

IN THE MATTER OF
AND

the Resource Management Act 1991

IN THE MATTER OF

Lake Rotorua Nutrient Management – **PROPOSED
PLAN CHANGE 10** to the Bay of Plenty Regional
Water and Land Plan

**MEMORANDUM TO THE HEARING PANEL
FROM COUNSEL FOR THE BAY OF PLENTY REGIONAL COUNCIL
DATED 28 APRIL 2017
“ANSWERS TO PANEL QUESTIONS AND V7 PPC 10 AND UPDATED REPORT”**

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“ANSWERS TO PANEL QUESTIONS AND V7 PPC 10 AND UPDATED REPORT”

MAY IT PLEASE THE HEARING COMMISSIONERS

Introduction

1. We refer to the questions provided from the Panel via **Memorandum 9** dated 21 April 2017, and subsequent clarification from Commissioner Cowie.
2. The questions are set out below for ease of reference, and the answers are provided in numerical order. We are happy to address this when the hearing recommences if required.

[1] What is the basis for the Government funding for the implementation of PC10? Are there any particular requirements of any funding agreement that the Regional Council has to adhere to?

[2] What activities are specifically targeted by the Government funding referred to in (1) above?

[3] The Council proposes that larger non benchmarked properties would be allocated the sector average – is this fair? What would be the consequences of allocating the 90th or 95th percentiles instead?

[4] Why is the basis for the Regional Council advising us that it is not able to purchase land in the Lake Rotorua catchment?

[5] What do Bay of Plenty Regional Council Farm Quality Programme, Environmental Programme and Property Plans (as required via different rules in the Regional Land and Water Plan) involve / cover? Approximately how many farms within the catchment would already have one of these in place for their farm?

[6] Please explain how for farms 1 and 7 shown in Appendix 11 from Sandra Barns, in the Council memorandum dated 22 March 2017 the current kg of kgN/ha/year exceeds the benchmark for the farms?

[7] Please provide a concise summary of the particular provisions that apply to tangata whenua ancestral lands in Plan Change 1 to the Waikato Regional Plan. The Commissioners realise that submissions on this Plan Change are yet to be heard, so there is no requirement to discuss the weight to be given to the provisions.

[8] Please explain when Rule LLR8 is intended to commence as it is unclear. There appears to be a disconnect with the Table on Page 13 of the Plan Change.

[9] Are there any unintended deletions that have been recommended to Rule 11 that should be reconsidered?

[10] Why do nutrient management plans require detail of effluent management, gorse management and water irrigation management?

[11] Please update the integrated framework to reflect the application of Overseer version 6.3. To what extent do these new numbers mean that proportionately greater contributions to the 2032 nitrogen catchment load target are expected from the dairying and drystock sectors, and from the incentives scheme?

[12] What would the potential consequences be of enabling land presently in forestry, bush or scrub to be developed for drystock farming up until about 1 April 2020 (assuming this land is then provided the sector average for drystock)? If this was provided for, about how much land would the Council actually expect to be converted to drystock farming? How much of this might be land owned or managed by tangata whenua?

3. We also **include** an additional s42A report and accompanying recommended track changes version 7 of PPC 10 (by way of the *pdf* version in the email filing this memorandum). This shows the additions since the original s42A report in **red** text for ease of reference. Subject to any final points of the Panel this is a comprehensive set of the final recommendations.
4. We will be providing legal submissions in closing under separate cover.

28 April 2017



S E Wooler

Counsel for the Regional Council

[1] What is the basis for the Government funding for the implementation of PC10? Are there any particular requirements of any funding agreement that the Regional Council has to adhere to?

[2] What activities are specifically targeted by the Government funding referred to in (1) above?

The background to the Funding Deed is briefly explained in Mr Lamb's Evidence in Chief (para 19 to 23). Further to this, at the time of the return of the Te Arawa Lakes a memorandum of understanding was signed by the participants in the Rotorua Lakes Programme and the Crown. This recognised the water quality issues that accompanied the return of the taonga and provided the basis for the Crown Funding Deed.

The Funding Deed states: "The Crown has agreed to provide up to \$72.1 million, being a 50% contribution, towards the cost of securing outcomes to improve the water quality of the Priority Lakes, subject to BOPRC and RDC matching the Crown's contribution."

Crown funding has been provided on the basis of the Integrated Framework – of which implementation of PPC10 is a critical part. The funding contributes on a 50% share basis to the:

1. Community share of the Integrated Framework: incentives scheme (\$40 million), engineering and gorse
2. Advice and Support function (\$2.2 million)
3. Research into low nitrogen loss land uses. (\$3.3 million)

Of these, item 2 is specifically related to implementing PPC10 as the Advice and Support funding supports farmers obtaining a Nutrient Management Plan. The other items are part of the context within which PPC10 sits. All items are part of delivering the sustainable lake load.

The Cabinet reports that secured the Funding Deed are not available to Council under Cabinet rules. However, at various times in relation to specific projects Council has requested information to guide decisions, has contributed material and has provided responses to Ministerial enquiries¹.

All interventions designed to secure the outcomes need to be approved through annual and three year work programmes. These are approved by RTALSG and the Crown. The Funding Deed has monitoring and reporting requirements against the work programmes and related funding.

The Crown Funding is subject to appropriation. Under the Funding Deed appropriation the Crown has noted the following:

- The scope of the appropriation is limited to maintaining and improving the water quality of the Rotorua Lakes
- Crown funding cannot go towards purposes outside of this (i.e. economic development)
- The general Cabinet principle is that where any reprioritisation of resources raises significant policy issues (i.e. noticeable change in the price, quantity or standard of what is purchased through the appropriation) it should be referred to cabinet
- The nature of significant policy issues would include:
 - Changing the nutrient reduction targets for the priority lakes
 - Changing the TLI of the priority lakes
 - Extending the timeframe for the programme
 - Reallocation of substantial sum of funds to a new intervention such as the previous proposal to reallocate funds to incentive land use/land management change in the Rotorua catchment.

