to include the temporary drawdown of Lake Rotoiti approved in September 2022.

Prior to the construction of the Okere Gates in 1982, a natural rock ledge existed about 35 m downstream of the existing gates, that naturally controlled Lake Rotoiti levels. At that time, the Ōhau Channel, linking Lake Rotoiti to Lake Rotorua was an open channel without any controls. This meant that there was no active lake level control on either Lake Rotorua or Lake Rotoiti, resulting in lake levels to fluctuate naturally with climatic conditions.

Both control structures were put in place as part of the Kaituna Catchment Control Scheme. The structures were designed so that the lake level ranges could be managed within the range set in 1975, by the former National Water and Soil Conservation Authority (NWSCA). These levels were included in BOPRC's Transitional Regional Plan and are referred to in the existing consents granted for damming the outlets of both lakes.

The Okere Gates structure was constructed in 1982 and is a substantial radial triple gate structure. The sill or floor level of the Okere Gates is at RL 277.55 m or approximately 1.0 m lower than the pre-gate natural rock ledge. The purpose of the Okere Gates is to increase the outflows from Lake Rotoiti to permit floodwater to be discharged when required, and to reduce outflows to prevent undesirable low lake levels. The impacts of the Okere Gates operation on Lake Rotorua levels are negligible but significant in terms of water quality to ensure all Lake Rotorua water passes through the gates to prevent reflux or mixing with Lake Rotoiti water.

The Ōhau Channel Weir was constructed in 1989 as a simple weir structure (double broad crested weir) with stoplogs. The purpose of the Ōhau Weir is to control the level of Lake Rotorua but predominantly to prevent undesirable low levels.

The Ōhau Weir and Okere Gates are part of the Kaituna Catchment Control Scheme and are administered under the BOPRC's Rivers and Drainage Asset Management Plan (AMP). The AMP outlines the requirements to inspect and maintain the structures over their expected life cycle. They are operated by the Engineering Section through the Integrated Catchments Group in accordance with their existing resource consents.



Figure 2 Location Map

1.2 Reporting

It is a requirement of BOPRC Resource Consents 65979 and 65980 to report annually as follows.

Resource consent condition/s state:

(i) RC 65979 – Condition 15 (Okere Gates – Lake Rotoiti)

ANNUAL REPORTING

By 1 June each year for the term of this consent, the Consent Holder shall provide a report to the Chief Executive of the Bay of Plenty Regional Council or delegate, the Rotorua Te Arawa Operational Liaison Group (RTALOLG), the Ōhau ki Rotoiti Kaitiaki Group and the Okere ki Kaituna Katikati Group setting out:

- (a) *The actual distribution of lake levels compared to the target distribution.*
- (b) *The actual flow rates of the Okere Gates compared to the minimum flow rates.*
- (c) *Any difficulties experienced by the Consent Holder in achieving the target lake level ranges and minimum Okere Gate flow rates.*
- (d) *A summary of any consultation undertaken with stakeholders in accordance with conditions 9, 10, 11 and 14 of this consent.*
- (e) *A summary of any investigations undertaken as a result of complaints about the adverse effects of the lakes.*
- (f) *Methods for how any difficulties in achieving target level ranges and Okere Gate minimum flows have and will be resolved and how any complaints about the adverse effects of lake levels have been responded to.*
- (g) *Methods proposed to resolve any issues that may have arisen including operational difficulties, water quality, and extreme weather events, and any changes required to the Operational Management Plan.*

(ii) RC 65980 – Condition 12 (Ōhau Channel Weir – Lake Rotorua)

ANNUAL REPORTING

By 1 June each year for the term of this consent, the Consent Holder shall provide a report to the Chief Executive of the Bay of Plenty Regional Council or delegate, the Rotorua Te Arawa Operational Liaison Group (RTALOLG), the Ōhau ki Rotoiti Kaitiaki Group and the Okere ki Kaituna Kaitiaki Group setting out:

- (a) *The actual distribution of lake levels compared to the target distribution.*
- (b) *Any difficulties experienced by the Consent Holder in achieving the target lake level ranges and minimum Okere Gate flow rates.*
- (c) *A summary of any consultation undertaken with stakeholders in accordance with conditions 10 and 11 of this consent.*
- (d) *A summary of any investigations undertaken as a result of complaints about the adverse effects of the lakes.*

- (e) *Methods for how any difficulties in achieving target level ranges and Okere Gate minimum flows have and will be resolved and how many complaints about the adverse effects of lake levels have been responded to.*
- (f) *Methods proposed to resolve any issues that may have arisen including operational difficulties, water quality, and extreme weather events, and any changes required to the Operational Management Plan.*

1.3 Consent changes

Council has completed its consent application to change some consent conditions. All the proposed changes were discussed with the RTALOG at their annual meeting and directly with other local interest groups. The application was approved in July 2020 and covered the following matters:

- 1 The winter drawdown conditions were deleted (as this did not achieve any scouring of the Ōhau channel as anticipated by some of the community),
- 2 The 'aspirational' consent level range has been changed to the input/output control, where input from the Okere gates must be equal to or greater than the input through the Ōhau channel (it was not possible to manage within the aspirational level range targets and the target has been simplified to now require management of the lake to a 100 mm range RL 279.100 to RL 279.200 where possible while acknowledging that it will go outside that range during extreme wet or dry weather events),
- 3 Unnecessary conditions relating to an earth bund by the Ōhau channel and weed spraying some beaches with herbicide have been removed (the bund requirement was included initially but turned out to be unnecessary due to a previous survey interpretation and the herbicide condition conflicted with iwi sentiments on beach weed control), and
- 4 Add a new condition to allow a temporary drawdown to near the lowest lake level recorded. The drawdown will take place over a week. The level of drawdown is to RL 278.850 m, which is near the lowest recorded lake level of RL 278.826 m and is 250 mm below the target operational range.

The temporary drawdown (item 4) turned out to be controversial within the local community, and so to avoid holding up all consent changes the items 1 to 3 were bundled into a separate consent change application. That part of the application has been completed and are contained in the new consent conditions. The remaining part of the application (item 4, the temporary draw down of the lake to about RL 278.850 m) was notified to people deemed to be affected by the proposal. The application was approved in September 2022.

The temporary drawdown condition originated from a long-standing desire by Ngāti Pikiao people to see the lake at a lower level, even for a short period to allow observation of matters significant to them as tangata whenua. Council as the consent holder is attempting to facilitate this one-off drawdown event to allow for the necessary 'low-lake-level' observations.

Part 2:

Actual distribution of lake levels against target distribution

2.1 Consented/Operating levels and data management

Lake levels and flow rates are recorded from HydroTel (BOPRC Telemetry and Environmental Data Management system). HydroTel data is generally recorded at 5-minute intervals and data is extracted as a 'morning' spot reading and recorded in an 'operational spreadsheet' along with rainfall volumes and weather conditions with general commentary. A more comprehensive dataset can be extracted from the HydroTel archive for further analysis if required.

The consented minimum and maximum lake levels for Lake Rotoiti are RL 279.0 m and RL 279.4 m respectively with an annual focus to best maintain lake levels in the 'main operating range' of RL 279.10 m to RL 279.20 m.

Lake Rotoiti levels are also maintained/controlled to ensure outflows through the Okere Gates are always greater than inflows. This requirement is covered in Consent 65979, Condition 7.4 (i). This condition prevents 'reflux' or water entering the body of Lake Rotoiti from Lake Rotorua to maintain water quality in Lake Rotoiti.

It is important to note however that:

- Low lake levels in Rotoiti can only recover from a rain event and not by closing the Okere Gates down to 'less than' Ōhau Channel inflows.
- High lake levels in Rotoiti can be reduced quickly by opening the Okere Gates provided the inflow from Rotorua is low.
- Even if the Okere Gates are fully open, high volumes of water from Rotorua and high rainfall can result in Rotoiti levels remaining high.

The maximum and minimum operating levels for Rotorua are RL 280.076 and RL 279.466 m. There is little opportunity for managing high lake levels except for removing the Ōhau Channel stoplogs, and the consent conditions acknowledge these levels may be exceeded in circumstances associated with extreme weather events as we have experienced in this reporting period.



Figure 3 Ōhau Weir - Lake Rotorua – Showing high flows (Lake Level 280.288 m - 31 January 2023)

2.2 Lake Rotoiti: Lake level distribution

Lake levels were in the 'main' or 'normal operating range' (RL 279.10 m to RL 279.20 m) for 190 days or 52.1% of the time, with significant rainfall events (over 50 mm) increasing the lake level above the upper operating limit multiple times during the reporting period.

Key observations:

- Very high lake levels in Rotorua translated to higher flows in the Ōhau Channel, impacting Lake Rotoiti levels and the operation of the Okere Gates to maintain Lake Rotoiti levels within the operational range.
- From 30 May to 2 June 2022 a significant rainfall event resulted in exceeding the upper operating range. From that point above average rainfall events continued for the rest of the period. This resulted in periodic exceedances of the upper operating range.
- For this 12-month period, rainfall, lake levels and stream inflows were well above normal with rainfall of 2541 mm measured at Okawa Bay (Aquarius) compared to 1417 mm for the previous reporting period.
- Significant rainfall events in the January/February period (including Cyclone Gabrielle) on top of already high lake levels resulted in exceeding the consented maximum of RL 279.40 m.
- Okere Gates were fully open for 180 days

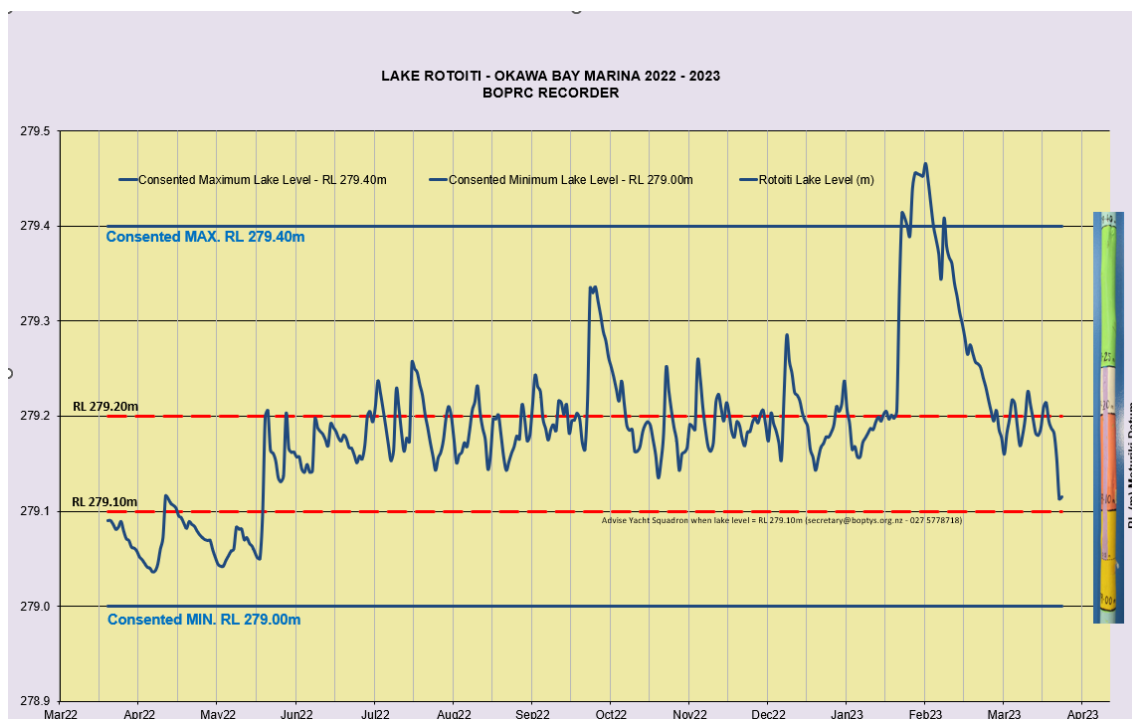


Figure 4 Lake Rotoiti: lake level distribution 1 April 2022 to 31 March 2023

The lowest lake level experienced post June 2022 was RL 279.11 m on 31 March 2023. Blue green algae were detected in the lake on the 28 March 2023 and the Rafting Companies opted to stay out of the lake. The Okere Gates remained open to create additional lake storage going into autumn. The gates were opened on the 25 March 2023 and closed on the 31 March once the blue green algae risk had been resolved.



