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Significance of Decision: Low



Report To: Regional Direction and Delivery Committee
Meeting Date: 24 June 2014
Report From: Sarah Omundsen, Programme Leader (Water Policy)

Draft rules to manage nitrogen loss in the Lake Rotorua catchment

Executive Summary

Over the last eighteen months, a significant amount of work has been undertaken to develop draft rules to manage nitrogen loss in the Lake Rotorua catchment. A draft rules structure has been developed with the Lake Rotorua Catchment Stakeholder Advisory Group and is now ready to be taken to the wider community for feedback.

The purpose of this report is to seek the Committee's approval to consult on the draft rules structure. Approval will send a clear signal to the community on Council's current position on the rules and how they are structured. For this reason, a significant amount of analysis is included for Committee's consideration.

An intensive consultation period has been scheduled from mid-July to mid-October. Staff will use this consultation period to increase awareness about what the rules need to achieve and how rules will impact land users once they have effect. Views will be sought on the draft rules structure as well as possible alternatives.

1 Recommendations

That the Regional Direction and Delivery Committee under its delegated authority:

- 1 Receives the report, Draft rules to manage nitrogen loss in the Lake Rotorua catchment.**
- 2 Notes that the Rotorua Te Arawa Lakes Strategy Group has approved and endorsed the approach to develop rules to manage nitrogen loss in the Lake Rotorua catchment.**
- 3 Approves as part of the draft rules consultation package:**
 - a) A sector-based range approach to allocating Nitrogen Discharge Allowances, noting that staff will seek feedback on alternative allocation options.**
 - b) A rule hierarchy that includes:**

- a permitted activity class for properties smaller than 40 hectares with nitrogen loss less than 10 kgN/ha/yr
 - a 20 year controlled activity consent for those showing managed reduction in a Farm Nutrient Plan
 - an option for a five year restricted discretionary consent for those not demonstrating managed reduction.
- c) That Farm Nutrient Plans will be a condition of consent and will require standard minimum information requirements.
- d) That all properties larger than 2 hectares will have information reporting requirements to ensure compliance with either permitted activity status or resource consent conditions; and Council will commit to monitoring permitted activities.
- 4 Approves the draft rules to manage nitrogen loss in the Lake Rotorua catchment for consultation.
- 5 Confirms that the decision is within the Bay of Plenty Regional Council's strategic planning framework (Council's Ten Year Plan, and planning documents and processes under the Resource Management Act 1991, Biosecurity Act 1993, Land Transport Management Act 2003, Civil Defence and Emergency Management Act 2002, and Local Government Acts 1974 and 2002).

2 Purpose

The purpose of this report is to seek the Committee's approval to consult on draft rules to manage nitrogen loss in the Lake Rotorua catchment. As part of this decision, there are a number of recommendations included in the report specific to the draft rules that require approval.

3 Background

The Proposed Regional Policy Statement (RPS) provides specific direction for the management of nitrogen in the Lake Rotorua catchment as follows:

Policy WL 3B: the total amount of nitrogen that enters Lake Rotorua shall not exceed 435 tonnes per annum

Policy WL 5B: allocate the 435 tonne limit amongst land use activities

Policy WL 6B: no discharges shall be authorised beyond 2032 that result in the 435 tonne limit being exceeded. An intermediate target is to be set to achieve 70% of required reduction by 2022.

The above polices became operative upon resolution of Federated Farmers Environment Court appeal in April 2013, which was a consequence of the “Oturoa Agreement”¹ negotiated earlier that year.

The best available science (including ROTAN² modelling information) indicates that the total load of nitrogen to the lake must be reduced by approximately 320 tonnes per year in order to achieve the 435 tonne limit. Engineering solutions are expected to reduce the load by approximately 50 tonnes; the total pastoral load must be reduced by approximately 270 tonnes. This is half of the estimated current load from pastoral sources³ which include dairy, sheep, beef, deer and grazed lifestyle blocks.

Council has previously confirmed rules⁴ will be required to give effect to the intent of the Proposed Regional Policy Statement and that the development of rules must reflect active engagement with stakeholders.

The Lake Rotorua Catchment Stakeholder Advisory Group (StAG) was established to provide oversight, advice, and recommendations on these new rules as well as incentives to achieve the nitrogen limit. Appendix 1 summarises the key progress and considerations made by StAG and staff to inform development of the rules.

A key piece of work by StAG and staff is the proposed framework to deliver Lake Rotorua’s sustainable nitrogen limit as an integrated programme of Nitrogen Discharge Allowances (NDAs), incentives and gorse conversion. In September 2013, the Strategy Policy and Planning Committee approved and endorsed this framework:

Rules Programme – 140 tonne reduction		
By 2015	Farm Nutrient Plans	Plans will be put in place for every farm, setting out a practical pathway of staged nitrogen reductions.
By 2017	Resource consents	Farms will be consented, with a Farm Nutrient Plan as a consent condition.
By 2032	Nitrogen Discharge Allowances	Average of 35 kgN/ha/yr for dairy and 13 kgN/ha/yr for drystock, with adjustments made for geophysical and farm system characteristics.
<i>\$5.5m available to support meeting the requirements of the rules and to engage with the incentives fund.</i>		
Incentives Programme – 100 tonne reduction		
By 2022	Incentives fund	\$40m “below the line” to remove 100 tonnes of nitrogen.
Gorse Programme – 30 tonne reduction		
By 2022	Gorse fund	Separate funding to remove 30 tonnes of nitrogen from gorse.

¹ In 2013, Bay of Plenty Regional Council, Federated Farmers Rotorua and the Primary Producers Collective signed the Oturoa agreement that identified the intent of all parties to meet the lake’s sustainable load.

² ROTAN is the Rotorua and Taupō Nutrient model used to model nitrogen loads in the Lake Rotorua catchment. Assumptions and uncertainties associated with nitrogen loss modelling and information have been well documented throughout the rule development process.

³ Pastoral land use often includes a proportion of fodder cropping within the farm system.