¹ The nature of the questions also provides guidance to staff – such as "Will the incentives funds be used for things that farmers should be doing anyway?" and "How will the "above the line" funding work? Why is the funding not all "below the line"? Why should it assist farmers with "on farm" actions?"

Given that funding is reliant on achieving water quality improvements, not changing the nutrient reduction targets or timeframes, or undertaking other significant policy changes, there can be no assumption that there would be any continuation of funding unless these matters were assured. At the very least it would require a review by Cabinet and (as indicated in footnote (1)) there should be no assumption that funding would be provided to assist farmers to meet regulatory or best practice responsibilities.

As identified in the above bpts, the Incentives Scheme proposal was a significant shift in funding arrangements. Crown officials have reviewed all material related to the Incentives Scheme.

Specific advice has also been received on the Advice and Support function. It was agreed that \$2.75 million of Crown funding (the 50% share of \$5.5m) will be used for 'above the line' land management change to meet nitrogen discharge allowances, through farm business planning and trials of low nitrogen land use. Direct funding for on farm infrastructure and works was not supported.

All projects within the Integrated Framework have been scrutinised by the Programme Steering Group which includes an executive level official from MfE.

[3] The Council proposes that larger non benchmarked properties would be allocated the sector average – is this fair? What would be the consequences of allocating the 90th or 95th percentiles instead?

The allocation data is based on a methodology that pushes high loss properties to the upper range and allows lower loss properties (refer discussions on underutilised land) to lift to the lower range boundary. The average of this relationship for the Drystock sector is 25.6 kgN/ha. Because a number of blocks receive increases the methodology requires non-benchmarked blocks to be given 24.7 kgN/ha to balance the equation and to match the agreed sector reduction.

Is this fair?

Material has been provided to the Panel on differing settings for the non-benchmarked allocation - *TOPIC: Non-Benchmarked Averaging Approach to NDA* filed 3 April 2017. This material discusses the equity and fairness issue and Council's view on this point. The key point being that a comparison of size classes shows that the 24.7 kgN/ha is most likely less than what would have been benchmarked for the larger properties. It could then be said to be unfair in that using size classes would be fairer.

As noted in the 3 April 2017 material a range of compromises have had to be made to reach a workable solution and applying this average is one of these. The mechanism allows property owners to seek a higher level – their actual level - based on evidence. This is most likely to apply to the larger, more commercial properties. This would be considered to be a fair and reasonable outcome by Council.

As the 3 April 2017 material notes: *“On this basis it would be unfair to provide all non-benchmarked properties with the lowest figure available or a lower figure as this implies a level of ‘punitive’ allocation rather than the best attempt to estimate what the most likely level would be had the process been completed.”*

What would be the consequences of allocating the 90th or 95th percentiles instead?

Calculating percentiles given the methodology applied above is difficult but a reasonable approximation can be made by simply using 90% and 95% of the non-benchmarked allocation 24.7 kgN/ha.

The 3 April 2017 material used three alternative settings:

1. Allocate benchmarked nitrogen loss by size class to non-benchmarked land
2. Allocate the bottom of the Drystock range (18 kgN/ha) to non-benchmarked land
3. Allocate 22 kgN/ha to non-benchmarked land

In comparison to this the 90% and 95% nitrogen allocations would be 22.2 kgN/ha and 23.5 kgN/ha. Using the same methodology produces the following figures:

kgN/ha allocation	18	22	22.2	23.5
Application to 4085 ha	73.5	89.9	90.7	96.0
Difference to 24.7 kgN/ha	27.4	11.0	10.2	4.9
Less size class applications to increase	15.5	6.4	5.9	3.0
Result nominal surplus	11.9	4.6	4.3	1.9

The consequences in the sense of impacts on properties would be dependent on the ability to apply for a higher level based on the process outlined in Schedule LR One. Under these provisions a property could apply for an NDA based on evidence of activities during the benchmarking years. It is assumed that the larger, more commercial properties will follow this course of action. For smaller properties there may be no impact as they may choose to operate at permitted activity levels.

In terms of the ability to reallocate nitrogen there is some nominal surplus generated by this approach – dependent on the level of allocation chosen.

[4] Why is the basis for the Regional Council advising us that it is not able to purchase land in the Lake Rotorua catchment?

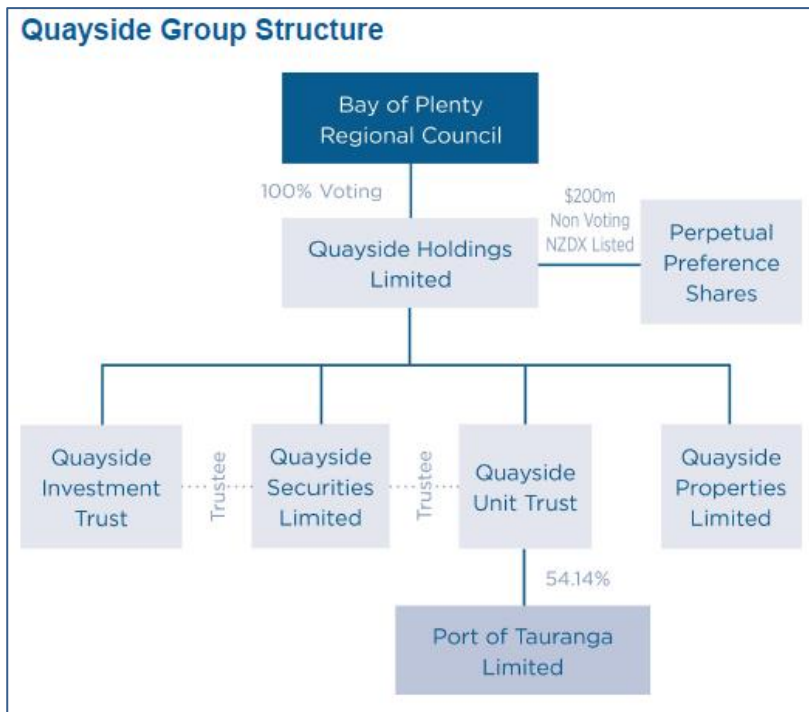
The short answer to Question 4 is that the purchase of land in the Lake Rotorua groundwater catchment would result in tax tainting of Council's other entities and would require Cabinet approval under the terms of the Crown Funding Deed. The explanation and risks of these matters are set out below

