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# RL Rotorua Lakes

The explanation/principal reasons for the provisions in this section have been moved to Appendix 1.

## Rotorua Lakes

### Objectives

RL O1 (Objective 11) The water quality in the Rotorua lakes is maintained or improved to meet the following Trophic Level Indices:

(a)	Lake Okareka	–	3.0
(b)	Lake Okaro	–	5.0
(c)	Lake Okataina	–	2.6
(d)	Lake Rerewhakaaitu	–	3.6
(e)	Lake Rotoehu	–	3.9
(f)	Lake Rotoiti	–	3.5
(g)	Rotokakahi	–	3.1
(h)	Lake Rotoma	–	2.3
(i)	Lake Rotomahana	–	3.9
(j)	Lake Rotorua	–	4.2
(k)	Lake Tarawera	–	2.6
(l)	Tikitapu	–	2.7

RL O2 (Objective 12) Reduced occurrence of cyanobacterial algal blooms on the Rotorua Lakes.

RL O3 (Objective 18) Achieve the sustainable management of riparian margins (excluding artificial watercourses, and ephemeral flowpaths), which may include retirement, in the following priority catchments:

- (a) Rotorua lakes.
  - (i) All lake margins – 100% by 2007.
  - (ii) Rivers and streams in all lake catchments – 100% by 2020.
  - (i) Rivers and streams in the catchment of Lake Rotorua – 90% by 2010.

### Policies

RL P1 (Policy 33) To promote and support land use change and/or land management practices in the catchments of the Rotorua Lakes that will achieve lake water quality improvement.

## **Methods of Implementation**

The Regional Council will:

*Working with Other Resource Management Agencies and the Community*

RL M1 (Method 41)

Develop and implement Action Plans to maintain or improve lake water quality to meet the TLI set in RL O1. Action Plans will be developed according to the following process.

### **Action Plan Stages**

#### 1 Stage 1 – Risk Assessment and Problem Evaluation

- (a) Identify lakes that exceed the TLI set in RL O1, and initiate Stage 3. As at August 2003, the lakes that exceed the TLI are Lakes Okareka, Rotoehu, Okaro, Rotorua and Rotoiti. The timeline to initiate Stage 3 is:
  - (i) Lake Okareka – early 2003.
  - (ii) Lake Rotoehu, Lake Okaro – mid 2003
  - (iii) Lakes Rotorua & Rotoiti – mid 2003
- (b) For all other Rotorua Lakes not specified in (a):
  - (i) Evaluate the risk of the lake exceeding the TLI set in RL O1, and initiate Stage 2. The timeline to initiate the risk assessment is: Lakes Rerewhakaaitu, Tarawera, Rotoma, Okataina, Tikitapu, Rotokakahi, Rotomahana – 2005. The risk of the lake exceeding the TLI will be assessed using all lake water quality monitoring data, including, but not limited to, dissolved oxygen (Hypolimnetic Volumetric Oxygen Depletion Rate), water temperature, nitrogen and phosphorus levels, Chlorophyll a, algal species, Secchi disc depth, TLI, and Percent Annual Change. The evaluation will take into account the age of groundwater, spring water and inflowing stream water in the catchment, and the lag time between land use activities and effects on water quality.
  - (ii) Where state of the environment monitoring identifies that a lake exceeds its TLI specified in RL O1, where the 3-year moving average TLI for the lake exceeds its designated TLI specified in RL O1 by 0.2 for 2 consecutive years, initiate Stage 3.

#### 2 Stage 2 – Project Prioritisation

- (a) Evaluate the results from Stage 1(b) (i) to determine if Stage 3 and 4 of the Action Plans are necessary to maintain or improve lake water quality.
- (b) Prioritise the development of Stage 3 and 4 of the Action Plans for lakes where such action is necessary. Prioritisation will be determined in conjunction with the co-management partners of the Strategy for the Lakes of the Rotorua District.

#### 3 Stage 3 – Development of Action Plan for Lake Catchment

- (a) Where lake water quality exceeds the TLI:
  - (i) Identify and quantify the lake water quality problem and any necessary research.
  - (ii) Identify and quantify the reduction of nitrogen and phosphorus required in the catchment to achieve the TLI in RL O1.
  - (iii) Estimate the contributing sources of nitrogen and phosphorus in the catchment, and the effects of existing land uses and activities in the catchment on the lake's nutrient load.
  - (iv) Estimate the lag between actual land use change and lake water quality effects.
  - (v) Establish a timeline for developing an Action Plan for the lake

catchment.

- (b) Disseminate information and research findings to the community.
- (c) Develop and implement Stage 3 and 4 of the Action Plan in conjunction with an Action Plan Working Group comprising appropriate parties from the individual catchment. The Action Plan Working Group will include, but is not limited to, Rotorua District Council, iwi, community groups, landowners, and relevant resource management agencies and industry representative groups. The main aims of Stage 3 of the Action Plan are:
  - (i) Identify factors that affect lake water quality and any necessary research.
  - (ii) Include equitable and workable provisions to address effects on existing land uses where it is necessary to restrict land use to maintain or improve water quality. Such provisions include, but are not limited to, criteria for possible financial assistance and land acquisition.
  - (iii) Identify efficient, cost-effective and equitable measures and options to reduce inputs of nitrogen and phosphorus from the lake catchment to maintain or improve lake water quality.
  - (iv) Determine if the TLI in RL O1 can be realistically achieved, and a practicable timeline for achieving the target TLI.
- (d) Identify the costs and benefits of different nutrient management and reduction methods. Such methods include, but are not limited to:
  - (i) Education on nutrient management;
  - (ii) Riparian retirement;
  - (iii) Constructed wetlands;
  - (iv) Sewage reticulation;
  - (v) Review of existing discharge consents in the catchment;
  - (vi) Land use changes;
  - (vii) Land purchase or lease;
  - (viii) Engineering works;
  - (ix) Nutrient trading systems.
- (e) Take into account the macro-economic and micro-economic effects of lake water quality maintenance or improvement measures, including the value of land use and lake water quality to the catchment, district, region and wider community.
- (f) Apply existing funding policies and other funding options for lake water quality maintenance or improvement works, including, but not limited to:
  - (i) Differential rating as a means of paying for works within the catchment.
  - (ii) Central government funding.
  - (iii) User charges.
  - (iv) Environmental Programmes.
- (g) Determine if regulatory measures are necessary to control the discharge of nitrogen or phosphorus, or both, from land use activities in the lake catchment (Refer to RL M2).
- (h) Document a timetable for implementing nutrient management and reduction options.