⁴ Strategy Policy Planning Report, 3 August 2011, *Developing Rules to Manage Nutrient Discharges*.

Since September, staff have focused on developing rules to achieve the Nitrogen Discharge Allowance reduction (140 tN by 2032), in order to give effect to Policy WL 6B of the Proposed Regional Policy Statement.

This paper seeks approval of the draft rule structure to be released for pre-notification consultation.

4 **Draft rules structure**

A draft rule structure, included as Appendix 2, has been developed together with StAG and will be the basis for community consultation.

The draft rules structure is not a detailed plan change document. Its purpose is to support initial consultation with the community and has three key components to it:

1. Resource consent types based on property area and nitrogen loss rates
2. Implementation guidance
3. Allocation of Nitrogen Discharge Allowances

The aim of this consultation phase is to engage with the catchment community and provide them with an opportunity to respond to our proposal before anything is formalised in a plan change. Staff will use this consultation period to increase awareness about what the rules need to achieve and how rules will impact land users once they have effect.

A vast amount of technical information has been required to support rule development to date. Although not the focus of consultation, these supporting documents will be available on our website to help inform the community of our thinking behind the draft rules.

Proposed rules are due to be notified early next year. These rules will replace existing provisions in the Regional Water and Land Plan that currently manage nitrogen loss in the Lake Rotorua catchment.

The draft rules structure being presented today has been developed around the following key elements.

Rule Principles	<ul style="list-style-type: none"> • Resource consents will be required on properties above a certain size, or leaching a certain amount of nitrogen; • Farm Nutrient Plans will be a condition of all consents; • All Farm Nutrient Plans will show how landowners will make nutrient reductions over time towards their Nitrogen Discharge Allowances; • New rules should still enable offsetting (e.g. nutrient trading); • Phosphorous loss may be subject to existing Rule 11 provisions and nutrient benchmarks or possibly good practice requirements within the Farm Nutrient Plan.
Allocation of Nitrogen Discharge Allowances	<ul style="list-style-type: none"> • Nitrogen Discharge Allowances will be allocated to all properties requiring a resource consent; • Nitrogen Discharge Allowances will be based on sector averaging and for pastoral sectors, ranges within those sectors will be used; • Three sectors have been defined for the allocation of Nitrogen Discharge Allowances – dairy, drystock and forest;

	<ul style="list-style-type: none"> • Allocation will generally be based on 2001-2004 land use (i.e. as already documented via the Rule 11 benchmarking process) not “current” land use; • Any small block that operates as part of a larger block (e.g. >40 hectares) falls under the Nitrogen Discharge Allowances rules applicable to the larger block.
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The key elements are outlined in detail below, together with recommendations specific to draft rule detail that require approval.

5 Approach to allocating of Nitrogen Discharge Allowances

5.1 Proposal

The draft rules structure proposes a modified sector averaging approach to allocating NDAs to individual landowners in the Rotorua catchment. The approach includes ranges around sector specific dairy and drystock allowances, which will be based on Rule 11 benchmarks.

5.2 Discussion

Analysis undertaken

The chosen allocation approach is vitally important as it determines how NDAs will be calculated i.e. who gets what.

From the outset it has been acknowledged that the nitrogen loss reductions to be achieved through allocation are likely to require large scale land use change across the catchment. There will be costs for communities and individuals in the catchment. Using two agreed sets of criteria (including allocation criteria specified in the Proposed Regional Policy Statement), StAG and staff undertook a rigorous assessment (see Appendix 3) of the following allocation methods:

Allocation Approach	Explanation
Grandparenting with clawback	Allocation is based on existing discharges benchmarked under Rule 11. To achieve the 140 tN/yr reduction, a 27% reduction would need to be applied to each benchmark.
Pastoral averaging	This is where the total pastoral load to be allocated (386 t) is divided by the pastoral catchment (21,175 ha) to give an average N leaching of 18 kgN/ha/yr. Every pastoral landowner in the catchment would receive 18 kgN/ha/yr.
Sector averaging	This method allocates an averaged level of nitrogen discharge rights across specific types of land use or “sectors” e.g. dairy and drystock.
Land use capability / Natural capital	This approach assesses the physical quality of the land, soil and environment. Higher nitrogen limits would be allocated to more versatile classes of land, thus improving overall efficiency of land use in the long run.
Input based limits	Focuses on controlling the inputs to land use operations by directly managing the amount of nutrients being applied on land. For example, controlling stock numbers, fertiliser and feed application rates.
Output based limits	Based on the greatest units of output leaving a property (e.g. milk solids, kg of meat). An example would be allocating to a landowner based on how many kg of milk solids or revenue produced per 1 kg of nitrogen leached.

Sector averaging and grandparenting (with clawback) were identified by StAG and staff as nitrogen allocation approaches that could be considered appropriate for the Lake Rotorua catchment. Further investigation of these two approaches was undertaken, outlining the scale of impact, who will be affected and to what degree.

In September 2013, Council considered these results and agreed allocation should be sector based (i.e. different sectors would receive different NDAs). Key reasons that support sector averaging as an allocation approach include it best recognises existing land use, investment, current rates of nitrogen leaching and supports good land use practice.

A sector based approach differs from recent allocation decisions that have favoured land use capability and natural capital approaches (e.g. Environment Court decisions for Horizons One Plan and recommendations by the Board of Inquiry for the Tukituki catchment). It should also be noted the Land and Water Partnership⁵ are currently working to agree on a national preferred allocation approach.

However, through the assessment of allocation approaches, StAG and staff concluded that a land use capability approach is not appropriate for the Lake Rotorua catchment because of the poor correlation between land use capability and actual land use⁶ in this catchment. It would require a substantial shift in current land use and does not meet the agreed principles of allocation. However, given national trends, further analysis on a natural capital approach may be required through the RMA Section 32 assessment.

