

The Chairman and Members

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 **CR2, Rotorua District Council Civic Administration Building, 1061 Haupapa Street, Rotorua** on:

EMBARGOED

Until 2 working days before meeting on:

Friday, 2 December 2011

commencing at 10.00 a.m.

Mary-Anne Macleod
Chief Executive
Bay of Plenty Regional Council
Joint Committee Administering Authority

25 November 2011



Rotorua Te Arawa Lakes Strategy Group - Terms of Reference

Interpretation

In these Terms of Reference:

“Organisations” means the Te Arawa Lakes Trust, the Rotorua District Council and the Bay of Plenty Regional Council.

“Rotorua Lakes” means Lakes Rotorua, Rotoiti, Rotoehu, Rotoma, Okataina, Tikitapu, Okareka, Tarawera, Rotomahana, Rerewhakaaitu, Okaro and Rotokakahi.

“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.

Purpose

The purpose of the Group is to contribute to the promotion of the sustainable management of the Rotorua 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

Six members:

Two representatives from Te Arawa Lakes Trust

Two representatives from the Rotorua District Council

Two representatives from the Bay of Plenty Regional Council.

Term of the Committee

This is a permanent joint committee under the Te Arawa Lakes Settlement Act 2006. The *Te Arawa Lakes Deed of Settlement* (December 2004) included clauses establishing the Group (Cultural Redress: Lakes Management and Relationships, clauses 9.1 to 9.3). The terms of reference for the Group come from a signed agreement between the three parties (dated 8 October 2004) and included in Part 1 of the Relationship Schedule to the Deed of Settlement.

Specific Responsibilities and Delegated Functions

The group will have the following functions:

The provision of leadership to the Organisations and the community in relation to implementation of the Vision of the Strategy for the Lakes of the Rotorua district 2000.

1 The identification significant existing and emerging issues affecting the Rotorua Lakes.

The preparation, approving, monitoring, evaluation and review agreements, policies and strategies to achieve integrated outcomes for the Rotorua Lakes.

The identification, monitoring and evaluation of necessary actions by the organisations and other relevant organisations.

The receiving of reports on activities being undertaken by the organisations and other relevant organisations.

Involvement during the preparation of statutory plans in relation to significant issues. Such plans include but are not limited to iwi and hapū management plans, district and regional plans, reserve management plans and annual plans.

Involvement in applications for activities in relation to significant issues not addressed by existing policies of the co-management partners. 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.

Committee Membership

Chairman:	Mayor K Winters (Rotorua District Council)
Deputy Chairman:	T Curtis (Chairman, Te Arawa Lakes Trust)
Members:	Chairman J Cronin and Councillor N Oppatt Councillor K Hunt (Rotorua District Council) Deputy Chairman W Emery (Te Arawa Lakes Trust)
Alternates:	Councillor L Thurston (Bay of Plenty Regional Council) Councillor G Searancke (Rotorua District Council), T Marr (Te Arawa Lakes Trust)
Appointee:	M Pinckard (Ministry for the Environment)
Secretary:	S Cubbon

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

Agenda

- 1 **Apologies**
- 2 **General Business and Tabled Items**

Items not on the agenda for the meeting require a resolution under section 46A of the Local Government Official Information and Meetings Act 1987 stating the reasons why the item was not on the agenda and why it cannot be delayed until a subsequent meeting.
- 3 **Reports**
 - 3.1 **Review of Aquatic Weed Control for Amenity Purposes on Rotorua Lakes** 9
 - 3.2 **Approval of de-stratification project for Lake Rotoehu** 15
 - 3.3 **Bay of Plenty Regional Council's position statements on land use and land management change in the Lake Rotorua catchment** 23

APPENDIX 1 - Rotorua Lakes Protection and Restoration Programme

APPENDIX 2 - Bay of Plenty Regional Council Position Statement on land use change_draft

APPENDIX 3 - Bay of Plenty Regional Council Position Statement on land management change_draft

APPENDIX 4 - Position Statement Question and Answers

3.4 **Programme Report** **37**

3.5 **Te Arawa Lakes Trust**

A verbal report

4 **Public Excluded Section**

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:

4.1 **Lake Rotoehu agreement to reduce nutrient discharge** **45**

Reason

That the public conduct of the whole or the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information where the withholding of the information is necessary to enable any local authority holding the information to carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).

Grounds

That the public conduct of the whole or the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist.

APPENDIX - Tautara Matawhaura Maori Lands Trust map for Lakes Deed August 2011

5 **Consideration of General Business**

Reports

File Reference: 4.00102
7.00232
Significance of Decision: Receives Only - No Decisions



Report To: Rotorua Te Arawa Lakes Strategy Group
Meeting Date: 02 December 2011
Report From: Greg Corbett, Manager Land Resources (Rotorua)

Review of Aquatic Weed Control for Amenity Purposes on Rotorua Lakes

Executive Summary

Aquatic weeds infestations within the Rotorua Lakes area have resulted in major impacts on lake ecology, biodiversity, water quality and recreational use.

Over the past two years the Regional Council has received an increasing number of requests for aquatic weed control for safety and recreational use. Management of aquatic pest within the Rotorua Lakes area involves a number of agencies and is complicated by different policies which have proved frustrating for the public.

The Bay of Plenty Regional Council has responsibilities under both the Ten Year Plan and the Regional Pest Management Plan for the BOP 2011-2016 (RPMP) to address biosecurity issues. The impacts of aquatic pest plants on recreational and amenity values are currently not well addressed. Both the Regional Council and the Rotorua District Council have a mandate under the Local Government Act to take action where they consider this is of benefit to the region and district. Given this APR Consultants Ltd were commissioned by the Regional Council to investigate the scale and nature of the issue. To date they have completed two stages of their report.

APR have identified a number of issues and have also canvassed stakeholder views and found a noted level of support for Regional Council involvement in the control of Aquatic pest plants for Amenity purposes.

The Regional Council have recognised stakeholder views and has provisionally budgeted \$50,000 within the Draft Ten Year Plan and for Lakeweed control to be targeted to amenity areas. Prioritisation of sites and establishing an appropriate process for carrying out work and allocating costs will be required.

Copies of both stage one and stage two of APR Consultants report are available to members of the Group.

1 Recommendations

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

- 1 Receives the report, Review of Aquatic Weed Control for Amenity Purposes on Rotorua Lakes.**

2 **Purpose**

The purpose of this report is to inform the Group of APR Consultants Report “Review of Aquatic Weed Control for Amenity Purposes on Rotorua Lakes” and of the Bay of Plenty Regional Councils provision for aquatic weed control for amenity purposes in the draft TYP.

3 **Background**

Since the late 1950's aquatic weeds infestations within the Rotorua Lakes have resulted in major impacts on lake ecology, biodiversity, water quality and recreational/amenity values. Impacts have varied from lake to lake depending on the species of aquatic weed introduced and other factors including lake bathymetry, lake nutrient levels, existing lake vegetation and lake use. Chemical control using Diquat herbicide was first undertaken in the 1960's and with some refinements in application mixes and techniques is still used today as the primary method of aquatic pest plant.

Management of aquatic weed issues combines responsibilities from a number of agencies and organisations. Underpinning control are the Crown's obligation to Te Arawa Lakes Trust under the Te Arawa Lakes Deed Settlement signed in 2004. The settlement specifies that management of aquatic pests attached to the lakebed is the responsibility of the Crown. This responsibility is administered through Land Information New Zealand who contracts the delivery of the responsibility to Boffa Miskell Consultants. Organisations that have a role include:

- Rotorua Te Arawa Lakes Strategy Group, which has a governance role over lake management and are responsible for the Lakes Protection and Restoration Programme
- Rotorua District Council whose park department are responsible for amenity cleanups on councils reserves, mainly at the Rotorua Lakefront
- Department of Conservation who support advocacy and education
- The Bay of Plenty Regional Council, who have responsibilities through both the 2009-2019 Ten Year Plan and the Regional Pest Management Plan.