#### 4 Stage 4 – Implementation and Monitoring of Action Plans

- (a) Implement the lake water quality improvement measures identified and agreed to in Stage 3.
- (b) Evaluate and report progress towards achieving the TLI in RL O1 to all parties, and the community.

RL M2 (Method 42)

In conjunction with the Action Plan Working Group (refer to RL M1), review the necessity and application of the Rules in this section of this regional plan to individual lake catchments.

- 1 The review will:
  - (a) Consider matters from the Action Plans developed in

- accordance with RL M1.
  - (b) Consider how to achieve the long-term sustainable management of nitrogen and phosphorus use and discharges in the individual lake catchment.
  - (c) Recognise that it may be efficient, effective, and appropriate to develop and implement specific rule(s) for each of the lake catchments.
  - (d) Recognise that the Action Plan Working Group may recommend to the Regional Council any changes to the rules in this section but the Regional Council retains control over the plan change process. Members of the Action Plan Working Group and individuals retain the right of submission and appeal.
  - (e) Include any changes to the rules in this section of the Regional Plan through a plan change process in accordance with the requirements of Schedule 1 to the Act.
- 2 The review will be discussed during the development of the Action Plans, and plan change(s) initiated for:
- (a) Lake Okareka – January 2005.
  - (b) Lake Rotoehu – January 2006.
  - (c) Lake Okaro – January 2006.
  - (d) Lake Rotorua and Rotoiti – January 2006.

RL M3 (Method 43) Support land use changes, and changes to land use rules, that:

- (a) Achieve lake management objectives identified in lake Action Plans developed in accordance with RL M1.
- (b) Integrate land use planning and rules in the Regional Council's resource management plans and Rotorua District Council's District Plan for lake catchments.
- (c) Recognise that land use change and land management practices are an important part of lake management.
- (d) Actively promote and support low nutrient loss land uses and land management practices in the catchments of the Rotorua Lakes.

#### *Regulatory Methods*

RL M4 (Method 52) Use the following process to include regulatory measures in this regional plan to control the export of nitrogen and phosphorus from land use activities in the catchment of lakes that:

- 1 Exceed their TLI specified in RL O1, where the 3-year moving average TLI for the lake exceeds its designated TLI specified in RL O1 by 0.2 for 2 years; OR
- 2 Are at risk of declining water quality, as identified by RL M1 Stage 1(b)(i).

#### *Process for Regulatory Measures*

- (a) Investigate the cause or risk of the decline in water quality and report to the Regional Council.
- (b) Develop an action plan for the lake catchment in accordance with RL M1.
- (c) Initiate a plan change in accordance with the Act to include regulatory measures in this regional plan to address the export of nitrogen and phosphorus from land use activities, including land use changes, in the specific lake catchment.

#### *Matters Relevant to Resource Consent Applications and Processing*

RL M5 (Method 62) Investigate, and if practicable, implement a nutrient trading system within the lakes catchment for those land use changes affected by rules in this

section.

- RL M6 (Method 63) For the purposes of implementing the rules in this section, the Regional Council will use the following methods to assist the assessment of changes in nutrient export, and compliance with the requirements of the rules in this section:
- (a) The development of a protocol that will assist the exchange of information between the Regional Council and Rotorua District Council for the purpose of assessing which land use of subdivision applications have the potential to increase nutrient export.
  - (b) Monitoring of catchments to provide information on land use and land use change.
  - (c) The investigation and evaluation of nutrient budget models at the property scale.
  - (d) Provision of advice to resource users on best nutrient management practices.

#### *Monitoring and Investigation of the Environment*

- RL M7 (Method 69) Identify and monitor key sites in the catchments of lakes where Action Plans are developed to assess the extent of nitrogen and phosphorus reduction in the catchment.
- RL M8 (Method 83) Review and refine lake water quality indicators in response to improved scientific knowledge.

### **Rules**

#### *Discharges of Nitrogen or Phosphorus from Land Use and Discharge Activities in the Rotorua Lakes Catchments*

#### Explanation/Intent of this section

The rules in this section are necessary to achieve RL O1 and IM P1(a). This section should be read in conjunction with RL M1, RL M2, the Lake Water Quality Management Timetable in Appendix 1 and the Explanation/Principal Reasons for Integrated Management of Land and Water section of Appendix 1 for a full understanding of the provisions for lake water quality management in this regional plan. The intent of the rules in this section is to prevent the net increase of the export of nitrogen or phosphorus from the cumulative effects of all activities in the catchments of degraded lakes in order to assist the recovery of lake water quality. It is recognised that past practices have, over 60 years, contributed to the present state of the lakes, and as a result lake sediments contain high levels of nitrogen and phosphorus. It should be noted that the implementation of this section and RL M1 may take decades to return lake water quality to an acceptable state.

All land use activities in the catchments of the Rotorua Lakes contribute nutrients to the environment. To improve lake water quality it is necessary to adopt an integrated catchment management approach and address the effects of all activities in a catchment, including land use activities and point source discharges (e.g. sewage discharges, septic tanks, dairy shed effluent). It is therefore necessary to apply relevant nutrient management rules to all land use activities in the targeted catchments, which is illustrated in Table RL 1.