Sector averaging as an allocation approach requires sectors to be clearly defined. In September 2013, Council confirmed the sectors that would receive allocation of NDAs would be dairy, drystock and forestry. The following definitions have been developed in discussion with StAG:

Dairy: *includes* the effective pasture area in the milking platform, fodder and effluent but *excludes* runoff (i.e. dairy support) and forest.

Drystock: *includes* the effective pasture area in sheep, beef, horticulture, cropping and dairy support but *excludes* forest.

Forest: *includes* native bush as well as forestry.

To clarify how NDAs could be allocated on properties with different land uses and effective areas, staff prepared some 100 hectare square farm scenarios to help explain how the allocation process might work in practice (see Appendix 4). These scenarios show a property's NDA will be the sum of all relevant land use parcels (and their associated NDAs) that occur on that property.

Staff note there will be some existing land uses that do not fit into the above sectors yet would still be expected to reduce nitrogen loss. The allocation these land uses receive will need to be worked through on a case by case basis.

⁵ The Land and Water Partnership is a collaborative forum that allows New Zealand's primary sector organisations to pool resources, share information and work together.

⁶ However, the intent of matching the land use with the land is useful for future land use planning and is supported in the Proposed Regional Policy Statement as a tool to achieve integrated management.

Adding a range to the sector-based NDA approach

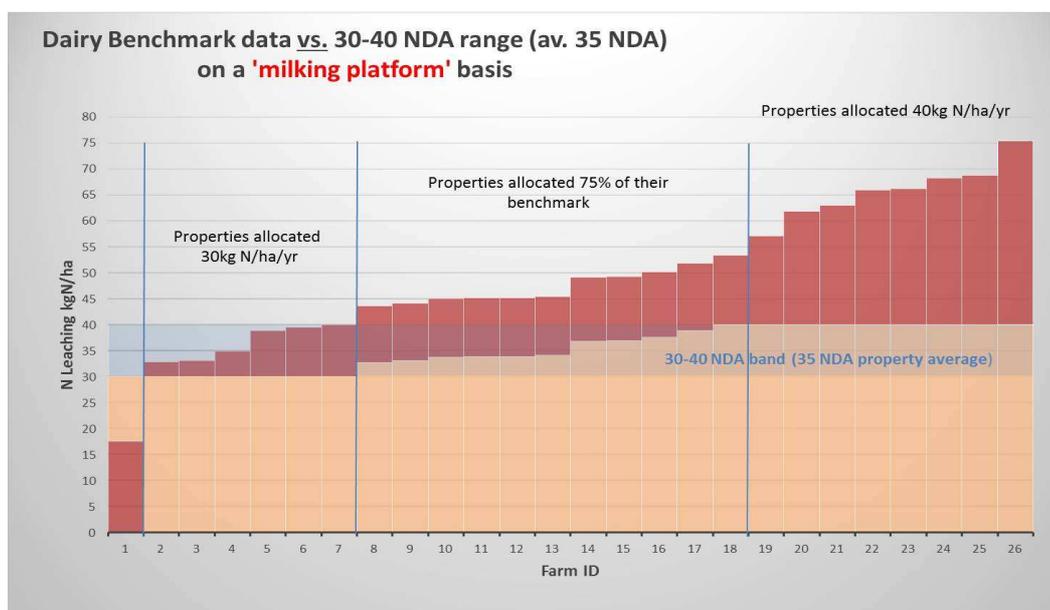
The rules framework proposed in September 2013 included fixed sector averages of 35 kgN/ha/yr for “dairy” and 13 kgN/ha/yr for “drystock”⁷. During subsequent StAG discussion of the rules framework, it was felt that NDA ranges were preferred.

Two different approaches for determining appropriate NDA ranges were analysed:

- (i) Specifically linking NDAs to rainfall and soil types in the Rotorua catchment;
- (ii) Basing NDA ranges on Rule 11 benchmarks, noting that differences in benchmarked nitrogen losses are largely driven by farm system and management, not soil and rainfall.

The approach preferred by StAG and staff at this stage is basing ranges on Rule 11 benchmarks but within the following limits: 30-40 kgN/ha/yr for the dairy sector and 10-20 kgN/ha/yr for the drystock sector.

Staff are still refining how these ranges will be used when allocating NDAs for each property. The figure below provides a conceptual example of what adjusted Rule 11 benchmarks could look like for dairy farms. The figure is relatively complex, but shows that above a certain benchmark threshold (in this case 53 kgN/ha/yr) a property will be allocated 40 kgN/ha/yr. Properties benchmarked between 40 – 53 kgN/ha/yr will be allocated 75% of their benchmark. Properties benchmarked between 30 – 40 kgN/ha/yr will receive an allocation of 30 kgN/ha/yr.



Including a range around the fixed sector average has benefits that include:

- Makes allowances for properties or farm system parameters that may cause mitigation to be more difficult and the NDA more difficult to achieve;
- Recognises the multiple different farm system types that are categorised as “drystock”, notably dairy support and intensive beef which are more likely to

⁷ Staff note that these NDAs have been developed from predictions of nitrogen loss using Overseer 5. Work is currently underway to reassess these values using the more recent Overseer 6 version, and the notified plan change will include more up-to-date numbers.

be viable at the upper end of the draft drystock NDA range (up to 20 kgN/ha/yr);

- Provides some recognition of existing investments on farm;
- Reflects StAG's preferred approach as agreed in September and through subsequent analysis.

However, risks of including a range around the fixed sector average include:

- Relies on Rule 11 benchmark data which is old (2001-04), incomplete, and may lack the precision required to fairly allocate NDAs. Given the substantial monetary value of higher NDAs, there will be incentives for landowners to re-litigate their benchmark, consuming staff resources and delaying progress;
- Includes an element of "grandparenting" which essentially locks in historic land use, rewarding those that intensified before 2001-04 and providing no benefits to those that did not develop their land;
- Lessens the relative advantage of a fixed sector average, which recognises natural capital to an extent (i.e. enabling higher intensity land use in areas where it is "easier" to achieve the NDA, such as in more versatile soils).