4 **Councils Role and Responsibilities**

4.1 **Ten Year Plan**

References to aquatic pest plant control in the ten year plan include;

- Ensuring there is a place where people can experience, enjoy and appreciate nature because of the initiatives like the Rotorua Lakes Recreation Strategy- page 115.
- Taking a lead role in addressing regional issues such as the Rotorua Lakes in partnership with Central Government and Iwi – page 116.
- Build aquatic weed cordons at six Rotorua lakes – page 122
- Weed Harvesting at Lake Rotoehu – page 133

4.2 **Regional Pest Management Plan**

The implications of aquatic weeds to biosecurity are largely managed under the 2011-2016 Regional Pest Management Plan for the Bay of Plenty (RPMP). The RPMP targets three aquatic pest species. In the event that any of these species are found as

new incursions in presently uninfested Lakes the three species *Egeria densa*, Lagarosiphon and Hornwort are designated as “containment species” and control will be implemented via an incursion response programme. The plan also targets the transport of weed between waterways and makes it an offence to transport weed.

The Regional Council currently contribute financial to incursion response plans and carry out monitoring and Surveillance of aquatic weeds and advise LINZ and Boffa Miskel of appropriate areas to carry out control, this advice is largely target at the prevention of aquatic weed spread. NIWA have reviewed this advice (NIWA Client Report HAM 2009 – 164 November 2009 Review of Aquatic Pest Surveillance and Monitoring Programme for the Rotorua Lakes) and found it to be sound.

Presently there is minimal direct targeting of aquatic pest plant control for amenity purposes, on BOPRC advice LINZ do treat some areas of the Kawaha Point Weedbed as strandings from this weedbed can result in major impacts to the Rotorua Lakefront, this control is limited by LINZ budget constraints.

5 **APRs Report**

Public concern has frequently been expressed regarding the impact of aquatic weed, particularly strandings on amenity values, the commissioning of APRs report is largely in response to these concerns. The report aims to inform council and help councils decision making process as to the level of intervention warranted from the Regional Council.

5.1 **Project Objectives**

APRs project has been divided into three stages. The first stage of APRs project sets out to review the background behind current control programmes, to assess the pattern of aquatic weed establishment and distribution, to outline the legislative framework behind management, and to identify the key aquatic pest plant beds that are impacting on areas of high amenity value.

The proposed outcomes from the report were to:

- to assess the rationale behind BOPRC management of aquatic pest plants for enhancement of amenity values,
- to assess criteria for setting priorities for control,
- to weight recreational use with spatial patterns of aquatic pest distribution
- to assess any key pressure points for aquatic weed management.

The second stage involved consultation with key stakeholders to collect feedback from a range of recreational bodies, Commercial Operators and businesses, Hapū, Iwi and Lakeside communities.

The third stage is yet to be completed but involves assessment and confirmation of criteria used in aquatic weed prioritisation, identification of key organisations roles, assessment of control options and analysis of risks involved.

6 **Project Outcomes and Recommendations**

6.1 **Stage One**

Stage one of the project assessed key recreational areas within the Rotorua Lakes area. And also gave a range of recommendations.

The report presented a rationale for controlling aquatic pest plants:

“That they impede recreational activity such as swimming, boating and fishing that they diminish water quality and compromise aesthetic values. In the event of strandings, pest plants rot onshore in substantial quantities and create a strong stench.

Aquatic pest plant activity in the Rotorua Lakes has implications for lower real estate values around the lakes, lessened economic activity, lower recreational use, increased public nuisance, diminished cultural value associated with the Mauri (special nature) of the lakes.”

The Report presented criteria for the control/prioritisation of sites that combined the following;

- Visitor use data from the 2009 Rotorua Lakes Infrastructure Pressure Study report that includes boat counts, vehicle counts and person counts.
- Population centre sizes.
- Aquatic pest plants spread on each lake.
- Whether control had been previously carried out on the site.

The above factors were factored into a spreadsheet which ranks a number of sites as a low medium or High priority for control.

Recommendations for enhanced control and monitoring from the first stage of the project are to;

1. Continue to undertake biosecurity related aquatic pest plant control and prioritise funding toward preventing further spread.
2. Undertake Aquatic pest plant control in areas identified as being of ‘Moderate-High’ or High amenity value when weeds have been identified as preventing full and maximum enjoyment of the site.
3. Create a Mechanism for hybrid funded (public/private) control on aquatic pest plant areas of low bio-security but high private amenity value.
4. Consider scaling back spray operations on Lake Rotoehu based on amenity values.
5. Investigate use of the protection and restoration programme weed harvesting programme to also undertake control for amenity values and biosecurity on Otautu and Kennedy Bay.
6. Establish a phone number for residents to ring about aquatic pest plant control for amenity values.
7. Include a survey component about visitor attitudes to the lakes and aquatic pest plant to any monitoring activity.
8. Include amenity value data collection into the current surveillance and monitoring programme carried out by the Bay of Plenty Regional Council.

6.2 Stage Two

Stage two of the project surveyed lake users and found that aquatic pest plants had negative impacts on most respondents’ activities to some degree.

Key findings were

- Aquatic pest plants impacted most (82.7%) of stakeholders to some degree, there was strong support (93.1%) for control of lakeweed for amenity values
- Stakeholder feedback indicated a strong level of support for BOPRC involvement in controlling aquatic pest plant for amenity values although it should be noted that the majority of those surveyed were involved with the lakes in a more direct way than the average BOPRC ratepayer and were therefore more likely to support BOPRC involvement.
- key pressure points for amenity values that had not been identified in stage one of the project were highlighted these was a strong recommendation for control around the Rotorua Lakefront this came from across a number of stakeholder groups and for further control adjacent to Hannah's Bay (Lake Rotorua) and Boyes Beach (Lake Ōkāreka).
- Stakeholders generally supported action on areas of high amenity value that would have a diffuse benefit to Rotorua's tourism features and clean green profile.
- No new methods of aquatic pest management were identified.
- Roughly three-fifths (58.5%) of stakeholders supported a public private model for funding depending on the details of its implementation.

7 **Discussion - implications for future aquatic pest management.**

Based on the work completed to date there is a clear rationale for aquatic weed control and an expectation that Council should act. By including budget provision for aquatic pest management for amenity purposes in the Draft Ten Year Plan the Regional council have indicated a commitment to meet the expectations of affected communities.

Richard Mallinson
Senior Land Management Officer

for Manager Land Resources (Rotorua)

24 November 2011

File Reference: 4.01497
Significance of Decision: Receives Only - No Decisions



Report To: Rotorua Te Arawa Lakes Strategy Group
Meeting Date: 02 December 2011
Report From: Andy Bruere, Lake Operations Manager

Approval of de-stratification project for Lake Rotoehu

Executive Summary

The purpose of this report is to seek approval for a new intervention to be trailed in Lake Rotoehu as part of our planned works to treat sediment release from within Lake Rotorua.

This is being presented for approval to this Committee in accordance with the Deed of funding as it is not currently listed as a proven intervention and as such it requires endorsement from this Committee as well as endorsement by independent scientists.

The details of the Lake Rotoehu de-stratification trail have already been presented to the Partnership Steering Group with unanimous support.

A proposal to address lake sediment releases of nitrogen and phosphorus in lake Rotorua using a technique of de-stratification (or aeration) was presented to this Committee in July 2010. In September this Committee also approved the Deed of funding Annual Programme for release to the Crown. The deed programme proposed funding a smaller scale de-stratification trail in Lake Rotoehu.

The total cost of the trail is project is \$524,000 and this will be funded through existing Deed funding.

The report provides an information on the project as planned, specifically:

1. Progress on logistics and land access,
2. Approvals obtained,
3. Modelling and design,
4. Planned implementation timeframe,
5. Monitoring and the next steps
6. Community support for the proposal,
7. Project costs.

In summary, stages 1 and 2 are complete. Modelling and design are now underway, with design planned for completion by 30 November. A comprehensive monitoring plan looking at the benefits and any possible negative effects is being planned with the University of Waikato and Professor Hamilton. The project is one of the actions identified to assist in the restoration of Lake Rotoehu, as a result the community is highly supportive of the project to

the extent that The Tautara Matawhaura Māori Trust Farm has provided access to BOPRC for placement and construction of machinery for the duration of the project, this could be up to 10 years.