Figure 5 Lake Rotoiti at Hinehopu - Lake Level RL 279.400 m – 31 January 2023

The significant rainfall events and the increase in lake levels resulted in lake edge erosion and the beaches drowning.



Figure 6 Hinehopu wetland levels increasing and flooding properties

2.3 Lake Rotorua: Lake level distribution

The lake level of Lake Rotorua can be manipulated by the Ōhau Channel Weir. The stoplogs perform best during low lake levels to reduce outflows and maintain lake levels. The weir however, provides minimal flood relief once maximum lake levels occur as the weir becomes drowned with no further relief mechanisms available.

A photographic record together with staff gauge readings at the State Highway 33 bridge at Mourea is maintained to record the relationship between Lake Rotorua, Ōhau Channel and Lake Rotoiti water levels. This continues to provide better understanding of lake level influences on Ōhau Channel levels and flows, particularly during times of flooding around Mourea.

The figure below shows the 12-month lake level trace for Lake Rotorua from 1 April 2022 to 31 March 2023 and notable observations are:

- The lake level exceeded the maximum operating level of RL 280.076 m for 182 days or 49.9% of the time.
- The highest recorded level this term was RL 280.383 m on 3 February 2023 or 0.307 m above the maximum operating level of RL 280.076 m.
- The lowest level recorded this term was RL 279.712 m on 15 May 2022 well above the minimum operating level of RL 279.466 m.
- The Ōhau Weir stoplogs were last installed on 17 October 2018 and were in place for nearly four years before being removed 9 June 2022.

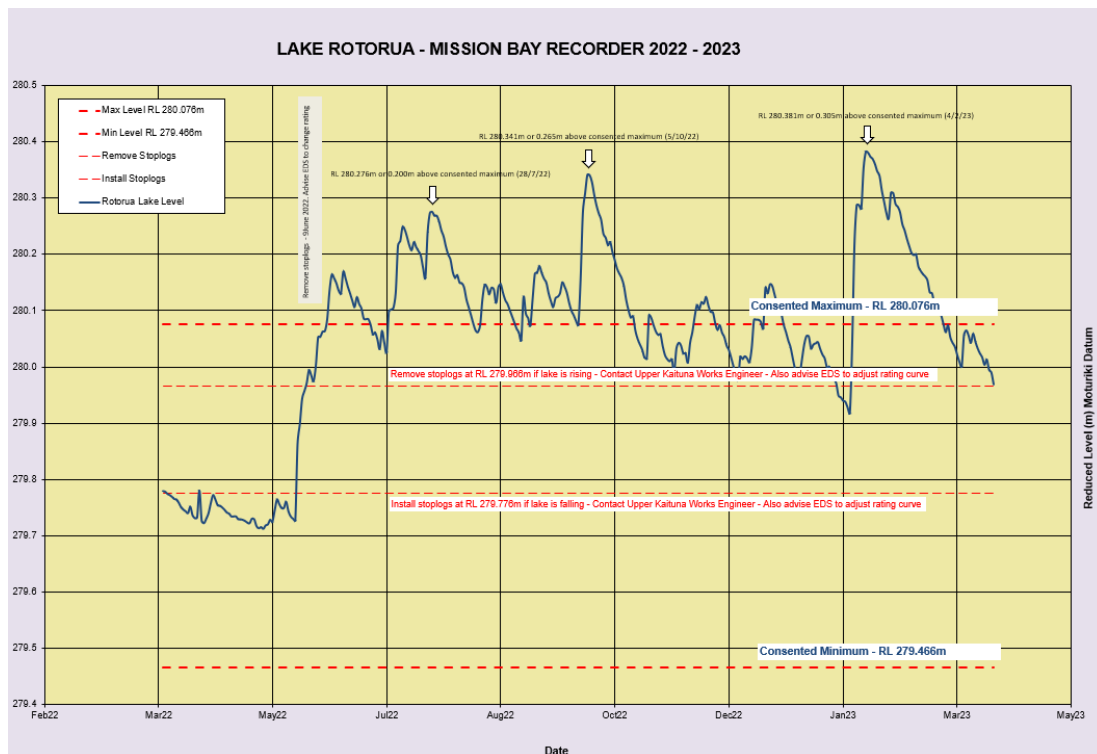


Figure 7 Lake Rotorua levels measured at Mission Bay Recorder

Post removal of the stoplogs and higher than normal rainfall over the 12-month period has resulted in the lake level being close to, or over, the maximum operating level of RL 280.076 m. Figure 9 shows some minor erosion of the Ōhau Channel stream bank just upstream of the Ohau Weir.



Figure 8 Lake Rotorua - beach just upstream of Ōhau Weir 25 May 2022



Figure 9 Ōhau Channel erosion following high flow events 15 March 2023

2.4 Historic Lake Levels and Rainfall 1 April 2022 to 31 March 2023

Higher than average rainfall events occurred in June 2022 across the district and continued for the duration of the reporting period affecting Council's ability to operate the lake levels within operational and consented limits.

Key points to note were:

- Total rainfall for the current reporting period was 2541 mm (Figure 10), nearly twice that for the previous 12-month period of 1417 mm (1 April 2021 to 31 March 2022) - see Figure 11.
- There were two individual rainfall events over 100 mm (30 May 2022 and 29 Jan 2023) and nine events over 60 mm during this reporting period compared to the previous reporting period when there were no rainfall events over 20 mm.

The figure below shows the effect of rainfall on Lake Rotorua and Lake Rotoiti levels during this reporting period, and the stark difference in the amount of rainfall between this reporting period and the previous reporting period can be seen by comparing rainfall figures in Figure 10 and Figure 11.

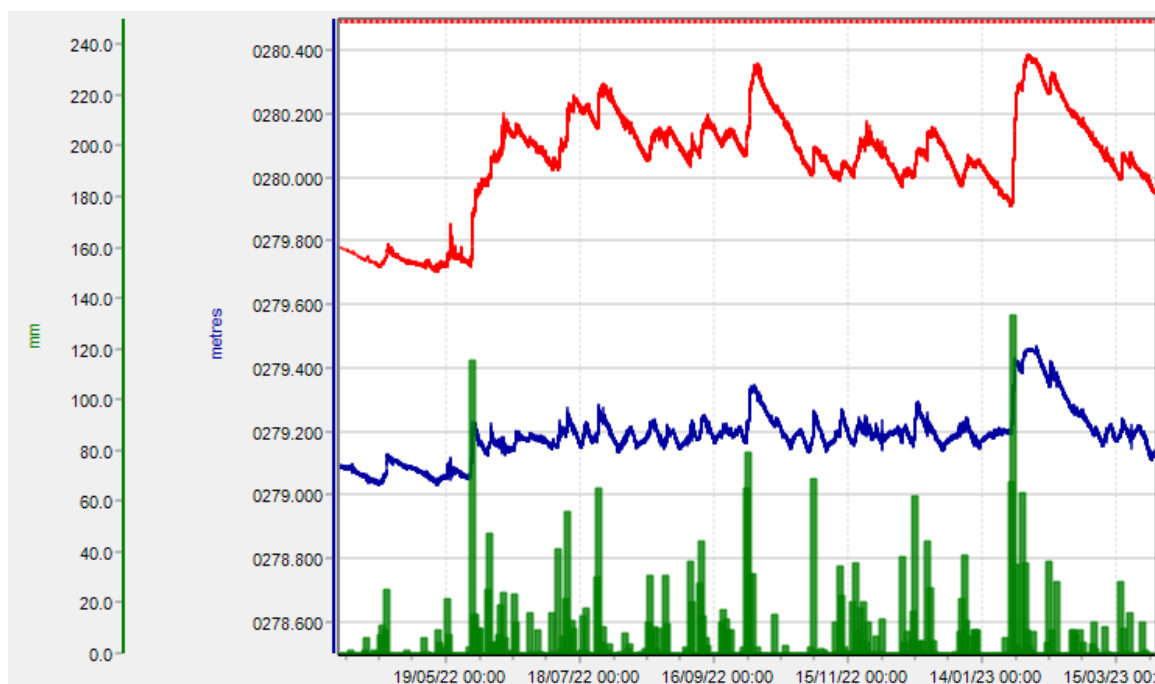


Figure 10 Lake Rotorua (red trace and Rotoiti (blue trace) levels and daily rainfall (green) at Okawa Bay Marina from 1 April 2022 to 31 March 2023

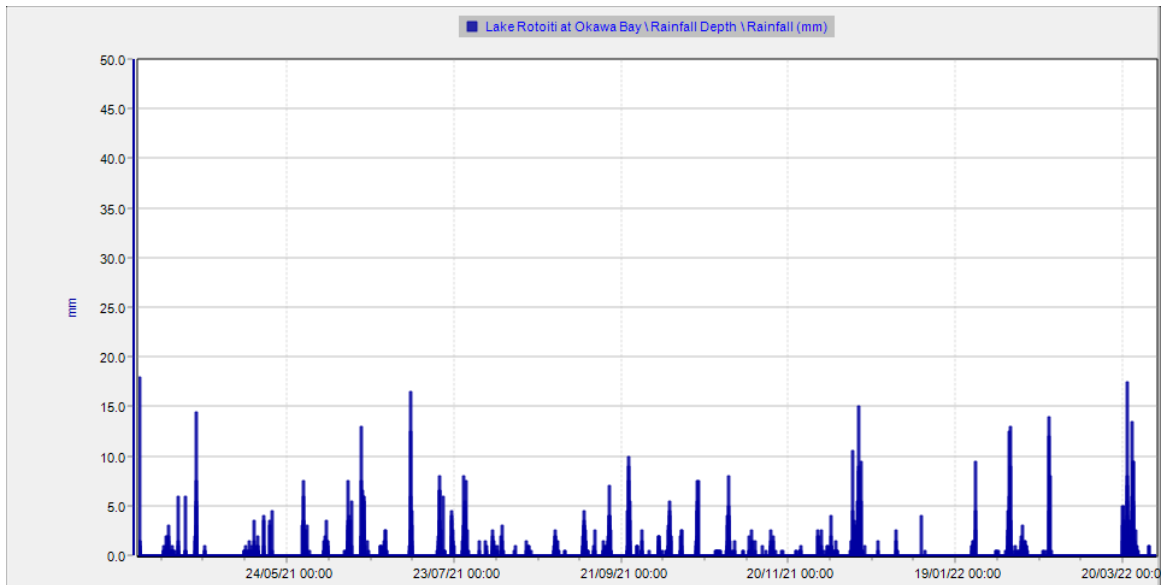


Figure 11 Lake Rotoiti rainfall and distribution from 1 April 2021 to 31 March 2022

Long term average lake levels show that although the annual average lake level of Lake Rotorua was high for 2022, it was similar to levels in 2011, 2012, 2017 and 2018 but lower than the extreme lake level mean of 2010 when it was over RL 280.1 m. This graph demonstrates that even with the high lake levels in Rotorua the lake levels in Rotoiti can still be maintained in a tight range by using the Okere Gates.