5.3 **Alternatives**

Allocation matters, and Council needs to be confident that the approach that it uses to allocate NDAs is the most appropriate for the Lake Rotorua catchment. StAG and staff have developed the sector-based ranges through an iterative policy process over the last 18 months, but there are many other alternatives and it is important the community contributes to the thinking.

Through consultation, staff will specifically ask the community their views on variations to the sector based range approach to allocation. Variations will include:

- Fixed sector averages (i.e. 13 kgN/ha/yr for drystock and 35 kgN/ha/yr for dairy);
- A single fixed average for all pastoral land use (i.e. 18 kgN/ha/yr).

Feedback received through consultation may require a reconsideration of the chosen allocation approach. This will impact on the NDAs allocated to each property but may not impact greatly on the rules structure being proposed.

5.4 **Recommendation**

That Council approves consultation on the sector-based range approach to allocating Nitrogen Discharge Allowances, noting that staff will seek feedback on alternative allocation options.

6 **Draft rule hierarchy**

6.1 **Proposal**

It is proposed that the rule hierarchy for new Lake Rotorua catchment rules is as follows:

Class	Class Definition	Nitrogen loss from:
Permitted	No consent needed but must meet conditions stated in the regional plan	<ul style="list-style-type: none"> • Properties up to 2 hectares • Properties between 2 and 40 hectares that discharge less than 10 kgN/ha/yr • Forest
Controlled	Resource consent needed and must be granted with the scope of any conditions stated in the regional plan. Consent duration will be 20 years	<ul style="list-style-type: none"> • Properties larger than 40 hectares or properties between 2 and 40 hectares discharging over 10 kgN/ha/yr that have approved Farm Nutrient Plans and show managed reduction to the Nitrogen Discharge Allowances
Non-Complying	Resource consent needed and may be declined – the toughest category other than prohibited activities	<ul style="list-style-type: none"> • Properties that do not meet above rule requirements • Properties that have increases in nitrogen loss that are not offset

6.2 Discussion

The RMA allows councils to classify activities in a rules hierarchy, as follows: permitted, controlled, restricted discretionary, discretionary, non-complying and prohibited (see Appendix 5). This provides a cascade approach that allocates an activity class according to the severity of effects. In our case, the effects arise from the rate of nitrogen loss per hectare and the total loss of nitrogen per property.

6.2.1 Permitted activity status

Staff propose the threshold for permitted activities is properties under 40 ha and discharging less than 10 kgN/ha/yr.

The table below provides a breakdown of properties in the catchment:

Property size (ha)	# Properties
0.4 - 2.0	1318
2.0 - 4.0	293
4.0 - 10	385
10 - 20	185
20 - 40	122
40+	128
TOTAL	2431

The rules will not apply to properties less than 2 hectares in the catchment. There is a very low risk of moderately intensive grazing use such as dairy support, at least on a commercial scale, for these properties. Currently, non-reticulated properties less than 2 hectares and within 200m of lake edge will need On-site Effluent Treatment Plan consent.

There are approximately 980 properties between 2 and 40 hectares in the catchment. Requiring almost 1000 consents from these small properties would seem overly burdensome both to Council and the catchment community. However these properties make up approximately 26% of the total catchment area, and are likely to contribute up to 17% of the total pastoral load of nitrogen.

Having a 10 kgN/ha/yr permitted activity threshold seeks to achieve the right balance amongst:

- Transaction costs;
- The likely level of environmental risk (ie adverse effects of nitrogen discharge);
- Council's ability to manage the environmental risk.

Staff consider that the adverse effects of nitrogen discharges less than 10 kgN/ha/yr can be managed through conditions on permitted activities.

The 40 hectare threshold has been proposed because properties over 40 ha make up approximately 70% of the catchment area and contribute over 80% of the total pastoral load of nitrogen. This size threshold is also consistent with implementation of Rule 11 to date. The environmental risk is considered to be high enough that all properties over this size threshold should require consent.

The risk of nitrogen loss from properties between 2 and 40 hectares exceeding the threshold of 10kgN/ha/yr can be mitigated through land user reporting requirements. Stock intensity tables are being developed to give guidance to land users as to whether they are likely to be operating under the 10 kgN/ha/yr threshold. Also, properties in this size range will be required to submit information about their property on an annual basis, enabling staff to check compliance (discussed further in Section 8.1).

6.2.2 **Controlled activity status**

Staff propose that controlled activity status will apply where properties larger than 40 hectares or properties between 2 and 40 hectares discharging over 10 kgN/ha/yr have approved Farm Nutrient Plans and show managed reduction for that property to the NDAs.

Staff also propose the consent duration is 20 years. This long consent period should give farmers a high level of certainty and is seen as an incentive for land users to show managed reduction. This consent duration carries some risk because the consenting regime will start in 2017, taking consents out to 2037. This could be problematic if the target isn't met by 2032 as required by the Proposed Regional Policy Statement.

Managed Reduction

Managed reduction is explicitly required by Policy WL 6B of the Proposed Regional Policy Statement:

Policy WL 6B: Managing the reduction of nutrient losses

Require, including by way of rules, the managed reduction of any nutrient losses that are in excess of the limits established....

....A catchment intermediate target for the managed reduction of nitrogen loss is to be set to achieve 70% of the required reduction from 746 tN/yr to 435 tN/yr by 2022.

The definition for managed reduction in the Proposed RPS is: in relation to nutrients and water quality, “managed reduction” means planned progressive lowering of excess nutrient losses; where a target date exists, the progressive lowering is to reach the nutrient limit by that date.

The 70% reduction is a catchment target not a target for individual properties. It is expected that the 70% catchment target will be achieved through a combination of engineering solutions, incentives, gorse conversion and the rules (see table below).

