THE ROTORUA LAKES

Protection and Restoration Action Programme

A joint Bay of Plenty Regional Council, Rotorua District Council and Te Arawa Lakes Trust project

What is Rule 11?

Many of Rotorua's lakes are declining in quality because they have too many nutrients.

Land use activities are part of the problem because they produce nutrients that leach into the lakes. More intensive types of farming tend to create more nitrogen and phosphorus because they have more stock per hectare and make more use of external "inputs" such as fertilisers.

In New Zealand, farming has generally become more intensive over the past decade, with a resulting impact on the country's waterways.

Because of this, land use management is a key strand of the Rotorua Lakes Protection and Restoration Action Programme. Bay of Plenty Regional Council's Regional Water and Land Plan faces up to these issues. It includes proposals that will stop any further increases in the amount of nitrogen and phosphorus leaching off farmed land.

Rule 11

Rule 11 is a series of rules in section 9.4 of the proposed plan. They look at the loss of nitrogen and phosphorus from land use activities in the catchments of Lakes Rotorua, Rotoiti, Rotoehu, Okaro and Okareka.

Rule 11 puts a 'line in the sand' to cap the existing nitrogen and phosphorus loss from land use activities.

Farmers will have access to a model that calculates nutrient losses so they can make sure



Rotorua Lakes

Lake facts

that any changes do not increase losses over their property's set benchmark.

They will also be given advice on how they can offset increases in production through practices such as using wintering stock off farm, planting stream margins and retiring marginal land.

The Rotorua Lakes Problem

- Many of Rotorua's lakes have too many nutrients, caused by activities such as farming and residential settlement.
- These nutrients (nitrogen and phosphorus) feed algal growth, which degrades water quality.
- The Rotorua Lakes Protection and Restoration Action Programme is initially tackling water quality problems in five lakes in the Rotorua district
- Some long-term solutions focus on land management and include new wetlands, restricting nutrients "outflows" from properties, and changes in land use.
- More urgent solutions include sewerage reticulation, structures to divert flows, and the use of mineral products to lock up nutrients.

Rule 11 is part of a package of regulatory and non-regulatory methods to improve lake water quality. The package includes:

- Development of Action Plans for each lake.
- Encourage the fencing and planting of riparian areas.
- Educating the community on appropriate nutrient management practices.
- Sewage reticulation and sewage plant upgrade.
- In-lake treatment options.
- Land retirement and identification of land use changes and land management options.
- Constructed wetlands.

Septic tank discharges

Bay of Plenty Regional Council's On-Site Effluent Treatment Plan contains rules that will require septic tanks in the catchments of the Rotorua Lakes to be upgraded to reduce nutrient discharges.

How does Rule 11 affect you?

Rule 11 currently only applies to activities in the catchments of Lakes Rotorua, Rotoiti, Rotoehu, Okaro, and Okareka.

Below is an explanation of how Rule 11 affects land use activities in these five lake catchments.

Areas with reticulated sewage systems

Permitted land use activities are those:

- Within an urban area or lakeside settlement which are connected to a reticulated sewage system; or
- In a rural area where the property is less than
 0.4 hectares (4,000m²)
 AND connected to a reticulated

sewage system.

This includes infill housing, development of bare sections, changes to commercial, trade or industrial uses. The effects of reticulated areas are managed through the control of reticulated sewage discharges and stormwater discharges. Appropriate treatment conditions are required for these discharges.

Small rural properties, and unreticulated lakeside areas

Land use activities in lakeside settlements and rural areas, where the property is less than 0.4 hectares (4,000m²) AND NOT connected to a reticulated sewage system, are permitted activities if there are low levels of nitrogen loss from the property.

The limit is 10 kilograms per hectare per year, excluding the discharge from on-site effluent treatment systems (e.g. septic tanks) on the property.

This means that such properties can have 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 weaner stage and one weaner 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 four kilograms of phosphorus per 4,000m² per year). This equates to 300 kilograms of Potassic Super per hectare per year (or 120 kilograms per 4,000m² per year).

Landowners can also contact Bay of Plenty Regional Council

for free advice on other lownutrient land uses that will comply with the nutrient limit. For nonreticulated properties smaller than 0.4 hectares with more than 10 kilograms of nitrogen loss per hectare per year, a nutrient benchmark must be set for the property (see below for details).

All other land uses

A nutrient benchmark level will be set for all properties in the five lakes catchments that are not reticulated, or small rural properties with low nitrogen losses. The nutrient benchmark level for the property will be calculated as in the table above.

Setting a nutrient benchmark

- Bay of Plenty Regional Council will send out an initial inquiry to all landowners to determine what land use activities are carried out on their property (or properties).
- 2. Bay of Plenty Regional Council will then help people work out the loss of nitrogen or phosphorus from their property (or properties), and supply relevant information based on their land use activities.
- Bay of Plenty Regional Council will track who has supplied information to work out the nutrient benchmark, and follow up landowners or lessees who have not supplied information by the required date.