Table RL 1 Rules in Rotorua Lakes

	Land Use	Applicable Regional Council Rules
(a)	Reticulated urban areas and lakeside settlements	<p>RL R1 – indicates that the effects of reticulated urban areas and lakeside settlements will be addressed through the control of point source discharges.</p> <p>RL R7 and DW R8 – apply to point source discharges of sewage and stormwater, which are managed by Rotorua District Council. RL R7 restricts any increase in nitrogen or phosphorus from a point source discharge.</p> <p>Sewage – Resource consents limit the allowable nitrogen and phosphorus discharge from sewage treatment plants. Rotorua City’s nutrient loading from sewage has been reduced from 130-150 tonnes nitrogen per year and 33.8 tonnes phosphorus per year (prior to land-based discharge in 1988), to less than 30 tonnes nitrogen per year and less than 3 tonne phosphorus per year (2004). Reticulation of other urban areas and lakeside settlements will reduce the nutrient loading compared to the current outputs from septic tank systems by up to 80%. Refer to the Rotorua District Council Long Term Plan (‘LTP’) for reticulation dates for other areas in the Rotorua Lakes’ catchments, which will be refined in future editions of the LTP or as a result of community decisions.</p> <p>Urban stormwater – resource consents will require the appropriate management and treatment of urban stormwater to ensure no net increase of nitrogen or phosphorus within the lake catchment from a discharge (refer to the Discharge of Stormwater in the Discharges to Water and Land section of this regional plan).</p>
(b)	Non-reticulated urban areas and lakeside settlements	<p>Septic tank discharges - Refer to the On-Site Effluent Treatment Regional Plan. The rules in that plan require the nutrient loading from septic tank discharges within 200 metres of the lakeshore, or on properties less than 4 hectares within lake catchments, to be substantially reduced from 40-70 grams nitrogen per cubic metre to 15 grams nitrogen per cubic metre. This requires the installation of an advanced treatment system. Some urban areas and lakeside settlements, and small rural properties will be reticulated over time and will then be covered by RL R1.</p> <p>Stormwater discharges – managed as per Reticulated Urban Areas (refer to (a) above).</p>
(c)	Properties <0.4 hectares (4,000 m <sup>2</sup> ) where the nitrogen output from the property is less than 10 kg per hectare per year	<p>RL R2 – permitted providing the nutrient export levels remain below 10 kg per hectare per year (excluding the discharge from on-site effluent treatment systems).</p> <p>Recognises that low-intensity lifestyle blocks have minimal nutrient exports, while requiring landowners to retain the low intensity land use.</p>
(d)	Other land uses	<p>RL R3, RL R4, RL R5 and RL R6 – establishes a nutrient benchmark that landowners cannot breach. Sets a cap on the level of nutrients from rural land uses within each of the targeted lake catchments.</p>

The Rules in this section are subject to a ‘mandatory review clause’ to clearly indicate that the Regional Council will review the applicability of the rules to each targeted lake catchment in accordance with RL M2 and the development of Action Plans under RL M1. It is recognised that the current set of rules are ‘first generation’, and that the Action Plan Working Groups may identify and develop more appropriate means of controlling nitrogen and phosphorus losses from land use activities. The wording of the ‘mandatory review clause’ ensures that the existing rules remain enforceable until the new reviewed rules for that lake catchment become operative. However, greater weight will be given to new rules as these progress through submission and appeal processes. The Regional Council is obligated to implement a review of the rules for each of the targeted lake catchments in accordance with the timeframes stated in RL M1.

### Advisory Note

- 1 Discharges of nitrogen and phosphorus from on-site effluent treatment systems (including septic tanks) are addressed by provisions in the OSET Plan. Where an on-site effluent treatment system requires a consent under the OSET Plan, the activity will be assessed in accordance with the OSET Plan and RL R7.
- 2 The Rules in this section apply to the activities listed in the table below:

Table RL 2 Rotorua Lakes Activities and Associated Rules

Activity	Catchments of Lakes Okareka, Rotoehu, Okaro, Rotorua and Rotoiti
Urban areas, lakeside settlements and small properties connected to reticulated wastewater systems	RL R1
Small properties (less than 0.4 hectares) not connected to reticulated wastewater systems, and nitrogen export level is less than 10 kg/ha/year	RL R2
Land use activities that have undergone conversion between 1 July 2001 and 30 June 2004, and subsequent modification	RL R3, RL R4, RL R5 and RL R6
Land use activities (not conversions) and subsequent modification	RL R4, RL R5 and RL R6
Existing point source discharges of contaminants	Refer to Rules in the Discharges to Water and Land section
Increases in the discharge of nitrogen or phosphorus from point source discharges	Activity is subject to rules in the Discharges to Water and Land section section and RL R7

- 3 For Lakes Rerewhakaaitu, Tarawera, Rotoma, Okataina, Tikitapu, Rotokakahi, Rotomahana, RL M1 will be implemented to assess the risk of lake water deterioration, and to maintain water quality to meet the TLI set in RL O1. Refer to RL M4 for the process to include rule(s) in this regional plan to regulate activities in these lake catchments. Where lake water quality breaches the TLI, RL M1 (Action Plans) and RL M4 (new regulatory rules to control nitrogen and phosphorus) will be immediately implemented.
- 4 RL R3, RL R4, RL R5 and RL R6 control land use development, including the development of scrub or bare land, to ensure there is no net increase of the export of nitrogen and phosphorus from the proposal, or the increase can be offset on the property or within the same lake catchment. Low nutrient output land use activities are preferred.
- 5 Some land use activities in the catchments of the Rotorua Lakes may be subject to other rules in this regional plan, or rules in the Rotorua District Plan. For example, resource consents for vegetation clearance must be obtained in some areas. Land users are advised to check the relevant sections of this regional plan, or seek advice from the Regional Council staff. Contact Rotorua District Council for advice on provisions in the Rotorua District Plan.

*Increases in Nitrogen and Phosphorus Exports from Non-Point Source Discharges in the Catchments of Lakes Rotorua, Rotoiti, Okareka, Rotoehu and Okaro*

This section applies to land use activities, which comprise two components:

- (a) Land use change – the change of land use from one usage to another where the nutrient export from the property is changed. For example, the

conversion of forestry to grazing, the conversion of dry stock to dairying, the conversion of pastoral grazing to horticulture, or the subdivision of land for lifestyle blocks or residential development.

- (b) Land management practices – different practices within a land use type, including but not limited to, intensification of an existing land use, using a feed pad, fertiliser application rates and timing, riparian retirement, or stock management practices.

RL R2, RL R3, RL R4, RL R5 and RL R6 do not apply to land use activities in the specified lake catchments where reviewed rules for the lake catchment are operative. The mandatory review dates for the rules in the affected lake catchments (including the dates for public notification of reviewed rules) are specified in (a) to (d) below. RL R1 will remain in place as it is intended that lakeside properties, lake settlements, and other small rural properties (where appropriate), will be connected to reticulated sewage systems.

