

# Rotorua Te Arawa Lakes Strategy Group

## NOTICE IS GIVEN

that the next meeting of the **Rotorua Te Arawa Lakes Strategy Group** will be held in **The Council Chamber, Rotorua Lakes Council, Civic Administration Building, 1061 Haupapa Street, Rotorua** on:

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**Friday, 14 June 2019 commencing at 9.30 am.**

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Fiona McTavish  
**Chief Executive**  
Bay of Plenty Regional Council Toi Moana

Bay of Plenty Regional Council,  
Rotorua Lakes Council and  
Te Arawa Lakes Trust.

*Working as one to protect our lakes with funding  
assistance from the Ministry for the Environment.*



**ROTORUA  
TE ARAWA  
LAKES  
PROGRAMME**



# Rotorua Te Arawa Lakes Strategy Group Terms of Reference<sup>1</sup>

## Interpretation

In these Terms of Reference:

“Organisations” means the Te Arawa Lakes Trust, the Rotorua Lakes Council, and the Bay of Plenty Regional Council; sometimes referred to as “Partner Organisations”.

“Rotorua /Te Arawa Lakes” means Lakes Rotorua, Rotoiti, Rotoehu, Rotomā, Ōkataina, Tikitapu, Ōkāreka, Tarawera, Rotomahana, Rerewhakaaitu, Ōkaro.

“Group” means the Rotorua Te Arawa Lakes Strategy Group, formed as a Joint Committee under Clause 30 of Schedule 7 of the Local Government Act 2002; sometimes referred to as the “Strategy Group”.

## Purpose

The purpose of the Group is to contribute to the promotion of the sustainable management of the Rotorua Te Arawa Lakes and their catchments, for the use and enjoyment of present and future generations, while recognising and providing for the traditional relationship of Te Arawa with their ancestral lakes.

## Membership

The membership of the Group comprises of six members:

- Two members of the Te Arawa Lakes Trust Entity appointed by that entity - who are governance members; and
- Two members of the Bay of Plenty Regional Council appointed by that Council - one of whom is the Chairperson of that Council; and
- Two members of the Rotorua Lakes Council appointed by that Council - one of whom is the Mayor of that Council.

Plus one non-voting Poū Tākiwaiora (Independent Chairperson) appointed by the members for a three year term in alignment with the Local Government triennium and is to be reviewed and confirmed at the first meeting of the Group following the local government elections.

The Poū Tākiwaiora is not deemed to be a member of the Rotorua Te Arawa Lakes Strategy Group for the purposes of a quorum.

The Poū Tākiwaiora shall assume the role and responsibilities as defined in the Rotorua Te Arawa Lakes Strategy Group Poū Tākiwaiora Guidelines.

The Deputy Chairperson shall be appointed from the membership at the first meeting of the Group following the local government elections.

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<sup>1</sup> Amended Terms of Reference adopted by Rotorua Te Arawa Lakes Strategy Group Meeting 5 April 2019

## Quorum

The quorum for a meeting of the Group will be one appointed member from each of the partner organisations

The special quorum for a meeting of the Group will be four members of the Group.

In the event that the ordinary quorum is not satisfied at three consecutive meetings of the Group in circumstances, where in the case of each such meeting:

- It was notified in accordance with the Standing Orders;
- Order papers were sent to each member of the Group in accordance with the Standing Orders; and
- The meeting had not been cancelled for any reason, then the members in attendance may declare the third meeting inquorate according to the Standing Orders and the special quorum will then be substituted.

At any subsequent meeting, the ordinary quorum will be restored

No matters that were not on the order paper for the meeting at which the special quorum was established can be considered by a special quorum meeting.

## Term of the Committee

The Rotorua Te Arawa Lakes Strategy Group is a permanent joint committee established under the Te Arawa Lakes Settlement Act 2006 (Te Arawa Lakes Deed of Settlement - Cultural Redress: Lakes Management and Relationships, clauses 9.1 to 9.3 -December 2004) and is not disestablished as a consequence of a local government election.

The Group's Terms of Reference are derived from the Rotorua Lakes Strategy Agreement included in Part 1 of the Relationship Schedule to the Deed of Settlement, December 2004.

## Specific Responsibilities and Delegated Functions

The Group has the following functions:

- Provide leadership to the Organisations and the community in relation to implementation of the Vision and Strategy for the Lakes of the Rotorua District originally adopted in 2000 and refreshed version adopted by the Strategy Group in 2013.
- Identify significant existing and emerging issues affecting the Rotorua Te Arawa Lakes and respond appropriately.
- Approve, monitor, evaluate, and review agreements, policies and strategies and all other proposals to achieve integrated outcomes for the Rotorua Te Arawa Lakes.
- Identify, monitor, and evaluate necessary actions by the partner organisations and other relevant organisations.
- Receive reports on activities being undertaken by the partner organisations and other relevant organisations.
- Participate in the preparation of statutory plans in relation to significant issues. Such plans include but are not limited to lwi and hapū management plans, district and regional plans, reserve management plans and annual plans.
- Participate in applications for activities in relation to significant issues not addressed by existing policies of the partner organisations. Such activities include but are not limited to resource consents, designations, heritage orders, water conservation orders, restricting access to the lakes (during special events or in particular circumstances), and transferring and/or delegating of statutory authority.

## Power to Recommend

To the partner organisations on any matters within the Strategy Group's delegated functions as it deems appropriate.

The Rotorua Te Arawa Lakes Strategy Group report directly to their own Organisations.



## Public Forum

1. A period of up to 15 minutes may be set aside near the beginning of the meeting to enable members of the public to make statements about any matter on the agenda of that meeting which is open to the public, but excluding any matter on which comment could prejudice any specified statutory process the council is required to follow.
2. The time allowed for each speaker will normally be up to 5 minutes but will be up to the discretion of the chair. A maximum of 3 public participants will be allowed per meeting.
3. No statements by public participants to the Council shall be allowed unless a written, electronic or oral application has been received by the Chief Executive (Governance Team) by 12.00 noon of the working day prior to the meeting and the Chair's approval has subsequently been obtained. The application shall include the following:
  - name of participant;
  - organisation represented (if any);
  - meeting at which they wish to participate; and matter on the agenda to be addressed.
4. Members of the meeting may put questions to any public participants, relevant to the matter being raised through the chair. Any questions must be asked and answered within the time period given to a public participant. The chair shall determine the number of questions.





# Membership

<b>Independent Chairperson:</b>	Sir T Curtis
<b>Deputy Chairperson:</b>	Mayor S Chadwick (Rotorua Lakes Council)
<b>Appointees:</b>	<b>Rotorua Lakes Council:</b> Councillor K Hunt, Deputy Mayor D Donaldson (Alternate) <b>Te Arawa Lakes Trust</b> R Meha, R Bennett, N Nicholson (Alternate) <b>Bay of Plenty Regional Council</b> Chairman D Leeder, Councillor K Winters, Councillor T Marr (Alternate)
<b>Attendees:</b>	M Workman (Director of Water, Ministry for the Environment )
<b>Committee Advisor:</b>	M Pansegrouw

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Recommendations in reports are not to be construed as policy until adopted.

## Agenda

- 1 **Opening Karakia**
- 2 **Apologies**
- 3 **Public Forum**
- 4 **Acceptance of Late Items**
- 5 **General Business**
- 6 **Confidential Business to be Transferred into the Open**
- 7 **Declarations of Conflicts of Interests**
- 8 **Previous Minutes**
- 8.1 **Rotorua Te Arawa Lakes Strategy Group Minutes - 05 April 2019** 13
- 9 **Presentations**
- 9.1 **Lake Tarawera Update**

Presentation by Bay of Plenty Regional Council Team Leader Policy (Freshwater), James Low

## 10 Reports

<b>10.1 Changing On-site Effluent Treatment Rules for Rotorua Te Arawa Lakes</b>	<b>25</b>
<b>10.2 Rotorua Te Arawa Lakes Programme Status Report Update and 2019/2020 Annual Work Plan</b>	<b>31</b>
APPENDIX 1 - 2019-06-14 RTALSG Dashboard	35
APPENDIX 2 - 2019 - 2020 Rotorua Te Arawa Lakes Programme Annual Work Plan DRAFT	39
<b>10.3 Rotorua Lakes Council - Update Report</b>	<b>79</b>
<b>10.4 Te Arawa Lakes Trust - Update Report</b>	
Verbal update by Te Arawa Lakes Trust Manager Environment, Nicki Douglas	
<b>10.5 Ministry for the Environment - Update Report</b>	
Verbal update by Ministry for the Environment Director of Water, Martin Workman	

## 11 Public Excluded Section **81**

### Resolution to exclude the public

THAT the public be excluded from the following parts of the proceedings of this meeting.

The general subject of each matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution are as follows:

General Subject of Matter to be Considered	Reason for passing this resolution in relation to this matter	Grounds under Section 48(1) LGOIMA 1987 for passing this resolution
11.1 Public Excluded Rotorua Te Arawa Lakes Strategy Group Minutes - 05 April 2019	Please refer to the relevant clause in the meeting minutes	Good reason for withholding exists under Section 48(1)(a)

<b>11.1 Public Excluded Rotorua Te Arawa Lakes Strategy Group Minutes - 05 April 2019</b>	<b>83</b>
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## 12 Confidential Business to be Transferred into the Open

## 13 Readmit the Public

## 14 Consideration of Late Items

## 15 Consideration of General Business

## 16 Closing Karakia

# Previous Minutes



# Minutes of the Rotorua Te Arawa Lakes Strategy Group Meeting held in the Council Chamber, Rotorua Lakes Council, Civic Administration Building, 1061 Haupapa Street, Rotorua on Friday, 5 April 2019 commencing at 9.30a.m.

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## Present:

**Deputy Chairman:** Mayor Steve Chadwick - Rotorua Lakes Council

**Appointees:** Councillor Karen Hunt - Rotorua Lakes Council; Councillor Kevin Winters - Bay of Plenty Regional Council; Raina Meha - Te Arawa Lakes Trust; Nuki Nicholson - Alternate, Te Arawa Lakes Trust

**In Attendance:** Ministry for the Environment: Martin Workman - Director of Water

Rotorua Lakes Council: Geoff Williams - Chief Executive

Bay of Plenty Regional Council - Toi Moana: Councillors Jane Nees and Lyall Thurston; Chris Ingle - General Manager, Integrated Catchments; Helen Creagh - Rotorua Catchments Manager; Yvonne Tatton - Governance Manager; Anna Grayling - Principal Advisor Rotorua Catchments; Ruth Keber - Marketing and Communications Advisor; Karla Kereopa - Rotorua Catchments Coordinator; Arash Alaeinia - Rotorua Catchments Advisor (Landowners); Merinda Pansegrouw - Committee Advisor

Te Arawa Lakes Trust: Karen Vercoe - Chief Executive; Nicki Douglas - Manager Environment; Geoff Rolleston - Te Arawa Lakes Trust Board

### Others:

Chris Sutton - Rotorua Lakes Rural Board / Chairperson Project Rerewhakaaitu; Simon Park - Policy Advice, Rural Engagement, Research: Landconnect Ltd, Tauranga; Don Atkinson - Chair, Lakes Water Quality Society

**Apologies:** Sir Toby Curtis - Chairman, Te Arawa Lakes Trust; Chairman Doug Leeder - Bay of Plenty Regional Council - Toi Moana

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Deputy Chairperson, Mayor Steve Chadwick chaired the meeting.

## 1 Apologies

### Resolved

That the Rotorua Te Arawa Lakes Strategy Group:

- 1 Accepts the apologies from Sir Toby Curtis and Chairman Doug Leeder tendered at the meeting.

Hunt/Winters  
CARRIED

## 2 Report

### 2.1 Amendments to Rotorua Te Arawa Lakes Strategy Group Agreement and Terms of Reference

Bay of Plenty Regional Council - Toi Moana Governance Manager Yvonne Tatton presented the report.

### Resolved

That the Rotorua Te Arawa Lakes Strategy Group:

- 1 Receives the report, Amendments to Rotorua Te Arawa Lakes Strategy Group Agreement and Terms of Reference;
- 2 Endorses the following amendments to the Rotorua Te Arawa Strategy Group Agreement:

Membership:

The membership of the Group shall comprise of six members:

- 2.1 Two members of the Te Arawa Lakes Trust Entity appointed by that entity who are governance members; and
  - 2.2 Two members of the Bay of Plenty Regional Council appointed by that Council one of whom is the Chairperson of that Council; and
  - 2.3 Two members of the Rotorua Lakes Council appointed by that Council one of whom is the Mayor of that Council.
  - 2.4 Plus one non-voting Pou Takiwaiora (Chairperson), appointed by the Strategy Group members for a three year term in alignment with the Local Government triennium.
- 3 Endorses that the additional amendments are reflected in the Rotorua Te Arawa Strategy Group's Terms of Reference.
  - 4 Approves the Guidelines for the Pou Takiwaiora position.
  - 5 Appoints Sir Toby Curtis as Pou Takiwaiora of the Rotorua Te Arawa Lakes Strategy Group.