When Council established the Incentives Scheme and its governance entity consideration was given to a range of matters. Key amongst these was the need to start the project as soon as possible given the commitment being made around the 2022 timeframe. The decision was made to go with a committee of Council rather than a trust which would have taken longer to set up and to establish momentum². Establishing a trust (as a council controlled organisation) would have required community consultation under the provisions of the Local Government Act 2002.

² <http://www.boprc.govt.nz/media/367980/bay-of-plenty-regional-council-agenda-thursday-26-june-2014.pdf>

As the Incentives Board (now renamed as the Incentives Committee) is a part of Council its activities needed to be considered alongside other activities – specifically the Council’s Council Controlled Organisation – Quayside Holdings Ltd. Quayside holds significant investments and assets on behalf of Council - over \$1 billion, and in particular more than 50% of the Port of Tauranga Limited (POTL). Council, through the Incentives Committee, could conceivably purchase land and hold it for regional park or other amenity purposes. However if it was to purchase, undertake land use change and on-sell land³ it raises the potential for Council to be viewed as being a trader of land or a developer.

The tax tainting and land dealing rules under the Income Tax Act would then apply. This opens up risks for transaction being carried out by the Port of Tauranga Limited as they are more than 50% owned by Council. Any resulting gain from land acquired and then sold by POTL would then be taxable. Consistent advice on this matter has been to avoid any member of the Council Group of entities (see diagram below) undertaking activities that could “taint” land owned by POTL. Quayside also owns substantial industrial land holdings at Rangiora to which the risk applies.



Council does have the option of moving the incentives project to a trust so that the tax tainting risk is reduced. It is similarly noted (see Question 1) that this would be a significant change under the Funding Deed that would also require Cabinet approval.

In relation to the purchase of land rather than the purchase of nitrogen there are also other elements that increase the risk to Council other than the tax issue raised above. Assuming a trust mechanism could be agreed with Cabinet, the buying of land, stripping of nitrogen and re-selling of the land exposes Council to the vagaries of the property market as it applies specifically to rural land in the catchment. Land re-sales may take longer to occur and if subdivision/development is required to make the land more attractive other processes will also come into play (such as subdivision or resource consenting). The 2022 deadline provides an imperative to seek a simpler and quicker proposition to purchase nitrogen and leave the landowner to make any subsequent decisions about the land.

³ As the Incentives Scheme only has the financial resources to purchase NDAs not the full productivity value of properties it would need to re-sell land to recoup finances.

[5] What do Bay of Plenty Regional Council Farm Quality Programme, Environmental Programme and Property Plans (as required via different rules in the Regional Land and Water Plan) involve / cover? Approximately how many farms within the catchment would already have one of these in place for their farm?

The Regional Council have a number of land management and environment plans that are available to the community with associated funding. Most of these relate to biodiversity, riparian and land use management and intend to enhance the water quality of lakes and streams or for erosion control. Actions within these plans include riparian planting, fencing of water ways for stock exclusion and the identification of alternative water sources for stock. Such plans are voluntary however these have often helped land owners comply with permitted conditions of the Regional Land and Water Plan such as Rule 10 – Grazing of Land and Rule 6 - Controlled Stock Crossings.

Other plans include effluent management plans for dairy operations. In total 24 dairy effluent management plans have been approved by Council. The content of these plans relate to the timing, scale and location of effluent discharge from dairy sheds.

An overview of the number of plans submitted and approved by council is provided in the below table.

No	Plan Type	Comments
24	Dairy Effluent Plans	Submitted as part of application for Dairy Effluent Resource Consent
3	Environmental Management Plans	Voluntary agreements entered into by landowner and BOPRC. Plans have both a sustainable land use and biodiversity focus.
17	Biodiversity Management Plans	Voluntary agreements entered into by landowner and BOPRC. Plans have a biodiversity focus.
41	Riparian Management Plans	Voluntary agreements entered into by landowner and BOPRC. Plans have a sustainable land use focus.
321	Environmental Plans	Historic voluntary agreements entered into by landowner and BOPRC. Plans may have a sustainable land use and/or biodiversity focus.

Dairy farms within the catchment would also have a Dairy NZ Sustainable Milk Plan and potentially a Fonterra Farm Plan. Drystock farms may have a Beef+Lamb Land Environment Plan. However the Council do not see these plans and any associated Overseer files. Therefore the Overseer files may not be built to Council standards and may not meet the requirements of PPC10.

[6] Please explain how for farms 1 and 7 shown in Appendix 11 from Sandra Barns, in the Council memorandum dated 22 March 2017 the current kg of kgN/ha/year exceeds the benchmark for the farms?

Farms 1 and 7 are non-compliant with Rule 11 of the Regional Land and Water Plan with each farm having nitrogen losses that exceed their allocated benchmark.

It is noted that Farm 1 is an anomaly (as is Farm 2) with these having losses less than 20kg/ha - such losses are not representative of a normal dairy farm.