1 Recommendations

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

- 1 Receives the report, Update on De-stratification Project for Lake Rotoehu, and**
- 2 Approves de-stratification trail in Lake Rotoehu as part of our Deed of Funding as a requisite precursor to treating sediment in Lake Rotorua; and**
- 3 Recommends Staff submit a report to the Crown in accordance with clause 4.7.2 providing independent verification of the suitability and effectiveness of the intervention outcomes**
- 4 Supports the initiative to install the de-stratification equipment in Lake Rotoehu as a precursor to possible application in Lake Rotorua.**

2 Introduction

In July 2010 staff reported to the Strategy Group a proposal to address lake sediment releases of nitrogen and phosphorus by a technique of de-stratification (or aeration). To confirm the applicability of this technique a smaller scale application was proposed for Lake Rotoehu with the objective of testing the technique on a lake system that behaves in a similar manner to Lake Rotorua.

Information presented today has already been presented to the Partnership Steering Group comprising senior representatives of the Te Arawa Lakes Trust, Rotorua District Council, Bay of Plenty Regional Council and Ministry for the Environment. The Partnership Steering Group unanimously supports the de-stratification trail in Lake Rotoehu as part of the Deed of Funding work programme.

Further, advice from the Lakes Water Quality Technical Advisory Group (TAG), is that for a eutrophic lake restoration programme, nutrient inputs from sediments can be a significant contribution to water quality and the process of restoration can be accelerated by addressing both catchment nutrient inputs as well as nutrient recycling from lake sediments.

This release process occurs at times when a lake has low oxygen levels in its bottom waters (hypolimnion). For “shallow lakes” such as Rotorua and Rotoehu, short periods of lake stratification (separation between the surface and bottom waters due to temperature differential) occurs during summer and autumn. At other times these lakes are generally fully mixed and oxygen levels in the hypolimnion are sufficient to prevent high rates of nutrient release.

There are 3 main techniques to address this nutrient release:

- Aeration (including de-stratification),
- Application of capping agents such as alum and aqual P, or
- Dredging of the sediments.

BOPRC along with the University of Waikato and other CRI's have undertaken considerable research into the capping agent option. There has been a high level of success on small lakes or bays, and on-going research is continuing on this matter.

Dredging has been used overseas and recently I obtained further information from Jiangxu Province in China where a very low cost operation had been used to successfully dredge an area of 3.7 km² in a shallow lake. However, cost estimates for NZ have shown much higher costs and disposal issue may be more complex due to geothermal contamination with mercury and arsenic.

This report is aimed at updating progress on the specific de-stratification project and so I will not discuss the merits of alternative sediment treatment techniques in this report.

3 General project description

Figure 1 shows the general layout of the project. Lake Rotoehu is an 800 ha lake. The project will include electrically powered air compressors located on land owned by the Tautara Matawhaura Māori Trust Farm. Air will be reticulated via underwater pipe to two de-stratification units (pumps) located in the deepest areas of the lake.

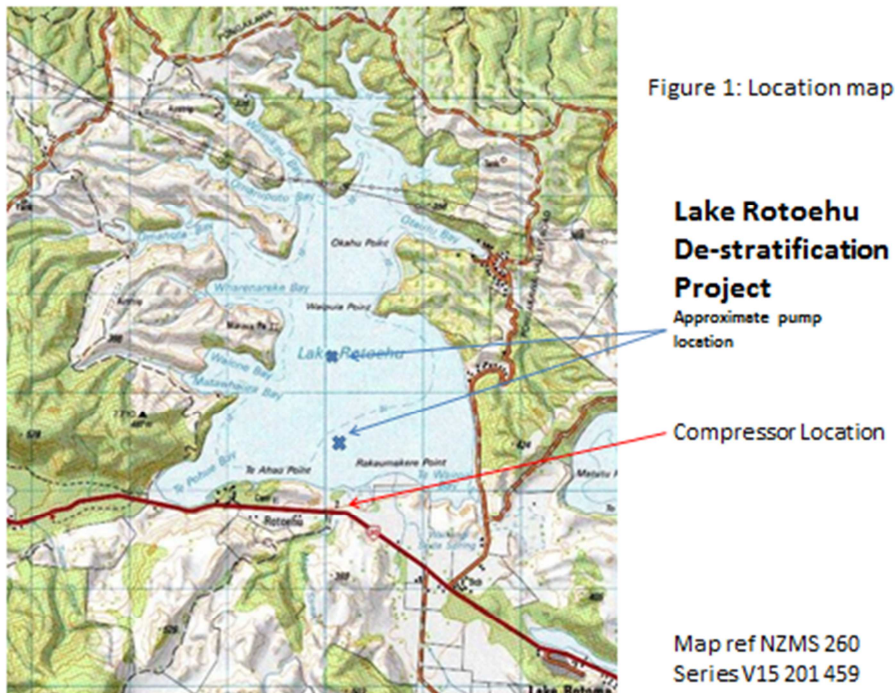
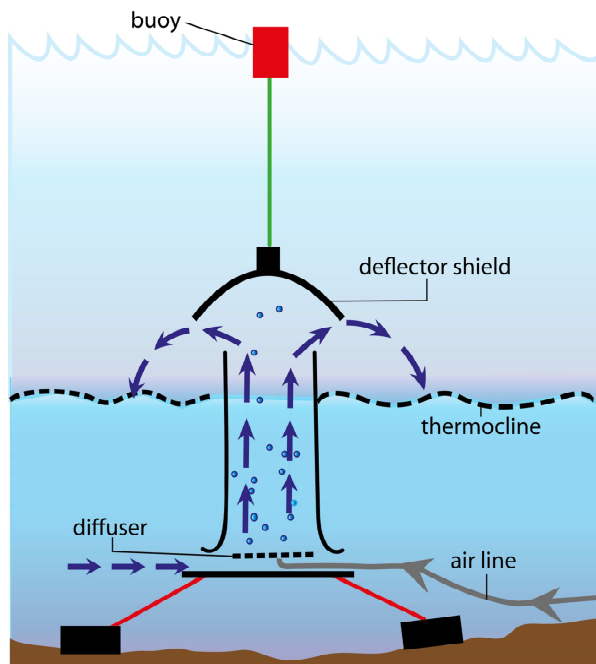


Figure 2 shows the general design of the pumps. These have been used in overseas applications, however, the design for this project have some specific aspects that cannot be revealed in a public report.



Destratification Unit
Schematic View

Illustration:
Wendy Paul, University of Waikato.

Figure 2: Pump design

The main principle of operation is to take water from the deepest part of the lake and pump it to the lake surface, where it will mix with aerated surface water, and set up a mixing pattern on the lake that eliminates any pockets of low oxygen water. This technique has been used and proven overseas.

This prototype trial is aimed at refining this technique in a large area shallow lake, to provide information on specific design, energy use and lake mixing characteristics and ecological impacts (positive and negative). This will be used to update lake hydrodynamic and ecological models that can be applied to predicting the possible impact on using de-stratification on Lake Rotorua.

The recent installation of the real time monitoring buoy is aimed at providing a significant amount of monitoring information for the testing and management of the project.

4 **Logistics and land access**

Agreement with The Tautara Matawhaura Māori Trust Farm now provides on-going access for the construction and operation of the project over a possible 10 year term. The area for location of the compressors is close to the new floating wetland and development of an all-weather access at that point will assist with this project.

5 **Approvals**

In the first instance approval is sought from this Committee as key partners in our Rotorua Lakes Protection and Restoration Programme. As well as approval of this committee we have sought and consent under the Resource Management Act to place and operate the 2 compressors in the lake. This consent has recently been obtained allowing the operation for a period of 10 years.

Further approval is also required from Te Arawa Lakes Trust and Linz as lake bed owners and for placement of a structure in the water column. These approvals have been applied for but are yet to be obtained.

6 **Modelling and design**

The University of Waikato has lead the pre trial modelling work with assistance from Dr Hiroshi Yajima from Tottori University Japan. Unfortunately the model is not set up to predict the potential performance of this specific method of operation, and further modelling work will progress after the results of the first 2 months of operation to re-set the model code and provide a better prediction of the future performance.

So far however the model is predicting 3 machines may be necessary to fully de-stratify Lake Rotoehu. As a first stage BOPRC is planning on installation of 2 machines.