- 6 Notes the appointment of Roana Bennett as the Te Arawa Lakes Trust member, with Nuki Nicholson appointed as the alternate member to replace Willie Emery.
- 7 Notes the change in the Ministry for the Environment's representative to the Rotorua Te Arawa Lakes Strategy Group.

Winters/Meha  
CARRIED

### 3 General Business

The following matter was raised for information:

- 1 Bay of Plenty Regional Council Annual Plan Consultation Process for 2019/20

*Refer tabled item Objective ID A3183072.*

### 4 Confidential Business to be Transferred into the Open

Nil

### 5 Declaration of Conflicts of Interest

Nil

### 6 Order of Business

With the agreement of members, the following items were scheduled for consideration as the last two items on the agenda:

- Item 4 - Public Forum – Don Atkinson - Chairperson, Lakes Water Quality Society
- Item 10.1 - Recommendations on Low Nitrogen Land Use Fund 2018 (Public Excluded)

### 7 Previous Minutes

#### 7.1 Rotorua Te Arawa Lakes Strategy Group Minutes - 2 November 2018

#### Resolved

That the Rotorua Te Arawa Lakes Strategy Group:

- 1 Confirms the Rotorua Te Arawa Lakes Strategy Group Minutes - 2 November 2018 as a true and correct record with the inclusion of the following amendments:
  - Page 43 (Page 7 of the minutes) – Under “Members’ Comments” – third bullet – change the typo from “Customs” to “Customers”
  - Page 43 (Page 7 of the minutes) – Under Resolutions – the third Resolution change the typo from “Customs” to “Customers”

**Winters/Hunt  
CARRIED**

## 8 Reports - Continued

### 8.1 Rotorua Te Arawa Lakes Programme - Status Update and 6 Month Report (2018 - 2019)

*Refer PowerPoint Presentations (Objective ID A3180580 and A3180901) and tabled item Objective ID A3183074*

Bay of Plenty Regional Council – Toi Moana Rotorua Catchments Manager Helen Creagh provided a PowerPoint Presentation update on progress made with the Rotorua Te Arawa Lakes Programme since the November 2018 meeting.

Chris Sutton, Chairperson Project Rerewhakaaitu and Simon Park, Landconnect Ltd, provided a PowerPoint Presentation updating members on Project Rerewhakaaitu:

#### Key Points – Project Rerewhakaaitu Update:

- Tarawera Lakes Restoration Plan, developed by Bay of Plenty Regional Council (BORPC) with community input, had included as part of the agreed actions, the development of Farm Environmental Plans (FEPs) for the inner and outer Tarawera lakes catchments
- Development of the new FEPs were based on industry templates and Overseer
- Provided an example of a FEP (Refer tabled item)
- Highlighted that since Lake Tarawera itself was not meeting its Natural Resources Regional Plan water quality targets, aggregated nutrient loss data from the FEP project would help inform catchment modelling
- Data from FEPs would also inform the local community on the complex linkages within the Tarawera lakes system and the need for any land use rules.

#### Members' Comments:

- Enquired about the possibility of offering an education component on the Water Quality of the Lakes as a module at schools in order to create further public awareness: possibly commencing with Te Rangihakahaka Centre for Science and Technology as a point of departure
- Emphasised the need to include issues relating to water quality in the school curriculum – mostly in a new and innovative way. Practical exposure such as boat trips to educate and create awareness would be ideal.

#### Item for Staff Follow-up:

- A follow-up Lake Rotorua Boat Trip to be convened for members of the Rotorua Te Arawa Lakes Strategy Group who was unable to accompany the trip scheduled for 3 April 2019, preferably after winter.

## Resolved

**That the Rotorua Te Arawa Lakes Strategy Group:**

- 1 Receives the report, Rotorua Te Arawa Lakes Programme - Status Update and 6 Month Report (2018 - 2019);**
- 2 Approves the 2018-2019 Six Month Report for the Programme, for submission to the Minister for the Environment; and**



- 3 Approves Change Request 64 to move funds from the Lake Rotorua Incentives Scheme to the Gorse Conversion Project for the current financial year, noting that the total spend of either project over their life will not be affected.**

**Winters/Hunt  
CARRIED**

## 8.2 Te Arawa Lakes Trust Funding Proposal and Update Report

Te Arawa Lakes Trust (TALT) Environment Manager Nicki Douglas presented the report and responded to questions:

### Key Points:

- Funding Proposal
  - Following the November 2018 meeting, TALT had met with Minister Parker and Ministry for the Environment Chief Executive Officer Vicki Robertson to progress the discussion regarding an allocation of funding to the Te Arawa Lakes Trust
  - The Minister was supportive of the approach and the matter was currently ongoing in liaison with MfE
  - The Steering Group was scheduled to meet in May 2019 and a report would be submitted to the Rotorua Te Arawa Lakes Strategy Group in June 2019
- The second phase of the Cultural Impact Assessment (CIA) for the Tarawera Sewerage Scheme was ongoing
- TALT had completed three Cultural Mapping reports for the existing lakes structures and were currently undertaking Cultural Mapping for Lakes: Tarawera, Okareka, Rerewhakaitu and Rotoiti
- Catfish Volunteer Programme:
  - 140 volunteers had signed
  - 50 - 60 were actively netting
  - From April 2019 the first school would be set up for netting in Lake Rotorua.

### Members' Comments:

- Supported the displaying of fyke nets used to cull pest catfish in the Customer Service Centre of Rotorua Lakes Council and Bay of Plenty Regional Council Offices.

## **Resolved**

**That the Rotorua Te Arawa Lakes Strategy Group:**

- 1 Receives the report, Te Arawa Lakes Trust Update Report**

**Hunt/Winters  
CARRIED**

## 8.3 RLC Update Report to Rotorua Te Arawa Lakes Strategy Group

Rotorua Lakes Council Chief Executive Geoff Williams presented the report which provided an update on Rotorua Lakes Council (RLC) activity that related to lake water quality:

### Key Points:

- Rotomā / Rotoiti Sewerage Scheme

- Completion of the wastewater treatment plant and land disposal system was expected in June 2019
- Construction of Rotomā reticulation was progressing well with the sewer trunk main that would link Rotomā to the wastewater treatment plant almost complete
- Tenders for the Rotoiti onsite systems were currently being prepared
- Rotorua Wastewater Treatment Plant- resource consent renewal application had been publicly notified and submissions received. Consultation with significant objectors was being organised. The intention was to address key objection points prior to the Environment Court hearing
- Tarawera Sewerage Scheme - development of a cultural impact assessment currently facilitated by the Te Arawa Lakes Trust
- Rotorua Urban Area Comprehensive Stormwater Resource Consent
  - Resource consent application had been lodged with the Bay of Plenty Regional Council
  - Cultural Impact Assessment would be submitted as part of the S92 process
- Policy Planning: Plan Change 10: Lake Rotorua Nutrient Management – Following the Environment Court hearings on 4 - 8 March 2019, the Court's decision was being awaited.

Members' Comments:

- Noted that since tenders for the Rotoiti onsite systems were currently being prepared, RLC was unable to provide financial details relevant to the cost implications/options for ratepayers. All possibilities would be investigated before making a final decision
- RLC representatives confirmed that BOPRC would be updated on progress made with the tender process and would also be advised of all details once information on options/costs had been concluded
- A report on the outcome of the tender process would be provided to the Rotorua Te Arawa Lakes Strategy Group.

## Resolved

### That the Rotorua Te Arawa Lakes Strategy Group:

- 1 **Receives the report, RLC Update Report to Rotorua Te Arawa Lakes Strategy Group**

**Winters/Hunt  
CARRIED**

## 8.4 Ministry for the Environment Update Report

Members expressed appreciation for the dedicated and valuable contribution provided by Director, Mana Honohono – Investments and Partnerships Shaun Lewis.

Ministry for the Environment (MfE) Director Water Martin Workman was welcomed as the new MfE observer to the Rotorua Te Arawa Lakes Strategy Group. He provided a verbal update as follows:

Key Points:

- Update on the central freshwater package developed by the government:
  - Public consultation to commence July 2019
  - Envisaged to include changes to the Freshwater Policy Statement as well as a new environmental standard

- The goal was to stop further decline in the health of waterways by means of stronger national regulations and direction – “doing more faster”
- Planned to replicate the excellent work undertaken on Lake Tarawera
- Would require Farm Environmental Plans as a necessity
- Planned to manage further intensification
- Envisaged controls on high risk activities such as winter grazing
- Increased investment in Overseer
- Reduction in nutrient allocation and the implementation of a related system.

Item for Staff follow-up:

- A letter of appreciation to be sent to Director, Mana Honohono – Investments and Partnerships Shaun Lewis, for the dedicated and valuable support provided to the Rotorua Te Arawa Lakes Strategy Group.

## Resolved

**That the Rotorua Te Arawa Lakes Strategy Group under its delegated authority:**

- 1 Receives the verbal update provided by the Ministry for the Environment.**

**Winters/Hunt  
CARRIED**

## 9 Public Forum

### Don Atkinson, Chairperson Lakes Water Quality Society

Key Points:

- Rotorua Lakes Water Quality Society planned to host a symposium late October 2019; the date and programme still to be confirmed
- The Society had made a submission on the proposed Regional Pest Management Plan to BOPRC and had requested a change to a rule related to the transfer of boats between lakes: boat operators needed to certify that the rules stipulated by the Regional Pest Management Plan had been complied with, thus ensuring that boats had been properly cleaned
- Highlighted the value/importance of distinctly defining the input/contributions provided by the farming communities towards improving the health of waterways.

## 10 Public Excluded Section

### Resolved

#### Resolution to exclude the public

**THAT the public be excluded from the following parts of the proceedings of this meeting.**

**The general subject of each matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution are as follows:**

General Subject of Matter to	Reason for passing this	Grounds under Section
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be Considered	resolution in relation to this matter	48(1) LGOIMA 1987 for passing this resolution
10.1 Recommendations on Low Nitrogen Land Use Fund 2018	To protect the commercial position of an individual	Good reason for withholding exists under Section 48(1)(a)

Winters/Hunt  
CARRIED

## 11 Confidential Business to be Transferred into the Open

Nil

The meeting closed at 12:00 pm.

CONFIRMED [DATE]:

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Sir Toby Curtis  
Poū Tākiwaiora  
Rotorua Te Arawa Lakes Strategy Group

# **Presentations**

## **9.1 Lake Tarawera Update**

Presentation by Bay of Plenty Regional Council Team Leader  
Policy (Freshwater), James Low



# Reports







**Receives Only – No Decisions**

**Report To:** Rotorua Te Arawa Lakes Strategy Group

**Meeting Date:** 14 June 2019

**Report From:** Julie Bevan, Policy & Planning Manager

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## **Changing On-site Effluent Treatment rules for Rotorua Te Arawa Lakes**

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### **Executive Summary**

On-site effluent treatment systems are for treating human wastewater on a property. Bay of Plenty Regional Council is responsible for the management of discharges from these systems to ensure discharges do not contaminate the environment.

Draft Plan Change 14 (PC 14) will replace the current On-site Effluent Treatment Regional (OSET) Plan, by including updated policies and rules into the Bay of Plenty Regional Natural Resources Plan.

The key changes PC 14 will make to the current OSET Plan are:

- The requirement to upgrade an existing system to an AWTS+NR within 200 metres of a lake shore has been removed.
- Existing soak holes are to be prohibited and must be replaced with an appropriate land application system.
- Rules for communities where reticulation is planned have been written as 'holding patterns' prior to reticulation.
- New rules for un-reticulated papakāinga developments have been included.
- New rules for composting toilets and greywater discharges have been included.

A presentation will be given at the meeting.

### **Recommendations**

**That the Rotorua Te Arawa Lakes Strategy Group:**

- 1 Receives the report, Changing On-site Effluent Treatment rules for Rotorua Te Arawa Lakes.**

## 1 Purpose of report

To provide an overview of Draft Plan Change 14 (PC 14) to the On-site Effluent Treatment Regional (OSET) Plan, including implications for the Rotorua Te Arawa lakes catchments.

A presentation will be given at the meeting.

## 2 Draft Plan Change 14 (OSET)

On-site effluent treatment systems are for treating human wastewater on a property. These include septic tanks and aerated wastewater treatment systems (AWTS), composting toilets, greywater use, long drops, and alternative technologies such as incinerating toilets.