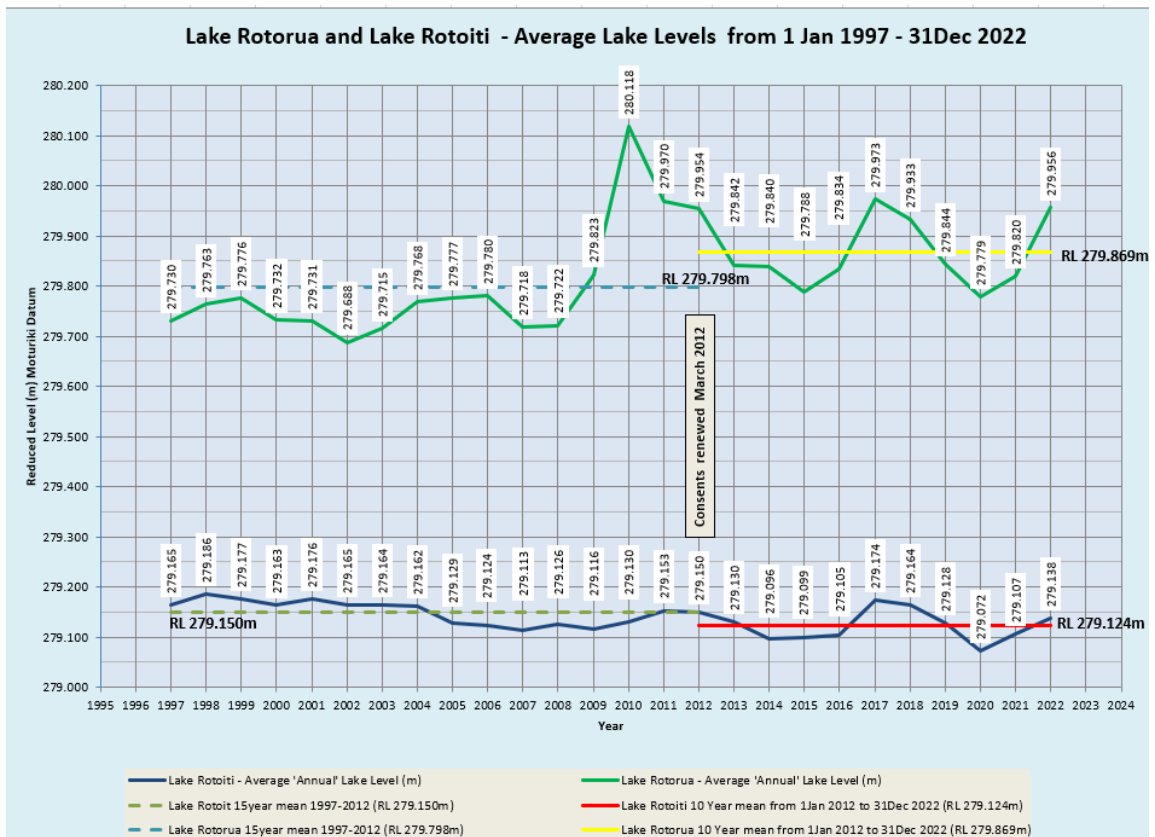


Figure 12 Average lake levels on Rotorua and Rotoiti from 1 Jan 1997 to 31 December 2022

Part 3:

Actual flow rates versus minimum flow rates

3.1 Consent number 65979 flow rate conditions

Operational limits 7.4(f) to (l) relate to flows through the Okere Gates and are specified in Consent conditions 65979. In summary these conditions require that except under extreme droughts or an emergency:

- A minimum river flow (7.9 cumecs) with a seven-day minimum of 9.84 cumecs.
- Greater outflows (Okere Gates) than inflows (Ōhau Channel) assisting to preserve water quality of Lake Rotoiti.
- Okere Gates ramping rates - closing (-5 cumecs/hour) or opening (+10 cumecs/hour) in consideration of riverbank stability downstream when flows fluctuate.
- Recreational river flows for rafting and kayaking to be provided wherever possible within the other limits of the consent.

3.2 Monitoring

Flow rates on the Ōhau Channel and Okere Gates are monitored by telemetry using NIWA's lake level recorder at Mission Bay on Lake Rotorua and the Taaheke gauge station on the Kaituna River, located approximately 3 km downstream of the Okere Gates. Flow values are accurate to +/-8% of any given reading but for the purposes of management, the given reading at any time is recorded as the measured flow.

A consent priority (RC 65979 / 7.4 (i)) is maintaining greater outflow (Okere Gates) than inflow (Ōhau Channel) to prevent reflux around the downstream end of the Ōhau Diversion Wall. This important measure assists in maintaining the water quality of Lake Rotoiti.

Where the Okere Gates are required to be closed for emergencies this will override the consent conditions. In Figure 13 you will see on 13 January the Okere Gates were required to be closed to remove a wooden classic boat that had drifted onto the barrage ropes upstream of the gates and was pushed sideways against the rope. The Okere Gates were closed to reduce the velocity of water through the gates to enable the boat to be pulled off the barrage ropes.

3.3 Results

Flow rates for the Ōhau Channel (inflows in blue) and Kaituna River @ Taaheke (outflows in red) as recorded in Hydrotel are shown in the figure below.

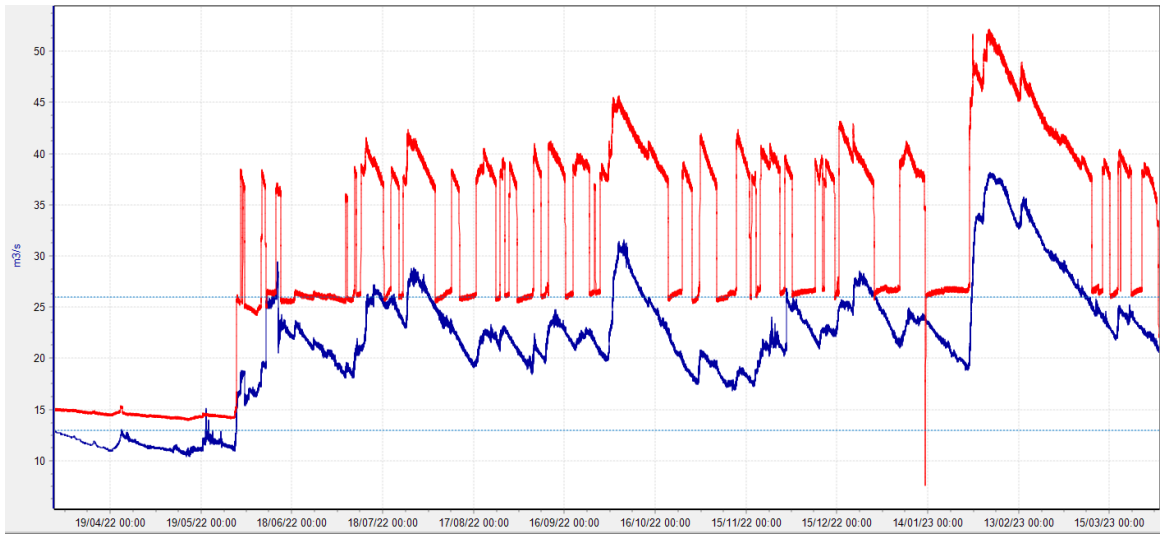


Figure 13 Lake Rotoiti inflow - Ōhau Channel (blue) and Okere Gates outflow - Kaituna River (red) – Hydrotel 5 min readings 1 April 2022 to 31 March 2023

The Kaituna River outflows (in red) are required to be higher than Ōhau Channel inflows (in blue) to satisfy the water quality equation – **Outflows are greater than Inflows**.

Six- hourly average flows and seven- day average flow records from the HydroTel archive are shown below in Figure 14 and Figure 15.

These figures demonstrate that consent conditions 7.4(f)(i) and 7.4(f)(ii) have been met in context of the flows through the Okere Gates and the flow requirements have been summarised in Table 1 below.

Under consent condition 7.4(f)(i): The six hourly average flow at Taaheke shall not drop below 7.9 cumecs unless in an emergency. The below figure shows this condition was met for the period 1 April 2022 to 31 March 2023.

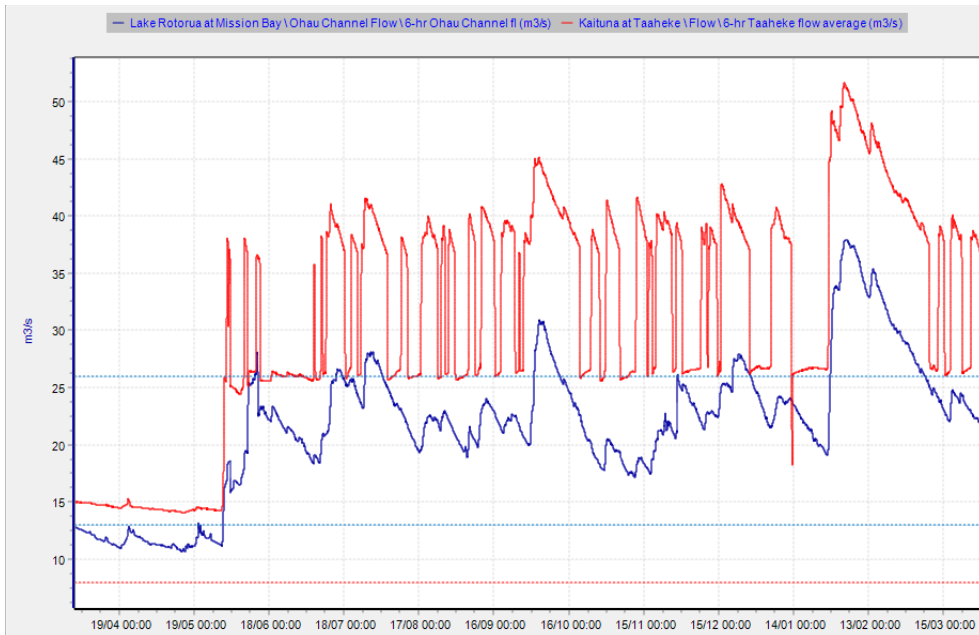


Figure 14 Six hourly average flow rate of Ōhau Channel (blue) and Kaituna River (red)

Under consent condition 7.4(f)(ii): The seven day rolling average flow through Taaheke shall not drop below 9.84 cumecs unless in an emergency. The below figure shows this condition was met for the period 1 April 2022 to 31 March 2023.

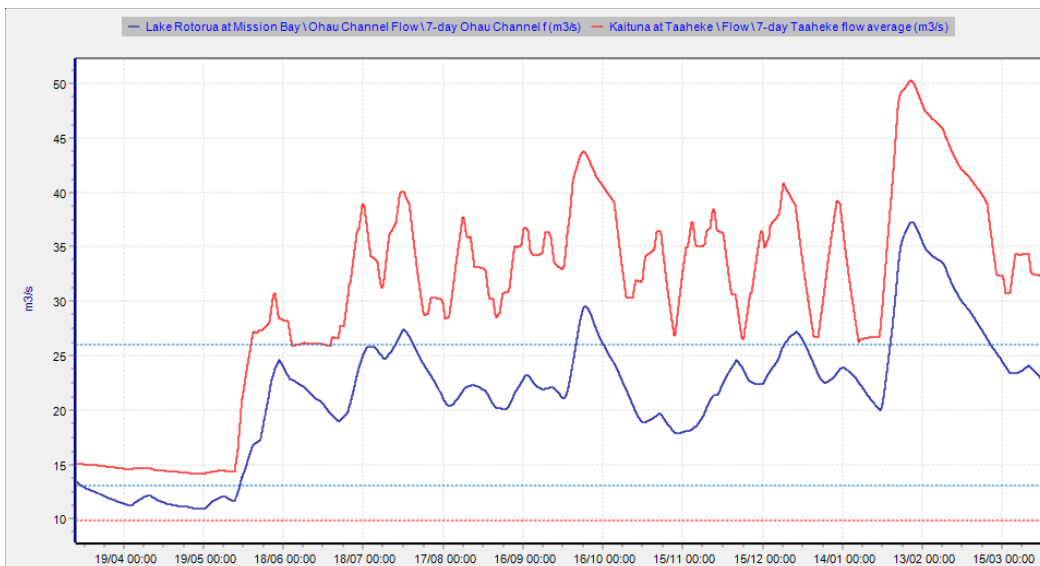


Figure 15 Seven-day average flow rate of Ōhau Channel (blue) and Kaituna River (red)

Table 1 Okere Gate flow distributions from 1 April 2022 to 31 March 2023

Consent #65979 Okere Gates			Results		Variation from requirement	
Condition	Flow requirement (m ³ /s)	Target distribution (per calendar year)	Consent evaluation period 1 April 2022 to 31 March 2023			
			Days	%	Incident date	Comment
7.4(f)(i)	Kaituna River - six-hourly average flow of not less than 7.9 m ³ /s. (Figure 14 – red trace)	100%	365	100	None	Minimum flow recorded = 14.1 cumecs from 14 May 2022.
7.4(f)(ii)	Kaituna River - seven day rolling average flow of not less than 9.84 m ³ /s. (Figure 15 – red trace)	100%	365	100	None	Minimum flow recorded = 14.1 cumecs on 17 May 2022.
7.4(i)	Six-hourly average outflow through gates > six-hourly average inflow from Ōhau Channel. (Figure 14 – blue trace)	100%	365	100	None	Yes outflows > inflows for 100% of the period except for emergency closure on 13 January 2023.
7.4(j)(i).	When opening the gates, a maximum flow increment of 10 m ³ /s per hour.	100%	365	100	None	Gates were opened and closed in accordance to consent conditions – all operations are recorded in daily operating spreadsheet.
7.4(j)(ii)(a)	When closing the gates, a maximum flow decrement of 5 m ³ /s per hour when operating the Okere Gates below 30 m ³ /s.	100%	365	100	None	Gates were opened and closed in accordance to consent conditions – all operations are recorded in daily operating spreadsheet.
7.4(j)(ii)(b)	A maximum flow decrement of 10 m ³ /s per hour when operating the Okere Gates at or above 30 m ³ /s.	100%	365	100	None	Gates were opened and closed in accordance to consent conditions – all operations are recorded in daily operational spreadsheet.