Table RL 3 Rule RL R2 – RL R6 Mandatory Review Clause

	Lake Catchments	Mandatory Review Clause for Rules RL R2 – RL R6
(a)	Lake Okareka	A plan review must be initiated in January 2005 (refer to RL M2), and a plan change will be publicly notified by 1 July 2006.
(b)	Lake Okaro	A plan review must be initiated in January 2006 (refer to RL M2), and a plan change will be publicly notified by 31 December 2007.
(c)	Lake Rotoehu	A plan review must be initiated in January 2006 (refer to RL M2), and a plan change will be publicly notified by 31 December 2007.
(d)	Lakes Rotorua and Rotoiti	A plan review must be initiated in January 2006 (refer to RL M2), and a plan change will be publicly notified by 31 December 2007.

For administrative efficiency the rules in this section will be applied in accordance with (a) and (b) where properties cross lake catchment boundaries:

- (a) Where a property lies within two of the following lake catchments; Lakes Rotorua, Rotoiti, Rotoehu, Okareka and Okaro, information will be split to show the nutrient information for those parts of the property within each of the lake catchments.
- (b) Where a property lies partly within the catchment of Lake Rotorua, Rotoiti, Rotoehu, Okareka or Okaro, and partly in another catchment, the rules apply only to that part of the property that is within the catchment of a specified lake, unless the area within the targeted lake catchment is less than 4,000 m<sup>2</sup> (0.4 hectares). In situations where the affected area is less than 4,000 m<sup>2</sup> (0.4 hectares), that area is exempt from the rules in this section.

The Regional Council has functions under the Act to undertake audits of resource use activities when necessary to assess compliance with rules and consents. This includes, but is not limited to, activities permitted under RL R2, RL R3, and RL R4 and activities consented under RL R5, RL R6, RL R7.

The Regional Council will supply information to Rotorua District Council for inclusion on Land Information Memorandum for properties subject to rules in this section to clearly identify the following, where applicable:

- (a) What lake catchment or catchments the property lies within.
- (b) The part of the property that is exempt from the rules, if the part of the property within a targeted lake catchment is less than 4,000 m<sup>2</sup> (0.4 hectares).

- (c) The rules in this section applicable to the property. Landowners are advised to contact the Regional Council for further information.

**RL R1 (Rule 11) Permitted – Land Use Activities in the Catchments of Lakes Okareka, Rotoehu, Okaro, Rotorua and Rotoiti where the property is connected to a reticulated wastewater (sewage) system**

Any land use activity in the catchments of Lakes Okareka, Rotoehu, Okaro, Rotorua or Rotoiti, where:

- 1 The property is connected to a reticulated wastewater (sewage) system; and either (a) or (b):
  - (a) The property is within an urban area or lakeside settlement.
  - (b) The property is in a rural area and is less than 0.4 hectares (4,000 m<sup>2</sup>).

Is a permitted activity.

**Advisory Note**

- 1 This rule applies to areas where there are existing reticulated wastewater (sewage) systems, and to other areas when such connections are made.
- 2 For the avoidance of doubt, this rule applies to infill housing, the development of residential subdivisions, and other land use changes (e.g. industrial or commercial operations) within reticulated areas.
- 3 Rural properties that are greater size than 0.4 hectares and connected to a reticulated sewage system are subject to RL R3, RL R4, RL R5 and RL R6.
- 4 Urban areas and lakeside settlements that are not reticulated are subject to RL R2, RL R3, RL R4, RL R5, and RL R6, whichever are relevant.

**Explanation/Intent of Rule**

To specifically provide for residential land use activities in the catchments of those Rotorua Lakes where water quality exceeds the TLI in RL O1, where the effect of the activity is addressed by the control of point source discharges (e.g. sewage and stormwater discharges). Refer to Flow Diagram RL 1 to assist reading of this rule.

**RL R2 (Rule 11A) Permitted – Small-scale, low nutrient Land Use Activities in the Catchments of Lakes Okareka, Rotoehu, Okaro, Rotorua and Rotoiti**

Any land use activity in the catchments of Lakes Okareka, Rotoehu, Okaro, Rotorua or Rotoiti, where:

- 1 The property is not connected to a reticulated wastewater (sewage) system, and
- 2 The size of the property is no greater than 0.4 hectares (4,000 square metres (m<sup>2</sup>)); and
- 3 The nitrogen export from the property is less than 10 kilograms per hectare per year, excluding the discharge from on-site effluent treatment systems on the property;

Is a permitted activity.

**Advisory Note**

- 1 Properties less than 0.4 hectares where the nitrogen export is greater than 10 kilograms per hectare per year are subject to RL R3, RL R4, RL R5 and RL R6. This applies to existing land use activities, and modification to existing land use activities that increase the nitrogen export level to greater than 10 kilograms per hectare per year.
- 2 RL R2 applies to non-reticulated lake-side settlements.

- 3 Land use activities that cause a nitrogen loss of less than 10 kilograms per hectare per year include, but are not limited to, any ONE of the following:
- (a) Horse, donkey or mule – maximum of one per property.
  - (b) Sheep or goats – maximum of three per property.
  - (c) Alpaca or Llama – maximum of two per property.
  - (d) Pigs – a maximum of two weaners grown through to baconer stage; or one sow with a litter of piglets grown to weaned stage and one weaned subsequently grown to baconer stage. Pigs are to be kept in a sty with occasional free range, and no continuous free range.
  - (e) A maximum fertiliser application of 10 kilograms of phosphorus per hectare per year (or 4 kilograms of phosphorus per 4,000 m<sup>2</sup> per year). This equates to 300 kilograms of Potosí Super per hectare per year (or 120 kilograms per 4,000 m<sup>2</sup> per year).

Landowners can contact the Regional Council for free advice on other low nutrient land uses that will comply with the nutrient limit.

#### Explanation/Intent of Rule

To specifically provide for small-scale land use activities in the catchments of those Rotorua Lakes where water quality exceeds the Tropic Level Index in RL O1, where the activity has a low nitrogen export level. Refer to Flow Diagram RL 1 to assist reading of this rule.