Given the low level of losses, the subsequent low intensity activity in comparison to other dairy farms within the catchment and the minor level of non-compliance, compliance and enforcement action would not have been undertaken for Farms 1 and 2.

However going forward under PPC10 any farm exceeding their benchmark or derived benchmark will need to make immediate reductions to meet their 2017 or 2022 start point. This will effectively reduce any current non-compliance with Rule 11 within the catchment.

[7] Please provide a concise summary of the particular provisions that apply to tangata whenua ancestral lands in Plan Change 1 to the Waikato Regional Plan. The Commissioners realise that submissions on this Plan Change are yet to be heard, so there is no requirement to discuss the weight to be given to the provisions.

Land use change that results in an increase in nutrient losses (i.e. forestry to farming) is a non-complying activity. PPC1 has noted that such land use change may be desired on multiply owned Māori Land or settlement land within the catchment and has included Objective 5 and Policy 16 to guide the assessment of non-complying consent applications where these relate to multiply owned Māori land and land returned under Te Tiriti o Waitangi settlements. This approach intends to provide an element of certainty to applicants that the consent will be approved if the criteria of Policy 16 are met.

Objective 5 provides direction on the co-management of waterbodies to enable tangata whenua to have the ability to provide for the management of their own lands and resources, provide flexibility to achieve the optimal use of ancestral lands and to sustain a relationship with ancestral land, rivers and other water bodies.

Objective 5: Mana Tangata – protecting and restoring tangata whenua values/Te Whāinga 5: Te Mana Tangata – te tiaki mete whakaora i ngā uara o te tangata whenua

Tangata whenua values are integrated into the co-management of the rivers and other water bodies within the catchment such that:

a. tangata whenua have the ability to:

i. manage their own lands and resources, by exercising mana whakahaere, for the benefit of their people; and

ii. actively sustain a relationship with ancestral land and with the rivers and other water bodies in the catchment; and

b. new impediments to the flexibility of the use of tangata whenua ancestral lands are minimised; and

c. improvement in the rivers' water quality and the exercise of kaitiakitanga increase the spiritual and physical wellbeing of iwi and their tribal and cultural identity.

Policy 16 directly guides assessments completed under the non-complying Rule 3.11.5.7. Such assessments need to take into account the suitability of land for development and the ability for any short term targets to be achieved.

Policy 16: Flexibility for development of land returned under Te Tiriti o Waitangi settlements and multiple owned Māori land/Te Kaupapa Here 16: Te hangore o te tukanga mō te whakawhanaketanga o ngā whenua e whakahokia ai i raro i ngā whakataunga kokoraho o Te Tiriti o Waitangi me ngā whenua Māori kei raro i te mana whakahaere o te takitini

For the purposes of considering land use change applications under Rule 3.11.5.7, land use change that enables the development of tangata whenua ancestral lands shall be managed in a way that recognises and provides for:

a. The relationship of tangata whenua with their ancestral lands; and

b. The exercise of kaitiakitanga; and

c. The creation of positive economic, social and cultural benefits for tangata whenua now and into the future;

Taking into account:

i. Best management practice actions for nitrogen, phosphorus, sediment and microbial pathogens for the proposed new type of land use; and

ii. The suitability of the land for development into the proposed new type of land use, reflecting the principles for future allocation as contained in Policy 7, including the risk of contaminant discharge from that land and the sensitivity of the receiving water body; and

iii. The short term targets to be achieved in Objective 3.

The approach taken by PC1 is not suitable for PC10. Providing for the intensification of land without providing any offset will reduce the ability to achieve the 2032 target.

Plan Change 1 also provides for land uses with low levels of nutrient loss to continue to operate and establish within the catchment. This approach is outlined within Policy 4 (shown below). However this policy also highlights that this situation may change in the future to ensure Objective 1 is achieved.

Policy 4: Enabling activities with lower discharges to continue or to be established while signalling further change may be required in future/Te Kaupapa Here 4: Te tuku kia haere tonu, kia whakatūria rānei ngā tūmahi he iti iho ngā rukenga, me te tohu ake ākuanei pea me panoni anō hei ngā tau e heke mai ana

Manage sub-catchment-wide diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens, and enable existing and new low discharging activities to continue provided that cumulatively the achievement of Objective 3 is not compromised. Activities and uses currently defined as low dischargers may in the future need to take mitigation actions that will reduce diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens in order for Objective 1 to be met.

This reflects the approach of PC1 to gather and record information to identify and cap the level of losses from each farming enterprise. This is effectively a similar approach taken with Rule 11 of the Bay of Plenty Regional Land and Water Plan. The information gathered during this first stage will help to inform the future nutrient allocation methodology.

[8] Please explain when Rule LLR8 is intended to commence as it is unclear. There appears to be a disconnect with the Table on Page 13 of the Plan Change.

The intent was to have no starting date for Rule LR R8. The reason for this is that this is somewhat of a catch-all provision which commences:

- when all other specified dates are exhausted, or
- for early resource consent applications

This rule commenced upon notification as it was intended to be available for use whenever required.

Rule LR R1 captures all nitrogen losses up until 30 June 2017. After that date Rule LR R8 may come into effect at any time. For example properties that do not meet permitted activity conditions from LR R3 to R7 are then captured by LR R8.

Even though rules LR R5 to R7 provide dates (between 1 July 2017 and 30 June 2022), if at any stage permitted activity conditions can't be met, the activity will default to LR R8 and therefore no starting date for Rule LR R8 is provided. With a start date (for example, 2022), activities that could not meet permitted conditions would become non-complying up to the start date. The preference was for these to first be considered as controlled activities, with non-complying being a second step.

By not having a date, landowners also have an option to gain early consent. During rule development, some landowners indicated they would get more certainty by having an early consent rather than waiting until 2022. Landowners may also want to engage with the Incentives Scheme with a confirmed, consented NDA.