3.4 Discussion

Okere Gates minimum flow rates usually occur during the summer months when rainfall, inflows and lake levels tend to be low. In these situations where outflows through Okere Gates are less than inflows from Ōhau Channel, an alarm is issued advising the operator. The operator will assess the situation and open the Okere Gates further to increase outflows.

High rainfalls commencing in June and continuing throughout the year has meant low flows only occurred early in the reporting period.

- The minimum Ōhau Channel flow for this reporting period was 10.6 cumecs on 15 May 2022. Channel flows are derived by a rating curve determined from lake levels measured at the Mission Bay Recorder with flows accurate to +/-8%.
- The Kaituna River seven-day minimum flow was 14.1 cumecs on 17 May 2022 while the Ōhau Channel seven-day minimum flow was 10.9 cumecs on 18 May 2022.
- The minimum allowable flow is 7.9 cumecs being the ecological minimum for river wellbeing.

Okere Gates outflows were greater than Ōhau Channel inflows for 100% of the time. Typically, during the summer months, increasing the flow of water out of Lake Rotoiti to satisfy Consent 65979 condition 7.4 (i) can compromise lake levels as water quality is maintained. This year, however, the Okere Gates were fully opened for 120 days or a third of the year in attempting to maintain lake level within operational limits and with the gates fully opened the Kaituna flow was greater than the flow through the Ōhau Channel.

Okere Gate ramping increments (change in flow rate per hour) were maintained 100% of the time as gates were adjusted in transitional stages (approximately 10 cumecs/hour when opening and 5 cumecs/hour when closing). This data is recorded in the daily operational spreadsheet for record.

Recreational flows – Kaituna River:

- A requirement of consent condition 7.4(l) is to facilitate recreational flows for Kaituna River activities wherever practical.
- Rafting flows are achieved inside the 13-26 cumec range or at gate settings of 3 @ 200 and 3 @ 500 respectively. These 'commercial' flows have been determined by Maritime New Zealand. When Ōhau Channel inflows exceed 26 cumecs, rafting will cease on the Kaituna River as a greater flow is released through the Okere Gates (outflow>inflow).
- Every reasonable effort is made to accommodate rafting flows while maintaining consent conditions. Communications are regularly maintained to advise and assist the rafting community with planning and schedules.
- For this reporting period, Kaituna River flows were available to rafting for 202 days (55.3% of year). This is a significantly less than the previous year where river flows were available for rafting for 98.6% of the year (acknowledging that lockdowns prevented rafters from utilising all these days).



Figure 16 Fixed camera view from Okere Gates looking upstream



Figure 17 Okere Gates structure fully open to relieve lake levels above consented maximum February 2023

Part 4:

Operational Issues

4.1 Operational issues and Okere Gate Closures

There were no operational issues to report this term, however the general difficulty is maintaining lake levels within their consented ranges. This is more related to environmental than operational issues and this term was particularly wet across the rohe. High rainfall resulted in higher lake levels and and greater inflows across all the Rotorua lakes' catchments, streams, and regional rivers.

Okere Gates - The Okere Gates Structure underwent a full refurbishment in 2020 and is operating as required. In attempting to relieve the high lake levels the analog sensors that read the 'Analog Position' in Ricardo went out of calibration when the gates were fully opened. The sensors have been scheduled to be fixed and the 'Encoder' sensors are an additional option used to set the gate positions. The Okere Gate was closed on the 13 January to remove a boat from the barrage ropes.

Ōhau Weir - The Ōhau Channel stoplogs were removed in June 2022. The structure is monitored continually, and repairs scheduled and completed by Rivers and Drainage staff as required.



Figure 18 Ōhau Weir maintenance

Part 5:

Consultation with stakeholders

5.1 Background – establishment of liaison and Kaitiaki groups

Under the conditions of these consents, the Consent Holder was initially tasked with facilitating the establishment of a liaison group and two Kaitiaki groups within three months of the commencement of the consent. The purpose of the groups is to essentially facilitate discussion and free flow of information between the Consent Holder and the community.

These groups are:

- Rotorua Te Arawa Lakes Operational Liaison Group (RTALOLG)
- Ōhau ki Rotoiti Kaitiaki Group (OKRKG)
- Okere ki Kaituna Kaitiaki Group (OKKKG).

The Consent Holder is required to convene a meeting each year with the two Kaitiaki groups, if requested, and with the RTALOLG at least annually in the first three years and thereafter at least every third year.

For this period, groups held their Annual General Meetings on:

- RTALOLG 25 July 2022
- Okere ki Kaituna Kaitiaki Group No meeting but invited to RTALOLG
- Ōhau ki Rotoiti Kaitiaki Group No meeting but invited to RTALOLG

Bay of Plenty Regional Council facilitated the RTALOLG meeting and presented the 2021/2022 Okere/Ōhau Annual Report. Meeting minutes were recorded and were made available to the group Chair and its members.

Both Kaitiaki groups were required to submit Cultural Management Plans (CMP) to the Consent Holder within three years of the commencement of this consent.

Both Tapuika and Ngāti Pikiao have presented their respective Cultural Management Plans for consideration.

Ngāti Pikiao have also presented their CMP to the local Rotoiti community at a meeting in 2017. Many of the issues raised in their CMP have been resolved directly with BOPRC staff and actions taken.

The ongoing level of Lake Rotoiti remains a concern to Ngāti Pikiao and their expectations in respect to trialling an alternative management regime were presented to the Rotorua Te Arawa Lakes Operational Liaison Group (RTALOLG).

Bay of Plenty Regional Council worked with Ngāti Pikiao Environmental Society and RTALOLG members to present a 'proposed temporary drawdown' to trial lower lake levels on Lake Rotoiti at the hearing in June 2022.

The proposed drawdown was approved to be carried out within the next five-year period and the revised drawdown level of RL 278.850 m will be scheduled after Easter once low lake levels have occurred naturally.

Every effort has been made to maintain regular communication with all stakeholders.

Stakeholders include:

- Bay of Plenty Regional Council flood managers – Lake level and flow conditions
- Iwi – Information requests and inquiries
- Residents – Response to enquiries
- Rafters – Forecasts, gate settings and river flows
- Rotorua tourism operators – Lakefront issues
- Media – Situation reports.

Part 6:

Complaints and Monitoring

6.1 Complaint summary – 1 April 2022 to 31 March 2023

There were no 'formal' complaints received this term.

Date	By	Concern	Action	Result
x	x	x	x	x

Concerns (other):

Typical concerns expressed are:

- Low lake levels during summer
- Rafting constraints on the Kaituna River.

There were no complaints of low lake levels over summer this year with high lake levels occurring from June 2022 right through to the end of the reporting period. Flooding and erosion of Lake Rotorua and Rotoiti lake edges has occurred because of the high lake levels, and flooding of private property was referred to RLC.

Flooding at Hinehopu has been an ongoing issue during periods of high rainfall and residents, iwi and local authorities are in discussions regarding clearing the wetland outlet to release water more quickly from the wetlands.

Concerns or issues relating to the consent conditions were addressed quickly either in writing or through phone conversations. If the concern escalates to a complaint, this would be directed to the Regulatory Authority for record and action.

The Consent Holder posts regular updates to the '@Okere Gates-Kaituna River Rafting' Group advising on:

- Lake levels
- Okere Gate settings
- Flow rates for Ōhau Channel and Kaituna River
- Met Service forecasts and warnings
- Programmed activities.

6.2 Investigations and monitoring

Investigations completed or programmed to meet conditions of the consents are shown in Table 2 below:

Table 2 Investigations and monitoring in progress

Investigation	Consent 65979 Condition No.	Location	Issue	Progress
Ōhau Channel cross section and delta survey	None	Ōhau Channel and delta	Monitoring sediment load in the channel	Last surveyed July 2022
Ōhau Diversion Wall	None	Lake Rotoiti	Monitor wall integrity and navigation	Inspection completed April 2023
Lake level/ staff gauge monitoring	None	Hinehopu, Gisborne Point Okawa Bay Te Akau Bay, Ōhau Channel at SH33	Monitor lake levels	Lake staff gauges read monthly, and records maintained to calibrate against Okawa Bay Recorder Tower. Staff gauges to be re-surveyed in 2023

6.2.1 Condition 13.2 - Ōhau Channel cross sections and velocity monitoring

Ōhau Channel cross sections are undertaken every two to three years at 15 locations shown in Figure 19 to monitor bed levels.



Figure 19 Ōhau Channel cross section locations

Several years of survey monitoring indicate that the Ōhau Channel is reasonably stable. This year some minor aggradation or buildup of sediment has been observed upstream of the bridge with little change downstream although overall there has been no significant changes since introducing the annual drawdown of Lake Rotoiti in 2012.

Cross Section surveys continue to show that the normal processes of erosion and aggradation are occurring naturally within the Ōhau Channel despite the flush. Data analysis indicates a generally stable environment with only minor changes occurring through the Ōhau Channel reach. There was no survey undertaken this period.

Figure 20 below shows an example of cross section 10 located approximately 100 m downstream of the Ōhau Weir and indicates little change in channel profile.

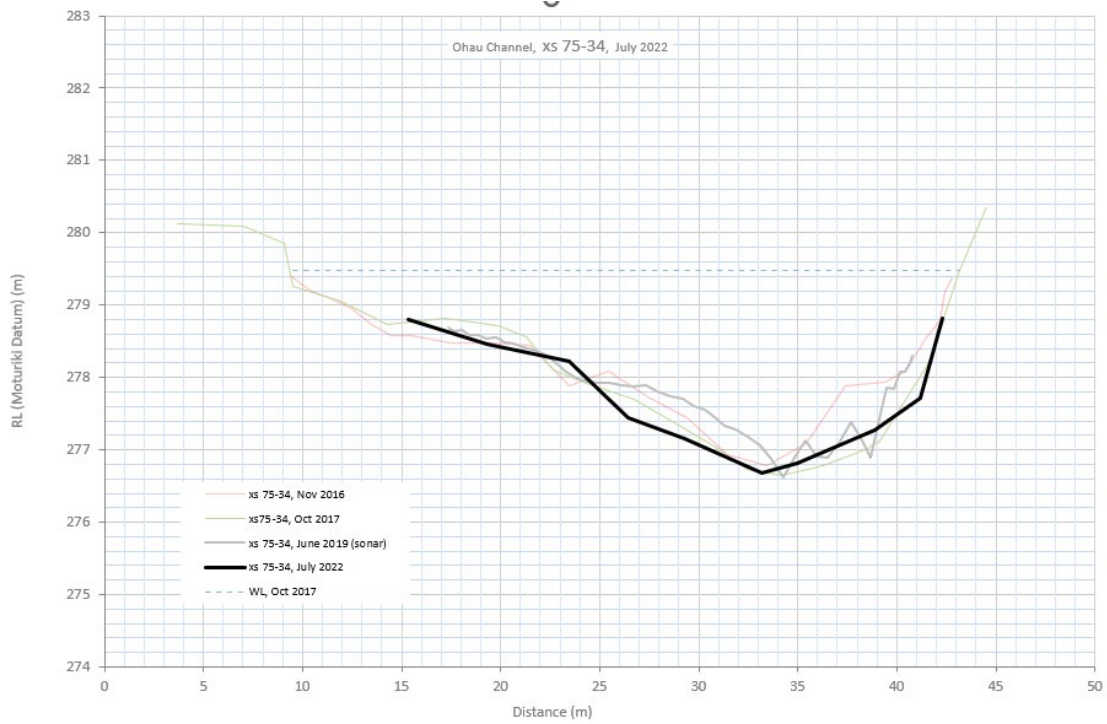


Figure 20 Cross section number 10 located downstream of the Ōhau Weir

In July 2012, a staff gauge was fitted to the Ōhau Channel/State Highway 33 Bridge to monitor the relationship between Lake Rotorua, Ōhau Channel and Lake Rotoiti water levels.