The machine and associated equipment design is being managed by a consultant engineer Mr Hans Burggraaf. He is in the process of preparing design brief for construction and installation during December 2011.

The design is for a plastic moulded structure which will be located in the lake, below water level. There will be no evidence of the 2 pumps from the surface except for a locating buoy at the surface. The pumps will be anchored using anchor blocks or screw anchors in the lake bed.

7 **Implementation Time frame**

As stratification typically occurs during late summer/autumn, the installation is planned for December 2011, with commissioning during January in preparation for late January operation. This will provide some opportunity for testing prior to stratification and allow appropriate adjustments as indicated by monitoring.

During March to April the model will be re-coded and then applied to calibrate with the monitoring data available. The operation will continue on over summer and autumn and be shut down when temperatures decline according to the real time buoy monitoring. This operation will be available for subsequent years as necessary.

8 **Monitoring**

A comprehensive monitoring programme is being developed to cover the following aspects:

- Water quality impact. This will include the real time buoy as well as additional specific water monitoring,
- Ecological monitoring. Koura monitoring has already commenced, with the aim of identifying any positive or negative impacts. Other monitoring is being discussed with the TAG group,

- Pump performance and lake current monitoring will take place to determine impact on mixing, and
- Sediment monitoring is being considered to establish any effects on lake sediment changes.

A specific team from BOPRC and the University are working on the monitoring programme.

9 **Community support**

As already mentioned the project has strong support from all parts of the community. It has the benefit of simply mixing water with the aim of improving oxygen levels in the bottom water. Discussions have taken place with the local ratepayer group and a recent open day was held at the Ōtautū Bay community with more than 20 participants.

Regular communication is held with the Tautara Matawhaura Māori Farm Trust and they have been supportive of all the restoration projects. For the de-stratification and the floating wetland they have provided specific access across the farm land to allow these projects to proceed. The trustees are also in contact with other iwi and hapū in the area and provide a conduit for communication as requested.

More widely iwi and other community groups are supportive of this project as there is some opposition to dosing lakes with alum or other capping agents. In particular discussion with Ngāti Rangiwewehi and Ngāti Rangitaeorere from Lake Rotorua have led to pressure to compare this technique with other research such as the capping agents.

10 **Project costs**

Full design, construction and operational costs are yet to be established, and that is part of the reason for undertaking this project (establishment of potential scale up costs).

Initial estimates of using this technology for Lake Rotorua have been very favourable, when compared with other capping options. The capital cost of aeration for Lake Rotorua has been estimated by an independent engineer at \$2.7M to \$5M, as a worst case. In comparison, sediment capping could range from \$2.6M to more than \$14M.

The costs are likely to be within the estimates below:

- 2 pumps and compressors, capital: \$400,000
- Energy cost, annual: \$ 4,000
- Monitoring 1 year: \$100,000
- Maintenance and contingency: \$ 20,000

The estimated budget for this project is included within the Bay of Plenty Regional Councils current Annual Plan and the Deed of Funding Programme Plan. In both instances funding is based on 50% contribution from Crown and 50% contribution from the Regional Council.

Andy Bruere
Lake Operations Manager

24 November 2011

File Reference: 4.00878
Significance of Decision: Receives Only - No Decisions



Report To: Rotorua Te Arawa Lakes Strategy Group
Meeting Date: 02 December 2011
Report From: Kataraina Maki, Sustainable Development Manager

Bay of Plenty Regional Council's position statements on land use and land management change in the Lake Rotorua catchment

Executive Summary

In the context of the Lake Rotorua catchment, land use change is changing the way land is currently used, from a high nitrogen loss activity to a low nitrogen loss activity. Land management change is the modification of land management practices to reduce nutrient loads, while retaining the same land use activities.

Changes in rural land use and land management across the Lake Rotorua catchment are necessary if we are to achieve the nutrient reduction required to meet the water quality target for the lake.

These position statements set out Regional Council's strategic intent for land use and land management change in the Lake Rotorua catchment. The purpose of these positions is to clearly identify the role and direction Regional Council intends to take on land use and land management change in achieving the water quality target for the lake.

The position statements were presented to the Council's Strategy, Policy and Planning Committee on 20 October 2011. Feedback is now sought on the statements from the Rotorua Te Arawa Lakes Strategy Group [refer Appendix 2 and 3].

1 Recommendations

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

- 1 Receives the report, '*Bay of Plenty Regional Council's position statements on land use and land management change in the Lake Rotorua catchment*'.**

2 Purpose

To seek feedback on the Bay of Plenty Regional Council's position statements on land use and land management change in the Lake Rotorua catchment [refer Appendix 2 and 3].

3 Background

This paper forms part of the Regional Council's policy work stream under the Rotorua Te Arawa Lakes Programme [refer Appendix 1].

Lake Rotorua has degraded water quality due to high nitrogen and phosphorous levels, and it suffers intermittently from algal blooms. A target Trophic Level Index (TLI) maximum of 4.2 has been set for the lake, in consultation with the community, through the Regional Water and Land Plan.

In order to achieve the lake's target TLI, a sustainable nitrogen load of approximately 435 tonnes of nitrogen per year (tN/yr) is required. This is a reduction of approximately 320 tN/yr from the current load of 755 tN/yr¹.

Pastoral land use is a significant source of nitrogen (about 70%) to the lake. Changes in land use and the way activities on that land are managed therefor have the potential to achieve the nitrogen load reductions required.

A workshop with Regional Councillors was held on 25 and 26 August 2011 to discuss changes in the use and management of land in the Rotorua catchment, and how changes could be achieved.

An overview of the workshop, and the key discussion points that emerged from the workshop, were presented to the Rotorua Te Arawa Lakes Strategy Group at their 23 September meeting, and to the Te Arawa Lakes Trust's Environmental Subcommittee at their 3 October meeting.

As a next step, staff agreed to present policy positions to the Regional Council's Strategy, Policy and Planning Committee on land management and land use change, based on the key discussion points from the workshop.

The policy positions were approved by the Strategy, Policy and Planning Committee at their 20 October 2011 meeting, on condition that it be sent to this Group for their involvement.

4 **Comment**

The position statements set out Council's strategic intent for land use and land management change in the Lake Rotorua catchment. They are intended to provide a transparent rationale for how Council will approach land use and land management change.

The positions do not identify the methods or actions that will be undertaken to realise the positions; they are a statement of intent only. The ways in which the positions can be implemented will be addressed as a next step, once the positions are finalised.

The purpose of the positions is to clearly identify the role and direction Council intends to take on land use and land management change in achieving Lake Rotorua's sustainable nitrogen load of 435 tN/yr.

4.1 **Position statement on land use change**

Context

¹ The current nitrogen load of 755 tN/yr includes 725 tN/yr from the catchment (e.g. forest, farmland, geothermal, urban) and 30tN/yr from rainfall.

In this context of the Lake Rotorua catchment, the purpose of land use change is to change the way land is currently used, from a high nitrogen loss activity to a low nitrogen loss activity.

It is clear from the literature available, and modelling work that has been undertaken, that changes in rural land use are necessary if we are to achieve the sustainable nitrogen load of 435 tN/yr in the lake.

Nitrogen loss from current rural activities in the Lake Rotorua catchment is estimated at²:

- Dairy – 56 kg/ha
- Drystock – 16 kg/ha
- Forestry – 4 kg/ha
- Lifestyle – 16 kg/ha

Given the nitrogen loss from current activities, the most significant gains in the Lake Rotorua catchment will be made by converting dairy farms to a lower use activity.

Land use change can be achieved in a number of ways, using a number of regulatory and non-regulatory mechanisms. Regardless of the types of changes and how these will be achieved, many landowners in the catchment will either need to sell or up-skill to a new activity area. There will be social and economic impacts of this change and it will prove costly to some individual landowners.

Position statement

The position statement on land use change in the Lake Rotorua catchment is provided as Appendix 2. The policy positions included in the statement are summarised as follows:

- Accept that Bay of Plenty Regional Council has an obligation to consider land use change in order to achieve the sustainable nitrogen load of 435 tN/yr in Lake Rotorua
- Prioritise Bay of Plenty Regional Council resource towards land use change as a key tool for achieving the sustainable nitrogen load of 435 tN/yr in Lake Rotorua
- Recognise that there is a local, regional and national willingness to pay for water quality outcomes
- Take action on land use change quickly in the Lake Rotorua catchment to ensure that opportunities are not lost.