Under the Resource Management Act 1991 (RMA) the Bay of Plenty Regional Council (BOPRC) is responsible for the management of discharges from OSET systems to ensure discharges do not contaminate the environment. BOPRC has a current On-site Effluent Treatment Regional (OSET) Plan to help manage these discharges but it is more than 10 years old and needs updating. Draft Plan Change 14 (PC 14) will replace the current OSET Plan, and combine the updated rules with the Regional Natural Resources Plan. PC 14 does not apply to dairy shed effluent or municipal sewerage discharges. There are separate rules in the Bay of Plenty Regional Natural Resources Plan for these.

## 3 Draft Plan Change 14 process



## 4 OSET management in the Rotorua Te Arawa Lakes catchments

When developing Draft Plan Change 14 (OSET), these key principles were applied:

- Protect lake water quality, particularly from nutrients and bacteria (E.coli) discharged from OSET systems.
- In the Lake Rotorua catchment, co-ordinate OSET management with Plan Change 10 (Lake Rotorua Nutrient Management).
- Ensure the public health risks from OSET are managed.
- Consider the individual characteristics of each lake, including reticulation status and land use. This has led to sets of rules for an individual lake or group of similar lakes.
- Take a practical and pragmatic approach.

## 5 Key changes in Draft Plan Change 14

The key changes between the current OSET Plan and PC 14 are:

- The requirement to upgrade an existing system to an AWTS+NR within 200 metres of the lake shore has been removed. This is because settlement areas near the shore have either been reticulated, or reticulation is planned. There are very few systems within the 200 metres limit in the rural lake catchments.
- Existing soak holes are to be prohibited and must be replaced by a trench system. Soak holes do not provide the additional treatment and nutrient removal that a land application method (e.g. soakage trenches) allows. They are also a higher risk to the environment by discharging wastewater potentially close to groundwater. Timing issues around when existing soak holes are to be replaced need to be resolved.
- Rules for communities where reticulation is planned have been written as 'holding patterns' prior to reticulation.
- New rules for un-reticulated Papakāinga developments. The current Plan contains rules for the Western Bay of Plenty only. These rules have been extended to the rest of the region. In the Rotorua Te Arawa Lakes catchments, the Papakāinga rules link to the rules for individual lakes (i.e. what types of OSET systems are permitted or require resource consent).
- New rules for composting toilets and greywater discharges. There are some nutrient management issues to resolve around composting toilets.

## 6 Remaining issues to resolve

Consultation to date on Draft PC 14 in relation to the Rotorua Te Arawa Lakes has identified the following issues. These will be worked through and resolved prior to notification of PC 14 for submissions in late 2019.

- Ensure suitable OSET 'holding patterns' for Mamaku Village, Lake Tarawera, Ngamotu (Doctors Point) – Lake Rotomā, Tumoana Point – Lake Rotoiti, and Ngamimiro Bay and Ōtautū Bay - Lake Rotoehu. This is to appropriately manage the costs and benefits before a long-term solution is implemented. For Lake Tarawera, this is reticulation.
- For Mamaku Village, the long-term solution is currently being investigated. In May Trisha Simonson of Ormiston & Associates undertook some soil investigations in the Mamaku road reserve and site visits to look at the operation of OSET systems. Coupled with bore log information held by BOPRC, will help to understand whether the environment is suitable to continue with OSET systems.
- Ensure rules for composting toilets (i.e. the discharge of composted material) are appropriate in the lake catchments.
- Consider new technology that achieves the required OSET discharge of 15 grams nitrogen per cubic metre limit to future-proof the rules (e.g. allow for 'add on' technology for septic tanks, etc.).
- Check the OSET requirements and rules are clear, can be achieved and enforced, and make sense for individual lakes and their communities.

## **7 How Draft Plan Change 14 affects Māori**

Draft PC 14 does not affect households, marae or papakāinga that are connected to a reticulated sewage scheme.

### **7.1 Households**

Costs to individual households vary depending on location, if the area is planned for reticulation, and if OSET system upgrades are required. The requirements and cost implications will be carefully considered prior to the notification of PC 14. This is particularly important for Mamaku Village, Ngamotu (Doctors Point) – Lake Rotomā, Tumoana Point – Lake Rotoiti, and Ngamimiro Bay and Ōtautū Bay - Lake Rotoehu. The Tarawera Sewerage Steering Group is working on the reticulation of Lake Tarawera community.

### **7.2 Marae**

Marae play an important role within a community. They can also be used during civil emergencies and so their OSET systems need to be robust and be able to operate well under high loads during such events.

BOPRC is working on developing a proposal for a Marae OSET project. Overall, the knowledge about the risk to the environment from Marae OSET systems in the Bay of Plenty is low. This problem has been previously raised, with the view that a project should be started to improve that knowledge, and provide a good basis for assisting Marae on this matter.

The key point of a project is to understand whether or not Marae in the Bay of Plenty have issues relating to their wastewater, and, if it's appropriate, looking at ways in which BOPRC can help. The end goal of a Marae OSET project is to protect the environment, protect peoples' health, and to ensure Marae systems are fit for purpose.

### **7.3 Papakāinga Housing Developments**

PC 14 provides for papakāinga to enable development of multiple-owned Māori land, while making sure the OSET systems are designed to protect the environment and peoples' health. BOPRC staff also provide support and assistance on onsite effluent treatment issues where resource consent is needed.

## **8 Next steps in the Plan Change 14 process**

The next step is to develop a proposed plan change for formal notification for public submissions in late 2019. The process of developing PC 14 ready for notification involves:

- Considering the feedback received on Draft Plan Change 14.
- Further consultation with key stakeholders and affected communities to resolve issues, or provide an update of changes to be made to the OSET requirements.
- Working with the district and city councils to ensure the policies and rules are clear and appropriate. BOPRC will be working with Rotorua Lakes Council staff on a work programme for the communities listed in section 6 above.

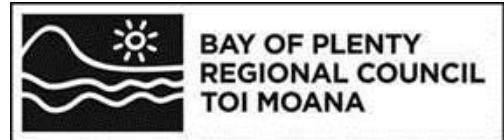
Subject to the above, PC 14 (OSET) and its Section 32 evaluation report will likely be publicly notified in late-2019. From this point the formal process is followed, with submissions, further submissions, hearing and Council's decisions.

Jill Owen  
**Planner**

**for Policy & Planning Manager**

**30 May 2019**





**Report To:** Rotorua Te Arawa Lakes Strategy Group  
**Meeting Date:** 14 June 2019  
**Report From:** Chris Ingle, General Manager, Integrated Catchments

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## **Rotorua Te Arawa Lakes Programme Status Report Update and 2019/2020 Annual Work Plan**

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### **Executive Summary**

The report below provides an update on Rotorua Te Arawa Lakes Programme progress since the last meeting of the Strategy Group in April 2019.

It also seeks approval for the 2019/2020 Annual Work Plan, which is to be provided to the Minister in accordance with the Deed of Funding for the Programme.

The response to the Catfish incursion on both Lakes Rotoiti and Rotorua will continue until the end of June 2019 and will resume once the lake temperatures have improved after winter.

### **Recommendations**

**That the Rotorua Te Arawa Lakes Strategy Group:**

- 1 Receives the report, Rotorua Te Arawa Lakes Programme Status Report Update and 2019/2020 Annual Work Plan;**
- 2 Approves the 2019/2020 Annual Work Plan for the Programme, for submission to the Minister for the Environment.**

### **1 Programme Status Report**

Appendix One includes a Dashboard Status Report for the Programme. Interventions and water quality measurements are on track in Lakes Ōkāreka, Rotoiti and Rotorua. As the Strategy Group is aware there is declining water quality in Lakes Tarawera and Rotoehu. More detailed updates on each lake are provided below.

As shown in the dashboard, financial and schedule status for the Programme is amber. The schedule is amber due to the delays in the Low Nitrogen Land Use Fund Round Two and the lack of weed harvesting on Lake Rotoehu. Underspends in these projects and the Incentives Scheme represents an amber status rating for financials of the programme.

### **Lake Rotoiti**

A condition inspection was undertaken on the Ohau Wall to confirm corrosion rates. The inspection has identified the first signs of holes in the wall since inspections started. After consultant review, the protection method developed in the Ohau Wall structural management plan is still the preferred option and staff will proceed with arranging this work to occur. Staff are also approaching the University of Waikato to undertake water quality modelling to assess the impacts.

### **Lake Ōkāreka**

Work has commenced on the Waitangi Stream erosion repairs to protect stream banks from the higher flows that have been necessary to respond to exceptionally high lake levels in Lake Ōkāreka. Additional funding has been approved to enable protection works to be completed on the final section.

### **Lake Ōkāreka Land Use change**

In 2016 the Strategy Group approved the Lake Ōkāreka Land Use Change project. The project set out to achieve a further 100ha of land use change, and audit all properties for compliance against Rule 11.

In October 2016 a letter was sent to all rural land owners advising them of upcoming auditing and offering them funding support to plant trees.

Compliance checks of all properties was complete in 2018 with only one property not compliant with Rule 11. This owner is working with an agricultural consultant to come into compliance.

To date the land use change project has secured the conversion of 53 ha of gorse and pasture to mānuka. Staff are now working on another agreement which they hope to finalise this month, which will secure a further 51 ha of new planting and protect 24.5 ha of reverting native. Once signed, this agreement will mark the completion of this project for land use change in the Lake Ōkāreka catchment.

## **2 2019/2020 Annual Work Plan**

A 2019/2020 Annual Work Plan has been prepared in accordance with the requirements of the Deed of Funding for the Programme and is included in Appendix Two. The Plan was approved by the Programme Steering Group 3 April, and now requires approval from the Rotorua Te Arawa Lakes Strategy Group to be submitted to the Minister in accordance with the Deed of Funding requirements.

The Plan sets out in detail, the planned activities over the year on each of the lakes. Both Deed and non-Deed funded lakes are included, plus a description of the activities.

Laverne Mason  
**Integrated Catchments Programme Manager**

**for General Manager, Integrated Catchments**



**5 June 2019**



# APPENDIX 1

## 2019-06-14 RTALSG Dashboard



# Rotorua Te Arawa Lakes Programme

<b>Programme Manager</b>	Laverne Mason	<b>Sponsor</b>	Chris Ingle	<b>Status Report Date</b>	May 2019
<b>Overall Status</b>	Overall Status: GREEN				
<b>Category</b>	<b>RAG Status</b>	<b>Update</b>			
<b>Financials</b>	AMBER	Projected underspends in phosphorus locking, land management change, low nitrogen land use fund, Brunswick sewerage reticulation, weed harvesting and engineering solutions has the financials sitting at Amber.			
<b>Schedule</b>	AMBER	Several of the Programme's projects are currently tracking behind schedule. These include: low nitrogen land use fund, weed harvesting and phosphorus locking re-consenting.			
<b>Resources</b>	GREEN				
<b>Scope</b>	GREEN				
<b>Overall Progress</b>	GREEN				

## Programme Risks

<b>Overall Risk Register: 6 open risks</b>	Risks 12 and above: 1 open risk
	Risks 8-11: 4 open risks
	Risks 1-7: 1 open risk

## Projects Snapshot

**Lake Rotorua**

Overall status: Improving

TLI Target = 4.2  
Current = 4.3

- Progressing engineering solutions to achieve 50 t.
- Preparing Draft Project Plan for the Water Management Area.
- Undertaking Low Nitrogen Land Use Fund contract negotiations
- 20 resource consents have been issued to date under PC10.
- 170 catfish have been caught following the discovery in December 2018.
- Incentives negotiations continue on potential agreements; approximately 26 tonnes.
- Draft Strategic Review Report of the Incentives Scheme has been presented to the Incentives Committee.
- Individual connection agreements for Brunswick/Rotokawa un-reticulated properties are being worked through.
- Further consultation with selected submitters is underway regarding the WWTP.
- Transitioning from OVERSEER Legacy to OVERSEER FM. Landowners will now be required to have their own account and publish results to BOPRC.

**Lake Rotoiti**

Overall status: Improving

TLI Target = 3.5  
Current = 3.9

- Continued construction of the WWTP and land disposal system and reticulation. Commissioning is expected to start June 2019.
- 23,346 catfish caught this season. Numbers are higher than 2017/18 season.
- Condition inspection undertaken on the Ohau Wall to confirm erosion rates. The inspection has identified the first signs of holes in the wall since inspections started.

**Lake Tarawera**

Overall status: Declining

TLI Target = 2.6  
Current = 3.1

- Preferred sewerage options are currently being confirmed through a CIA. The initial CIA is being consulted on.
- Tarawera lake modelling has been delayed due to uncertainty in the water quality results. Working towards a solution.