#### **RL R3 (Rule 11B) Permitted – Land Uses on Converted Properties, in the Catchments of Lakes Okareka, Rotoehu, Okaro, Rotorua and Rotoiti**

Any land use activity in the catchments of Lakes Okareka, Rotoehu, Okaro, Rotorua or Rotoiti, where:

- 1 The land use activity is not otherwise permitted by RL R1 or RL R2;
- and either 2 or 3:
- 2 The land use activity has been changed from dry stock to dairying, or pastoral grazing to horticulture; and the change commenced between 1 July 2001 and 30 June 2004.
  - 3 The land use activity has been changed from forestry to dairying, forestry to pastoral grazing, or forestry to another land use; and the change commenced between 1 July 2001 and 30 June 2004.

Is a permitted activity subject to the following conditions:

- (a) Where the land use activity complies with 2 above, the information in Table RL 4 (as applicable) shall be supplied to the Regional Council no later than 31 December 2005 or when the property is sold, whichever is the sooner, to register the annual average export of nitrogen and phosphorus from the property for the period 1 July 2004 to 30 June 2005. This will become the nutrient benchmark for the property.
- (b) Where the land use activity complies with 3 above, the information in Table RL 4 (as applicable) shall be supplied to the Regional Council no later than 31 December 2005 or when the property is sold, whichever is the sooner, to register the annual average export of nitrogen and phosphorus from the property for the period 1 July 2004 to 30 June 2005, except where the land use change began after 1 January 2003. This will become the nutrient benchmark for the property.
- (c) Where the land use activity complies with 3 above and the land use change began after 1 January 2003, an appropriate nutrient benchmark will be set by the Regional Council in conjunction with the landowner and an independent nutrient management adviser, to allow a fair and reasonable production level relative to the property characteristics and land use.
- (d) Any modification to the land use activity shall comply with (i), (ii) or (iii):

- (i) The modification decreases the annual average export of nitrogen or phosphorus from the property as compared to the nutrient benchmark for the property.
- (ii) The modification maintains the annual average export of nitrogen or phosphorus from the property at the same level to the nutrient benchmark for the property.
- (iii) The modification is forestry harvesting where the area is replanted for forestry or permanent retirement purposes (note that forestry activities are also subject to by rules in the Land Management section of the regional plan).

Table RL 4 Rule RL R3 Nutrient Benchmark Information Requirements

	General Information
1	Land area.
2	Soil drainage class and soil characteristics.
3	Rainfall.
4	Slope/Topography.
5	Land cover and land use on the property (including percentage of land area in different land uses).
6	Percentage of riparian areas of rivers, streams and lakeshore on the property that have been fenced, or in retirement plantings
7	Area of wetlands on the property.
8	Number of houses on the property.
9	Type of sewage treatment for the houses on the property.
10	Fertiliser application – type and amount of fertiliser, and percentage of amount applied in May, June and July.
11	Type of livestock on the property.
12	Peak number of livestock by stock type.
13	For beef properties, the percentage of female livestock.
14	Number of livestock taken off the property, or put onto a wintering pad/loafing pad/feedpad during winter.
15	Where a wintering pad/loafing pad/feedpad is used, the waste treatment and disposal system for the wintering pad/loafing pad/feedpad.
16	Crop type(s), and area in each crop. This includes forestry.
17	Volume of irrigation.
18	Supplementary stock feed purchased or sold off-farm.
19	Description of other land management practices relevant to nutrient management.
20	Annual exports from the property (e.g. crops, livestock, milk solids etc).

#### Advisory Note

- 1 RL R3 applies to land used for commercial and industrial use, agricultural, pastoral and horticultural production, lifestyle blocks, production forestry, and bare land, scrub or indigenous forest, where the land use activity is not permitted by RL R1 or RL R2.
- 2 Land use changes, including intensification of existing land uses, are addressed by RL R3(d), RL R5 and RL R6.
- 3 Each property is to be managed separately. Where a landowner has multiple properties within the same lake catchment they may be managed jointly within a resource consent under RL R5. This would allow a landowner to increase production on one property and apply offset measures on their other property.
- 4 The process to obtain information to comply with RL R3 will be as follows:

- (a) The Regional Council will send out an initial query to all landowners subject to RL R3 and RL R4 (which excludes land uses permitted by RL R1 and RL R2) to determine what land use activities are carried out on the property.
  - (b) Appropriate land use activity forms will be then sent to landowners to assist them to provide the relevant information. The Regional Council can provide information on soil drainage class and rainfall free of charge. It is the responsibility of the person using the land to provide the nutrient benchmark information. Where the property is leased, it is the responsibility of the lessee to provide the information rather than the landowner. The Regional Council will assist people to determine the baseline output of nitrogen or phosphorus from their property or properties.
  - (c) The Regional Council will track who has received land use activity forms and responses received. Landowners or land users (including lessees) who have not supplied information by the required date will be contacted, and if the information is not forthcoming, appropriate existing legislative options will be enacted.
- 5 In relation to Table RL 4, rows 11, 12, 13, 14 and 20, the type and size of stock will be used to determine the nutrient benchmark. Each stock type has a different nutrient output, for example, one sheep does not equate to one dairy cow.
- 6 In relation to RL R3(d), the measurement of the discharge of nitrogen and phosphorus is to be according to the following:
- (a) Use the nitrogen and phosphorus export baseline using information supplied in relation to RL R3(a), (b) or (c).
  - (b) Determine the annual average export of nitrogen and phosphorus from the property as a result of the proposed land use activity. The same model used in (a) is to be used in (b) to compare the baseline level and the effects of any proposed change to the activity.
  - (c) Determine appropriate nutrient management measures that can be applied on the property to fully offset any increase of nitrogen or phosphorus from the proposed land use activity. The same model used in (a) and (b) is to be used in (c) to compare the baseline level, effects of the proposed land use activity, and any effects of proposed nutrient management measures to fully offset the expected increase of nitrogen or phosphorus.
  - (d) Where appropriate nutrient management measures cannot be applied on the property to fully offset the expected increase of nitrogen or phosphorus from proposed land use activity, the activity is subject to RL R5 or RL R6.