	By 2022 (tN)	By 2032 (tN)
Engineering solutions	50	
Incentives	100	
Gorse	30	
Rules (and NDAs)	44	96
Total	224	320

The 2022 catchment target is dependent on achieving a 44 tN/yr reduction through the rules and allocation of NDAs. The challenge is how to ensure individuals contribute as it is expected that all land owners have to do something to help achieve the 2022 target. The question is, does everyone have to do something at the same time?

There is a lack of agreement amongst StAG members about how the concept of managed reduction should be expressed in the rules, and whether or not it should be specifically required of individuals. Staff consider that managed reduction must be part of the rule structure given the 2022 target needs 44 of the 140 tonnes of pastoral sector reduction (i.e. 31%) to be met.

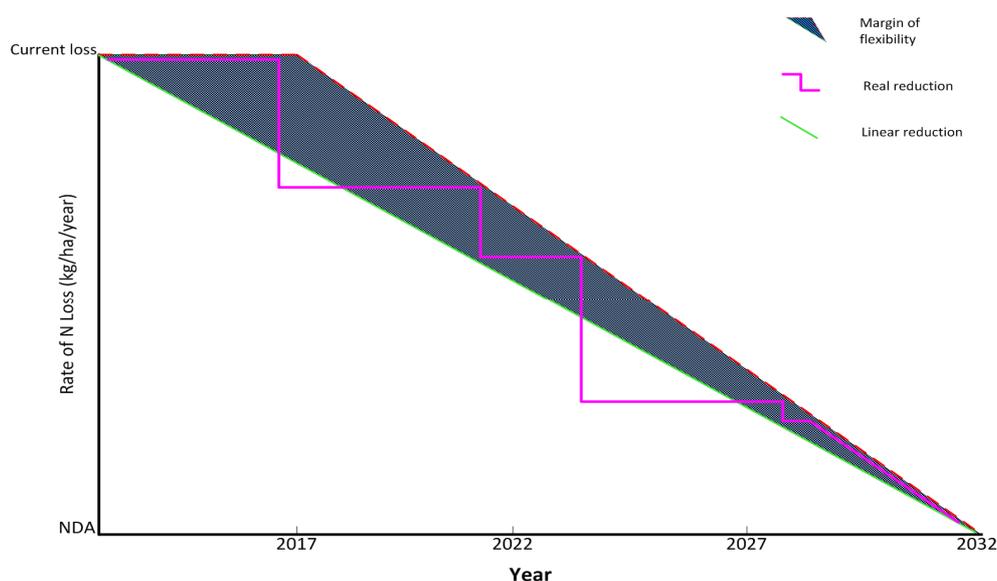
Staff have considered both qualitative and quantitative expressions of managed reduction in the rules. The benefits, limitations and risks for each are outlined below:

	Qualitative e.g. Landowners will progressively reduce their nitrogen loss to meet their NDA by 2032	Quantitative e.g. Landowners will demonstrate managed reduction by showing target reductions by certain dates
Benefits	<ul style="list-style-type: none"> • More palatable to land owners as it is seen to be less prescriptive; • Allows time to save for costly mitigations; • Accommodates planned land retirement (e.g. convert to forestry in 2032); • More opportunity to look at a range of mitigations. 	<ul style="list-style-type: none"> • Easier to track compliance; • Can track progress towards meeting catchment target; • Provides certainty for land owners and Council.

<p>Risks and Limitations</p>	<ul style="list-style-type: none"> • If everyone decides to defer nitrogen reduction to last few years we will not meet 70% 2022 target; • High level of discretion for consent officers; • Potential tension between neighbours (why should I start reducing now if my neighbour isn't?). 	<ul style="list-style-type: none"> • Doesn't encourage landowner to reduce nitrogen loss beyond required reduction; • Can lock you into a certain mitigation.
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From a Council perspective, the reason managed reduction is required is to ensure the catchment targets are achieved for 2022 and 2032. A qualitative expression of managed reduction presents an unacceptable risk that the targets might not be reached on time. On the other hand, requiring everyone to follow a relatively straight line of reductions does not reflect farming in real life (e.g. weather fluctuations, investment decisions and undertaking larger mitigations that will result in a staged reduction).

To balance Council confidence with farming practicability, staff propose a margin of flexibility is provided for those demonstrating managed reduction. The margin of flexibility could be expressed in percentages or a set number of kilograms of nitrogen loss as shown in the conceptual diagram below.



There is still some risk that the uptake of controlled activities may not ensure the 2022 target of 44 tonnes is met. Staff consider this risk is managed through incentivising progressive managed reduction as a controlled activity. For example, each property showing progressive reduction to reach the NDA would be guaranteed consent with a duration of 20 years. Properties not showing managed reduction will default to the non-complying activity class.

6.2.3 Non-complying activity status

Non-complying rules will apply to properties that do not meet the permitted and controlled activity conditions including those who do not chose to demonstrate

managed reduction. This activity class is the toughest category under the RMA other than prohibited.

Consent for non-complying activities can only be granted if council is satisfied that either the adverse effects of the activity on the environment will be minor or the application is for an activity that will not be contrary to the objectives and policies of the regional plan (or any proposed regional plan). For this catchment, non-complying consent would only be granted if the catchment target is tracking satisfactorily.

6.3 **Alternative**

To address the issue around the extent to which a landowner must show managed reduction and the timing of key mitigation activities, an alternative rules hierarchy was proposed to StAG: the inclusion of a restricted discretionary activity class for applications that do not demonstrate immediate (i.e. over the following five years) managed reduction.

In essence, this activity class recognises everyone has to do something but not everyone has to do the same thing or at the same time.

Features of the suggested restricted discretionary activities included:

- a shorter consent duration of five years (matching review periods agreed in the framework);
- FNPs required to demonstrate no increase in nitrogen loss;
- Consent would be declined if managed reduction (including insufficient nitrogen loss reductions through controlled activities) towards the NDA or the catchment target was tracking unsatisfactorily by 2022;
- Restricted discretionary consent holders could apply for a controlled activity in 2022 if they can show managed reduction for that property. (For these applications, an immediate nitrogen loss reduction would be required so that the starting point aligns with where nitrogen loss would have been if managed reduction had started in 2017).