**Lake Rotoehu**

Overall status: Declining

TLI Target = 3.9  
Current = 4.8

- Continuing to work through potential adjustments of alum dosing. Weekly P monitoring is being undertaken.
- Engagement with Rotoehu community on sewerage reticulation is on hold while a decision on pre-treatment system for Rotoiti is made.

**Lake Okareka**

Overall status: Improving

TLI Target = 3.0  
Current = 3.5

- Implementing a Lakes Protection Agreement to convert 76ha of gorse and pasture into mānuka.
- Protection works have commenced on the most critical risk areas of Waitangi Stream.

**Lake Rotorua Nitrogen Target (Tonnes)**

Target (T)	320
Achieved (T)	30

\*Note: The stability of Lake Rotorua's TLI is due to artificial means.



## **APPENDIX 2**

### **2019 - 2020 Rotorua Te Arawa Lakes Programme Annual Work Plan DRAFT pdf**







# 2019/2020 Annual Work Plan

#love our lakes  
[rotorualakes.co.nz](http://rotorualakes.co.nz)



Bay of Plenty Regional Council, Rotorua  
Lakes Council and Te Arawa Lakes Trust.  
Working as one to protect our lakes  
with funding assistance from the  
Ministry for the Environment.

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# Part 1:

## Purpose

The purpose of the Annual Work Plan is to outline the interventions planned for the 2019/2020 financial year for the Rotorua Te Arawa Lakes Programme (the Programme). The Programme encompasses 12 Te Arawa lakes; four of these lakes are known as priority lakes and receive funding from the Ministry for the Environment, as per the Deed of Funding Agreement between the Crown, Bay of Plenty Regional Council (BOPRC) and Rotorua Lakes Council (RLC).

Table 1 below is a list of Deed and non-Deed lakes and their respective Target Trophic Level Index (TLI) (as set through the Bay of Plenty Regional Water and Land Plan) (RWLP).

*Table 1 Deed and non-Deed Lakes Target Trophic Level Index*

<b>Deed Lakes</b>	<b>Non Deed Lakes</b>
Rotorua (Target TLI 4.2)	Tarawera (Target TLI 2.6)
Rotoiti (Target TLI 3.5)	Ōkaro (Target TLI 5.0)
Rotoehu (Target TLI 3.9)	Rerewhakaaitu (Target TLI 3.6)
Ōkāreka (Target TLI 3.0)	Rotomā (Target TLI 2.3)
	Rotokakahi (Target TLI 3.1)
	Ōkataina (Target TLI 2.6)
	Tikitapu (Target TLI 2.7)
	Rotomahana (Target TLI 3.9)

This report will be submitted to the Minister for the Environment for formal approval of the Deed Funded interventions as required by the Deed of Funding Agreement. While the Minister only approves this annual plan in relation to the Deed Funded lakes, it covers the details of work on all lakes within the Programme, Deed and non-Deed Funded, for completeness.

# Part 2:

## Overview

The Rotorua Te Arawa Lakes Programme (the Programme) is administered through a partnership between Te Arawa Lakes Trust (TALT), Rotorua Lakes Council (RLC) and Bay of Plenty Regional Council (BOPRC). The Programme is established to deliver the strategy for the lakes of the Rotorua District.

The Rotorua Te Arawa Lakes Programme works in an environment of evolving science and technology. The interventions planned in the Annual Work Plan and the estimated nutrient targets for those interventions can be subject to change. The Programme is adaptive to new information and ideas and has a comprehensive change management process in place to enable it to be responsive to these. What is proposed in this Annual Work Plan may change throughout the year in response to a variety of factors. These changes will be approved and documented, as required.

### Lake Rotorua

The implementation of the approved Integrated Framework plus engineering solutions for reducing nitrogen input to Lake Rotorua, remains the focus for the Programme until 2022. The Integrated Framework plus engineering solutions comprises long-term interventions for reducing the nitrogen entering Lake Rotorua. The aim of this water quality solution is to reduce the nitrogen input to Lake Rotorua to the sustainable load of 435 t, as required by the Bay of Plenty Regional Policy Statement (RPS). The current estimated load to the lake is 755 t, so the reduction required is 320 t.

The interventions of the Integrated Framework (planned to deliver a 270 t nitrogen reduction), include a change to the Regional Natural Resources Plan (Plan Change 10), which requires landowners to reduce and manage the nitrogen and phosphorous contribution of their activity to the catchment. It also includes the Lake Rotorua Gorse Conversion Project which pays for the conversion of mature gorse land to trees, and the Lake Rotorua Incentives Scheme, which buys nitrogen from landowners below their nitrogen discharge allowance set by Plan Change 10.

Reduction of phosphorus input from the catchment is also necessary to achieve sustainable improvements in lake water quality and this is being achieved through the mechanisms in place, within the Integrated Framework, e.g. land use change and identification of critical source areas and mitigation measures within the Nutrient Management Plan for each farming activity.

In terms of engineering solutions, work will also occur during the financial year to determine other appropriate engineering solutions, to deliver the 50 target for this intervention (sewerage reticulation has already been achieved).

Phosphorous locking continues as a short-term intervention for nutrient reduction in Lake Rotorua, in accordance with the dosing protocol. The protocol is reviewed by the Water Quality Technical Advisory Group as required. Phosphorous locking will continue until the long-term interventions to reduce nitrogen and phosphorous entering the lake (the Integrated Framework plus engineering solutions) are realised in the lake.

Because of the average age of groundwater in the catchment, this is likely to be decades. A resource consent application to replace expiring consents for alum dosing on Lake Rotorua was submitted in 2018/2019. Further work may be necessary during the financial year if the consent is notified and submissions made.

All large areas of gorse within the Lake Rotorua Catchment are now considered controlled and the Gorse Conversation Project budget is largely exhausted. Focus will now shift from that project to other projects within the Integrated Framework, although opportunities to control smaller areas of gorse in the catchment where there is willing landowner participation will still be pursued.

The work of the Incentives Scheme will continue to pursue around 26 t of nitrogen identified in its 'pipeline'. At the time of writing, a Strategic Review is currently being undertaken of the Committee, in accordance with its Terms of Reference and the outcomes of that will also inform activities during the financial year.

Staff hope to conclude the Schedule One Environment Court process for Plan Change 10 within the financial year. Plan change 15 for the Rotorua Water Management Area (including all lake catchments) is part of a wider Regional Council programme of works and is required to implement the National Policy Standard (NPS) for Freshwater Management. Staff look to progress this plan change through this financial year by completing the stocktake of information, undertaking community consultation to confirm issues and values associated with freshwater, and establish objectives and limits for each attribute. Te Arawa Lakes Trust have indicated an interest in leading community engagement on these matters and this is provided for in this Annual Work Programme.

The Advice and Support Service will continue its work with landowners of properties greater than 40 ha, to assist them to lodge their resource consent applications required under PC10. An engagement of property owners under 40 ha in preparation for resource consents required in 2022 will commence shortly.

The Low Nitrogen Land Use Fund will continue to support the implementation of low nitrogen land use trial projects approved by the Rotorua Te Arawa Lakes Strategy Group. A review will be undertaken during the 2019/2020 financial year to inform further work for 2020/2021.

A critical project for all lakes, but particularly Lake Rotorua, is the establishment of the Nutrient Discharge Management System which is a database for tracking nitrogen discharge allowances, nitrogen loss, incentives agreements and nutrient trading across all properties. Phase one and two are now complete and running. Phase three will enable automated tracking of committed actions in Nutrient Management Plans and is under way.

Late in 2018, catfish were discovered near Mokoia Island in Lake Rotorua. Wider surveillance will be undertaken to determine the extent of the infestation in Lake Rotorua. Te Arawa Lakes Trust will continue to coordinate volunteers across both lakes with funding from the Regional Council.

A core component of the response to the catfish incursion is a comprehensive communications plan, which is aimed at communicating to the public what they must do to prevent the spread of catfish across our other lakes and raise awareness. This communications plan includes traditional measures like signage, social media campaigns and bumper stickers, along with radio station events targeting lake users and the utilisation of community volunteers to increase awareness.

Impacts that catfish have on water quality and the effect this may have on objectives of the Rotorua Te Arawa Lakes Programme, are being ascertained by the University of Waikato.

## Lake Rotoehu

Lake Rotoehu water quality has recently declined and it is challenging to establish why. A number of long-term and short-term interventions have been completed as agreed in the Lake Action Plan. All land use and land management change through nutrient agreements with landowners, are now complete. It will take some time for these changes in land use to result in better water quality reaching the lake, as there is a lag time due to the time of travel through groundwater.

Over the past three to four years, the lake appears to have become more dominated by algal growth and weed growth has declined. This has limited our ability to remove lake nutrients by weed harvesting, which in the past had been highly successful in removing nutrients. Staff will continue to monitor weed growth in the lake. It is likely that a recent shift to algal dominance is affecting the water quality by reducing light penetration.

Staff will continue to work with the Lake Water Quality Technical Advisory Group on possible causes and solutions for the problems faced at Lake Rotoehu. A workshop with scientists was held in October 2018, in an attempt to identify why the lake recovery has been disrupted and whether adjustments to some of our actions can reinstate the recovery that was apparent about four years ago. A list of actions will be prioritised with a likely key action being to obtain advice on the best location for the alum dosing diffuser.

An additional possible action at Lake Rotoehu is sewerage reticulation (not currently budgeted or identified as a key action in the Lake Rotoehu Action Plan). The initial scoping and consultation has been completed but further consultation will be undertaken to consider options for the community.

## Lake Rotoiti

All actions on Lake Rotoiti are largely complete, including the Ohau Diversion Wall (re-consented in 2017 for a further 35 years) and lakeside sewerage reticulation. The only outstanding action on Lake Rotoiti is reticulation at Hinehopu and Gisborne Point. Construction of a standalone wastewater treatment plant, disposal and reticulation is currently underway, with commissioning of the Plant expected to take place between April-June and anticipated to be operational by July 2019.

The Ohau Wall and the sewerage schemes will continue to deliver the necessary nutrient reductions for this lake. Corrosion of the Ohau Wall has been identified and a structural management plan has been developed. During 2019/2020, structural components are being installed and condition monitoring will be carried out to determine the most effective asset maintenance option to meet the design life requirements for the wall.

The main challenge for Rotoiti is the recent explosion in the numbers of juvenile catfish caught across the lake, including in the Ohau Channel. The University of Waikato have been asked to advise us what the potential effects of this catfish incursion on this and other lakes is, in terms of lake water quality. Interventions such as Fyke Netting and eDNA will be continued throughout the year across the lakes along with Te Arawa Lakes Trust volunteer coordination.