#### **Explanation/Intent of Rule**

To allow land use activities in the catchments of those Rotorua Lakes where water quality exceeds the TLI in RL O1, where the effect of the activity does not increase the discharge of nitrogen or phosphorus beyond an established baseline level. Refer to Flow Diagram RL 1 to assist reading of this rule.

#### **RL R4 (Rule 11C) Permitted – Land Use Activities in the Catchments of Lakes Okareka, Rotoehu, Okaro, Rotorua or Rotoiti – properties where land use change (conversion) has not occurred**

Any land use activity in the catchments of Lakes Okareka, Rotoehu, Okaro, Rotorua or Rotoiti, where the land use activity is not otherwise permitted by RL R1, RL R2 or RL R3; is a permitted activity subject to the following conditions:

- (a) The information in Table RL 5 (as applicable) shall be supplied to the Regional Council no later than 31 December 2005, or when the property is sold, whichever is the sooner, to register the annual average export of nitrogen and phosphorus from the property for the period 1 July 2001 to 30 June 2004. This will become the nutrient benchmark for the property.

- (b) Any modification to the land use activity must comply with (i), (ii), or (iii):
- (i) The modification decreases the annual average export of nitrogen or phosphorus from the property as compared to the level established as the baseline at 30 June 2004 as assessed by the nutrient model allowing for statistical variation.
  - (ii) The modification maintains the annual average export of nitrogen or phosphorus from the property at the same level as established as the baseline at 30 June 2004 as assessed by the nutrient model allowing for statistical variation.
  - (iii) The modification is forestry harvesting where the area is replanted for forestry or permanent retirement purposes (note that forestry activities are also subject to by rules in the Land Management section of the regional plan).

Table RL 5 RL R4 Nutrient Benchmark Information Requirements

General Information	
1	Land area.
2	Soil drainage class and soil characteristics.
3	Rainfall.
4	Slope/Topography.
5	Land cover and land use on the property (including percentage of land area in different land uses).
6	Percentage of riparian areas of rivers, streams and lakeshore on the property that have been fenced, or in retirement plantings
7	Area of wetlands on the property.
8	Number of houses on the property.
9	Type of sewage treatment for the houses on the property.
10	Fertiliser application – type and amount of fertiliser, and percentage of amount applied in May, June and July.
11	Type of livestock on the property.
12	Peak number of livestock by stock type.
13	For beef properties, the percentage of female livestock.
14	Number of livestock units taken off the property, or put onto a wintering pad/loafing pad/feedpad during winter.
15	Where a wintering pad/loafing pad/feedpad is used, the waste treatment and disposal system for the wintering pad/loafing pad/feedpad.
16	Crop type(s), and area in each crop. This includes forestry.
17	Volume of irrigation.
18	Supplementary stock feed purchased or sold off-farm.
19	Description of other land management practices relevant to nutrient management.
20	Annual exports from the property (e.g. crops, livestock units, milk solids etc).

#### Advisory Note

- 1 RL R4 applies to land used for commercial and industrial use, agricultural, pastoral and horticultural production, lifestyle blocks, production forestry, and bare land, scrub or indigenous forest, where the land use activity is not permitted by RL R1 or RL R2.
- 2 Land use changes, including intensification of existing land uses, are addressed by RL R4(b), RL R5 and RL R6.

- 3 Each property is to be managed separately. Where a landowner has multiple properties within the same lake catchment they may be managed jointly within a resource consent under RL R5. This would allow a landowner to increase production on one property and apply offset measures on their other property.
- 4 The process to obtain information to comply with RL R4 will be as follows:
  - (a) The Regional Council will send out an initial query to all landowners subject to RL R3 and RL R4 (which excludes land uses permitted by RL R1 and RL R2) to determine what land use activities are carried out on the property.
  - (b) Appropriate land use activity forms will be then sent to landowners to assist them to provide the relevant information. The Regional Council can provide information on soil drainage class and rainfall free of charge. It is the responsibility of the person using the land to provide the nutrient benchmark information. Where the property is leased, it is the responsibility of the lessee to provide the information rather than the landowner. The Regional Council will assist people to determine the baseline output of nitrogen or phosphorus from their property or properties.
  - (c) The Regional Council will track who has received land use activity forms and responses received. Landowners or land users (including lessees) who have not supplied information by the required date will be contacted, and if the information is not forthcoming, appropriate existing legislative options will be enacted.
- 5 For the avoidance of doubt, RL R3 applies to properties where land use change (conversion) has occurred, and RL R4 applies to properties where the land use has remained the same since 1 July 2001.
- 6 In relation to Table RL 5, rows 11, 12, 13, 14 and 20, the type and size of stock will be used to determine the nutrient benchmark. Each stock type has a different nutrient output, for example, one sheep does not equate to one dairy cow.
- 7 In relation to RL R4, the measurement of the discharge of nitrogen or phosphorus is to be according to the following:
  - (a) Use the nitrogen and phosphorus export baseline using information supplied in relation to RL R4(a).
  - (b) Determine the annual average export of nitrogen and phosphorus from the property as a result of the proposed land use activity. The same model used in (a) is to be used in (b) to compare the baseline level and the effects of any proposed change to the activity.
  - (c) Determine appropriate nutrient management measures that can be applied on the property to fully offset any increase of nitrogen or phosphorus from the proposed land use activity. The same model used in (a) and (b) is to be used in (c) to compare the baseline level, effects of the proposed land use activity, and the effects of proposed nutrient management measures to fully offset any expected increase of nitrogen or phosphorus.
  - (d) Where appropriate nutrient management measures cannot be applied on the property to fully offset the expected increase of nitrogen or phosphorus from proposed land use activity, the activity is subject to RL R5 or RL R6.
- 8 A 10% statistical variation exists in the current nutrient models.

#### **Explanation/Intent of Rule**

To allow land use activities in the catchments of those Rotorua Lakes where water quality exceeds the TLI in RL O1, where the effect of the activity does not increase the discharge of nitrogen or phosphorus beyond an established nutrient benchmark level (+ or - 10%), or increases can be offset on the property. Refer to Flow Diagram RL 1 to assist reading of this rule.