Following ten years of monitoring, the dominant influence on Ōhau Channel water levels at Mourea is Lake Rotorua levels.

6.2.2 Ōhau Channel Delta monitoring

A survey of the Ōhau Channel was completed in July 2022 to assess any change in delta size since the previous survey in 2019.

In the figure below the survey shows little change from the 2019 monitoring data. The next delta survey will be in two to three years (2024-2025).



Figure 21 Ōhau Channel Delta – July 2022

6.2.3 Annual reporting – RC 65979 Condition 15 and RC 65980 Condition 12

The annual reporting date has been bought forward from 31 August to 1 June each year to better align with the anniversary of the consent renewal in March 2012 and the operating year from 1 April to 31 March.

Part 7:

Conclusion

Consents 65979 and 65980 have now been operational for over ten years since the issue of the renewed consents in March 2012.

Some of those conditions were removed or amended in 2020 to better reflect the operational aspects of the consent. However, a proposal to draw Lake Rotoiti down below the current consented minimum in a 'one off exercise' remains before Council and will be completed during a period of low lake levels.

The biggest driver for Lake Rotoiti level management is water quality followed by water levels. The operational regime of these consents compliments the Rotorua Lakes Programme to improve water quality in Lake Rotoiti by ensuring outflows through the Okere Gates (Kaituna River) are always greater than inflows from the Ōhau Channel (Lake Rotorua).

Various monitoring programmes continue around the lakes and Ōhau Channel, and provide valuable information for both the Consent Holder and stakeholders in understanding lake dynamics and environmental effects.

The Consent Holder continues to maintain frequent communications with the stakeholders which has been particularly important this year with the higher than usual rainfalls and lake levels.

2022/2023 has been a particularly wet year with greater than normal rainfall and more frequent rain events. The stoplogs were removed from the Ōhau Weir in June 2022 resulting in large volumes of water flowing through the Ōhau Channel into Rotoiti. It was difficult to maintain desirable lake levels under these circumstances. Whilst the high lake levels proved challenging to manage, there were no major issues reported. The Consent Holder responded to concerns quickly and kept its regulatory arm informed of any non-compliant issues (if any).

The Annual General Meeting between the Consent Holder, RTALOLG and the two Kaitiaki groups continues to be a good opportunity to present the annual report and discuss any performance issues with the consent.

The Consent Holder deems that it has fulfilled its management and operational obligations for the 2022/2023 consent period as recorded in this annual report.

Appendices



Appendix 1: Consent conditions

Bay of Plenty Regional Council

Resource Consent

Pursuant to the Resource Management Act 1991, the **Bay of Plenty Regional Council**, by a decision dated 27 January 2011, **hereby grants**:

A resource consent:

- **Use and maintain a control structure, being the Okere Control Gates, at the outlet of Lake Rotoiti**

subject to the following conditions:

2 Purpose

- 2.1 To allow for the continued use of the Okere Gates control structure on the bed of the Kaituna River at the outlet of Lake Rotoiti and to control the water level of Lake Rotoiti with the Objective of minimising water level fluctuations on Lake Rotoiti.

Change: CH21-02259

- 2.2 To enable a one-off temporary draw-down of the Lake level to RL278.85 metres for a maximum period of 5 days to give effect to a joint proposal by the Bay of Plenty Regional Council and the Ngati Pikiao Environmental Incorporated Society to enable observation of the Lake shore at that time.

3 Location

- 3.0 The structure shall be located at the outlet to Lake Rotoiti as shown in BOPRC plan numbers RC65979/1 (BOPCC K 4294 sheet number 1/22), RC65979/2 (BOPCC K 4294 sheet number 6/22), RC65979/3 (BOPCC K 4294 sheet number 7/22), RC65979/4 (BOPCC K 4294 sheet number 9/22), RC65979/5 (BOPCC K 4294 sheet number 16/22), RC65979/6 (BOPCC K 4294 sheet number 18/22).

4 Map Reference

- 4.0 The structure shall be located at or about map reference NZMS 260 U15 039 485.

5 Okere Gates Control Structure

- 5.1 The existing control structure shall be retained. It shall consist of:
A concrete dam structure incorporating three radial control gates.

- 5.2 Gate opening sill level 277.526 m above Moturiki Datum.

All levels shall be relative to the Rotorua Fundamental Benchmark Survey 1997.

6 Structure and Maintenance

- 6.1 The Consent holder shall maintain the control structure in accordance with the requirements of the Rivers and Drainage Group Asset Management Plan (AMP). The Consent holder shall monitor the

control structure for erosion and structural damage on a regular basis, maintain a record of such inspections and repair actions and make that record available for inspection by the Chief Executive of the Bay of Plenty Regional Council or delegate within 24 hours of a written request being made to review it.

- 6.2 The consent holder shall repair any structural or erosion damage on the Okere Arm lake edges or Kaituna River banks within 30 metres of the Okere Gates caused by the exercise of this consent. The repair shall be undertaken within 10 working days of the consent holder becoming aware of any damage or repair required.

7 Lake Rotoiti Level Management

7.1 Operational Management Plan

Within one month of the commencement of this consent, the consent holder shall submit an Operational Management Plan to the Chief Executive of the Bay of Plenty Regional Council or delegate.

Change: CH20-01829

- 7.2 The Operational Management Plan shall contain details of the procedures that shall be implemented for the operation of the Okere Gates in accordance with the conditions of this resource consent, and as a minimum, shall address the following matters:

- a) A description of how structure operates;
- b) The methods and guidelines for achieving the following:
 - i. the distribution of lake levels contained in the Lake Rotoiti Operational Strategy as set out in Condition 7.4 of this consent;
 - ii. the Okere Gates settings required to manage the levels of Lake Rotoiti for each month of the year; and
 - iii. any relevant other methods and/or guidelines for achieving compliance with the target lake level ranges set out in Condition 7.4 of this consent.
- d) Plans of the Okere Gates control structure;
- e) A description of routine inspection and maintenance procedures to be undertaken with respect to the Okere Gates;
- f) A description of monitoring, including location of water level monitoring devices and record keeping of all monitoring;
- g) A description of methods to address potential public and site personnel safety issues associated with the operation of the Okere Gates, including subsequent changes in levels for Lake Rotoiti and flows in the Kaituna River (which may include use of signage, electronic media and establishing and maintaining a text messaging database).
- h) A description of procedures for reporting on the operation of the Okere Gates, with particular regard to the requirements of this consent and the target lake level ranges and flows to the Bay of Plenty Regional Council and key stakeholders groups;
- i) A description of how any difficulties or unforeseen circumstances affecting the successful operation of the Okere Gates and lakes levels will be reported to the Bay of Plenty Regional Council and key stakeholder groups, and how such difficulties or circumstances will be addressed.

- 7.3 The Operational Management Plan may be reviewed and updated by the consent holder from time to time. The consent holder shall be provided a provide a copy of the reviewed and updated Operational Management Plan to the Chief Executive of the Bay of Plenty Regional Council or delegate.

Change: CH20-01829

7.4 Operational limits

The control structure shall be operated in accordance with an Operational Management Plan as provided in Condition 7.1 above, subject to the following restrictions:

- a. The Okere Gates control structure shall be operated so that the maximum lake level is no less than RL279.00m (to Moturiki Datum) and the maximum lake level is no greater than RL 279.40m (to Moturiki Datum)
- b. Subject to Condition 7.4(h), the water level of Lake Rotoiti shall, where practicable be managed to maintain the Lake level within the range of RL279.10m to RL279.20m. If the lake level falls below RL279.10m, outflow through the Okere Gates shall continue to be managed in accordance with Conditions 7.4(f) and 7.4(h).
- d. If, as a result of extreme weather, the target range set out in Condition 7.4(b) cannot be achieved, the lake level shall be controlled within the minimum and maximum levels set out in Condition 7.4(a) of this consent.
- e. If as a result of extreme weather, the target range set out in Condition 7.4(b) cannot be achieved, the lake level shall be controlled within the minimum and maximum levels set out in Condition 7.4(a) of this consent.
- f. Except in the circumstances described in 7.4(g), flow rates from the Okere Gates shall not drop below:
 - i. A 6 hourly average flow of 7.9m³/s; and
 - ii. A seven-day rolling average flow of 9.84m³/s.
- g. Flows may only drop below the flow rates specified in 7.4(f) in extreme droughts or when the Okere Gates are closed as a result of an emergency.
- h. Maintaining minimum flows specified in Condition 7.4(f) shall take precedence over maintaining minimum lake levels set out in Condition 7.4(b).
- i. During the operation of the Okere Gates, the 6 hourly average outflow of water through the gates must be equal to, or greater than the 6 hourly average inflow of water from the Ōhau Channel.
- j. When operating the Okere Gates, ramping rates for opening and closing the gates shall be as follows, except when the flow rate falls below 15m³/s as specified in condition 7.4(k):
 - i. when opening the gates (ie. increasing flows), a maximum flow increment 10m³/s in any one hour period; and
 - ii. when closing the gates (ie. decreasing flows):
 - (a) a maximum flow decrement of 5m³/s in any one hour period when operating the Okere Gates below 30m³/s; and
 - (b) a maximum flow decrement of 10m³/s in any one hour period when operating the Okere Gates at or above 30m³/s.

k. Except in the circumstances described in condition 7.4(g), maximum ramping rates for the Okere Gates when the flow rate falls below 15m³/s shall be a maximum increment or decrement of 4m³/s in any 6 hour period.

l. Subject to compliance with conditions 7.4 (a) to 7.4(k), the consent holder shall operate the Okere Gates so as to provide recreational flows for rafting and kayaking in the Kaituna River. The magnitude and duration of the recreational flows shall be determined by the consent holder following consultation with the RTALOLG established under condition 11.1 of this consent.

Change: CH21-02259

7.5 Notwithstanding conditions 7.4(a) to (e), but subject to conditions 7.4(f) to (j) with any necessary modifications, the consent holder may draw down the Lake level to RL 278.850 metres on one occasion only during the duration of this consent. The Lake may be held at RL 278.850 metres for up to 5 days.

Change: CH21-02259

7.6 The Lake level draw down enabled by condition 7.5 may only be attempted if:

- a. the Lake has reached RL 278.945 metres under the normal operating conditions set in condition 7.4; and
- b. the consent holder has complied with conditions 7.7 to 7.10.

Change: CH21-02259

7.7 The consent holder must consult the chairperson (or their nominee) of the Rotorua Te Arawa Lakes Operational Liaison Group (RTALOLG) at least 5 days prior to commencing the draw down attempt.

Advice Note: The purpose of the consultation is to enable the chairperson of the RTALOLG to discuss the proposed draw down with RTALOLG members and provide any feedback to the consent holder prior to the draw down commencing.