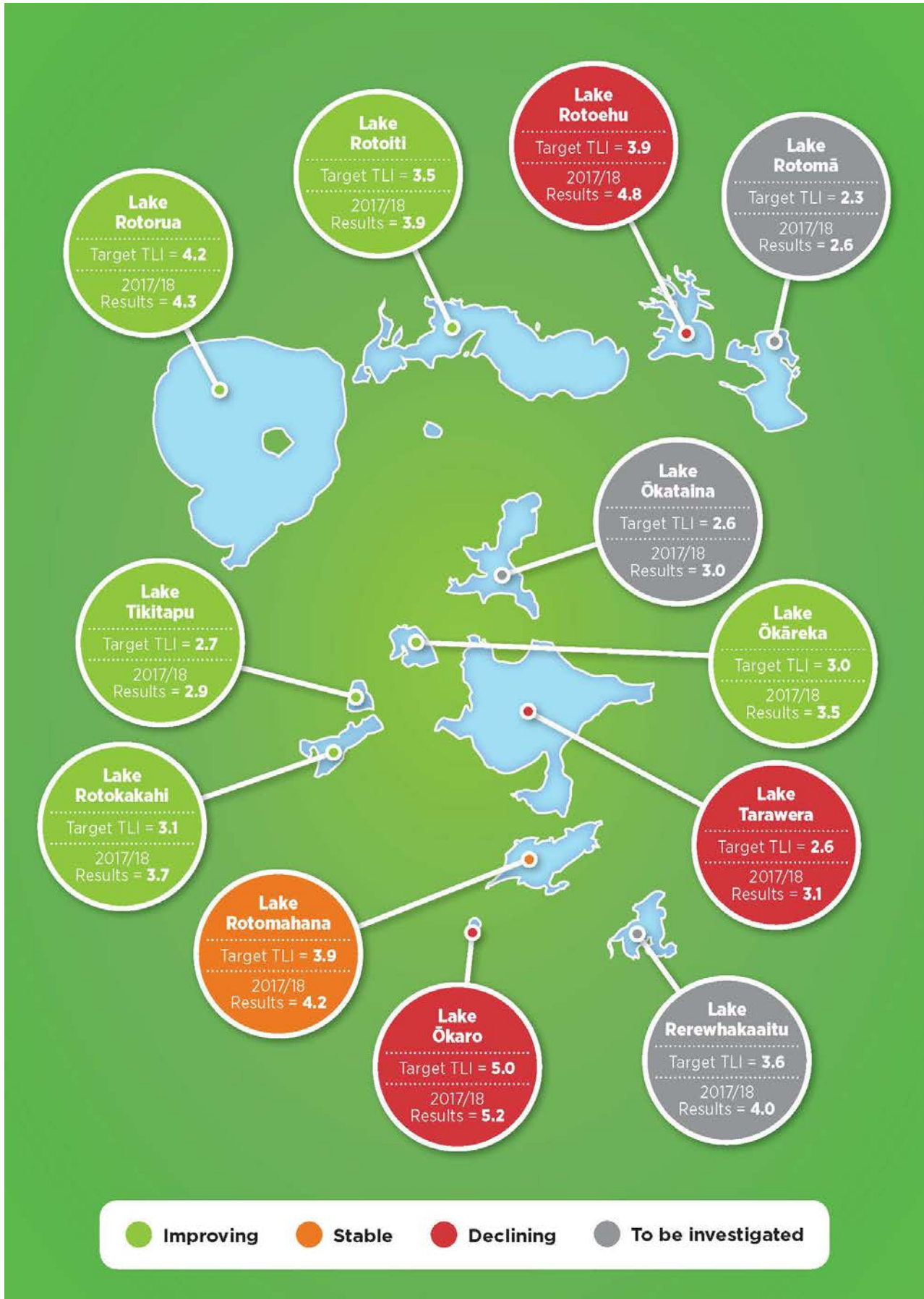
## Lake Okareka

In 2016, it was agreed by the Rotorua Te Arawa Lakes Strategy Group (RTALSG) that further land use change, would be needed for Lake Ōkāreka. Funding was agreed to achieve this. Previously, land use change and sewerage reticulation specified in the action plan for the lake had been completed, but the target TLI has remained stubbornly above its target TLI.

Benchmark audits of all properties with a benchmark in the Lake Okareka Catchment are complete. A further large land use change agreement has been approved in accordance with the further land use change project approved. Staff are negotiating with a landowner to secure a further 75 ha. If this is successful, then all land use change has been completed within Lake Ōkāreka and a period of water quality monitoring to determine change will ensue.



# Water quality trends and TLI



# Part 3:

## Priorities for 2019/2020

### Lake operations

- **Continue Lake Rotoehu weed harvesting (dependent on weed availability).**
- **Continue phosphorous locking at Lake Rotorua.**
- **Continue investigations into the best location for alum dosing on Lake Rotoehu.**
- **Investigate further engineering solutions to achieve the remaining portion of 50 T N.**
- Undertake mitigation works as agreed through the resource consent for the Ohau Wall.
- Responsive weed management as required for amenity purposes across all lakes.
- Manage the corrosion of the Ohau Wall as per the Structural Management Plan.
- Manage the Ohau Wall as per the resource consent.
- Continue to monitor impacts from forest harvesting on groundwater at Lake Rotomā.
- Complete catchment and lake modelling work with the University of Waikato for Lake Tarawera to confirm nutrient targets.
- Continue koura monitoring programme on all 12 lakes.
- Install monitoring buoys in Lakes Rotoiti and Okareka. Reconsider management regime for monitoring buoys with the University of Waikato.

### Land management

- **Continue to implement the Lake Rotorua Gorse Programme, including signing new agreements and implementing existing ones.**
- **Continue contract negotiations associated with Round Two of the Low Nitrogen Land Use Fund.**
- **Undertake a review of the Low Nitrogen Land Use Fund to inform future works.**
- **Continue to implement the Lake Rotorua Incentives Scheme, including signing up new agreements**

**Te Arawa Lakes Trust**

**and implementing existing ones. The cumulative nitrogen target for the 2019/2020 financial year is 35 t of nitrogen.**

- **Continue to implement the Advice and Support Service for landowners affected by Plan Change 10.**
- **Progress further land use change in Lake Okareka Land Use Project, to reduce nutrient loss in the catchment and continue to implement existing agreements.**
- Continue Tarawera Catchment acacia control in on land adjacent to Isthmus Track. Follow up work to be undertaken at 2015 control site.
- Continue to support the farming community to implement farm management plans that concentrate on good management practices in inner and outer Tarawera Catchments.

**Policy, planning, communications and IT**

- Continue to embed Te Arawa Values Framework within the Programme through a series of workshops for team members working on the Te Arawa Rotorua Lakes Programme.
- Engineering solutions - wetland restoration for Lake Rotorua.
- Engagement with hapū and iwi on matters associated with the Te Arawa Rotorua Lakes Programme via an Iwi Engagement Forum.
- Ongoing work with the Community Coordinator for the catfish programme.
- Progress phase three of the Cultural Health Index for Lake?
- Continued engagement on Rotorua urban stormwater consents.

- Continue schedule one Resource Management Act (1991) process for Lake Rotorua Nutrient Management rules (Plan Change 10) being made operative.
- Continue to support the Water Management Area work to consider no-intensification rules for land use in those lake catchments which are not currently covered by Rule 11, e.g. Tarawera.
- Continue implementation of the Communications Plan for the Programme.
- Progress Phase Three of the Nutrient Discharge Management System, which will enable automated tracking of committed actions in Nutrient Management Plans.

## Sewerage

- **Complete a project to connect the remaining unconnected properties in the Rotokawa/Brunswick area to sewerage reticulation.**
- **Complete construction of the Rotomā/Rotoiti wastewater treatment plant, land disposal system and reticulation.**
- Continue community engagement at Rotoehu in relation to sewerage with the aim of agreeing a preferred option.
- Assist the community to decide on the preferred sewerage reticulation option for Lake Tarawera and progress project implementation through the working group.
- Secure resource consent for the upgrade of the Rotorua Wastewater Treatment Plant.

## Catfish response

- Implement our comprehensive communications plan to create awareness of the presence of catfish and help prevent their spread.
- Continue regular Fyke Netting in Lake Rotoiti, Rotorua and wider surveillance in the Rotorua Lakes.
- Commence the use of eDNA techniques which can establish whether catfish are present in a waterbody.
- Continue supporting Te Arawa Lakes Trust to coordinate volunteers in the catfish incursion response.

**\*Deed Funded activities are shown in bold.**

## Assumptions

Several assumptions have been made in compiling the Annual Work Plan for 2019/2020, these include:

- Interventions planned for 2019/2020 are completed as per any approved change requests.
- That change to legislative or resource consent requirements do not negatively affect the impacts, outcomes or continuation of the various interventions.
- The Programme works on the philosophy of being adaptive to new and changing science, and this annual work plan is prepared on the basis that the interventions will evolve to match the latest scientific knowledge. Application of reserve funding.

The Chief Financial Officers (CFO) Forum<sup>1</sup> monitors the financial status of the programme quarterly and the application of any reserve funding being held.

Both councils hold reserve funding which has been paid by the Crown for interventions approved in previous annual work plans. The reserve funds will be used (up to an agreed amount) before further drawdowns are undertaken.

The 2018/2019 year end reserve forecast balance as reported to the Chief Financial Officers (CFO) Forum is:

- Bay of Plenty Regional Council is \$1,656 million.
- Rotorua Lakes Council is \$19,000.

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<sup>1</sup> The CFO Forum comprises:

- CFO, Management Accountant and Programme Manager, BOPRC.
- CFO and Programme Leaders, Ministry for Environment.
- CFO and Financial Officer, RLC.

## Part 4:

# Annual plan of interventions Deed Funded lakes

### Lake Rotorua

To meet community expectations for water quality in Lake Rotorua, nitrogen inputs must not exceed 435 t annually, as set in the Bay of Plenty Regional Policy Statement. To achieve water quality targets for Lake Rotorua the Programme is undertaking both short-term and long-term interventions. Short-term interventions (e.g. phosphorous locking) have resulted in Lake Rotorua reaching its water quality objective in the past. However, the lake will decline again if alum dosing is not carried out annually. The solution to sustainable improvements is long-term reduction of nutrients entering the lake, this is planned to be achieved through the Integrated Framework and Engineering Solutions.

## Completed and planned activities - Lake Rotorua

Project	Deed Funded	At lake target	Total achieved as at writing AWP	6 month cumulative target this AWP	12 month cumulative target this AWP	Description	Deliverables	Budget \$000
<b>Lake Rotorua Gorse Conversion Project</b>	Yes	365.5 ha	188 ha 0.96 T N in lake	210 ha	215 ha	<p>The Lake Rotorua Gorse Conversion Project (the Project) is part of the Integrated Framework for land use change in the Lake Rotorua Catchment.</p> <p>Originally the project was aimed at contributing 30 t of nitrogen reduction to Lake Rotorua by paying for the conversion of mature gorse land to trees (native or production forest). Our understanding of gorse coverage in the catchment is better now and the gorse problem isn't as big as we first estimated.</p> <p>There are approximately 365.5 ha of mature gorse to control in the catchment. The nitrogen gain to the lake will depend on the density of coverage in these areas and will be calculated as Gorse Agreements are approved.</p>	<p>Excellent progress has been made with the Gorse Conversion Project with all large gorse blocks in the catchment now controlled and agreements in place for 188 ha and 456 ha now considered controlled (including through other mechanisms).</p> <p>What remains are small areas of gorse which deliver small nutrient benefits compared to the cost of conversion. Staff intend to continue to work with landowners who are willing to participate and as opportunities present themselves in gorse conversion, but focus will now shift to implementing existing gorse agreements and other deliverables of the Integrated Framework.</p> <p>The cumulative total hectares conversion target (under the Gorse Conversion Project) for 2019/2020 financial year is 215 ha.</p>	\$221

Project	Deed Funded	At lake target	Total achieved as at writing AWP	6 month cumulative target this AWP	12 month cumulative target this AWP	Description	Deliverables	Budget \$000
<b>Rotorua Wastewater Treatment Plant - Alternative Disposal Site</b>	No	N/A	N/A	N/A	N/A	A Deed of Understanding has been signed between RLC and CNI Iwi Holdings Limited (landowner of Whakarewarewa Forest). It states that the discharge of treated effluent from the Rotorua Wastewater Treatment Plant in to the Whakarewarewa Forest must be discontinued by December 2019. This means an alternative to the forest disposal needs to be found. A preferred option for discharge was selected by the Steering Committee for the project and has been adopted by the RLC. This project will not deliver a net nutrient benefit to the lake but it will ensure that the benefits delivered by the existing plant, in terms of nutrient benefit to the lake, continue to be realised.	The focus for 2019/2020 on this project will be the approval of a resource consent application for the preferred alternative. Contract for the design, build and operation of the plant upgrade will also be approved and detailed design will commence after the resource consent approval. There is currently no Deed Funding applied to this project as it does not have a specified nutrient benefit.	\$500 (est)
<b>Brunswick-Rotokawa Sewerage Reticulation Connections</b>	Yes	TBA	TBA	TBA	TBA	There are 200 remaining properties in the Lake Rotorua Catchment which need to be connected to the reticulation system available in the area. In particular at Brunswick/Rotokawa (around 70 connections). These connections now need to be made.	Complete connections at Brunswick/Rotokawa. Engage with all properties in the catchment not currently connected to wastewater reticulation who can be and make connections. The number and type of connections will determine	\$295



Project	Deed Funded	At lake target	Total achieved as at writing AWP	6 month cumulative target this AWP	12 month cumulative target this AWP	Description	Deliverables	Budget \$000
							nutrient benefit.	
<b>Completed Lake Rotorua Reticulation</b>	Yes	9.74 T N 0.3 T P	9.74 T N 0.3 T P	4.87 T N 0.15 T P	9.74 T N 0.3 T P	This represents completed sewerage reticulation in the Lake Rotorua Catchment. This work is completed and no further funds will be spent. However, annual nitrogen gains continue to be realised by completed reticulation.	No works required in 2019/2020.	\$0
<b>Lake Rotorua Incentives Scheme</b>	Yes	100 T N	20.4 T N	25 T N	35 T N	The Lake Rotorua Incentives Scheme (Incentives Scheme) is part of the Integrated Framework for land use change in the Lake Rotorua Catchment, aimed at reducing nitrogen entering the lake. The Incentives Scheme will contribute 100 t of nitrogen reduction to Lake Rotorua, by purchasing from landowners nitrogen below their Nitrogen Discharge Allowance (as set by Proposed Plan Change 10). To provide governance leadership to the Incentives Scheme, the Lake Rotorua Incentives Committee was re-established following the 2016 Local Authority Elections. The Incentives Scheme has a \$40 million budget over its 7 year lifespan (until 2022) to make this 100 t reduction.	Progress further agreements with landowners in the Lake Rotorua Catchment to achieve a cumulative reduction of 35 t of nitrogen by year end. Implement existing agreements. Implement agreed recommendations of 2019 Strategic Review.	\$7,561