An error has been corrected through the Council's submission as a date ("from 1 July 2022") was inadvertently left in the rule text as part of the drafting process

Reference to the 1 July 2022 default date in the Rule Summary flowchart (page 13) may be confusing and should be deleted if this diagramme is kept. The flowchart was not designed to capture every potential situation but only to be a summary. The staff recommendation is to remove the flowchart. Explanatory material outside of the regulatory plan can be used to provide guidance to users if needed.

[9] Are there any unintended deletions that have been recommended to Rule 11 that should be reconsidered?

As outlined in Appendix 8 of the memorandum provided by Council to the hearing panel dated the 13 April 2017 it has been proposed by Council to reinstate Rule 11F. This enables any increase in losses from point sources to be managed in addition to diffuse sources within the Lake Rotorua catchment. This has now been reflected in the updated track change version of PPC10 – Version 7.

[10] Why do nutrient management plans require detail of effluent management, gorse management and water irrigation management?

The Regional Land and Water Plan provides for the direct disposal and application of animal manure as a permitted activity under Rule 19 where this acts as a soil conditioner, mulch, has a beneficial effect on plant growth and does not require the direct discharge to waterbodies or have an adverse effect on soil health. It is considered that the actions listed within an Nutrient Management Plan would align and uphold this rule, and act as a mechanism to help to achieve compliance rather than conflict with this rule.

The take of water to support water irrigation systems is managed by the regional plan. Conditions relates to the size of water take, rate of abstraction and any effects on the water source. There is no focus on nitrogen management. The NMP is able to build on these existing activities through including actions relating to the timing and location of irrigation to avoid run off and increased losses from the enterprise.

Rule 32 requires a controlled activity consent to be approved for effluent discharge generated from dairy shed operations. Effluent management plans are generally approved under this rule. The general management of farm activities outside of the dairy shed is not covered by Rule 32 of the effluent management plan preventing areas where effluent can accumulate to be managed (stock crossing, tracks, stock yards). The Nutrient Management Plans intends to cover effluent management activities in place within the wider farm operations, which uphold the intent of Rule 19 and PPC10. It should also be noted that this rule only relates to dairy operations, there is the ability to manage effluent generated by drystock operations.

Gorse agreements are voluntary and also have eligibility criteria that must be met to enable such an agreement to be progressed. To be eligible for funding, conversion proposals must meet the following criteria:

- 1 Proposals must have a high degree of certainty of removing or suppressing mature gorse permanently.
- 2 Land must be within the Lake Rotorua groundwater catchment and within the Bay of Plenty region (see Appendix 3).
- 3 Land use changes must be to a N leaching rate equivalent to or less than forestry . This requirement may exclude tree species that fix nitrogen.
- 4 Net phosphorus losses (as measured by OVERSEER® or published science) must not exceed levels prior to conversion.
- 5 Landowners must be compliant with Regional Water and Land Plan Rules.

There will be instances where farms are not able to enter into such agreements due to the inability to meet the criteria or the unwillingness to convert the land into trees.

Gorse is not classified as a pest plant that requires eradication under Councils Regional Pest Management Plan 2011-2017 and is only required to be contained. Therefore there is no regulatory requirement for the removal of gorse. With gorse contributing losses of up to 35kgN/ha its permanent removal is important to enhancing lake water quality. Such removal can also contribute to a farm meeting a managed reduction target.

[11] : Question 11 follows under separate cover

[12] What would the potential consequences be of enabling land presently in forestry, bush or scrub to be developed for drystock farming up until about 1 April 2020 (assuming this land is then provided the sector average for drystock)?

The potential consequences of enabling forestry and bush and scrub land to develop up to the sector average for drystock are:

- an increase in nitrogen load to the lake and subsequent failure to meet the sustainable lake load of 435 tonnes of nitrogen; or
- further reductions in the future for existing pastoral activities in order to mitigate the increased nitrogen load from additional development or additional costs to the community to purchase more nitrogen out of the catchment.

If this was provided for, about how much land would the Council actually expect to be converted to drystock farming?

The total area of forestry within the PC 10 boundary is 8008ha and the total area of bush and scrub within the PC 10 boundary 1666ha.

Answering this question requires a number of assumptions about landowner actions. A key consideration would be the creation of “gold rush” behaviour – the phenomenon where people respond to upcoming regulation. In this case there may be a heightened response to the three year window of opportunity before the conversion option was removed. While we can’t know with certainty what would occur, it is clear that in the Lake Rotorua catchment there is high awareness of the nutrient constraints being placed on land. Although the costs of changing from forestry to drystock are high in relation to returns, an allocation of nitrogen may provide future benefits in other land uses.

For the purpose of estimating the potential consequence of a three-year window to allow conversion to occur the following assumptions have been applied:

- Total areas on LUC class 1-6 land: 6834 ha⁴ forestry, 1319 ha⁵ unprotected bush and scrub⁶. No conversion occurs on LUC class 7 or 8 land.
- Use of age class information for forestry in the Rotorua District⁷ (is comparable to the PC10 catchment)
- No protected bush and scrub converts.
- Some unprotected bush and scrub would be retained by landowners for its ecological/landscape values)
- Sector average taken as being the 24.7 kgN/ha that applies under Schedule LR One. Bush and scrub has a leaching rate of 3 kgN/ha and plantation forestry has a leaching rate of 2.5 kgN/ha.