At the May 2014 StAG meeting, farmer representatives preferred the controlled activity status for all land users who demonstrate managed reduction as they assumed it provided a higher level of fairness i.e. everybody has to do something now. However, there was not a clear view on the quantitative versus qualitative approach to managed reduction.

Staff consider the risk in not having a level of discretion is that it removes the level of flexibility land users are likely to want. A land user who wants to undertake effective mitigation towards the end of the managed reduction period is unlikely to fit within the definition of managed reduction and under the draft rules would need a non-complying consent. This may seem an onerous consent application process if there are alternative ways to lock in mitigations that guarantee properties will reach their NDA by 2032.

6.4 **Recommendation**

That Council approves for consultation the draft rule hierarchy that includes:

- a) a permitted activity class for properties smaller than 40 hectares with nitrogen loss less than 10 kgN/ha/yr;
- b) a 20 year controlled activity consent for those showing managed reduction in a Farm Nutrient Plan;
- c) an option for a five year restricted discretionary consent for those not demonstrating immediate managed reduction.

7 Farm Nutrient Plans

7.1 Proposal

Farm Nutrient Plans will be a condition of all resource consents.

7.2 Discussion

The planned progressive lowering of nitrogen loss will form a key element of the Farm Nutrient Plan (FNP) which is a condition of consent, and should identify a series of mitigations over time to achieve the NDA by 2032. Essentially the FNP will be the agreement brokered between Council and an individual landowner, and Council will monitor compliance against the FNP.

StAG members and staff are still developing the detail of the FNPs including how variations to FNPs will be managed, who will prepare the FNPs and what kind of monitoring and reporting will be required. However, the minimum information requirements for FNPs are likely to include:

- Benchmark / current rate of nitrogen loss;
- NDA;
- A pathway of managed reduction (showing target reductions by certain dates);
- Mitigations to achieve the NDA (supported by an Overseer file where appropriate);
- Lifecycle of an FNP and process to update or amend.

The September 2013 framework specified that approved FNPs will be prepared by 01 December 2015 for every farm over 40 hectares. The 2015 date reflects an agreement made with StAG, but is not mandatory. The mandatory FNP deadline will be tied to the resource consent target of 1 December 2017. Between 2015 and 2017 there is opportunity for Council, alongside industry bodies, to encourage and support early adopters.

The concept of FNPs is consistent with other regional council approaches. For example, Canterbury requires Farm Environmental Plans, Horizons requires Nutrient Management Plans and Waikato requires Environmental Farm Plans for all consent applications. These documents vary widely in scope, information required and nutrients managed. FNPs in this catchment will be unique because of the nitrogen loss reductions required.

FNPs are a fundamental component of the agreed September framework. While the detail of the FNPs is still evolving, it is important that the requirement to have an FNP in order to get consent is highlighted through consultation.

7.3 **Recommendation**

That Council confirms its intent that Farm Nutrient Plans will be a condition of consent and will require standard minimum information requirements.

8 **Reporting and Review**

8.1 **Proposal**

It is proposed all pastoral properties larger than 2 hectares will have information reporting requirements to monitor compliance with either permitted activity status or resource consent conditions.

8.2 **Discussion**

The September 2013 framework is charged with delivering the sustainable limit for Lake Rotorua. Therefore robust monitoring is required across the three programmes (rules, gorse and incentives).

The following review approach was agreed as part of the integrated framework last September:

- a) Regular reporting on farmer/landowner progress against FNP targets. Reviews are proposed in 2017 and five-yearly thereafter.
- b) Regular reporting on the incentives programme, reported against agreed targets on a yet to be determined progress schedule.
- c) Reporting of progress towards gorse re-vegetation targets reported against targets on a quarterly basis, with full financial reports completed six-monthly.

Council will need to change its current approach by starting to monitor permitted activities to ensure compliance. This could be done through spot checks and running a proportion of properties that have submitted information through an Overseer file.

Land owners who are required to prepare an FNP will have reporting requirements as part of their consent. All resource consents will be monitored for compliance.

Additional reviews were also agreed as part of the integrated framework:

- a) Regular reviews of relevant science (including land and water) underpinning the policy approach (including the appropriateness of the overall catchment target). Reviews are proposed in 2017 and five-yearly thereafter.
- b) Five-yearly “efficiency and effectiveness” reviews as required under the Resource Management Act (the “RMA”).
- c) Ten-yearly reviews of the RPS and Regional Plan as required under the RMA.

Decisions will need to be made if targets aren't being met, or if information changes (e.g. the science around nutrient loads in the lake). There is a clear view that the NDAs should not change as this would undermine the certainty landowners need to

operate. However, Council will need to determine appropriate responses at the key review points listed above.

8.3 Recommendation

All properties larger than 2 ha will have information reporting requirements to ensure compliance with either permitted activity status or resource consent conditions; and Council will commit to monitoring permitted activities.

9 Other considerations

Groundwater and surface water boundaries

As noted in the September 2013 report, the groundwater catchment boundary that is used to model the total lake load in ROTAN is larger⁸ than the surface water catchment boundary used for Rule 11. The groundwater catchment includes properties that do not come under existing rules, and also some properties in the Waikato region.

There are uncertainties in the groundwater catchment boundary and exactly where the boundary line lies. Science advice has been sought and once available, staff will engage with Waikato Regional Council and other landowners to determine how the rules will work for these properties.

On-site Effluent Treatment

The On-site Effluent Treatment Plan (OSET) includes specific rules for Rotorua lakes properties less than 2 hectares or within 200m of a lake, to reduce nitrogen load from septic tanks entering the lakes.

Septic tank loads on properties greater than 2 hectares are not explicitly being addressed in these draft rules for managing nitrogen in the Rotorua catchment.