Project	Deed Funded	At lake target	Total achieved as at writing AWP	6 month cumulative target this AWP	12 month cumulative target this AWP	Description	Deliverables	Budget \$000
<b>Further Engineering Solutions</b>	Yes	15 T N 0 T P	N/A	N/A	N/A	<p>Investigate and pursue options to achieve the remaining nitrogen to achieve a 50 t total engineering reduction. Options to date include:</p> <ol style="list-style-type: none"> <li>1 Geothermal stream diversion in place of Zeolite Plant.</li> <li>2 Year 2 of a 3 year project to clear nitrogen fixing species in the Rotorua Catchment with a focus on the Puarenga Stream and Hannah's Bay.</li> <li>3 Wetland restoration, a restoration plan for around 40 ha has been completed. Negotiations are under way with the Trustees of the land to reach an agreement for restoration and enhancement of the site.</li> <li>4 Two other wetland restorations being pursued and we are currently in the initial stages of investigation and discussions with landowners.</li> <li>5 Continue work on Plan Change 15 to look at ways to protect lakeside wetlands.</li> <li>6 TALT to work on</li> </ol>	<p>Work to be completed on each option (see left) include:</p> <ol style="list-style-type: none"> <li>1 Explore options.</li> <li>2 Continued landowner engagement to get consent to remove nitrogen fixing species (Alders).</li> <li>3 Negotiate with landowners for protection and enhancement of 40 ha lakeside property which has degraded wetlands and present for funding.</li> <li>4 Commission restoration reports on both sites to determine the value of restoration for lake water quality and seek landowner buy in.</li> <li>5 Ensure Plan Change 15 process provides for lake edge wetland protection.</li> <li>6 TALT staff to work with iwi and current landowners to develop restoration plans for key sites associated and present those for funding.</li> </ol>	<p>\$35 <b>BOPRC</b> \$25 <b>TALT</b> (funded by BOPRC via contract)</p>

Project	Deed Funded	At lake target	Total achieved as at writing AWP	6 month cumulative target this AWP	12 month cumulative target this AWP	Description	Deliverables	Budget \$000
						progressing wetland restoration opportunities associated with the land previously set aside for the Eastern Arterial.		
<b>Landowner decision making support</b>	Yes	N/A	N/A	N/A	N/A	<p>Landowner support refers to assisting landowners to make land use and land management change decisions, so they can meet their requirements set through Plan Change 10, but also participate in the Lake Rotorua Incentives Scheme if they desire.</p> <p>The Low Nitrogen Land Use Fund will support the implementation of projects approved by the Rotorua Te Arawa Lakes Strategy Group April 2019 meeting. The purpose of this is to inspire other landowners to take up demonstrated low nitrogen land uses.</p>	<p><b>Advice and Support Service:</b> The target for this financial year is that all properties over 40 ha in the Lake Rotorua Catchment will either be enrolled in the Advice and Support Service, consented or in a compliance process.</p> <p><b>Low Nitrogen Land Use Fund:</b></p> <ol style="list-style-type: none"> <li>1 Complete contract negotiations associated with Round Two of LNLUF.</li> <li>2 Track and manage the implementation of the land use changes contracts from Round Two.</li> <li>3 Carry out a review of the LNLUF to inform further work for the 2020/2021 financial year.</li> </ol>	<p><b>Advice and Support</b> \$500</p> <p><b>Low Nitrogen Land Use Fund</b> \$500</p>

Project	Deed Funded	At lake target	Total achieved as at writing AWP	6 month cumulative target this AWP	12 month cumulative target this AWP	Description	Deliverables	Budget \$000
<b>Phosphorous Locking (Utuhina and Puarenga)</b>	Yes	N/A	N/A	As required	As required	The Programme operates two alum dosing plants on streams entering Lake Rotorua. These plants lock phosphorous into sediments entering the lake. This is a short-term intervention aimed at maintaining water quality in Lake Rotorua until land use change takes effect.	<p>The Programme will continue to monitor in-lake phosphorus and adjust the dosing of alum according to the Programme's protocol. That means that the phosphorous targets for this intervention are not fixed, phosphorous locking will continue as required to maintain the lake at its target TLI (4.2), as far as possible.</p> <p>A trial is currently taking place to test lower dosing rates through only a single plant. More intensive in-lake P monitoring is being undertaken to support this trial. Reconsenting of the activity is currently underway - see details below.</p>	\$665
<b>Regional Natural Resources Plan - Plan Change 10</b>	No	140 T N	0.0 T N	0.0 T N	0.0 T N	<p>Plan Change 10 to the Regional Natural Resources Plan requires landowners to reduce the nitrogen contribution of their land use activity to the Lake Rotorua Catchment to reach a Nitrogen Discharge Allowance within.</p> <p>This Plan Change now has legal effect and is being</p>	<p>The work on the plan change this financial year will include:</p> <ol style="list-style-type: none"> <li>1 Concluding the Schedule One Environment Court process.</li> <li>2 Implementing the plan change as required, including establishing</li> </ol>	TBC

Project	Deed Funded	At lake target	Total achieved as at writing AWP	6 month cumulative target this AWP	12 month cumulative target this AWP	Description	Deliverables	Budget \$000
						implemented, but is still subject to Environment Court appeals.	resource consents for all properties over 40 ha and permitted activity compliance monitoring. 3 Continue work on the Science Review recommendations.	
<b>Regional Natural Resources - Plan Change 15</b>	No	N/A	N/A	N/A	N/A	Plan Change 15 is part of a wider Regional Council programme required to implement the NPS for Freshwater Management.  This plan changes intends to set limits for attributes identified in the NPS-FM within the Rotorua Water Management Area, and the method of achieving those limits (with the exception of Nitrogen for Lake Rotorua, which has already been set through the RPS and PC10).	1 Complete the stocktake and continue to fill in any gaps in information. 2 Undertake community consultation to confirm issues and values associated with freshwater. 3 Establish objectives and limits for each attribute to support the community values. 4 Identify any required non regulatory and regulatory actions to achieve the specified limits. 5 Notify PC15.	TBC
<b>Nutrient Agreements (not Incentives Scheme)</b>	No	N/A	1.7 T N 0.16 T P	0.85 T N 0.08 T P	1.7 T N 0.16 T P	This represents completed and existing nutrient agreements in the Lake Rotorua Catchment. These agreements are completed and no further funds will be spent. However, annual nutrient gains continue to be realised by completed agreements and ongoing	Existing nutrient agreements will continue to be monitored. Figures shown here are reductions at root zone, i.e. nutrient loss of the land use activity as measured at the root zone by Overseer®.	\$0

Project	Deed Funded	At lake target	Total achieved as at writing AWP	6 month cumulative target this AWP	12 month cumulative target this AWP	Description	Deliverables	Budget \$000
						monitoring of the agreements is required to ensure the nutrient reductions continue to be realised.		
<b>Re-consenting of Phosphorous Locking on Lakes Rotorua and Rotoehu</b>	Yes	N/A	N/A	N/A	N/A	Resource consents for Lake Rotorua and Lake Rotoehu alum dosing expire in 2018 and 2019. New applications for Lake Rotorua have been lodged and applications for Lake Rotoehu are pending. This project is to progress re-consenting of this activity to continue alum dosing on Lake Rotorua and Rotoehu until land use change in both catchments takes effect.	The Rotorua application has been accepted by the Regional Council Consents Team. Further work may be necessary during 2019/2020 if the consent is notified and submissions made. At this stage the outcome of the consent process and the information required has uncertainties.  Application for the Lake Rotoehu consent will be made once the details of science advice are available in June 2019.	\$185
<b>Catfish Incursion Management</b>	No	N/A	N/A	N/A	N/A	The BOPRC continue to undertake regular Fyke Netting of Lake Rotoiti and Rotorua along with wider surveillance in the Rotorua Lakes. Te Arawa Lakes Trust have engaged over 130 volunteers, some of who are willing to net regularly in the Rotorua lakes.  The University of Waikato have determined that the eDNA method is successful on smaller waterbodies, it will be	<ol style="list-style-type: none"> <li>1 Increased Fyke Netting presence in Rotorua Lakes.</li> <li>2 eDNA techniques will be used to establish whether catfish are present in a waterbody.</li> <li>3 Te Arawa Lakes Trust to coordinate up to 100 nets set and 200 active volunteers in three years.</li> </ol>	\$300 <b>BOPRC</b> \$85 <b>TALT</b> (funded by BOPRC via contract)

Project	Deed Funded	At lake target	Total achieved as at writing AWP	6 month cumulative target this AWP	12 month cumulative target this AWP	Description	Deliverables	Budget \$000
						refined for larger waterbodies and then rolled out across the Rotorua Lakes in the form of regular monitoring.		
<b>Rotorua Urban Stormwater Consents - TALT to prepare</b>	No	N/A	N/A	N/A	N/A	Engagement with hapū/iwi and landowners in sub catchments around Lake Rotorua.	Cultural Impact Assessment for Rotorua urban stormwater consent.	\$100 (est)
<b>Iwi Engagement Forum - TALT to run</b>	No	N/A	N/A	N/A	N/A	Engagement with hapū, iwi and landowners within the catchment on Lakes Programme matters.	Hold three to four forums over the year to increase understanding and awareness of Programme and seek guidance on interventions facing Programme.	\$20 (to be supported with Regional Council funding)
<b>Total Deed Funding required – Lake Rotorua</b>								<b>\$9,962</b>
<b>Total non-Deed Funding required – Lake Rotorua</b>								<b>\$505</b>

**Key:** **T** = Tonne; **P** = Phosphorus; **N** = Nitrogen

## Lake Rotoehu

To meet community expectations for water quality in Lake Rotoehu, a reduction of 8.8 t of nitrogen and 708 kgs of phosphorus is required per year. Short-term intervention, phosphorus locking is currently on hold. A workshop was held with the Programme's science advisors was undertaken in October 2018 regarding future appropriate action for Lake Rotoehu. Actions from this meeting will be prioritised prior to June 2019. It is likely that a key action is to obtain advice on the best location for the alum dosing diffuser, as internal nutrient recycling has become a dominant source of nutrient driving summer algal blooms. Another short-term intervention, weed harvesting, is dependent on weed growth. Previous seasons have seen little growth due to algal blooms. Community engagement, in relation to potential sewerage reticulation will progress in 2019/2020.