**RL R5 (Rule 11D) Controlled – Land Use Activities in the Catchments of Lakes Okareka, Rotoehu, Okaro, Rotorua and Rotoiti, where the increase in nitrogen or phosphorus exports is fully offset on land within the same lake catchment**

The increase in the discharge of nitrogen or phosphorus from a land use activity in the catchments of Lakes Okareka, Rotoehu, Okaro, Rotorua and Rotoiti, where:

- 1 The activity is not permitted by RL R1, RL R2, RL R3 or RL R4; and
- 2 The increase in the export of nitrogen or phosphorus from the proposed land use activity will be fully offset by the use of nutrient management measures on land within the same lake catchment; and
- 3 The nutrient management offset measures are on a different property; and
- 4 The nutrient management measures used to fully offset the effects of the proposed land use activity are not on land with indigenous forest land cover, or an urban area or lakeside settlement; and
- 5 The nutrient benchmark of nitrogen or phosphorus for the property where the land use activity will occur, and the property where off-site nutrient management measures will be used, have been registered with the Regional Council in accordance with RL R3 or RL R4 (whichever is applicable);

Is a controlled activity.

The Regional Council reserves its control over the following matters:

- (a) Measures to offset adverse effects on water quality, including surface water and groundwater.
- (b) Measures to avoid, remedy or mitigate adverse effects on aquatic ecosystems in streams and rivers.
- (c) Aspects of the land use activity that cause an increase in the export of nitrogen or phosphorus from the activity.
- (d) Measures to fully offset the increase in the export of nitrogen or phosphorus from the activity within the same lake catchment.
- (e) Contractual arrangements with third parties where the offset measures are not applied on the property.
- (f) The change to the nutrient benchmark limit for both properties. The nutrient benchmark for the property where the land use activity will take place will increase, and the property where offset measures will take place will decrease accordingly.
- (g) Administration charges under section 36 of the Act.
- (h) Financial contributions under Appendix 2 of this regional plan.
- (i) Information and monitoring requirements.

**Advisory Note**

- 1 RL R5 applies to land use activities where the increase of nitrogen or phosphorus exports from the property will be fully offset by nutrient management measures are partly or entirely off the property but on land within the same lake catchment.
- 2 Where a landowner has multiple properties within the same lake catchment they may be managed jointly within a resource consent under RL R5. This would allow a landowner to increase production on one property and apply offset measures on their other property.

**Explanation/Intent of Rule**

To provide for land use activities where the effects of the activity can be offset and any increases in the export of nitrogen or phosphorus are fully offset within the same lake catchment, but not entirely on the property. Applicants will need to identify and apply measures to offset any increased nutrient export resulting from the proposed activity. The controlled activity status allows the Regional Council to assess the suitability of offset measures, and monitor the implementation of nutrient management practices, particularly where the implementation relies on a third party. Proposed activities where measures have not been identified to offset

the increase in nitrogen or phosphorus, are restricted discretionary activities under RL R6. Refer to Flow Diagram RL 1 to assist reading of this rule.

#### **RL R6 (Rule 11E) Restricted Discretionary – Land Use Activities in the Catchments of Lakes Okareka, Rotoehu, Okaro, Rotorua and Rotoiti**

The discharge of nitrogen or phosphorus from a land use activity in the catchments of Lakes Okareka, Rotoehu, Okaro, Rotorua and Rotoiti, that is;

- 1 Not a permitted activity under RL R1, RL R2, RL R3 or RL R4; and
- 2 Not a controlled activity under RL R5;

Is a restricted discretionary activity.

The Regional Council restricts its discretion to the following matters:

- (a) Measures to offset adverse effects on water quality, including surface water and groundwater.
- (b) Measures to avoid, remedy or mitigate adverse effects on aquatic ecosystems in streams and rivers.
- (c) Measures to fully offset the increase in the discharge of nitrogen or phosphorus from the activity within the same lake catchment.
- (d) Aspects of the land use activity that cause an increase the export of nitrogen or phosphorus from the activity.
- (e) Contractual arrangements with third parties where the offset measures are not applied on the property.
- (f) Administration charges under section 36 of the Act.
- (g) Financial contributions under Appendix 2 of this regional plan.
- (h) Information and monitoring requirements.

#### **Advisory Note**

- 1 Any activity subject to the rules in this section must also comply with other relevant rules in this regional plan, and any relevant rules in a district plan.
- 2 Resource consent applications under RL R6 may be granted where:
  - (a) Any increase of nitrogen or phosphorus loss from the land use activity can be fully offset within the same lake catchment; or
  - (b) Any increase of nitrogen or phosphorus is discharged outside the catchments of the Rotorua Lakes; or
  - (c) Any increased nitrogen or phosphorus is fully bound within the soil and does not reach groundwater or enter surface water bodies; or
  - (d) The purpose of the activity is for research purposes.
- 3 Resource consent applications under RL R6 will be declined where:
  - (a) The adverse effects of the increased nitrogen or phosphorus loss from the land use activity cannot be fully offset within the same lake catchment; or the nitrogen or phosphorus cannot be taken outside the catchments of the Rotorua Lakes; or the nitrogen or phosphorus is not bound within the soil.

#### **Assessment Criteria**

When assessing resource consent applications under this rule, the Regional Council will have particular regard to, but not be limited to, the following provisions:

*Objective* IM O1, LM O1, RL O1, IM O3  
*Policy* IM P1  
*Method* LM M9, RL M6

### Explanation/Intent of Rule

To allow the Regional Council to address the effects of discharges of nitrogen and phosphorus resulting from land use activities on lake water quality. This is to minimise the input of nitrogen and phosphorus into lakes and their catchments in order to achieve the Trophic Level Indices stated in RL O1. Applicants will need to identify and apply measures to offset any increased nutrient export resulting from the proposed activity. Resource consent applications for proposed activities that increase the nitrogen or phosphorus levels in a lake catchment, after taking into account offset measures including off-site mitigation, do not comply with the requirements of this regional plan and will be declined. Refer to Flow Diagram RL 1 to assist reading of this rule.