This is not a problem for large properties, where discharges from the septic tank are already taken into account in existing benchmarks. The new NDAs allocated to these properties will generally require a substantial reduction in nitrogen loss from the benchmark level and the septic tank component is very small for large pastoral properties.

The draft rule structure creates a potential gap between the OSET Plan and larger properties: land use on properties less than 40 hectares and leaching less than 10 kgN/ha/yr will be a permitted activity. There may be some small lifestyle blocks that will be permitted but are still leaching high levels of nitrogen from old septic tanks.

Council has agreed that the OSET Plan will be reviewed in 2016, and will be integrated into the Regional Water and Land Plan as part of this review. It is expected that the link between properties less than 2 hectares and greater than 2 hectares will be addressed at this stage.

Legacy Issues

Staff are aware of legacy issues from the existing Rule 11 framework. For example, undeveloped multiple owned Māori land (lost ability to develop through Rule 11

⁸ Possibly about 4,500 hectares but this is subject to further scientific advice

capping) and land users who undertook early mitigations such as extensive land retirement to native bush (mitigations not recognised through a grandparenting approach). These issues will result in NDAs that might be lower than they otherwise would have been even though the lake has benefited through reduced nutrient inputs.

Staff are considering options to better recognise legacy issues, including allocating a “bush bonus” NDA where potentially productive land has been retired from farming.

Overseer versions

The draft rules rely on the Overseer nutrient model to quantify nitrogen losses from individual properties and calculate NDAs. It is accepted that Overseer is an estimation only, and there is a level of uncertainty that comes with its use (possibly between 10-30%).

However the use of Overseer has stood the test of the Environment Court (Lake Taupō Variation and Horizon’s Proposed One Plan) and been confirmed as the best tool currently available for estimating nitrogen loss from New Zealand pastoral farming systems. A report⁹ has been prepared on ways to manage the uncertainty that comes with the use of Overseer as a regulatory tool.

Staff will be working with StAG, stakeholders and experts to determine the way in which Overseer is used in these rules, and the way issues such as version changes are managed.

Nitrogen Trading

In September 2013, Council made the decision to explore nitrogen trading options. In a March 2014 workshop issues were raised by Councillors around the detail of trading. Staff are now working with the Ministry for Primary Industries to further explore options and risks of trading within the Lake Rotorua catchment.

Phosphorous management

During the development of the Proposed Regional Policy Statement, it was decided the difference between the current and sustainable loads of phosphorous into Lake Rotorua was not so great as to require a limit to be set. The draft rules being presented today respond only to achieving the sustainable nitrogen limit for the lake.

Given the focus of these rules has been to address nitrogen loss only, staff suggest that existing phosphorous benchmarks (capped by Rule 11) are retained.

10 Impacts and costs

Achieving a clean lake and meeting community aspirations comes at a cost. Through its decisions on setting the 435 tonne nitrogen limit for Lake Rotorua, Council will be aware that the public and private costs of meeting this limit are very high.

⁹ Available at <http://www.rotorualakes.co.nz/vdb/document/735>

Catchment impacts

In September 2013, staff provided an overview of estimated costs of new rules in the Lake Rotorua catchment. This included:

- Significant and direct costs to pastoral farmers, both in terms of farm gate costs (estimated at over \$88 million) and substantial loss of farm value (estimated at over \$35 million for sheep and beef farmers)¹⁰;
- Indirect and downstream costs to industries such as suppliers, manufacturers, processors and contractors;
- Social and welfare impacts across the wider community.

Staff are liaising with DairyNZ on a catchment economic model to look at the overall costs and changes associated with the new rule regime and potential alternative allocation options. The results of this modelling will be available to Council prior to notification and will inform further rule development.

Individual landowner costs

NDA impact modelling

StAG asked that some focused modelling work be undertaken on farms to better understand the specific implications of the NDAs for individuals. This was seen as an important piece of information for the consultation period that would help farmers understand “what this means for me”.

Perrin Ag Consultants were engaged to undertake this work and have prepared a report “Rotorua NDA Impact Analysis”¹¹. This report has been reviewed by relevant industry experts (DairyNZ, Federated Farmers and Beef & Lamb) and has also been independently peer reviewed.

Perrin Ag’s work provides a general sense of the impact of NDA on farmers earnings before interest and tax (EBIT). The scenarios explored were based on staying within the same farm “type”. Based on an analysis of dairy, and sheep and beef farming case studies, the report shows:

- Dairy farms are likely to lose some profitability;
- Impacts on profitability are mixed for sheep and beef farms depending on their farming system. Some farms may be more profitable under NDAs, however there are likely to be negative impacts on profitability once productivity improvements are exhausted;
- Farmers will need to change their farming practices, and in some cases upskill, for example in grass management;
- Balance sheet commitments will influence how important the reductions in profitability are for individual farmers;
- The analysis was based on current market prices. Changes in product and input prices or farming conditions will influence outcomes.

¹⁰ The Farmer Solutions Project report, December 2012, prepared by Perrin Ag Consultants addressed the full 270tN reduction from the pastoral sector and did not consider the \$40 million incentives fund to remove 100 tonnes of nitrogen.

¹¹ Available at <http://www.rotorualakes.co.nz/vdb/document/736>

The sample of case study farms was small, and relied in part on hypothetical cases, so caution is advised when extrapolating the results to other farming situations; losses in profitability may differ for situations outside those used in the study.

In summary, the report shows that there will be negative impacts on the EBIT for most farmers, and that in general, achieving the nitrogen loss reduction required is more than a matter of best practice. For many farmers, reaching their NDA will mean upskilling. The financial impact for all farmers will be influenced by product and input prices, and for individual farmers balance sheet commitments will also be important.

Additional costs

There will also be costs associated with each resource consent application (approximately \$1200) and FNPs (approximately \$3000). The \$5.5m funding available as part of the incentives package could help with the farm business and nutrient planning costs.

On farm mitigation costs incurred by individuals meeting their NDAs will not be covered by the incentives scheme. This was confirmed in the Government's recent funding decision.