4.2 **Position statement on land management change**

Context

In this context of the Lake Rotorua catchment, the purpose of land management change is to modify land management practices to reduce nutrient losses, while retaining the same land use activities. Changes include actions such as wintering off

² Rutherford K., Palliser C and Wadhwa S (2011) Prediction of nitrogen loads to Lake Rotorua using the ROTAN model. NIWA Client Report HAM2010-134 for Bay of Plenty Regional Council.

stock, changing the way fertiliser is applied, reducing the amount of fertiliser used and reducing stocking rates.

Recent analyses reported by Beca³ indicate that changes in land management in the Rotorua catchment have the potential to achieve more than a 30% reduction in nitrogen load from dairy farms, and 10% from drystock farms. Beca reported that these changes would result in an economic farm surplus loss of 11% for dairy farms, and a loss of 16% for drystock farms.

Given the scale of nitrogen loads that could be reduced through changes in land management, it is likely that some land management changes will be required to achieve the sustainable nitrogen load of 435 tN/yr for Lake Rotorua. However, it is clear that land management changes alone will not be enough to ensure this target can be met, and will need to be combined with a variety of other interventions.

It is also noted in the Beca report that all farms are different and land management change is not a single solution that can be applied across all situations in the Lake Rotorua catchment. Some change options are site specific and their effectiveness will depend on circumstances of the farm.

Position statement

The position statement on land management change in the Lake Rotorua catchment is provided as Appendix 3. The policy positions included in the statement are summarised as follows:

- Recognise that land management change alone will not achieve the nitrogen load reductions required to reach the sustainable nitrogen load of 435 tN/yr in Lake Rotorua
- Prioritise Bay of Plenty Regional Council resource towards affecting land use change in the Lake Rotorua catchment over actions to affect land management change
- Support and encourage the efforts of landowners in the Lake Rotorua catchment to change their land management practices
- Actively affect land management change in the Lake Rotorua catchment through Bay of Plenty Regional Council's primary role as a regulator.

5 Risks

Staff have identified moderate risks to Regional Council in adopting a position statement on land use change for the Lake Rotorua catchment.

Land use change is a contentious and emotive issue in the catchment; it will have social and economic impacts, and will prove costly to some individual landowners. While the policy positions are only a high level statement of intent, they are likely to generate discussions on how Council intends to proceed.

Staff have also identified minor risks to Regional Council in adopting a position statement on land management change for the Lake Rotorua catchment. Although the position is only a high level statement of intent, past experience has shown that discussions on land management change generally focus on individual opinions on how much change can actually be achieved and how it can occur.

³ Intervention Packages for Lake Rotorua, prepared for Bay of Plenty Regional Council in association with NIWA, Nimmo-Bell, AgResearch, GNS Science and Market Economics, June 2011.

The most substantive concerns raised are likely to revolve around how Council intends to implement its role as a regulator, and what this will mean for individual landowners.

To mitigate the risks that have been identified we will ensure that we manage the facts around changes and be clear that implementation is a next step that will involve extensive community discussions and debate. We have also developed key messages to carefully communicate the purpose of the position statements [refer Appendix 4].

6 **Next steps**

A discussion document on land use and management change in the catchment will also be prepared for public feedback early next year. The discussion document will identify Regional Council's position on land use and land management change and seek the community's views on outcomes that they want from changes as well as how much change they believe is appropriate.

Sarah Omundsen
Senior Planner

for Sustainable Development Manager

21 November 2011

APPENDIX 1

Rotorua Lakes Protection and Restoration Programme

Rotorua Lakes Protection and Restoration Programme



The Strategy Vision:

'The lakes of the Rotorua district and their catchments are preserved and protected for the use and enjoyment of the present and future generations, while recognising and providing for the traditional relationship of Te Arawa with their ancestral lakes.'

At a glance

The State of Water Quality in Rotorua Te Arawa Lakes:

- Water quality is improving in Okaro and Rotoiti
- Rotorua, Okareka and Rotoehu are no longer declining and have stable water quality
- Lake Rerewhakaaitu has shown a decline in the last 5 years
- Lake Tikitapu (Blue Lake) is stable but with some signs of deterioration
- Rotomahana is stable
- Lake Rotokakahi has recently shown rapid decline

Key Successes:

In conjunction with our partners we have made solid progress toward the long-term restoration of the priority lakes.

- Secured \$72.1 million dollars of Crown funding for improving water quality in 4 priority lakes, Rotorua, Rotoiti, Okareka and Rotoehu
- Achieved Lake Okaro's water quality target for by constructing a wetland, changing land use and treating nutrients in the water
- Achieved Lake Rotoiti reduction targets by constructing the Ohau diversion wall; this lake is now mesotrophic not eutrophic
- Achieved Lake Tikitapu reduction target by reticulating sewage
- Achieved total Nitrogen targets required for the Okareka catchment and potentially all the Phosphorus
- Commissioned two Phosphorus removal plants on the streams that feed Lake Rotorua
- Built 2800m² floating wetland in Lake Rotoehu
- Commissioned a Phosphorus removal plant for Lake Rotoehu
- Achieved voluntary reductions in Nitrogen exports from land use in Rotorua by more than 4 tonnes

Policy Programme

Strategic direction for the lakes is set in the Strategy for the Lakes of the Rotorua District. This was recently reviewed and is being updated.

Objectives for water quality are set for all 12 lakes in the Regional Water and Land Plan. Action plans to meet this objective have been developed for 7 lakes.

Rules to limit increase of nutrient to Lakes Rotorua, Rotoiti, Okareka, Okaro and Rotoehu are set (Rule 11: Regional Water and Land Plan recently reviewed).

The Proposed Regional Policy Statement identifies all 12 Rotorua lakes as priorities for developing rules to limit and reduce nutrients in their catchments.

Improving Lake Rotorua is a complex land use change problem. In response the Regional Council has a specific position paper on land use change for Lake Rotorua. We have a Land Package identifying some land use change options and the economic costs.

Operational Programmes

Land use change initiatives:

Converted course to pines, established phosphorus mitigation structures, retired dairy land and steep land has been planted in pine.

In-Lake and In-stream initiatives:

Constructed phosphorus plants, established denitrification trials, built diversion wall, constructed terrestrial and floating wetland, sediment capping and alum dosing in smaller lakes.

Science and research:

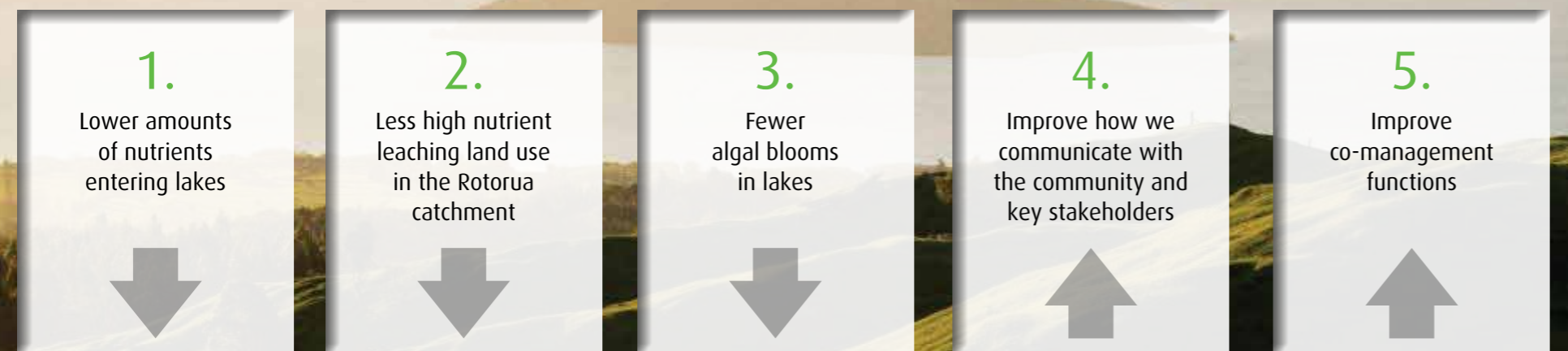
A chair in Lakes science, investigating ground water movement, model lake responses to actions, evidence of problems and solution, monitor collect data on water quality changes, trial and prove new actions.