The Lakes Restoration Officers will be available to work directly with landowners, especially those with large properties, or multiple land uses on one property.

Land Use Activity	Nutrient Benchmark Level
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.	Average nutrient loss from property between 1 July 2004 and 30 June 2005. Nutrient benchmark information required by 31 December 2005, or when property is sold, whichever is the sooner.
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 1 January 2003.	Average nutrient loss from property between 1 July 2004 and 30 June 2005. Nutrient benchmark information required by 31 December 2005, or when property is sold, whichever is the sooner.
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 January 2003 and 30 June 2004.	Appropriate nutrient benchmark will be set by Bay of Plenty 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.
All other land uses	Average nutrient loss from property between 1 July 2001 and 30 June 2004. Nutrient benchmark information required by 31 December 2005, or when property is sold, whichever is the sooner.

For grazing activities, the type and size of stock will be taken into account when working out the nutrient benchmark.

Each stock type has a different nutrient output, for example, one sheep does not equate to one dairy cow based on their land use activity or activities.

Note: 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.

Landowners will be able to carry out any land use on their property, providing the annual average nitrogen and phosphorus loss is within the nutrient benchmark for the property. It is possible that a landowner could intensify their land use if they off-set an increase of nutrients by retiring riparian margins, using a feed lot in winter, using a different stock food, etc. Some properties may already be intensively used, but by using more efficient land management practices the landowner could still increase their productivity. In this way the increase in nutrients is balanced by measures to reduce nutrient leaching so that there is no net increase in nutrient export from the property.

Forest harvesting is permitted, providing the area is replanted for production forestry or permanent retirement purposes. Note: forest harvesting is also subject to other rules in the Regional Water and Land Plan and district plans.

When is a resource consent required?

A resource consent is required when a land use change or land management practice increases the average export of nitrogen or phosphorus from the property above its nutrient benchmark, and no nutrient management options are available on that property. Resource consent applicants must identify what nutrient management measures will be used to fully offset the proposed increase within the same lake catchment.

For example, if a proposed activity will increase the nitrogen loss by 100 kilograms per year, the resource consent applicant must identify nutrient mitigation measures to reduce nitrogen within the same lake catchment by 100 kilograms per year.

Where a resource consent applicant wishes to use nutrient management measures on land within the same lake catchment (i.e. on land owned by another person), consent conditions will ensure agreements with other parties are implemented.

Where a landowner has multiple properties within the same lake catchment they may be jointly managed within a resource consent. This would allow a landowner to increase production on one property and apply offset measures on their other property.

Where there is a land use change or land management practice that increases the average export of nitrogen or phosphorus from the property, AND the resource consent applicant has not identified measures to fully offset the increase in nitrogen or phosphorus, Environment Bay of Plenty may decline the resource consent application. Consents may be granted if other nutrient mitigation measures are available in the same lake catchment, for example engineering or lake treatment options, or land retirement.

Financial contributions will be required as part of a consent to pay for such measures.

Point-source discharges

Point-source discharges include sewage discharges, dairy shed effluent, and industrial discharges. A nutrient cap is also applied to point-source discharges. Any new discharge cannot increase the nitrogen or phosphorus level within the lake catchment. Where there is a change to an existing discharge, the change cannot increase nitrogen or phosphorus levels above levels already set in the resource consent unless the increase is offset in the catchment.

Resource consent applicants must identify what nutrient management measures will be used to fully offset any proposed increase within the same lake catchment.

Bay of Plenty Regional Council may decline the consent application if the applicant does not identify what nutrient mitigation measures will be used within the catchment to offset the effects of the discharge.

Frequently asked questions

- Q Can I increase productivity on my property?
- A Yes, but only if measures are taken to fully offset the increased loss of nitrogen or phosphorus from the land management change, either on the property or within the same lack catchment. For example, retiring riparian areas could allow for extra stock numbers.
- Q Can I change the land use on my property?
- A Yes, but only if the land use change is within the nutrient benchmark for the property, or any nutrient increase can be fully offset within the same lake catchment.
- Q What happens if I sell my property?
- A The nutrient benchmark still applies to the property.



The major cause of lake water quality problems in the Rotorua lakes is excessive nitrogen and phosophorus from land use activities in the lake catchments.

The new landowners should be made aware of the nutrient benchmark, and that any land use change or land management practices will have to remain within that nutrient benchmark.

- Q What happens if I subdivide?
- A The nutrient benchmark applies, but is split between the new properties. For example, the nutrient benchmark could be averaged amongst the new properties, or a higher percentage of the benchmark assigned to different properties. For example, new lifestyle blocks could have covenants requiring no stock is to be kept on the property (i.e. a low nutrient level), and the remaining benchmark allocated to other blocks.

For further information and advice, contact a Lakes Restoration officer at Bay of Plenty Regional Council:

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