Human behaviour is complex, and so instead of trying to anticipate reaction to this opportunity, five potential scenarios for the 2017-2020 period are explored (Table 1):

Table 1: Forestry and bush and scrub conversion scenarios

Scenario	Forestry	Bush and scrub
Scenario 1	3.4% of forestry area becomes available per year for three years (based on CNI harvest rates ⁸)	50% of unprotected bush and scrub is converted
Scenario 2	Over the three years early harvest and cut to waste occurs to release forest land	50% of unprotected bush and scrub is converted
Scenario 3	As in Scenario 2	75% of unprotected bush and scrub is converted
Scenario 4	Land use change from forestry to pasture based on changes 2008-2012 (LUCAS dataset) ⁹	25% of unprotected bush and scrub converted
Scenario 5	100% of forestry on LUC class 1-6 converts	100% of unprotected bush and scrub on LUC 1-6 converts

For scenarios 2 and 3, the market is currently seeking trees for harvest. Given the drivers that would be created by a three year window it is plausible to assume:

- All 0 -5 year age class is cut to waste¹⁰ - 17.9%¹¹
- Early harvest - 25 year plus age classes¹² - 8.2%¹³

⁴ Refer to Table 1 of evidence by Gemma Moleta

⁵ Refer to Table 2 of evidence by Gemma Moleta

⁶ These figures exclude DoC land and are likely to underestimate the actual areas calculated using Council's GIS layers.

⁷ In Table 9.10 of the National Exotic Forest Description 2016. Prepared by MPI, FOA and NZFFA

⁸ 5,000 to 6,000 out of 176,000 total ha under CNIHL ownership.

⁹ This is based on land use change from forestry to pastoral for the Bay of Plenty Region recorded in the Land Use and Carbon Analysis System (LUCAS) dataset, gathered by MPI. Caveats to this data are that it has an overall map accuracy of 92.5%. It is used in this scenario to provide a broad estimate of land use change over the 2008-2012 period.

¹⁰ Cutting to waste was observed at the ETS implementation point.

¹¹ Refer to Table 9.10 of the National Exotic Forest Description 2016. Prepared by MPI, FOA and NZFFA

¹² There is a range of harvest ages from 25 years through to 36 years depending on growing conditions and owner preferences.

¹³ Refer to Table 9.10 of the National Exotic Forest Description 2016. Prepared by MPI, FOA and NZFFA

Scenario 4 uses an estimate of land use change from forestry to pastoral for the 2008-2012 period based on the LUCAS dataset (see Footnote 3). The dataset provides land use change information for both pre 1990 planted forest and post 1989 forest. Table 2 shows the percentages converted to grassland from both types of forest. The LUCAS data percentage represents a low risk scenario however this ignores the drivers that would exist if a land use conversion opportunity was offered and the future opportunities and increased land value that would be factored into decisions.

Higher prices in outputs (such as milksolids) are a key driver for the shift from forestry to pastoral farming seen in the LUCAS dataset. Such change tends to increase the value of the capital asset – the land. Changes in land use in the Lake Rotorua catchment will be driven by expected prices from output from drystock farming (for example) in the short and longer term, and the value that landowners put on the future opportunities for the land. The value of the land itself is dampened by the ability to use nitrogen in this nitrogen-constrained catchment.

Table 2: Forestry and bush and scrub conversion 2008-2012

Bay of Plenty land use change between 2008 and 2012	Pre-1990 planted forest	Post 1989 forest	Overall percentage change
	0.66% conversion to pastoral	6% conversion (potentially harvested early depending on species) to pastoral	1% conversion to pastoral

Scenario 1 – based on CNI harvest rates	Area	Increase in N
3.4% of 6834 ha forest (per year for three years) (+22.2kg N/ha)	697 ha	15.5t
50% of 1319 ha bush and scrub (+21.7kg N/ha)	660 ha	14.3t
Total	1357 ha	29.8t

Scenario 2 – “gold rush” for forestry	Area	Increase in N
26.1% of 6834ha forestry (+22.2kg N/ha)	1784 ha	39.6t
50% of 1319 ha bush and scrub (+21.7kg N/ha)	660 ha	14.3t
Total	2444 ha	53.9t

Scenario 3 – “gold rush” for forestry	Area	Increase in N
26.1% of 6834ha forestry (+22.2kg N/ha)	1784 ha	39.6t
75% of 1319 ha bush and scrub (+21.7kg N/ha)	989 ha	21.5t
Total	2773 ha	61.1t

Scenario 4 – LUCAS data %	Area	Increase in N
1% of 6834 ha forestry (+22.2kg N/ha)	68 ha	1.5t
25% of 1319 ha bush and scrub (+21.7kg N/ha)	330 ha	7.2t
Total	398 ha	8.7t

Scenario 5 - Worst Case	Area	Increase in N
100% of 6834ha forestry (+22.2kg N/ha)	6834 ha	151.7t
100% of 1319 ha bush and scrub (21.7kg N/ha)	1319 ha	28.6t
Total	8153 ha	180t

The above scenarios provide a view of the potential scale of change that may occur with an opportunity for forestry and bush and scrub land to develop up to the sector average for

Drystock. The worst case and LUCAS scenarios are less likely to occur. The other scenarios result in increases in Drystock area in a range from 1356 ha to 2773 ha.

There remains the risk of these scenarios being underestimates. However, as pointed out above, it is not possible to predict human behaviour with certainty. If a short term exemption to restricting land use conversion is provided similar large scale conversions could occur as those seen in the Waikato recently. For example in 2015 the Ata Rangi development converted approximately 2,500ha of forestry to dairy and a further 500ha of forestry to drystock on the edge of Lake Mangakino between Whakamaru and Tokoroa. If 3000ha of forestry land was to convert to the drystock average this would be equivalent of 67 tonnes of nitrogen.

Impact of Scenarios

The key issue of any scenario is that the result is a significant **increase** in nitrogen loss to Lake Rotorua. Scenario 2 as a mid-range result is equivalent to 48% of the total required pastoral reductions to 2032. This would then necessitate further reductions being achieved from the existing pastoral sector to deliver the 435 TN sustainable lake load as directed by the RPS.