Implementing Regional Plans:

Benchmarking properties in Rule 11 catchments.

Five Outcome Areas

To meet community expectations for water quality focus needs to be on:



The Strategy Vision:

'The lakes of the Rotorua district and their catchments are preserved and protected for the use and enjoyment of the present and future generations, while recognising and providing for the traditional relationship of Te Arawa with their ancestral lakes.'

Improve water quality

Lower amounts of nutrients entering lakes

The situation:

- Too much Nitrogen and Phosphorus enters lakes which results in water quality standards not being met
- Farming has the greatest nutrient impact in most lakes catchments
- Lake side communities without reticulated sewage add to Nitrogen and Phosphorus loads to lakes

The Outlook:

- Nutrient inputs to Lakes Okareka, Tikitapu, Rotoiti, Okaro and Rotoehu are expected to drop
- De-nitrification trial will be complete, and if proven a full scale plant will be built
- 3 Phosphorus-locking plants will operate to reduce phosphorus inputs to Lakes Rotorua and Rotoehu
- Reticulation will continue to proceed in Lakes Rotorua, Rotoiti and Rotoma

Less high nutrient leaching land use in the Rotorua catchment

The situation:

- Council wants to reach sustainable exports from the Rotorua Catchment by 2020
- High nutrient leaching agricultural land use is the largest contributor of Nitrogen and Phosphorus to Lake Rotorua
- Council has allocated 9.5 million dollars to achieve voluntary reductions in Nitrogen and Phosphorus from private land
- Progress with voluntary reductions from land use has been slow, but momentum is growing

The Outlook:

- Rules will be drafted to reduce nutrient discharges from catchment land use
- Within the next 2 months Councillors will attend a workshop on the Land Package
- An implementation plan to improve delivery of land use change will be presented to Council next quarter

Fewer algal blooms in lakes

The situation:

- Some lakes have too much nitrogen and phosphorus in them which cause algal blooms
- Algal blooms can make the lake unusable to the public and pose health risks
- We have successfully treated nutrients in lakes to improve water quality (Lake Okaro)

The Outlook:

- Aeration trials will proceed next year in Rotoehu
- Weed harvesting in Lake Rotoehu will proceed and is planned for another 8 years
- By December 2011 we should have consent to rapidly respond to algal bloom threats at Okawa and Teweta Bay
- Treatment of nutrient rich water in Lake Okaro will occur over the next 24 months
- Continue stakeholder engagement for hypolimnion dosing in Lake Rotorua

Improve management performance

Improve how we manage and communicate what we do

The situation:

- The programme is large and complex
- The programme include goal areas for use and enjoyment as well as protection and restoration
- There are multiple stakeholders interested in different aspects of the programme

The Outlook:

- By the end of the year we would have started a Joint Communication Plan with RDC and Te Arawa Lakes Trust
- Within the next two months we will have a Partnership Steering Group established
- By the end of the year three more action plans will be complete (Rotokakahi, Tarawera, Okataina)
- A new Strategy document would have been drafted

Improve co-management within the Te Arawa Lakes Strategy Group

The situation:

- Co-management means different things to different partners
- A review of the Terms of Reference raised uncertainty about group's decision making role

The Outlook:

- By the end of the year the Crown and Te Arawa Lakes Trust will have agreed on the intent of the groups Terms of Reference for the Te Arawa Lakes Strategy Group

APPENDIX 2

Bay of Plenty Regional Council Position Statement on land use change_draft

Bay of Plenty Regional Council Position Statement: Land Use Change in the Lake Rotorua Catchment

This position statement sets out Bay of Plenty Regional Council's strategic intent for land management change in the Lake Rotorua catchment. It provides a transparent rationale for how Council will approach land use change.

Background

Lake Rotorua has degraded water quality due to high nitrogen and phosphorous levels, and it suffers intermittently from algal blooms. A target Trophic Level Index (TLI) maximum of 4.2 has been set for the lake, in consultation with the community, through the Regional Water and Land Plan.

In order to achieve the lake's target TLI, a sustainable nitrogen load of approximately 435 tonnes of nitrogen per year (tN/yr) is required. This is a reduction of approximately 320 tN/yr from the current load of 755 tN/yr .

Pastoral land use is a significant source of nitrogen (about 70%) to the lake. Changes in land use and the way activities on that land are managed therefor have the potential to achieve the nitrogen load reductions required.

What is land use change

In this context of the Lake Rotorua catchment, the purpose of land use change is to change the way land is currently used, from a high nitrogen loss activity to a low nitrogen loss activity.

Context of position statement

The purpose of this position is to clearly identify the role and direction Council intends to take on land use change in achieving Lake Rotorua's sustainable nitrogen load of 435 tN/yr.

This proposed position does not identify the methods or actions that will be undertaken to realise the position; it is a statement of intent. The ways in which this position can be implemented will be addressed as a next step.

Council's positions on land management use in the Lake Rotorua catchment are:

Accept that Council has an obligation to consider land use change in order to achieve the sustainable nitrogen load of 435 tN/yr in Lake Rotorua

The intent of this position is to make it clear that the Council has a responsibility to ensure land use change is undertaken in the Lake Rotorua catchment for the purpose of achieving the sustainable nitrogen load for the lake.

This position also recognises that the Government, and the community, have clear expectations that Council will deliver on water quality outcomes in Lake Rotorua. The Deed of Funding with Government has agreements for action in place already. The community have also been engaged for

some time in water quality discussions through the Strategy for the Lakes of the Rotorua District, as well as the Action Plan for Lake Rotorua and Rotoiti.

We will carry out a suite of roles to meet this obligation, including:

- Setting the strategic direction, outcomes and targets to be delivered
- Making rules where necessary
- Providing incentives and support to communities and individuals
- Supporting the actions of, and coordinating with, central government and local authorities
- Undertaking actions and operational activities.

Prioritise Bay of Plenty Regional Council resource towards land use change as a key tool for achieving the sustainable nitrogen load of 435 tN/yr in Lake Rotorua

The intent of this position is to ensure that Council's limited resources are used in the most efficient and effective way for reducing nutrient load to Lake Rotorua.

We will not achieve the sustainable nitrogen load for the lake unless current land use in the catchment is changed. Our investment decisions must reflect this and resources will need to be prioritised towards land use change over other interventions, such as land management change, which do not have the same reach or impact in the catchment.

Recognise that there is a local, regional and national willingness to pay for water quality outcomes

The intent of this position is to recognise the value that New Zealanders place on the aquatic environment, and that they are willing to pay to ensure these values are protected.

Achieving water quality outcomes in Lake Rotorua will take considerable investment, in both time and resources. The beneficiaries of this investment will not just be the local Lake Rotorua community. The Bay of Plenty region as well as New Zealand in general, will benefit from improved water quality in the lake.

Take action on land use change quickly in the Lake Rotorua catchment to ensure that opportunities are not lost.

The intent of this position is to be clear that Council intends to move as quickly as possible on land use change interventions in the Lake Rotorua catchment. The position also recognises that water quality is not improving and the longer action is delayed, the higher costs will escalate.

Water quality and land use change is a complex issue in the Lake Rotorua catchment. Different stakeholders have different views of the problem; the science is continually evolving; problems and solutions require action at every level. Importantly, interventions to change land use in the catchment have the potential to negatively impact on individuals and communities.

These factors make moving forward challenging, and have meant progress to date has been slow. It is now time to act, set clear targets, and ensure we can take advantage of all opportunities as they arise in the catchment. Water quality at Lake Rotorua will not improve by tinkering at the edges.

APPENDIX 3

Bay of Plenty Regional Council Position Statement on land management change_draft

Bay of Plenty Regional Council Position Statement: Land Management Change in the Lake Rotorua Catchment

This position statement sets out Bay of Plenty Regional Council's strategic intent for land management change in the Lake Rotorua catchment. It provides a transparent rationale for how Council will approach land management change.