Change: CH21-02259

7.8 The consent holder must provide written notice to the following organisations at least 2 days prior to commencing the draw down attempt. That notice must identify the date and anticipated start time of the draw down attempt. Written notice may be provided by email to a confirmed email address provided by the relevant organisation representative:

- a. Ngati Pikiiao Environmental Society;
- b. The Chair of the RTALOLG;
- c. The Chair of the Lake Rotoiti Community Association (LRCA);
- d. The Commodore of the Bay of Plenty Trailer Boat Squadron;
- e. The Chair of the Lake Rotoiti Classic and Wooden Boats Association; and
- f. Rotorua Lakes Council.

Change: CH21-02259

7.9 The consent holder must, at least 2 days prior to commencing the draw down attempt:

- a. Place signage at all Lake Rotoiti public boat ramps advising of the draw down attempt;
- b. Prepare and provide to the chairperson of the LRCA for their use a written media release or other communication regarding the draw down attempt;
- c. Publicise the draw down attempt on the Bay of Plenty Regional Council website and on other social media forums being utilised by the Bay of Plenty Regional Council at that time; and
- d. Provide notification of the draw down attempt to local news media.

Change: CH21-02259

- 7.10 Prior to undertaking the draw down attempt, the consent holder must have received written confirmation from both the Okere Falls Voluntary Rural Fire Force and Rotorua Lakes Coast Guard that they are satisfied that they can conduct their operations effectively during the potential draw down period. The consent holder must provide a copy of that written confirmation to the Bay of Plenty Regional Council and the organisations listed in condition 7.8 prior to undertaking the draw down attempt.

Change: CH21-00259

- 7.11 The consent holder must facilitate an inspection of the Lake shore by representatives of Ngati Pikiāo during the 5 days when the Lake may be held at RL 278.850 metres. The consent holder may involve other parties in the inspection, including but not limited to representatives of the bodies listed in condition 7.8.

8 Lake Level Monitoring

- 8.1 For the purpose of this condition “lake level” shall mean lake level as recorded by eliminating the effect of wave action.
- 8.2 The consent holder shall monitor the lake level of Lake Rotoiti to an accuracy of +/- 10mm at the Bay of Plenty Regional Council’s Okawa Bay level gauge. Levels shall be relative to Moturiki Datum and the Rotorua Fundamental survey benchmark.
- 8.3 The consent holder shall maintain a continuous record of lake level readings with any changes to data annotated and available on request by the Chief Executive of the Bay of Plenty Regional Council or delegate for consent monitoring purposes.

9 Ōhau Ki Rotoiti Kaitiaki Group

- 9.1 Within 3 months of the commencement of this consent the consent holder shall facilitate the establishment of the Ōhau Ki Rotoiti Kaitiaki Group by invitation to each of the following (or their successors):
- a. Ngati Pikiāo
 - b. Te Arawa Lakes Trust; and
 - c. Other relevant Tangata Whenua having an interest in the Ōhau Channel and Lake Rotoiti for the purposes of s.6(e) of the Resource Management Act 1991 and listed in Schedule 1 to this consent.
- 9.2 The purpose of the Ōhau Ki Rotoiti Kaitiaki Group is to:
- a. Facilitate discussion and free flow of information between the consent holder and the kaitiaki of Lake Rotoiti, Lake Rotorua, and the Ōhau Channel on the environmental and cultural effects of the activities authorised by this consent;
 - b. Facilitate discussion and free flow of information with the Okere ki Kaituna Kaitiaki Group;
 - c. To develop a Rotoiti Cultural Management Plan;
 - d. To receive and discuss monitoring reports that the consent holder is required to produce under the conditions of this consent;
 - e. To provide recommendations to the consent holder and the Regional Council on the

environmental and Maori cultural effects of the activities authorised by this consent;

f. To discuss any other relevant matters that may be agreed by the Ōhau ki Rotoiti Kaitiaki Group; and

g. To enable monitoring, by Tangata Whenua, of the environmental and cultural effects of the activities authorised by this consent as identified in the Rotoiti Cultural Management Plan.

9.3 Notwithstanding any other conditions in this consent, the consent holder shall, at least once per calendar year, convene a meeting with representatives of the Bay of Plenty Regional Council and Tangata Whenua parties identified in Condition 9.1 to discuss any matter relating to the exercise and monitoring of this consent.

9.4 The consent holder shall provide a written invitation to the members of the Ōhau ki Rotoiti Kaitiaki Group at least 10 working days before the proposed meeting is to be held.

9.5 The meeting required by Condition 9.3 need not occur if the Ōhau ki Rotoiti Kaitiaki Group, or all of the Tangata Whenua parties listed in Condition 9.1, advise the Bay of Plenty Regional Council that the meeting is not required.

9.6 The consent holder shall keep minutes of the meetings held in accordance with Condition 9.3 and shall forward them to all attendees and to the Regional Council.

9.7 The meetings required by condition 9.3 shall be held at a convenient location as agreed by the Ōhau ki Rotoiti Kaitiaki Group. The meetings shall as far as practicable take place on the same day and at the same venue as the meetings held by the Okere ki Kaituna Kaitiaki Group under condition 10 of this consent and the Liaison Group under condition 11 of this consent. The costs of the meeting (not including costs relating to attendees) shall be borne by the consent holder.

9.8 The meetings shall discuss any recommendations in the Rotoiti Cultural Management Plan and matters relevant to the purpose of the Ōhau ki Rotoiti Kaitiaki Group.

9.9 **Rotoiti Cultural Management Plan**

Subject to the formation of the Ōhau ki Rotoiti Kaitiaki Group, the consent holder will facilitate the development of a Rotoiti Cultural Management Plan to enable it to be produced by the Ōhau ki Rotoiti Kaitiaki Group within three years of the commencement of this consent. The Rotoiti Cultural Management Plan may include, but shall not be limited to, the following objectives:

a. Identifying historical cultural practises which occurred along the Ōhau Channel and Lake Rotoiti based on historic data and oral history, prior to the introduction of the Okere Control Gates and Ōhau Weir.

b. Identifying the environmental and cultural impacts on tangata whenua resulting from the operation of the Okere Control Gates and Ōhau Weir, including for example any impacts on the health and well being of the Ōhau Channel and Lake Rotoiti, impacts on kai resources or access to waahi tapu resulting from the operation of the Okere Control Gates and Ōhau Weir;

c. Identifying improvements, including by way of lake management options or environmental restoration programmes, to address the environmental and cultural impacts and/or enable cultural practises to continue, where they have been affected by the operation of the Okere Control Gates and Ōhau Weir;

d. Identifying areas for members of the Tangata Whenua groups listed in Condition 9.1 to undertake or be involved in any environmental monitoring or research to be undertaken in accordance with any conditions of this resource consent;

- e. Provide recommendations to the consent holder in relation to the above matters and in relation to:
 - (i) Access to waahi tapu;
 - (ii) Lakeshore beach restoration;
 - (iii) Additional monitoring of beach erosion or native fishery resources;
 - (iv) The results of any surveys undertaken by Tangata Whenua on kai resources in Lake Rotoiti; and
 - (v) Any maps, data or other information regarding cultural or archaeological sites that the Ōhau ki Rotoiti Kaitiaki Group considers appropriate to provide to the consent holder.

- 9.10 The consent holder shall if requested provide technical assistance where appropriate and all relevant information held by the consent holder to the Ōhau ki Rotoiti Kaitiaki Group as necessary to enable the Ōhau ki Rotoiti Kaitiaki Group to develop and produce the Rotoiti Cultural Management Plan.

- 9.11 Once developed, a copy of the Rotoiti Cultural Management Plan shall be provided to the consent holder, the Chief Executive of the Bay of Plenty Regional Council or delegate and the Rotorua Te Arawa Lakes Operational Liaison Group.

- 9.12 Once developed the Ōhau ki Rotoiti Kaitiaki Group and the consent holder shall meet to discuss and consider the recommendations in the Rotoiti Cultural Management Plan. In the event that any of the recommendations in the Rotoiti Cultural Management Plan can be implemented without the need for a review of this resource consent, the consent holder shall give genuine consideration to implementing those recommendations to the extent practicable.

- 9.13 The consent holder shall facilitate a review by the Ōhau ki Rotoiti Kaitiaki Group of the Rotoiti Cultural Management Plan every fifth year after the completion of the initial Rotoiti Cultural Management Plan, if considered appropriate by the Ōhau ki Rotoiti Kaitiaki Group. Conditions 9.9 and 9.12 shall apply to a review of the Rotoiti Cultural Management Plan.

- 9.14 The Ōhau ki Rotoiti Kaitiaki Group referred to in this consent constitutes the same Kaitiaki Group referred to in the Bay of Plenty Regional Council Resource Consent No. RC65980 and all meetings and actions arising out of conditions of this consent with respect the Ōhau ki Rotoiti Kaitiaki Group and those in the Bay of Plenty Regional Council Consent No. RC65980 are to be carried out together and as part of the same process.

10 Okere Ki Kaituna Kaitiaki Group

- 10.1 Within three months of the commencement of this consent, the consent holder shall facilitate the establishment of the Okere Ki Kaituna Kaitiaki Group by invitation to each of the following (or their successors):
 - a. Tapuika
 - b. Te Arawa Lakes Trust; and
 - c. Other relevant Tangata Whenua having an interest in the Kaituna River for the purposes of s.6(e) of the Resource Management Act 1991 and listed in Schedule 1 to this consent.

- 10.2 The purpose of the Okere ki Kaituna Kaitiaki Group is to:
- a. Facilitate discussion and free flow information between the consent holder and the kaitiaki of the Kaituna River on the environmental and cultural effects of activities authorised by this consent;
 - b. Facilitate discussion and free flow information with the Ōhau ki Rotoiti Kaitiaki Group;
 - c. To develop a Kaituna Cultural Management Plan;
 - d. To receive and discuss monitoring reports that the consent holder is required to produce under the conditions of this consent;
 - e. To provide recommendations to the consent holder and the Regional Council on the environmental and Maori cultural effects on the Kaituna River of the activities authorised by this consent;
 - f. To discuss any other relevant matters that may be agreed by the Okere ki Kaituna Kaitiaki Group; and
 - g. To enable monitoring, by Tangata Whenua, of the environmental and cultural effects of the activities authorised by this consent as identified in the Kaituna Cultural Management Plan.
- 10.3 Notwithstanding any other conditions in this consent, the consent holder shall, at least once per calendar year, convene a meeting with representatives of the Bay of Plenty Regional Council and Tangata Whenua parties identified in Condition 10.1 to discuss any matter relating to the exercise and monitoring of this consent.
- 10.4 The consent holder shall provide a written invitation to the members of the Okere ki Kaituna Kaitiaki Group at least 10 working days before the proposed meeting is to be held.
- 10.5 The meeting required by Condition 10.3 need not occur if the Okere ki Kaituna Kaitiaki Group, or all of the Tangata Whenua parties listed in Condition 10.1, advise the Bay of Plenty Regional Council that the meeting is not required.
- 10.6 The consent holder shall keep minutes of the meetings held in accordance with Condition 10.3 and shall forward them to all attendees and to the Regional Council.
- 10.7 The meetings required by condition 10.3 shall be held at a convenient location as agreed by the Okere ki Kaituna Kaitiaki Group. The meetings shall as far as practicable take place on the same day and at the same venue as the meetings held by the Ōhau ki Rotoiti Kaitiaki Group under condition 9 of this consent and the Liaison Group under condition 11 of this consent. The costs of the meeting (not including costs relating to attendees) shall be borne by the consent holder.
- 10.8 The meeting shall discuss any recommendations in the Kaituna Cultural Management Plan and matters relevant to the purpose of the Okere ki Kaituna Kaitiaki Group.
- 10.9 **Kaituna Cultural Management Plan**
- Subject to the formation of the Okere ki Kaituna Kaitiaki Group, the consent holder will facilitate the development of a Kaituna Cultural Management Plan to enable it to be produced by the Okere ki Kaituna Kaitiaki Group within three years of the commencement of this consent. The Kaituna Cultural Management Plan may include, but shall not be limited to, the following objectives:
- a. Identifying historical cultural practises which occurred along the Kaituna River based on historic data and oral history, prior to the introduction of the Okere Control Gates.
 - b. Identifying the environmental and cultural impacts on tangata whenua resulting from

the operation of the Okere Control Gates, including for example any impacts on the health and well being of the Kaituna River, impacts on kai resources or access to waahi tapu resulting from the operation of the Okere Control Gates;

- c. Identifying improvements, including by way of gate management options or environmental restoration programmes, to address the environmental and cultural impacts and/or enable cultural practises to continue, where they have been affected by the operation of the Okere Control Gates;
- d. Identifying areas for members of the Tangata Whenua groups listed in Condition 10.1 to undertake or be involved in any environmental monitoring on the Kaituna River or research to be undertaken in respect of the Kaituna River in accordance with any conditions of this resource consent;
- e. Provide recommendations to the consent holder in relation to the above matters and relation to:
 - (i) Access to waahi tapu
 - (ii) Kaituna River restoration
 - (iii) The results of any surveys undertaken by Tangata Whenua on kai resources in Kaituna River; and
 - (iv) Any maps, data or other information regarding cultural or archaeological sites that the Okere ki Kaituna Kaitiaki Group considers appropriate to provide to the consent holder

10.10 The consent holder shall if requested provide technical assistance where appropriate and all relevant information held by the consent holder to the Okere ki Kaituna Kaitiaki Group as necessary to enable the Okere ki Kaituna Kaitiaki Group to develop and produce the Kaituna Cultural Management Plan.