*Increases in Nitrogen and Phosphorus from Point source Discharges in the Catchments of Lakes Rotorua, Rotoiti, Okareka, Rotoehu and Okaro*

### **RL R7 (Rule 11F) Restricted Discretionary – Increased Discharges of Nitrogen and Phosphorus from Discharge Activities in the Catchments of Lakes Okareka, Rotoehu, Okaro, Rotorua and Rotoiti**

The increase in the discharge of nitrogen or phosphorus from a:

- 1 Point source discharge of contaminants to water; or
- 2 Point source discharge of water to water; or
- 3 Point source discharge of contaminants to land in circumstances where the contaminant may enter surface water or groundwater;

in the catchments of Lakes Okareka, Rotoehu, Okaro, Rotorua and Rotoiti,

is a restricted discretionary activity.

The Regional Council restricts its discretion to the following matters:

- (a) Measures to offset adverse effects on water quality, including surface water and groundwater.
- (b) Measures to fully offset the increase in the discharge of nitrogen or phosphorus from the activity within the same lake catchment.
- (c) Measures to avoid, remedy or mitigate adverse effects on aquatic ecosystems in streams and rivers.
- (d) Aspects of the activity that cause an increase the export of nitrogen or phosphorus from the activity.
- (e) Administration charges under section 36 of the Act.
- (f) Financial contributions under the Appendix 2 of this regional plan.
- (g) Information and monitoring requirements.

### **Advisory Note**

- 1 For point source discharges of contaminants, any increase in the discharge of nitrogen or phosphorus above authorised levels, is subject to RL R7.
- 2 Any activity subject to RL R7 must also comply with other relevant rules in this regional plan, and any relevant rules in a district plan.
- 3 Resource consent applications under RL R7 may be granted where:
  - (a) Any increase of nitrogen or phosphorus from the discharge activity can be fully offset within the same lake catchment; or
  - (b) Any increase of nitrogen or phosphorus is discharged outside the catchments of the Rotorua Lakes; or
  - (c) Any increased nitrogen or phosphorus is fully bound within the soil and does not reach groundwater or enter surface water bodies; or
  - (d) The purpose of the activity is for research purposes.

- 4 Resource consent applications under RL R7 will be declined where:
  - (a) The adverse effects of the increased nitrogen or phosphorus from the discharge cannot be fully offset within the same lake catchment; or the nitrogen or phosphorus can not be taken outside the catchments of the Rotorua Lakes; or the nitrogen or phosphorus is not bound within the soil.
- 5 The increase will be determined relative to the lesser of:
  - (a) An existing limit in an existing resource consent, or
  - (b) The actual level of performance of the discharge activity.

#### **Assessment Criteria**

When assessing resource consent applications under this rule, the Regional Council will have particular regard to, but not be limited to, the following provisions:

*Objective* IM O1, LM O1, RL O1, IM O3  
*Policy* IM P1  
*Method* LM M9, RL M6

#### **Explanation/Intent of Rule**

To allow the Regional Council to address the effects of discharges of nitrogen and phosphorus resulting from point source discharges on lake quality. This is to minimise the input of nitrogen and phosphorus into lakes and their catchments in order to achieve the Trophic Level Indices stated in RL O1. Applicants will need to identify and apply measures to offset any increased nutrient export resulting from the proposed activity. Resource consent applications for proposed activities that increase the nitrogen or phosphorus levels in a lake catchment, after taking into account offset measures including off-site mitigation, that do not comply with the requirements of this regional plan will be declined. It is the intent of the Regional Council that the rules in this section (including RL R7) will be reviewed according to RL M2. Any changes to the rules will be through a publicly notified plan change process under the Act. Refer to Flow Diagram RL 1 to assist reading of this rule.

## Flow Diagram RL 1 – Discharges and Land Use Activities in the Rotorua Lakes Catchments



### Advisory Note

- 1 This flow diagram is to assist working out which rules apply but does not constitute a part of the rules. If there is any inconsistency between the flow diagram and the rules in the regional plan it refers to, the criteria in the rules prevail.

*Increases in Nitrogen and Phosphorus Exports from Non-Point Source Discharges in the Catchments of Other Rotorua Lakes*

**RL R8 (Rule 12) Permitted – Changes in Land Use in the Catchments of Lakes Rerewhakaaitu, Tarawera, Rotoma, Okataina, Tikitapu, Rotokakahi, and Rotomahana**

Any existing land use or change to a land use activity in the catchments of Lakes Rerewhakaaitu, Tarawera, Rotoma, Okataina, Tikitapu, Rotokakahi and Rotomahana, is a permitted activity, until a plan change is initiated to include specific rules for individual lake catchments that have been identified as at risk in RL M1, or where the 3-year moving average TLI for the lake exceeds its designated TLI specified in RL O1 by 0.2 for 2 years.

**Explanation/Intent of Rule**

RL R8 is to signal the intent of the regional plan to include regulatory mechanisms where necessary to maintain or improve lake water quality in Lakes Rerewhakaaitu, Tarawera, Rotoma, Okataina, Tikitapu, Rotokakahi, and Rotomahana to meet the Trophic Level Indices set in RL O1. Such rules will be included in this regional plan in accordance with RL M2.

**RL R9 (Rule 13) Restricted Discretionary – Changes in Land Use in the Catchments of Lakes Rerewhakaaitu, Tarawera, Rotoma, Okataina, Tikitapu, Rotokakahi, and Rotomahana**

Any change to a land use activity where the proposed activity causes an increase in the export of nitrogen or phosphorus from the property in the catchments of Lakes Rerewhakaaitu, Tarawera, Rotoma, Okataina, Tikitapu, Rotokakahi and Rotomahana, where:

- 1 The lake is identified as at risk of water quality decline in RL M1, or
- 2 The 3-year moving average TLI for the lake exceeds its designated TLI specified in RL O1 by 0.2 for 2 years;

Is a restricted discretionary activity.

This rule is not operative until a plan change is initiated to include specific rules for individual lake catchments that have been identified as at risk in RL M1, or have declining water quality as measured by lake water quality monitoring.

**Explanation/Intent of Rule**

RL R9 is to signal the intent of the regional plan to include regulatory mechanisms where necessary to maintain or improve lake water quality in Lakes Rerewhakaaitu, Tarawera, Rotoma, Okataina, Tikitapu, Rotokakahi, and Rotomahana to meet the Trophic Level Indices set in RL O1. Such rules will be included in this regional plan in accordance with RL M2.

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**LR            Lake Rotorua Nutrient Management**

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