Background

Lake Rotorua has degraded water quality due to high nitrogen and phosphorous levels, and it suffers intermittently from algal blooms. A target Trophic Level Index (TLI) maximum of 4.2 has been set for the lake, in consultation with the community, through the Regional Water and Land Plan.

In order to achieve the lake's target TLI, a sustainable nitrogen load of approximately 435 tonnes of nitrogen per year (tN/yr) is required. This is a reduction of approximately 320 tN/yr from the current load of 755 tN/yr .

Pastoral land use is a significant source of nitrogen (about 70%) to the lake. Changes in land use and the way activities on that land are managed therefor have the potential to achieve the nitrogen load reductions required.

What is land management change

In this context of the Lake Rotorua catchment, the purpose of land management change is to modify land management practices to reduce nutrient losses, while retaining the same land use activities. Changes include actions such as wintering off stock, changing the way fertiliser is applied, reducing the amount of fertiliser used and reducing stocking rates.

Context of position statement

The purpose of this position is to clearly identify the role and direction Council intends to take on land management change in achieving Lake Rotorua's sustainable nitrogen load of 435 tN/yr.

This proposed position does not identify the methods or actions that will be undertaken to realise the position; it is a statement of intent. The ways in which this position can be implemented will be addressed as a next step.

Council's positions on land management change in the Lake Rotorua catchment are:

Recognise that land management change alone will not achieve the nitrogen load reductions required to reach the sustainable nitrogen load of 435 tN/yr in Lake Rotorua

The intent of this position is to make it clear that, as an intervention, land management change is not going to get us where we need to with reducing nitrogen load to Lake Rotorua.

At best, changing land management practices of dairy and drystock farms across the catchment could meet up to 30% of the nitrogen load reduction required to achieve the sustainable nitrogen

load. There is also a significant amount of variability in what can be achieved on any individual farm, so estimates of nitrogen load reductions are uncertain.

Prioritise Bay of Plenty Regional Council resource towards affecting land use change in the Lake Rotorua catchment over actions to affect land management change

The intent of this position is to ensure that Council's limited resources are directed towards the most effective suite of interventions available for reducing nitrogen load to Lake Rotorua.

Land use changes, not land management changes, are the most likely to produce the largest reductions in nitrogen load in the Lake Rotorua catchment. Interventions aimed at changing land use will be the most effective for achieving the lake's sustainable nitrogen load of 435 tN/yr. In fact it is unlikely that the sustainable nitrogen load could be achieved without significant land use change across the catchment.

Support and encourage the efforts of landowners in the Lake Rotorua catchment to change their land management practices

The intent of this position is to recognise that the responsibility for changing land management practices in the Lake Rotorua catchment lies with landowners.

Improvements in land management that can be made to reduce nitrogen loads are changes that should be put in place to achieve industry best practice and performance. The costs of achieving best practice and performance lie with landowners themselves.

It is recognised that not all landowners in the catchment have the knowledge or capacity to affect changes in land management. Council will provide support and encouragement to landowners who are willing to change. Support will include provision of advice, development of education material, and pointing landowners in the right direction.

Actively affect land management change in the Lake Rotorua catchment through Bay of Plenty Regional Council's primary role as a regulator

The intent of this position is to clarify that Council's primary role in land management change in the Lake Rotorua catchment will be as a regulator.

The Proposed Regional Policy Statement sets out a clear policy direction for the management of all of the Rotorua Te Arawa lakes, including Lake Rotorua. Council are currently considering options for the delivery of rules, through the Regional Water and Land Plan, to give effect to this policy direction. Land management change may be one of the tools used to ensure managed reduction of nutrient discharges takes place.

Council may look at incentives to entice change, or to help stage and phase out certain land management practices in the catchment. Council may also look at providing funding for certain actions if they are required, recognising that farmers may not be able to absorb all costs of land management change immediately.

APPENDIX 4

Position Statement Question and Answers

Bay of Plenty Regional Council position statements on land management and land use changes in the Lake Rotorua catchment

What are the position statements?

They are official statements of where the Bay of Plenty Regional Council stands on land use and land management change in the Lake Rotorua catchment. They are not rules, directions or statutory policies; they simply set out what we think about land use and land management change in the catchment, and how we intend to approach these issues in the future.

What is the Council concerned about?

Water quality in Lake Rotorua is degraded. The Trophic Level Index is a way of measuring how healthy the water is. It measures the amount of total nitrogen, total phosphorus and algae present in a lake, as well as the clarity of the water. The higher the TLI, the lower the lake water quality, and the greater risk of environmental problems like algal blooms and unusual foams.

A target TLI of 4.2 has been set for Lake Rotorua, in consultation with the community. To reach this target we need to reduce the amount of nitrogen going into the lake by about 320 tonnes of nitrogen a year.

A significant package of works and investment is currently dedicated to cleaning up Lake Rotorua, including reticulating sewage. Despite this, it's unlikely we will meet our water quality targets.

Pastoral land use is the most significant source of nitrogen flowing to Lake Rotorua. Making major changes to the way we use our land is likely to be the only way we can get to where we want to be.

Why bother with position statements – why not just take action?

We know that major land use and land management change will be needed if we are going to meet our water quality targets. How we make this change is not a simple process and will require extensive community discussion and debate.

The position statements are simply a statement of intent. They let the community know what we currently think about land use and land management change, and we'll use these positions as a starting point for the next steps – thinking about how change will occur.

Why are you targeting land use and land management change over anything else?

We already have a significant package of works and investment underway to clean up Lake Rotorua. Despite this, it's not going to get us where we need to be.

A great deal of scientific work has been undertaken to show where the nitrogen is coming from in Lake Rotorua, and what might need to happen to reduce this. We know that pastoral land use is a major source of nitrogen, and that without significant change, we won't be able to meet our water quality targets.

To date, voluntary changes in land management and land use in the Rotorua catchment have been limited and progress has been slow. The Council has decided that further action is now needed to progress changes further.

What do these statements actually mean for farmers and other landowners?

The statements let the Rotorua community know how the Council is looking at land management and land use change, and how we intend to proceed in the future.

The statements send important signals to landowners. For example, the Council has made it clear that we will prioritise actions for land use change over land management change. We have also made it clear that we consider land management changes to be the landowners' individual responsibility.

While the position statements include important messages, they are not directive and require no action.

Will people have to start making changes to their farms?

No. The position statements are not rules, directions or statutory policies. However, the statements do indicate that change may be required in the future.

Implementing any land management or land use change will involve extensive community discussion and debate. As a first step towards this, we will prepare a discussion document for public feedback early in 2012 which will seek the community's views on the outcomes that they want from changes, and also how much change they believe is appropriate.

File Reference: 2.00290
Significance of Decision: Receives Only - No Decisions



Report To: Rotorua Te Arawa Lakes Strategy Group
Meeting Date: 02 December 2011
Report From: Warwick Murray, Group Manager Land Management

Programme Report

Executive Summary

The purpose of this report is to provide the Rotorua Te Arawa Lakes Strategy Group with a briefing on key issues and actions associated with the implementation of the Strategy for the Lakes of Rotorua District, not otherwise covered in the agenda.

1 Recommendations

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

1 Receives the report, Programme Report.

2 Operational Update

2.1 Lake Ōkāreka Weed Cordon

Land Management staff and contractors have installed a weed cordon specifically designed to prevent the spread of invasive aquatic weeds around the Boat Ramp at Acacia Road, Lake Ōkāreka. Lake Ōkāreka is particularly vulnerable to invasion by one of the worst aquatic weed species, Hornwort. This weed spreads by vegetative fragments and is found in nearby lakes such as Lake Tarawera. If Hornwort was to establish in Lake Ōkāreka it would have serious negative impacts on the environmental and amenity values of the Lake.

The cordon is similar in design to those that have been installed in Lakes Rotomā, Ōkātina and Rotoehu and incorporates shade cloth and purse seine netting with a surface line of marker bouys. Prior to installation a large amount of consultation has taken place with the Ōkāreka community, the community a supportive of the cordon.