## Completed and planned activities - Lake Rotoehu

Project	Deed Funded	At lake target	Total achieved as at writing AWP	6 month cumulative target this AWP	12 month cumulative target this AWP	Description	Deliverables	Budget \$000
<b>Land Use and Land Management Change</b>	Yes	6.6 T N 0.46 T Root Zone	8.45 T N 0.8 T P Root Zone	4.22 T N 0.4 T P Root Zone	8.45 T N 0.8 T P Root Zone	This represents completed and existing land use and land management change agreements in the Lake Rotoehu Catchment. These agreements are completed and no further funds will be spent. However, annual nutrient gains continue to be realised by completed agreements and ongoing monitoring of the agreements is required to ensure the nutrient reductions continue to be realised.	Existing nutrient agreements will continue to be monitored. Figures shown here are reductions at root zone, i.e. nutrient loss of the land use activity as measured at the root zone by Overseer®.	\$0
<b>Weed Harvesting</b>	Yes	N/A	N/A	N/A	N/A	The Programme purchased a weed harvester 'Chopper' in 2014. Its main purpose is to harvest hornwort from Lake Rotoehu as a short-term intervention. The weed harvester is also used in other lakes for amenity weed control. Weed is harvested from the lake and transported out of the catchment for composting. The harvesting is generally undertaken at the peak of the weed season, over March and April. Due to a lack of harvestable weed, the harvester has not been used for	The weed harvester will operate in 2019/2020 on Lake Rotoehu to remove accessible weed. Whether it operates and how long it operates is dependent on weed availability in that season.	\$50

Project	Deed Funded	At lake target	Total achieved as at writing AWP	6 month cumulative target this AWP	12 month cumulative target this AWP	Description	Deliverables	Budget \$000
						the past three seasons.		
<b>Phosphorous Locking</b>	Yes	As required	N/A	As required	As required	<p>The Programme operates an alum dosing plant on Lake Rotoehu which locks phosphorous into sediments entering the lake. This is also a short-term intervention to maintain water quality in the lake until the land use and land management change agreements take effect in the long-term.</p> <p>Re-consenting is also required for alum dosing on Lake Rotoehu during the financial year as the current consent for this is expiring. This is detailed above with Lake Rotorua.</p> <p>Advice is being sought on the best location for the dosing of alum on Lake Rotoehu to improve efficacy and any changed regime will be included with a new consent application.</p>	Staff will continue to monitor in-lake phosphorus and adjust the dosing of alum in line with the Programme's protocol. This means that the phosphorous targets for this intervention are not fixed, and phosphorous locking will continue as required to maintain the lake at its target TLI (3.9), as closely as possible. Staff will also investigate ways to improve dosing effectiveness.	\$235,167
<b>Rotoehu Sewerage Reticulation</b>	No	N/A	N/A	N/A	N/A	There is community interest in connecting properties in the Lake Rotoehu Catchment to sewerage reticulation.	Community engagement to be undertaken during the year. The engagement will involve development of options with the community to a point where a preferred option is decided upon.	\$0

Project	Deed Funded	At lake target	Total achieved as at writing AWP	6 month cumulative target this AWP	12 month cumulative target this AWP	Description	Deliverables	Budget \$000
<b>Iwi Engagement Forum - TALT to run</b>	No	N/A	N/A	N/A	N/A	Engagement with hapū, iwi and landowners within the catchment on Lakes Programme matters.	Hold three to four forums over the year to increase understanding and awareness of Programme and seek guidance on interventions facing Programme.	See Rotorua
<b>Total Deed Funding required - Lake Rotoehu</b>								<b>\$285,167</b>
<b>Total non-Deed Funding required - Lake Rotoehu</b>								<b>\$20</b>

## Lake Rotoiti

To meet community expectations for water quality, Lake Rotoiti needs a reduction of 130 t of nitrogen and 19 t of phosphorus. The Ohau Diversion Wall which has been in place since 2008, is improving water quality by diverting Lake Rotorua nutrients from Lake Rotoiti while nutrient reductions into Lake Rotorua are achieved.

The action that remains on Lake Rotoiti is further reticulation of Hinehopu and Gisborne Point. These areas will connect into the new treatment and land disposal system being developed for them and Lake Rotomā. Rotomā reticulation is expected to be completed by June 2019 with Rotoiti late in 2020. The total cost of the new Rotomā/Rotoiti Wastewater Treatment Plant and Land Disposal System and the related reticulation is expected to be \$34.24 million. There is a funding subsidy of \$4.46 million from the Ministry of Health which can be applied to the Lake Rotomā portion only. Catfish incursion management will continue during 2019/2020.

## Completed and Planned Activities - Lake Rotoiti

Project	Deed Funded	At lake target	Total achieved as at writing AWP	6 month cumulative target this AWP	12 month cumulative target this AWP	Description	Deliverables	Budget \$000
<b>Sewerage Scheme Curtis Road to Hinehopu</b>	Yes	4.9 T N 1.1 T P	0.0 T N 0.0 T P	0.0 T N 0.0 T P	0.0 T N 0.0 T P	<p>This scheme represents the final reticulation required for the Lake Rotoiti Catchment. This scheme is combined with reticulation of Lake Rotomā and Ministry of Health Funding applies to the Lake Rotomā portion of the scheme.</p> <p>This scheme will see the development of a stand-alone wastewater treatment plant and land disposal system.</p>	<p>In 2019/2020, construction of the Rotomā/Rotoiti Waste Water Treatment Plant and Land Disposal System, and Rotomā sewerage reticulation will continue and due to be completed in mid-2019.</p> <p>The construction of the Rotoiti reticulation is due to be completed in late 2020.</p>	\$5,445
<b>Ohau Diversion Wall</b>	No	150 T N 15 T P	N/A	75 T N 7.5 T P	150 T N 15 T P	<p>The Ohau Wall was constructed in 2008 and prevents the flow of water from Lake Rotorua into Lake Rotoiti.</p> <p>The wall has recently been granted resource consent for another 35 years. Corrosion of the wall needs to be managed to ensure this lifespan and a plan is in place to deliver this.</p>	<p>Corrosion of the Ohau Wall has been identified and a structural management plan has been developed to assist the wall to meet its expected design life. The key outputs of the management plan include 3-yearly condition inspections and installation of structural components in 2019/2020. The condition monitoring will determine the most effective asset maintenance option to meet the design life requirement for the wall.</p>	\$0

Project	Deed Funded	At lake target	Total achieved as at writing AWP	6 month cumulative target this AWP	12 month cumulative target this AWP	Description	Deliverables	Budget \$000
<b>Completed Reticulation</b>	Yes	5.9 T N 0.21 T P	5.9 T N 0.21 T P	2.95 T N 0.10 T P	5.9 T N 0.21 T P	This represents completed sewerage reticulation in the Lake Rotoiti Catchment. This work is completed and no further funds will be spent. However, annual nutrient gains will continue to be realised by completed reticulation.	No works required in 2019/2020.	\$0
<b>Install Monitoring Buoy</b>	No	N/A	N/A	N/A	N/A	Monitoring buoy to be installed in Lake Rotoiti to provide ongoing monitoring of lake water quality and support the University of Waikato modelling programme for our lakes.	Install buoy and commence monitoring.	\$36
<b>Catfish Incursion management</b>	No	N/A	N/A	N/A	N/A	See Rotorua.	See Rotorua.	See Rotorua
<b>Iwi Engagement Forum</b>	No	N/A	N/A	N/A	N/A	Engagement with hapū, iwi and landowners within the catchment on Lakes Programme matters.	Hold three to four forums over the year to increase understanding and awareness of Programme and seek guidance on interventions facing Programme.	See Rotorua
<b>Total Deed Funding Required - Lake Rotoiti</b>								<b>\$5,445</b>
<b>Total non-Deed Funding Required - Lake Rotoiti</b>								<b>\$56</b>

## Lake Ōkāreka

Lake Okareka has remained stubbornly above its target TLI despite all the actions in the action plan being completed, land use change and sewerage reticulation. In 2016 the Rotorua Te Arawa Lakes Strategy Group approved a further land use change project to try to achieve further improvements in water quality. Although not Deed Funded, erosion protection works are required on the Waitangi Stream. Staff will continue to seek resource consent and manage lake levels and flow to help protect assets.

### Completed and planned activities - Lake Okareka

Project	Deed Funded	At lake target	Total achieved as at writing AWP	6 month cumulative target this AWP	12 month cumulative target this AWP	Description	Deliverables	Budget \$000
<b>Further Land Use Change Project</b>	Yes	100 ha	N/A	50 ha secured	100 ha secured	Incentivised land use change project to encourage landowners in the catchment to convert areas of pastoral land to trees.	Working with land owners to secure a total of 100 further hectares of land use change.	\$320
<b>Install Monitoring Buoy</b>	No	N/A	N/A	N/A	N/A	Monitoring buoy to be installed in Lake Okareka to provide ongoing monitoring of lake water quality and support the University of Waikato modelling programme for our lakes.	Install buoy and commence monitoring.	\$36
<b>Lake Okareka Streamworks</b>	No	N/A	N/A	N/A	N/A	Erosion protection works are required on the Waitangi Stream, to protect assets from erosion of that stream, due to increased flows necessary to manage recently high water levels in Lake Ōkāreka.	<ol style="list-style-type: none"> <li>1 Complete consenting associated with emergency and ongoing flow management and erosion protection.</li> <li>2 Install erosion protection on Waitangi Stream.</li> <li>3 Manage lake levels and flow at outlet to protect assets.</li> </ol>	\$400

Project	Deed Funded	At lake target	Total achieved as at writing AWP	6 month cumulative target this AWP	12 month cumulative target this AWP	Description	Deliverables	Budget \$000
<b>Sewerage Scheme</b>	Yes	1.9 T N 0.02T P	1.9 T N 0.02T P	0.95 T N 0.01T P	1.9 T N 0.02T P	All sewerage reticulation in this catchment is complete. Reductions continue to be realised year-on-year.	Complete.	\$0
<b>Previous Land Use Change</b>	Yes	1.18 T N 0.22 T P	1.1 T N 0.22 T P	0.59 T N 0.11 T P	1.18 T N 0.22 T P	This represents completed and existing nutrient agreements in the Lake Ōkāreka Catchment. These agreements are completed and no further funds will be spent. However, annual nitrogen gains continue to be realised by completed agreements, and ongoing monitoring of the agreements is required to ensure the nutrient reductions continue to be realised.	Complete.	\$0
<b>Iwi Engagement Forum - TALT to run</b>	No	N/A	N/A	N/A	N/A	Engagement with hapū, iwi and landowners within the catchment on Lakes Programme matters.	Hold three to four forums over the year to increase understanding and awareness of Programme and seek guidance on interventions facing Programme.	See Rotorua
<b>Total Deed Funding Required - Lake Ōkāreka</b>								<b>\$320</b>
<b>Total non-Deed Funding Required</b>								<b>\$456</b>





# Part 4:

## Annual Plan of Interventions – non Deed Funded

Although the focus for the 2019/2020 financial year is implementing the Integrated Framework for Lake Rotorua and the ongoing work on other Deed Funded lakes outlined above, work continues on the non-Deed lakes to protect and enhance their water quality, in-particular the Tarawera Catchments.

### Planned activities

#### Lake Tarawera

The Tarawera Lakes Restoration Plan was adopted in 2015 by the Rotorua Te Arawa Lakes Strategy Group and forms the basis for actions on this lake, as outlined in the table below. In addition, Te Arawa Lakes Trust are leading the development of a Collective Impact Framework in response to the declining water quality in Lake Tarawera.

For the 2019-2020 Financial Year Te Arawa Lakes Trust have committed to leading out a community engagement process to assist the community to understand water quality issues and possible actions for the Tarawera Catchments. This will help inform next steps beyond the Restoration Plan and Placn Change 15 that the Regional Council are pursuing for the catchments. Part funding for this has been committed by the Regional Council pending the Lakes Trust securing funding from the Nature Conservancy for this engagement work.

Also of note, is that this lake is not currently protected by Rule 12 of the Regional Natural Resources Plan. However, upcoming plan changes through the Regional Council's water management areas are intended to consider this. Modelling currently under way will confirm the nutrient targets for this lake but currently the lake is considered to require a reduction of 12 t of nitrogen and 1.2 t of phosphorus in order meet its target TLI.

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<sup>2</sup> Rule 11 of the Regional Land and Water Plan applies to Lakes Ōkāreka, Rotoehu, Ōkaro, and Rotoiti and caps the amount of nutrient discharge from properties in the catchment.

<b>Project</b>	<b>Background</b>	<b>Deliverables</b>	<b>Responsibility</b>
Tarawera Lakes Restoration Plan	The Tarawera Lakes Restoration Plan was approved November 2015.	Continue implementation of agreed actions from the Tarawera Lakes Restoration Plan during 2019/2020.	Bay of Plenty Regional Council.
Sewerage Reticulation	The Tarawera Sewerage Steering Committee is a stakeholder committed, formed to drive sewerage reticulation at Lake Tarawera. They have secured \$6.5 million of funding from the Government's Freshwater Improvement Fund and also funding from both the BOPRC and RLC for the scheme.	Assist the community to decide on the preferred sewerage reticulation option for Lake Tarawera and continue implementation of the Scheme through the working group.	Rotorua Lakes Council.
Cultural Health Index	A cultural health assessment has been identified as an action within the Tarawera Lakes Restoration Plan.	Carry out a cultural health assessment applying the index of the Tarawera system - Stage Two.	Te Arawa Lakes Trust, funded by BOPRC.
Acacia Control	The Acacia control project has been running for the past four years. Control is undertaken between May and September.	Acacia control is planned for winter and early spring on additional land adjacent to the Isthmus Track. Follow-up work on the 2015 control area will also continue.	BOPRC.

Project	Background	Deliverables	Responsibility
Farm Environment Plans – Inner and Outer Tarawera Catchments	With the adoption of the Tarawera Restoration Plan, the Lake Rerewhakaaitu Farmers’ Group agreed to lead the development of Farm Environment Plans for the inner and outer Catchments of Lake Tarawera, on a voluntary participation basis. This project is complete in terms of the development of these plans, with Fonterra having developed plans for all willing dairy farms and Perrin Ag and Ag First having been contracted to prepare them for willing dry stock farms, on the basis of the Beef and Lamb template.	Support implementation of completed plans through continued liaison with the Lake Rerewhakaaitu Farmers’ Group and individuals.	Bay of Plenty Regional Council with support from Lake Rerewhakaaitu Incorporated Society, Fonterra and Beef and Lamb NZ.
Nutrient Modelling	An updated nutrient model for the greater Tarawera Catchment is nearly completed.	Finalise and present catchment modelling for the Tarawera Catchment.	University of Waikato, funded by BOPRC.
Collective Impact Framework developed	Address the wider Lakes system by bringing all parties together.  Lakes Research project co-governance success – Vision Matauranga bid as part of research bid from Lakes Chair.	Appointment of a coordinator  A collective impact forum established.  Funding to be secured.	Te Arawa Lakes Trust, funded by The Nature Conservancy (\$75,000 – still to be confirmed) and BOPRC (\$25,000 – confirmed pending sourcing of funding from Nature Conservancy).