If for example the addition and subtraction occurred only within the Drystock sector the increase in area by 2444 ha (Scenario 2) would need to result in a substantial decrease in the upper range boundary to achieve a consequential reduction of 53.9 TN. The upper range would need to drop from 54.6 kgN/ha to 26 kgN/ha. This would introduce substantial risks for Drystock farming enterprises. As the permitted activity level is the bottom of the Drystock range (which cannot therefore realistically be shifted) the commensurate change in the upper range limit is significant.

If the gains that would accrue to converted properties needed to be offset by greater losses in existing Drystock properties then unless a specific forecast could be made there may need to be some uncertainty accepted until the degree of impact is known. At that point (assume in April 2020) NDAs could be confirmed on whatever basis was deemed reasonable. For example, using the above case where the gains and losses occur only within the Drystock sector NDAs that are proportional to the sector load could be issued post-April 2020.

It would be uncertain how this might affect the operation of the Incentives Scheme. Depending on the approach used to offset the increased losses the Incentives Scheme may not be able to secure NDA from the Drystock sector unless the risk of changing NDAs was built into the purchase agreements and part of the payment was deferred until such time as the final NDA was known.

If such an allocation were to be adopted, consideration would need to be given to how land would be judged to have been converted and therefore attract the drystock allocation. For example, is allocation appropriate if forestry land was logged but not cleared, or if land was grassed and infrastructure and stock installed?

What is unknown is whether land owners are financially in a position to invest. It is more likely that post-1989 forest would be converted. A more positive asset value may also drive investment – and also that the option is a limited-time opportunity. The value may also depend on the approach to securing further nitrogen discharge reductions, such as whether newly converted land was subject to the commensurate reduction - this could have a negative impact on conversion proposals.

Whether the nitrogen allocation granted under this type of approach could be sold should also be considered. If the state of conversion required minimal investment (such as logging only) there could be a risk of land remaining in forestry for a windfall gain rather than for the purpose of changing land use. It could be argued that this is neutral in a policy sense and is a decision for land owners to make (productive land or financial return). Consideration may also need to be given to whether conversions need to stay converted.

It is assumed that if land was allowed to be converted the owners would seek the 24.7 kgN/ha level rather than stay as a permitted activity at the equivalent of 18 kgN/ha.

[12] Continued - How much of this might be land owned or managed by tangata whenua?

Tangata Whenua (including Te Ture Whenua and Settlement land) own:

- 4855ha¹⁴ (or 71%) of forestry land on LUC 1-6 land within the PC10 boundary.
- 465ha¹⁵ (or 35%) of the unprotected bush and scrub land on LUC 1-6 land within the PC10 boundary.

These proportions would apply to the above scenarios – noting this is a relatively high level analysis. Council does not have access to data figures for land managed but not owned by tangata whenua.

Q 12: Appendix 1: Radiata Pine age class applied to Lake Rotorua Groundwater Catchment Forestry Area (LUC 6 and better)

Age class	1-5 YEARS	6-10 YEARS	11-15 YEARS	16-20 YEARS	21-25 YEARS	26-30 YEARS	31-35 YEARS	36-40 YEARS	41-50 YEARS	51-60 YEARS	61-80 YEARS	Total
Ha	9022	8058	10869	10225	8017	3505	322	238	42	1	18	50317
%	17.9%	16.0%	21.6%	20.3%	15.9%	7.0%	0.6%	0.5%	0.1%	0.0%	0.0%	100%

¹⁴ Refer to Table 4 of evidence by Gemma Moleta

¹⁵ Refer to Table 5 of evidence by Gemma Moleta

Additional s42A report: final recommended changes

1.0 Revised Staff Recommendations.

1. The intent of this report is to provide an overview of the changes made to PPC10 since the section 42A report was released in January 2017.
2. The changes have been in response to evidence provided by submitters, outcomes of caucusing or clarification requested from the Hearing Panel.
3. In many cases these changes have built on or amended changes proposed in the initial Section 42A report. These changes are shown in red text within Proposed Plan Change 10: Lake Rotorua Nutrient Management – Version 7. This version is intended to supersede Version 5 that was released as part of the section 42A report. and more recently version 6.
4. Where no changes or subjects are specifically mentioned below the approach and recommended decision outlined within Councils Section 42A report dated January 2017 still stands.

2.0 Recommended changes to PPC10.

2.1 Relationship of NPS-FM to PPC10

Submission 53-12, 75-29
Points:

5. During the presentation of Council's evidence the Hearing Panel requested Council staff provide information on how the Proposed Plan Change 10 (PPC10) could be amended to acknowledge its role in implementing the NPS-FM 2014 and include the relevant NOF attributes within PPC10.
6. PPC10 has a role in achieving the 435tN/yr target as specified by the RPS, and a role in achieving the 4.2 TLI outlined within Objective 28 of the Regional Land and Water Plan. As outlined by Professor Hamilton, achieving a TLI of 4.2 would result in a number of attributes listed within the NPS-FM 2014 being achieved.
7. To show how PPC10 fits with the TLI, and how PPC10 upholds the NPS-FM 2014 background information is proposed to be included within the introduction of PPC10.
8. For more detail on the reasons why the NoF attribute table should be included within PPC10 refer to Appendix 5 of Councils memorandum to the Hearing Panel dated 13 April 2017.

Council staff recommendation

9. It is recommended that the Hearing Panel accept the revisions proposed within the track change version of PPC10 (version 7) that clarifies how PPC10 contributes to implementing the requirements of NPS-FM 2017.