Cost to Regional Council

There will be administrative costs to track progress in delivering the sustainable limit for Council including monitoring, compliance and enforcement.

Council will need to ensure it has adequate resourcing and systems in place to process all the consents required. Controlled consent applications need to be processed within 20 working days. Whilst there are ways to recover staff processing costs (Section 36 of the RMA), the number of applications that will be received in a short timeframe means there will be peak pressures on staff.

To help mitigate some of the resourcing required, a template will be developed for lower risk activities. Also by requiring an approved certified nutrient advisor¹² to develop the FNPs, council staff will need to spend less time ensuring an application is ready to be received for processing.

Policy development costs rise once formally notified¹³. The draft rules have been developed collaboratively with StAG. However, these rules impact on farmer livelihoods and history suggests reasonable likelihood of appeals to the Environment Court. Council needs to be aware of possible costs¹⁴ and delays resulting from Environment Court proceedings.

¹² The Fertiliser Association of New Zealand has recently developed a professional nutrient advisor certification scheme to ensure high and consistent standards of farm nutrient advice.

¹³ Development of the Regional Policy Statement cost \$563,538.14 for 2009/10, \$591,517.48 for 2010/11 and \$711,748.44 for 2011/12. Whilst the Regional Policy Statement is a planning document for the entire region, new rules to manage nitrogen loss in the Lake Rotorua catchment are likely to be challenged at every step.

¹⁴ In 2011, Environment Waikato staff advised the development of rules to cap nutrient discharges and associated consultation and negotiation cost them between \$700,000 and \$1,000,000 per year (over approximately 5-6 years) In a report to Strategy Policy and Planning in 2011, *Developing Rules to Manage Nutrient Discharges to the Rotorua Te Arawa Lakes - Timing and Costs*, staff estimated similar costs in the appeals period. These costs are likely to have risen since then.

11 Risks

The primary risks associated with the draft rules in the Lake Rotorua catchment will be as a result of the impacts and costs that have been identified. However, there are additional risks that include:

- *Uncertainty in information:* the analysis that has supported the rule development process has been relatively complex and has depended on a number of different information sources. This includes science and nutrient budget models such as ROTAN and Overseer, as well as internal benchmark data generated for Rule 11.

All modelled information carries a level of uncertainty. The review process that has been proposed (Section 8) is intended to ensure we can respond to changing information over time. However, if targets change, or if we fall short of/overshoot the target, the rule structure will be undermined. Council will need to carefully consider its response to changing information when Nitrogen Discharge Allowances have been allocated through a resource consent process.

- *Lack of buy-in:* given the uncertainty in information described above, as well as the significant change the rules will require of landowners, the draft rules will be contentious. It is inevitable that this project will generate heated discussion and debate, and views across the community are likely to be polarised.

Despite the StAG process, there will be significant push-back from the rural community, information will be questioned and potentially undermined, and people may seek to discredit the rule development process. This lack of buy-in may also translate into unacceptance of the rules once they are operative.

12 Next steps

Draft rule consultation

New rules to manage nitrogen loss in the catchment will require a shift in the way land is managed, and will potentially result in lower farm profits and farm values.

Despite our collaborative approach in rule development, when individuals start to understand how they will be impacted by new rules they will feel aggrieved. Council needs to manage the consultation process in a way that shows:

- Transparency and balance in our rule development approach;
- Empathy and support for those impacted;
- Responsiveness to feedback received.

Council communications and engagement staff have developed a schedule for consultation between mid-July and mid-October including public open sessions, sector meetings and public drop-in days.

Feedback received during consultation will be reported back to this Committee in late October.

Rule development between now and notification in 2015

While the draft rules are out for consultation, staff will continue progressing the areas outlined below to support robust rule development:

- Continue liaising and testing options with StAG;
- Assess trading options with MPI;
- Develop a process to calculate NDAs for each property;
- Develop a template for permitted activity information requirements;
- Undertake any further assessments to meet Section 32 requirements including catchment economic impacts and a social and cultural impact assessment;
- Prepare Section 32 analysis;
- Write the formal proposed rules while checking against legal advice and national developments in this area including the use of Overseer;
- Confirm information requirements for FNPs;
- Engage with Waikato Regional Council as to how nitrogen losses from that region into this catchment could be managed.

Rule Development - post notification

Further work will also be required once the rules are notified:

- Develop an implementation monitoring strategy that can track progress against the catchment target;
- Develop a compliance and enforcement strategy;
- Secure resourcing / tie in with Section 36 charges and financial contributions.

13 Links with incentives

The incentives scheme supports the rules by sharing some of the cost of changes required with the community.

The incentives scheme comprises \$40m for the purchase of nitrogen reductions (below the line reductions). An additional \$5.5m is also available to support meeting the requirements of the rules and to engage with the incentives programme. The Crown has confirmed that its contribution to the \$5.5m is to be used to assist with business planning (which would include the development of FNPs) and trials for low nitrogen land uses.

Work is currently underway to define how both the \$40m and \$5.5m can be accessed by property owners.

14 Financial Implications

Current Budget

The development of new regional plan rules including consultation is covered by the Strategic Policy (responsive policy) budget. Notification of a separate plan change to the Regional Water and Land Plan for nutrient management of priority

catchments (all Rotorua lakes) is planned as a key project for next year (Year Three, 2014/15). This Committee decided in 2012 that rules for Lake Rotorua need to be developed with urgency and separately to rules for the other Rotorua lakes.

Future Implications

Further development and implementation of rules will have significant resourcing implications for Council, individuals and the community.

Staff estimate a change to the Regional Water and Land Plan to include new rules may cost in excess of \$500,000 per year once the rules are notified.

A Resource Management Act Section 32 assessment, as with any good policy development, requires robust cost and benefit evidence to support Council's approach to rule development. All costs will continue to be documented throughout the policy development process.

New rules will require significant additional enforcement and compliance resources. This will need to be considered during the next annual plan process.

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for Programme Leader (Water Policy)

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