## Lake Ōkaro

Water quality in Lake Ōkaro has fluctuated over the last 10 years. Historically, the lake has suffered from regular seasonal algal blooms. Over the 2014 and 2015 years, the lake has complied with its TLI of 5.0. In 2017/2018 we saw an increased to 5.2 TLI units however, the three-year average sitting at 4.9.

Project	Background	Deliverables	Responsibility
Farm Environment Plans	Refer Tarawera project.	Refer Tarawera project.	Refer Tarawera project.
Cultural Health Index	A cultural health index developed for Ōkaro and Rotomahana.	Development of a cultural health index for two lakes in the Tarawera system.	Te Arawa Lakes Trust, funded by BOPRC. \$15,000

## Lake Rerewhakaaitu

The Lake Rerewhakaaitu Incorporated Society is an active farmer group focused on improving farm practice, to meet community expectations on the protection of water quality. The Programme will continue to work closely with this group and Regional Council will continue to assist willing landowners with the implementation of actions outlined in their individual Farm Environment Plans to restrict nutrient contributions to the lakes, including up to 50% funding for detainment bunds and the retirement and land retirement.

Project	Background	Deliverables	Responsibility
Farm Environment Plans	Refer Tarawera project.	Refer Tarawera project.	Refer Tarawera project.

## Lake Rotomā

This lake is not currently protected by Rule 11 of the Bay of Plenty Natural Resources Plan, but it is intended that upcoming plan changes associated with the Regional Council's Water Management Areas will resolve this by managing land uses, to ensure lake water quality is maintained and enhanced. The three year average TLI for Lake Rotomā is 2.4. Rotomā reticulation is expected to be completed by June 2019.

Project	Background	Deliverables	Responsibility
Forest Harvesting Effects Investigation	An investigation over a four year period to look into the effects of forest harvesting on phosphorous levels.	Ongoing investigation during 2019/2020.	SCION, funded by BOPRC.
Sewerage Reticulation	A standalone wastewater treatment plant and disposal system, plus associated reticulation is currently under construction for Lake Rotomā and Gisborne Point and Hinehopu on Lake Rotoiti.	Continue construction as planned during 2019/2020. Completion of both the WWTP and LDS and reticulation is scheduled for mid-2019.	RLC.

## Lake Rotokakahi

This lake is managed by a private board of control; there is no public access on to the lake.

Project	Background	Deliverables	Responsibility
Farm Environment Plans	Refer Tarawera project.	Refer Tarawera project.	Refer Tarawera project.

## Lake Ōkataina

This lake is not currently protected by Rule 11 of the Bay of Plenty Natural Resources Plan, but it is intended that upcoming plan changes associated with the Regional Council's Water Management Areas will resolve this, by managing land uses to ensure lake water quality is maintained and enhanced. Lake Ōkataina is considered as having stable water quality. There are opportunities for land use change in the Ōkataina Catchment which will be pursued as available.

Project	Background	Deliverables	Responsibility
WaiOra Stage Two	TALT and Ngāti Tarāwhai secured \$56,000 from the Wai Māori Trust for a baseline assessment of the taonga species in Lake Ōkataina.	Actions for taonga species in Lake Ōkataina. Ongoing monitoring of taonga species. Alignment of Cultural Health Index and undertaking assessments.	Te Arawa Lakes Trust and Ngāti Tarāwhai.

## Lake Tikitapu

This lake is not currently protected by Rule 11 of the Bay of Plenty Natural Resources Plan, but it is intended that upcoming plan changes associated with the Regional Council's Water Management Areas will resolve this, by managing land uses to ensure lake water quality is maintained and enhanced.

## Lake Rotomahana

This lake is not currently protected by Rule 11 of the RLWP, but it is intended that upcoming plan changes will resolve this, by managing land uses to ensure lake water quality is maintained and enhanced. It is intended that the Programme will progress the development of regional rules to protect the Lake's water quality (through capping nutrient loss) in future plan changes.

Project	Background	Deliverables	Responsibility
Farm Environment Plans	Refer Tarawera project.	Refer Tarawera project.	Refer Tarawera project.
Cultural Health Index	A cultural health index development for Lakes Ōkaro and Rotomahana.	Development of a Cultural Health Index for two lakes in the Tarawera system.	Te Arawa Lakes Trust, funded by BOPRC.



# Part 5:

# **Financials**





**Rotorua Te Arawa Lakes Programme - Annual Work Programme**

Proposed budget for financial year ending 30 June 2020

Interventions (4.6.1)	Draft Annual Plan 2019/20	4.6.6 Total funding required from the Crown 50%	4.6.4 (a) Proposed Work Programme (excluding deferred works) 2018/2019	4.6.4 (b) Monetary contributions BoPRC/ RDC	4.6.4 (c) Any other Crown funding received	4.6.4 (d) Crown funding received 2018/2019, and not spent, and proposed to be reinvested not including interest rec	4.6.4 (e) Programme reserve estimated interest accrued prior year 2018/2019	4.6.4 (f) Amount of funding required from the Crown less reserve funding to fund works for 2019/2020	4.6.5 (a) Total estimated deferred works from 2018/2019	4.6.5 (b) Deferred works from prior 2018/2019 financial years	4.6.5 (d) MfE Programme reserves committed to deferred works 2019/2020	4.6.5 (e) Further Crown funding to undertake deferred works in 2019/2020 (if any)
	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
<b>Lake Rotoehu</b>												
Weed Harvesting	50,000	25,000	50,000	25,000	0	0	0	25,000	0	0	0	0
Land Management Change	0	0	0	0	0	0	0	0	0	0	0	0
Phosphorus Locking Soda Springs	235,167	117,584	235,167	117,584	0	0	0	117,584	0	0	0	0
Aeration	0	0	0	0	0	0	0	0	0	0	0	0
Sediment capping	0	0	0	0	0	0	0	0	0	0	0	0
Wetlands	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Lake Rotoehu</b>	<b>285,167</b>	<b>142,584</b>	<b>285,167</b>	<b>142,584</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>142,584</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Lake Okareka</b>												
Sewerage Reticulation (RDC)	0	0	0	0	0	0	0	0	0	0	0	0
Land Management Change	320,000	160,000	320,000	160,000	0	0	0	160,000	0	0	0	0
<b>Total Lake Okareka</b>	<b>320,000</b>	<b>160,000</b>	<b>320,000</b>	<b>160,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>160,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Lake Rotorua</b>												
Advice and Support	503,927	251,964	503,927	251,964	0	0	0	251,964	0	0	0	0
Low Nitrogen Land Use Fund	502,085	251,043	502,085	251,043	0	0	0	251,043	0	0	0	0
Rotorua Lakes Phosphorus Locking	665,261	332,631	665,261	332,631	0	0	0	332,631	0	0	0	0
Tikitere Diversions	4,300,407	2,150,204	4,300,407	2,150,204	0	0	0	2,150,204	0	0	0	0
Gorse	221,599	110,800	221,599	110,800	0	0	0	110,800	0	0	0	0
Wetlands	0	0	0	0	0	0	0	0	0	0	0	0
Land Incentive Payments	7,000,000	3,500,000	7,000,000	3,500,000	0	0	25,000	1,844,000	0	0	1,656,000	0
Land Incentive Board Administration	561,110	280,555	561,110	280,555	0	0	0	280,555	0	0	0	0
Lakes Engineering Solutions	30,407	15,204	30,407	15,204	0	0	0	15,204	0	0	0	0
Sewerage Treatment and Disposal	295,000	147,500	295,000	147,500	0	0	0	147,500	0	0	0	0
<b>Total Lake Rotorua</b>	<b>14,079,796</b>	<b>7,039,898</b>	<b>14,079,796</b>	<b>7,039,898</b>	<b>0</b>	<b>0</b>	<b>25,000</b>	<b>5,383,898</b>	<b>0</b>	<b>0</b>	<b>1,656,000</b>	<b>0</b>
<b>Lake Rotoiti</b>												
Sewerage Reticulation (RDC)	5,445,000	2,722,500	5,445,000	2,722,500	0	0	19,000	2,703,500	0	0	19,000	0
Ohau Wall Reconsenting	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Lake Rotoiti</b>	<b>5,445,000</b>	<b>2,722,500</b>	<b>5,445,000</b>	<b>2,722,500</b>	<b>0</b>	<b>0</b>	<b>19,000</b>	<b>2,703,500</b>	<b>0</b>	<b>0</b>	<b>19,000</b>	<b>0</b>
<b>Rotorua District</b>												
Treatment and disposal (RDC)	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Rotorua District</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Programme Expenditure by Council</b>												
Rotorua Lakes Council	5,740,000	2,870,000	5,740,000	2,870,000	0	0	19,000	2,851,000	0	0	19,000	0
Bay of Plenty Regional Council	14,389,963	7,194,982	14,389,963	7,194,982	0	0	25,000	5,538,982	0	0	1,656,000	0
<b>Total</b>	<b>20,129,963</b>	<b>10,064,982</b>	<b>20,129,963</b>	<b>10,064,982</b>	<b>0</b>	<b>0</b>	<b>44,000</b>	<b>8,389,982</b>	<b>0</b>	<b>0</b>	<b>1,675,000</b>	<b>0</b>
<b>Subtotal Programme</b>	<b>20,129,963</b>	<b>10,064,982</b>	<b>20,129,963</b>	<b>10,064,982</b>	<b>0</b>	<b>0</b>	<b>44,000</b>	<b>8,389,982</b>	<b>0</b>	<b>0</b>	<b>1,675,000</b>	<b>0</b>



ROTORUA LAKES COUNCIL

Chairperson and Members  
ROTORUA TE ARAWA LAKES STRATEGY GROUP

**UPDATE REPORT FROM ROTORUA LAKES COUNCIL**

**Report prepared by:** Jean-Paul Gaston, Group Manager Strategy and Partnerships

**Report approved by:** Geoff Williams, Chief Executive

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**1. PURPOSE**

To provide a short update on Rotorua Lakes Council (RLC) activity that relates to lake water quality.

**2. EXECUTIVE SUMMARY**

*RLC activity currently underway that impacts the Lakes Programme includes:*

- *Wastewater treatment and stormwater projects*
- *Planning Policy*

This report provides a brief update against each of these areas.

**3. RECOMMENDATIONS:**

1. **That the report 'Update Report from Rotorua Lakes Council' be received.**

**4. WASTEWATER TREATMENT AND STORMWATER PROJECTS****Rotomā / Rotoiti Sewerage Scheme**

- The construction of the wastewater treatment plant is nearing completion and it is expected that commissioning will start in June 2019.
- The pipeline from Rotomā to the treatment plant is completed. Installation of individual onsite installation continues and it is expected that about 80% of properties will be connected at the start of plant commissioning.
- The construction of the Rotoiti reticulation is now under construction, ahead of the original schedule.

**Rotorua Wastewater Treatment Plant**

- Further consultation with significant objectors continues.
- The Officers Report and recommendations from both consenting authorities, Bay of Plenty Regional Council and Rotorua Lakes Council, is expected in mid-June 2019.

**Tarawera Sewerage Scheme**

- The development of the Cultural Impact Assessment of all proposed sewerage servicing options continues.

- The Cultural Impact Assessment development is facilitated by the Te Arawa Lakes Trust with significant input from the relevant Iwi and Mana Whenua.

**Rotorua Urban Area Comprehensive Stormwater Resource Consent**

- The Resource Consent application is being put on hold by Bay of Plenty Regional Council.
- Bay of Plenty Regional Council is currently reviewing their approach to stormwater management and the way stormwater resource consent applications are assessed.

**5. PLANNING POLICY AND STRATEGY****Bay of Plenty Regional Council - Plan Change 10: *Lake Rotorua Nutrient Management (PC10)*:**

Environment Court hearings were held from Monday 4 to Friday 8 March 2019. All parties are now awaiting the Court's decision.

**6. CONCLUSION**

Rotorua Lakes Council continues to work across multiple areas towards improved lake water quality as a partner in the Rotorua Te Arawa Lakes Programme.