10.11 Once developed, a copy of the Kaituna Cultural Management Plan shall be provided to the consent holder, the Chief Executive of the Bay of Plenty Regional Council or delegate and the Rotorua Te Arawa Lakes Operational Liaison Group.

10.12 Once developed the Okere ki Kaituna Kaitiaki Group and the consent holder shall meet to discuss and consider the recommendations in the Kaituna Cultural Management Plan. In the event that any of the recommendations in the Kaituna Cultural Management Plan can be implemented without the need for a review of this resource consent, the consent holder shall give genuine consideration to implementing those recommendations to the extent practicable.

10.13 The consent holder shall facilitate a review by the Okere ki Kaituna Kaitiaki Group of the Kaituna Cultural Management Plan every fifth year after the completion of the initial Kaituna Cultural Management Plan, if considered appropriate by the Okere ki Kaituna Kaitiaki Group. Conditions 10.9 to 10.12 shall apply to a review of the Kaituna Cultural Management Plan.

11 Rotorua Te Arawa Lakes Operational Liaison Group

11.1 Within three months of the commencement of this consent the consent holder shall facilitate the establishment of a Rotorua Te Arawa Lakes Operational Liaison Group ("RTALOLG") for the purpose of:

- a. Facilitating discussion and free flow information between the consent holder and the community on the operations and environmental effects of the activities authorised by this consent;
- b. Providing feedback on the effects of the implementation of the Operational

Management Plan; and

c. Providing a forum to seek community input into resolving any difficulties in achieving the target lake level ranges set out in this consent and the Operational Management Plan referred to in Condition 7.1 of this consent.

- 11.2 Within six months of the commencement of this consent, and following the establishment of the RTALOLG, the consent holder shall submit to the Chief Executive of the Bay of Plenty Regional Council, or delegate, a Rotorua Te Arawa Lakes Operational Liaison Group terms of reference (TOR). The TOR shall be developed in consultation with the RTALOLG.
- 11.3 The RTALOLG TOR shall detail the procedures for the establishment and ongoing involvement of the RTALOLG and shall, as a minimum, address the following matters:
- a. The location and frequency of meetings of the RTALOLG (to take place in Rotorua at least annually in the first three years of the commencement of the consent and thereafter at least every third year);
 - b. The parties to be invited to participate in the RTALOLG, including but not limited to at least one representative of the following (or their successors, if appropriate):
 - Te Arawa Lakes Trust;
 - Ngati Pikiao;
 - Tapuika;
 - Other relevant Tangata Whenua;
 - Kaituna Catchment Control Scheme
 - Rotorua District Council;
 - Lake Rotoiti Community Association Incorporated;
 - Rotorua Lakes Community Board;
 - Department of Conservation;
 - Tamatea Street Ratepayers Association;
 - Fish and Game;
 - The commercial rafting/kayaking community; and
 - c. Meeting procedures, including arrangements for election of a chair and definition of procedures;
 - d. The nature of information to be provided to the RTALOLG including copies and summaries of the reports and complaints register required in accordance with conditions of this resource consent; and
 - e. Procedures for reporting the outcomes of RTALOLG to the consent holder and the Chief Executive of the Bay of Plenty Regional Council or delegate.
- 11.4 Any changes to the RTALOLG terms of reference that occur as a result of consultation with the RTALOLG shall be provided in writing by the consent holder to the Chief Executive of the Bay of Plenty Regional Council or delegate.
- 11.5 The Rotorua Te Arawa Lakes Operational Liaison Group referred to in this consent may constitute the same group referred to in Bay of Plenty Regional Council Resource Consent No. RC.65980 and all meetings and actions arising out of conditions of this

consent with respect the Rotorua Te Arawa Lakes Operational Liaison Group and those in Bay of Plenty Regional Council Consent No. RC.65980 may be carried out together and as part of the same process.

12 Mitigation Works

12.1 Within 6 months of the commencement of this consent, the consent holder shall, subject to obtaining the written approval of the Rotorua District Council, install a flapgate on the outlet of stormwater culvert that discharges to the Ōhau Channel, subject to the design of the flapgate being approved by the Chief Executive of the Bay of Plenty Regional Council or delegate. The flapgate is to be designed to prevent water from the Ōhau Channel entering the stormwater culvert. Once installed the flapgate shall be maintained by the consent holder in good working order.

12.2 *Removed*

12.3 *Removed*

Change: CH20-01829

12.4 No later than 28 February 2022, the consent holder shall prepare a Weed Management Plan (WMP) for controlling encroaching exotic weeds and grasses on the landward side of beaches of Hinehopu and Ruato Bay with the objective of widening the beaches. The WMP must:

- Specify methods that will be used to control vegetation over a maximum beach width of 2.0m on an ongoing basis;
- Include the removal of any dead vegetation resulting from the vegetation control measures; and
- Be developed in consultation with the Ōhau ki Rotoiti Kaitiaki Group and landowners.

Change: CH20-01829

12.5 The WMP must be submitted to the Chief Executive of the Bay of Plenty Regional Council, or delegate, for certification that it meets the requirements of condition 12.4.

Change: CH20-01829

12.6 The consent holder must thereafter implement the programme of control measures set out in the WMP.

Change: CH20-01829

12.7 The consent holder may update the WMP at any time. However, prior to implementing the updated WMP it must first be provided to the Chief Executive of the Bay of Plenty Regional Council, or delegate, for certification that it continues to meet the requirements of condition 12.4.

13 Annual Flushing *Section Removed*

14 Hinehopu Investigation

14.1 Within 3 months of the commencement of this consent, groundwater monitoring shall be undertaken in Tamatea Street, Hinehopu. Groundwater monitoring shall:

- Be carried out for a minimum period of 12 months. Following this period of groundwater monitoring, the monitoring results shall be analysed by the consent holder and submitted to

the Chief Executive of the Bay of Plenty Regional Council, or delegate. If it is determined by the Chief Executive of the Bay of Plenty Regional Council, or delegate, that the results do not represent typical years in terms of regional climate and the range of recorded lake levels, then monitoring shall continue for a further year.

b. Groundwater monitoring shall be carried out using 15-minute interval automatic groundwater recorders at 48 Tamatea Street, Hinehopu as specified in Section 5.7 of the 'Preliminary Groundwater Study of Tamatea Street, Hinehopu, Lake Rotoiti' prepared by Robbin Britton and dated November 2010.

c. The consent holder shall monitor the groundwater levels to an accuracy of +/- 20mm. Levels shall be relative to Moturiki datum and the Rotorua Fundamental Benchmark.

14.2 The consent holder shall prepare a report on the results of the groundwater monitoring by a suitably qualified and independent expert in the field of groundwater analysis. The report shall, at a minimum, include the following information:

a. A map showing the locations of groundwater monitoring.

b. A record of the groundwater levels and relative lake levels.

c. An analysis of the correlation between the lake levels and groundwater.

14.3 If the report concludes that there is a correlation between the levels of the lake and the groundwater levels at Hinehopu, then within six months of the completion of the report the consent holder shall develop a recommended programme of works designed to mitigate any adverse effects of the elevated lake levels on the use and enjoyment of the dwellings in Tamatea Street, Hinehopu. The recommended programme of mitigation works shall be developed in consultation with the RTALOG, the Ōhau ki Rotoiti Kaitiaki Group and affected landowners. The recommended programme of mitigation works shall be submitted to the Chief Executive of the Bay of Plenty Regional Council, or delegate.

14.4 The consent holder shall thereafter implement the recommended programme of mitigation works, subject only to need to gain necessary further resource consents for the works and any timing constraints occasioned by Local Government Act funding obligations.

15 Annual Reporting

Change: CH20-01829

15.1 By 1 June each year of this term of this consent the consent holder shall provide a report to the Chief Executive of the Bay of Plenty Regional Council, or delegate, the Rotorua Te Arawa Lakes Operational Liaison Group and the Ōhau ki Rotoiti Kaitiaki Group setting out:

a. the actual distribution of lake levels compared to the target distribution;

b. the actual flows rates of the Okere Gates compared to the minimum flow rates;

c. any difficulties experienced by the consent holder in achieving the target lake level ranges and minimum Okere Gate flow rates;

d. a summary of any consultation undertaken with stakeholders in accordance with Conditions 9, 10, 11 and 14 of this consent;

e. a summary of any investigations undertaken as a result of complaints about the adverse effects of lake levels;

f. methods for how many difficulties in achieving target lake level ranges and Okere Gate minimum flows have and will be resolved and how any complaints about the adverse

effects of lake levels have been responded to; and

g. methods proposed to resolve any issues that may have arisen including operational difficulties, water quality, and extreme weather events, and any changes required to the Operation Management Plan

16 Access

16.1 The consent holder shall maintain foot access across the Okere Gates control structure.

17 Review

17.1 The Bay of Plenty Regional Council may, annually in the month of September, serve notice of its intention to review any conditions of this consent under s.128 of the Resource Management Act 1991 for purposes of dealing with any adverse effect on the environment which may arise from the exercise of the consent and which is appropriate to deal with at a later stage.

17.2 The purposes of this review may include, but are not be limited to:

- a. To modify the lake level regime or minimum flows specified in condition 7.4 of this consent;
- b. To modify any required monitoring/reporting and/or specify additional monitoring/reporting and/or change the monitoring/reporting frequency required to address any identified adverse effects;
- c. To assess, and if necessary to resolve, any identified adverse effects arising as a result of the exercise of this consent.

17.3 Cultural Management Plan review

The Bay of Plenty Regional Council may, within 3 months of receiving the Rotoiti Cultural Management Plan in accordance with Conditions 9.11 or 9.13 or the Kaituna Cultural Management Plan in accordance with Conditions 10.11 or 10.13 or receiving a written request from the Ōhau ki Rotoiti Kaitiaki Group or the Okere Ki Kaituna Kaitiaki Group, serve notice of its intention to review any conditions of this consent under s.128 of the Resource Management Act 1991 for the purposes of dealing with any adverse environmental or cultural effects on the environment identified in the Rotoiti Cultural Management Plan or Kaituna Cultural Management Plan.

17.4 In deciding whether to exercise its discretion under condition 17.3 the Bay of Plenty Regional Council shall have particular regard to the recommendations contained in the Rotoiti Cultural Management Plan and / or the Kaituna Cultural Management Plan as the case may be.

Change: CH20-01829

17.5 The purposes of any review under condition 17.3, which may be the same or separate reviews at the consent authority's discretion, may include, but are not limited to:

- a. Implementing any of the recommendations contained in the Rotoiti Cultural Management Plan and / or the Kaituna Cultural Management Plan;
- b. The matters listed in Condition 17.2 (a)-(c).