Picture 1 Main anchoring weights and floats prior to deployment



Picture 2 Tensioning of the southern arm of the weed cordon



- 2.2 The Bay of Plenty Regional Council's Operations, Monitoring and Regulation Committee approved staff undertaking investigations into a wetland enhancement at Waiwhero Stream.
- 2.3 Dr Tanira Kingi presented a paper on behalf of the Pastoral Collective to the Regional Council's Operations, Monitoring and Regulation Committee meeting on 19 October. The presentation set out the basis for joint action by the Collective and Regional Council and proposing to complete nutrient benchmarking by February 2011.
- 2.4 The Deed of Funding has been redrafted and awaiting a legal review by Ministry for the Environment. Once this is complete the Bay of Plenty Regional Council and Rotorua District Council will take the draft revised Deed to their respective council Committees in early December.
- 2.5 The Rotorua Lakes Project Manager is working on a new look Lakes Report Card and will be approaching partners agencies to discuss content and seek feedback before Christmas.

3 Policy Update

3.1 Lake's Strategy

The Strategy for the Lakes of the Rotorua District is an overarching policy document that gives a vision for the future, with some practical steps to achieve that vision. The vision for the Strategy is to ensure: *'The lakes of the Rotorua district and their catchments are preserved and protected 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'*.

The Rotorua Te Arawa Lakes Strategy Group is charged with overseeing the Strategy and providing policy guidance for its implementation. Last year the Group agreed that a new Strategy be developed whilst retaining the current vision and overriding intent of co-management of the existing Strategy.

Art and short story competition

We wanted to hear from our younger generation why they thought the Rotorua Lakes are important. Through a Short Story and Art competition in October we heard why they value the lakes. This was part of the community engagement for the revised Strategy for the Rotorua lakes.

Over 120 entries were received. The judges were impressed with the high level of interest in the competition and the diversity of entries received. They said the art and short stories provided interesting insights into what our younger people think about our lakes. Today's youth are the future guardians of Rotorua Lakes and it's important to tap into their values. Some of their values and are captured below:

Giving our youth a voice in the development of our Rotorua Lakes Strategy

"The lakes make a significant contribution to the over environmental quality of our region and a great source of enjoyment for both tourists and locals alike" Katie-Jayne Boardman, Winner Writing 13-18 years old winner

"The Rotorua lakes are an important part and icon in our community" Josiah Kilkelly Drawing 13-18 years entrant

"It's important to keep the Rotorua lakes clean and tidy because the lakes in Rotorua represent who we are as a city" Kayla Sargison Drawing 5-12 years old Highly Commended

"They hold the Roto of our pepeha" Michael Trott, Drawing 5-12 years entrant

"They are an important part of our history and home I don't think we should let this beautiful piece of nature go to waste." Caitlyn Rust, Writing 5-12 entrant

"The lakes are part of New Zealand's culture and we should take care of them." Georgia Fowler, writing 5-12 entrant

"They bring beauty, relaxation, peace and are part of our past and history. They are also part of us Kiwis in the Bay of Plenty." Tayla Harris, Writing 5-12 years entrant

Public workshop

A public workshop was held on 1 December 2011. The community is passionate about the lakes of the Rotorua district and the workshop was designed to capture that passion and channel it into achieving the vision. The workshop focussed on and identifying what the 'Strategy must achieve', 'how we will do it', and what it will take'. Participants heard from inspiring speakers like:

- **Roku Mihinui**, CEO Te Arawa Trust: *Guiding Principles for the way we work* - on concepts like collaboration, mātauranga māori, partnership
- **Tuku Morgan**, Chair Waikato-Tainui Committee: *Focusing on Results* - the scope and elegance of Te Ture Whaimana: the Vision and Strategy for the Waikato River.
- **Michael Field**, Sustainable Development Manager ANZ: *Drivers for Change* - drivers for change, we can think differently, change what we do.

We also heard from local experts:

- **John Green**, Chair Lakes Water Quality Society: A community perspective
- **Sharon Morrell**, Regional Leader Bay of Plenty DairyNZ : A business perspective
- **David Hamilton**, BOPRC Chair for Lakes Management and Restoration: A scientific perspective
- **Kingi Biddle**, Toastmaster extraordinaire: A cultural perspective.

The information we collect from this workshop will be fed back to the participants and will be used to form the basis of the Strategy.

3.2 **Lake Water Quality Action Plans**

We have recently published the final version of the Lake Tikitapu Action plan and have circulated this to key stakeholders.

Development of Water Quality Action Plans for Lakes Tarawera, Ōkātāina, and Rotokakahi is progressing. Project plans and engagement strategies have been completed. Meeting with key stakeholders were completed in July 2011 across all three Action Plans.

Draft nutrient budgets have been completed. We have been looking at information gaps around the science and how these might be addressed and what strategies we can use if the gaps cannot be readily filled.

We have also started scoping the development of action plans for Lake Rotomahana and Lake Rerewhāikaitu as they recently triggered the Action Plan requirement. The key matter we are trying to identify for these lakes is what science we have on the lake water quality and what science information we may need to collect in order to identify clear problem definition.

The Regional Council website was recently updated to provide more information about the development of actions and enable easier access to action plan documents.

3.3 **Lake Rotorua Land use approaches**

The Regional Council has been focussed on reducing nutrients entering the lake in order to meet the sustainable nutrient load of 435 tonnes nitrogen per year and achieve the Target TLI of 4.2.

A piece of work has been undertaken to look at land use management and land use change options and impacts to reduce nutrient loads in Lake Rotorua to a sustainable level of 435 tonnes of nitrogen per year. Pastoral land use around the lake is a significant source of nitrogen (about 70 percent) flowing into the lake.

On 25 March 2011, the initial findings of this work were reported back to this Group at its meeting. A mini workshop covering key aspects was also held on 23 September 2011.

On October 20, 2011 the Regional Council Strategic Policy and Planning Committee released policy positions that set out the Regional Council's strategic intent for land management and land use change in the catchment.

They clearly identify the role and direction that the Council intends to take to achieve water quality targets for Lake Rotorua.

Key elements of the policy positions include:

- Recognition that land management changes alone will not achieve water quality targets for Lake Rotorua
- Acceptance that the Council has an obligation to consider land use changes to reduce nitrogen loads to the lake long-term
- Prioritising of Council resources towards making land use change over actions to make land management changes in the catchment.

The policy positions were high-level statements of intent only. They identify where the Council stands on land management and land use change at this point in time. The positions do not identify any methods or plan of action to be undertaken.

The Group is considering the Position Statements at today's meeting.

The ways the positions can be implemented will be addressed as a next step, and will involve extensive community discussions and debate.

3.4 **Rules to implement regional nutrient discharges to the Rotorua Te Arawa Lakes**

A report to start a work programme for developing Rules to Manage Nutrient Discharges to the Rotorua Te Arawa Lakes – was presented to this Group for its feedback on 24 June 2011. It was then considered by the Bay of Plenty Regional Council, Strategic Policy and Planning Committee on 3 August 2011.

The Committee confirmed that the Policy intent for the management of the Rotorua Lakes in the Proposed Regional Policy Statement is to be implemented through regional rules.

The rules to be developed must look at options to both cap and reduce nutrient discharges. A work programme to develop rules will start this financial year with funding of future rule development work being considered through the next Ten Year Plan: 2012-2022. Consultation will follow the standard Resource Management Act process.

3.5 **Regional Policy Statement update**

What's in the Proposed RPS?

The Proposed RPS provides a framework for sustainably managing the region's natural and physical resources. It highlights regionally significant issues with our land, air, fresh and coastal water, infrastructure and biodiversity, including issues of significance to iwi. It sets out what needs to be achieved (objectives) and how it will be achieved (policies and methods).

It proposes tougher requirements for managing nutrients to the 12 Rotorua Te Arawa Lakes. Two papers presented to the Group today outline the RPS direction.

This report has been made publicly available. The hearings started on Thursday 15 September and conclude by Friday 14 October. Hearings were held in Tauranga, Rotorua, Whakatāne and Maketū (Whakaue Marae). Deliberations will start on Monday 5 December and will continue early into 2012.

4 **2012 Rotorua Te Arawa Lakes Strategy Group meeting dates**

Meeting dates for 2012 have been set, these are:

- Friday 2 March 2012
- Friday 8 June 2012
- Friday 7 September 2012
- Friday 7 December 2012

Warwick Murray
Group Manager Land Management

24 November 2011

Public Excluded Section