Change: CH20-01829

- 17.6 For the avoidance of doubt, any review pursuant to Condition 17.3 may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

18 Term of Consent

- 18.1 This consent shall expire 35 years from the date this consent was granted.

Advice Notes

Change: CH20-01829

1. *The Chief Executive of the Regional Council or delegate as referred to in this consent is the person responsible for monitoring and enforcing compliance with the conditions of this consent.*
2. *Any notification or reporting required to be made to the Chief Executive of the Regional Council or delegate under this consent shall be e-mailed to notify@envbop.govt.nz.*
3. *This consent does not authorise the holder to modify or disturb any archaeological or historic sites within the area affected by this consent. Should any artifacts, bones or any other sites of archaeological or cultural significance be discovered within the area affected by this operation, written authorisation should be obtained from the Historic Places Trust before any damage, modification or destruction is undertaken.*
4. *The consent holder is advised that non-compliance with consent conditions may result in enforcement action against the consent holder and/or their contractors.*
5. *The consent holder is responsible for ensuring that all contractors carrying out works under this consent are made aware of the relevant consent conditions, plans and associated documents.*
6. *Removed - CH20-01829*
7. *The works described in Condition 12.3 shall be undertaken as a permitted activity in accordance with Rules 21(e) and (f) of the Bay of Plenty Regional Water and Land Plan.*
8. *Tapuika Iwi Authority, which has the right to representation on the Okere Ki Kaituna Kaitiaki Group and Operational Liaison Groups referred to in conditions 10 and 11, is in negotiations with the Crown in relation to its Treaty of Waitangi Claim concerning interests in the Kaituna River. Any outcome of those negotiations may contain provisions which affect this consent.*

BAY OF PLENTY REGIONAL COUNCIL

Resource Consent 65980

Consent Holder: Bay of Plenty Regional Council (Rivers and Drainage Group)

Address: PO Box 364
Whakatane

Resource consent to:

- (i) Use and maintain a control structure, being the Ōhau Channel Weir at the outlet of Lake Rotorua.
- (ii) Dam the outlet of Lake Rotorua, being at or about map reference NZMS 260 U15018454.
- (iii) Artificially control the water levels in Lake Rotorua.
- (iv) Discharge water from Lake Rotorua over the Ōhau Channel Weir.

Conditions attaching to Resource Consent 65980

1 Proceed in accordance with application, except as modified by conditions

The Proposal shall proceed in accordance with the Application, including:

- (i) The Resource Consent Application and Assessment of Environmental Effects for the Okere Gates and Ōhau Channel Weir prepared by Opus International Consultants Limited, referenced as 289030.07, dated September 2010, including all appendices attached to the Application.
- (ii) The further information entitled *Resource Consents 65979 and 65980: Consent Structures and Operating Levels for Lake Rotorua and Rotoiti – Response to Section 92 Request dated 23 September 2010*, prepared by the Project Manager, Okere Gates and Ōhau Weir Consent Project dated 22 October 2010, including all appendices.

Except as modified by the conditions set out in this consent.

2 Purpose

To allow for the use of the Ōhau Channel Weir on the bed of the Ōhau Channel at the outlet of Lake Rotorua and to control the water level of Lake Rotorua with the objective of avoiding undesirably low lake levels.

3 Location

The structure shall be located at the outlet of Lake Rotorua as shown on BOPRC plan number RC65980/1 (BOPCB K4562 sheet 4/9) and RC65980/2 (BOPRC K4562 sheet 9/9) submitted with the application.

4 Map reference

At or about map reference NZMS 260 U15 018 454.

5 Ōhau Weir control structure

- 5.1 The existing control structure shall be retained. It shall conform to the following:
- (a) The control structure shall be a two stage broad crested weir installed in accordance with BOPCB plan number K4562 sheet 2 and BOPRC K4562 sheet 9.
 - (b) The central lower portion of the control structure shall be at least 6 m wide.
 - (c) The control structure crest levels shall be:
 - (i) The central lower crest 278.166 m above Moturiki Datum, and
 - (ii) The top crest 279.316 above Moturiki Datum.

All levels shall be relative to the Rotorua Fundamental Benchmark Survey 1997.

6 Fish passage

- 6.1 The Consent Holder shall maintain and keep the fish passage facility in good working order.

7 Structure and maintenance

- 7.1 The Consent Holder shall maintain the control structure in accordance with the requirements of the Rivers and Drainage Group Asset Management Plan (AMP). The Consent Holder shall monitor the control structure for erosion and structural damage on a regular basis.
- 7.2 The Consent Holder shall, within 10 working days of becoming aware of any damage or repair required, shall:
- (a) Repair any erosion to the lakeside and Ōhau Channel within 30 m of the weir that is caused by the exercise of this consent.
 - (b) Repair any damage to the weir or handrail structures.
 - (c) Repair and maintain the fish pass mechanisms to operate effectively as designed in report Environment Bay of Plenty, Environmental Report 96/18.
- 7.3 The Consent Holder shall appoint a caretaker to check weed and debris build up on the structure. The structure shall be checked for the presence of any weed and debris at least once a month and any weed and debris shall be removed.

8 Lake Rotorua level management

Operational Management Plan

- 8.1 Within one month of the commencement of this consent, the Consent Holder shall submit an Operational Management Plan to the Chief Executive of the Bay of Plenty Regional Council or delegate.
- 8.2 The Operational Management Plan shall contain details of the procedures that shall be implemented for the operation of the Okere Gates in accordance with the conditions of this resource consent, and as a minimum, shall address the following matters:
- (a) A description of how the weir operates
 - (b) Lake Rotorua Operational Guidelines, including guidelines for removing and installing stoplogs.

- (c) Plans of the Ōhau Channel Weir
- (d) A description of routine inspection and maintenance procedures to be undertaken with respect to the Ōhau Channel Weir.
- (e) A description of monitoring, including location of water level monitoring devices and record keeping of all monitoring.
- (f) A description of methods to address potential public and site personnel safety issues associated with the operation of the Ōhau Channel Weir, including subsequent changes in levels for Lake Rotorua and flows in the Ōhau Channel (which may include use of signage, electronic media and establishing and maintaining a text messaging database).
- (g) A description of procedures for reporting on the operation of the Ōhau Channel Weir, with particular regard to the requirements of this consent to the Bay of Plenty Regional Council and key stakeholder groups.
- (h) A description of how any difficulties or unforeseen circumstances affecting the successful operation of the Ōhau Channel Weir and lakes levels will be reported to the Bay of Plenty Regional Council and key stakeholder groups, and how such difficulties or circumstances will be addressed.

8.3 The Operational Management Plan may be reviewed and updated by the Consent Holder from time to time. The Consent Holder shall provide a copy of the reviewed and updated Operational Management Plan to the Chief Executive of the Bay of Plenty Regional Council or delegate.

Operational limits

8.4 The lake level for operational purposes shall be recorded at NIWA's Mission Bay level gauge.

8.5 The control structure shall be operated in accordance with the Operational Management Plan referred to in Condition 8.1 of this consent, so that as far as is practicable, the level of Lake Rotorua is maintained between the following fixed maximum and minimum levels above Moturiki Datum:

- (a) Maximum level RL 280.076 m.
- (b) Minimum level RL 279.466 m.

8.6 The minimum and maximum lake levels referred to in Condition 8.5 may only be exceeded in circumstances associated with emergencies, extreme weather events or extreme droughts.

9 Lake level monitoring

9.1 For the purpose of this condition, "lake level" shall mean lake level as recorded by eliminating the effect of wave action.

9.2 The Consent Holder shall maintain a daily record of the lake level of Lake Rotorua (measured at the location specified in Condition 8.4 above) and shall provide this information on request to the Chief Executive Officer of the Regional Council, or delegate, for consent monitoring purposes.

9.3 The Consent Holder shall monitor the lake level of Lake Rotorua to an accuracy of +/- 10 mm at the Mission Bay level gauge. Levels shall be relative to Moturiki Datum and the Rotorua Fundamental Benchmark Survey 1997.

- 9.4 The Consent Holder shall maintain a continuous record of lake level readings with any changes to data annotated and available on request to the Chief Executive of the Regional Council, or delegate, for consent monitoring purposes.

10 Ōhau ki Rotoiti Kaitiaki Group

- 10.1 The Ōhau ki Rotoiti Kaitiaki Group referred to in Bay of Plenty Regional Council Resource Consent No. RC65979 shall also be utilised for the exercise of this consent and conditions 9.1 to 9.15 of Consent No. RC65979 shall apply to this consent with references to Lake Rotoiti being taken to refer instead to Lake Rotorua.

11 Rotorua Te Arawa Lakes Operational Liaison Group

- 11.1 The Rotorua Te Arawa Lakes Operational Liaison Group (“RTALOLG”) referred to in Bay of Plenty Regional Council Resource Consent No. RC65979 shall also be utilised for the exercise of this consent and conditions 11.1 to 11.4 of Consent No. RC65979 shall apply to this consent with references to Lake Rotoiti being taken to refer instead to Lake Rotorua.

12 Annual reporting

- 12.1 By 31 August each year for the term of this consent, the Consent Holder shall provide a report to the Chief Executive of the Bay of Plenty Regional Council or delegate, the Rotorua Te Arawa Lakes Operational Liaison Group the Ōhau ki Rotoiti Kaitiaki Group and the Okere ki Kaituna Kaitiaki Group setting out:
- (a) The actual distribution of lake levels compared to the target range.
 - (b) Any difficulties experienced by the Consent Holder in achieving the target lake level range.
 - (c) A summary of any consultation undertaken with stakeholders in accordance with conditions 10 and 11 of this consent.
 - (d) A summary of any investigations undertaken as a result of complaints about the adverse effects of lake levels.
 - (e) Methods for how any difficulties in achieving target lake level range have and will be resolved and how any complaints about the adverse effects of lake levels have been responded to.
 - (f) Methods proposed to resolve any issues that may have arisen including operational difficulties, water quality, and extreme weather events, and any changes required to the Operation Management Plan.

13 Access

- 13.1 The Consent Holder shall maintain the existing foot access on the right bank of the Ōhau Channel 40 m downstream from the Ōhau Channel Weir.

14 Review

- 14.1 The Bay of Plenty Regional Council may, annually in the month of September, serve notice of its intention to review any conditions of this consent under Section 128 of the Resource Management Act 1991 for purposes of dealing with any adverse effect on the environment, which may arise from the exercise of the consent and which is appropriate to deal with at a later stage.

- 14.2 The purposes of this review may include, but are not limited to:

- (a) To modify the lake level regime specified in Condition 8.5 of this consent.
- (b) To modify any required monitoring/reporting and/or specify additional monitoring/reporting and/or change the monitoring/reporting frequency required to address any identified adverse effects.
- (c) To assess, and if necessary, to resolve any identified adverse effects arising as a result of the exercise of this consent.

15 Term of consent

15.1 This consent shall expire 35 years from the date this consent was granted.

Advice Notes

- 1 *The Chief Executive of the Regional Council or delegate as referred to in this consent is the person responsible for monitoring and enforcing compliance with the conditions of this consent.*
- 2 *Any notification or reporting required to be made to the Chief Executive of the Regional Council or delegate under this consent shall be emailed to notify@envbop.govt.nz.*
- 3 *This consent does not authorise the holder to modify or disturb any archaeological or historic sites within the area affected by this consent. Should any artefacts, bones or any other sites of archaeological or cultural significance be discovered within the area affected by this operation, written authorisation should be obtained from the Historic Places Trust before any damage, modification or destruction is undertaken.*
- 4 *The Consent Holder is advised that non-compliance with consent conditions may result in enforcement action against the Consent Holder and/or their contractors.*
- 5 *The Consent Holder is responsible for ensuring that all contractors carrying out works under this consent are made aware of the relevant consent conditions, plans and associated documents.*
- 6 *The Okere ki Kaituna Kaitiaki Group (established pursuant to Condition 10 in Bay of Plenty Regional Council Resource Consent No. RC65979) is a distinct group from the Ōhau ki Rotoiti Kaitiaki Group referred to in Condition 10.1 of this consent and is not relevant to this consent.*