2.2 The Management of Phosphorus by Plan Change 10

Submission Points:	75-115, 75-116, FS13-4, 19-9, 66-38, 75-14, 81-6, 37-9, 37-7, FS5-1, 47-1, 75-15, 75-2, 75-18, FS2-6, 75-31, 75-29, 75-30, FS6-4, 75-32, 75-33, 53-12, 53-16, 66-47, 75-125, 79-5, 19-10, 81-11, 53-18, 66-53, 75-132, 66-56, 75-135, 70-24, 43-26, FS15-4, 49-32, 49-33, FS14-18, 53-23, 66-62, 75-142, 21-1, 49-39, FS14-19, 66-76, 53-37, 75-165, 70-18, 15-3, FS17-2, 66-3, 53-40, FS6-42, 66-78, 75-168, 53-68, 66-105, 75-199, 53-77, 66-113, 75-207, 66-3, 47-1, 75-15
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10. In response to evidence presented during the hearings for Proposed Plan Change 10 the Panel requested Council to consider how phosphorus could be included within the plan change. In response to this caucusing was held with a group of representative submitters who referenced the need for Plan Change 10 to acknowledge or include phosphorus in their initial submission.
11. The general outcome of this caucusing was that submitters were in opposition to additional requirements to reduce phosphorus being included within PPC10. The consensus was for Council to support the development of catchment plans in partnership with the community and to provide information to the community regarding actions and research available on phosphorus management.
12. Amendments made to the plan change during this caucusing include:
 - a. Revising Policy LRP2 to provide direction on how the Council intends to manage and reduce phosphorus losses and provide alignment with Schedule LR6(5)(b).
 - b. Further enforcing the use of good management practices (Policy LR8).
 - c. Revisions to Method 5(e), (f) and the inclusion of Method 5(h) and (i).
 - d. Reducing the direction provided on phosphorus management within Schedule 6, this aligning with the initial intent of not 'telling farmers how to farm' and acknowledging that each farm has different characteristics causing different management methods to be appropriate for each farm.
13. An overview of the caucusing held and its outcomes are provided within Appendix 3 of Councils memorandum to the Hearing Panel dated 13 April 2017.
14. If further action is considered to be required to achieve the sustainable phosphorus load phosphorus rules could be developed through a future plan change process. It is considered that to include such rules at this time, without going through a Schedule 1 process is not appropriate with this preventing public participation.
15. It is noted that the hearing panel also requested clarification on what the sustainable phosphorus load for Lake Rotorua is. Currently this is outlined within Method 2(c), however it is acknowledged that the use of the words 'and internal' do not align with this intent, therefore this is proposed to be deleted. This was also supported by Professor David Hamilton during the presentation of his evidence to the Panel and outlined on Page 90 of the Memorandum provided by the Council to the Panel dated the 22 March 2017.

Council staff recommendation

16. It is recommended that the Panel accept the revised approach to the management of phosphorus as outlined in the track change version of PPC10 (version 7).

2.3 The Use of OVERSEER® and Reference Files

Submission 70-38

Points:

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17. Evidence received from the Fertiliser Association of New Zealand during the hearing process has highlighted discrepancies on how OVERSEER® versions and the reference files have been referred to within PPC10.
 18. In response to this Council have proposed amendments to the policy framework to highlight that the most current version of OVERSEER® will be used when determining nitrogen allocation, except for initial allocation purposes.
 19. This has resulted in amendments being made to Policy LRP3(c), Policy LRP12, Schedule LR5 – Introduction.
 20. As a result of this grammar corrections have also been made to Policy LRP13(c).
 21. Council continue to support the role OVERSEER® has within PPC10. Whilst the tool has a number of revisions to reflect new information, currently this is the only tool available that is able to robustly calculate losses from inputs. Providing reference files, nitrogen discharge allocations that take into account new versions of OVERSEER® align with the intent of PPC10 to provide for adaptive management by recognising the availability of new science.

Council staff recommendation

22. It is recommended that the Hearing Panel accept the revised approach to relating to the use of OVERSEER® as outlined in the track change version of PPC10 (version 7).

2.4 Impacts on Population Growth and the operation of the Rotorua WWTP

Submission 26-4, FS2-1, FS4-1, 26-15, FS2-3, FS4-3, 26-5, FS2-2, FS4-2, FS8-62,

Points: FS12-5, 26-6, 26-18, FS2-4, FS3-1, FS4-4, FS8-63, FS12-6, 26-36, 26-40

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23. Evidence presented by the Rotorua Lakes Council (RLC) supported the intent of proposed Policies LRP16, LRP17 and Method 5(g) but requested amendments to provide further direction for implementation purposes. An additional policy relating to other lake catchments was also suggested.
 24. Caucusing was completed between Council staff and RLC staff and experts. This resulted in minor changes being proposed to the two policies and method.
 25. It was also noted that amendments suggested by RLC to Schedule LR1(E) and accepted by Council were not completed in the revised track change released with Councils rebuttal statements. This has been corrected in the track change of PPC10 (version 7).
 26. An overview of the caucusing held and outcomes are provided within the report entitled '*Record of Discussions between Bay of Plenty Regional Council and Rotorua Lakes Council*' released the 3 April 2017.
 27. It is noted that the Hearing Panel have questioned if there is scope to include the amendments recommended in response the RLC's submission. In response to this reference to lake catchments outside of Lake Rotorua (refer to track change version 6 of PPC10) has been removed from Policy LR17. This reflects that PPC10 only relates to rural land uses within the Lake Rotorua catchment. The matter of scope will be addressed in more detail within Councils closing submission.

Council staff recommendation

28. It is recommended that the Hearing Panel accept the revisions made to Policy LR 16, LR17, Method 5(g) and Schedule LR1.

2.5 Schedule LR2 – Stocking Rate Table.

Submission 1-8, 44-1, 6-2
Points:

29. Evidence presented during the course of the hearing raised concerns with the restriction of stock numbers on small farm enterprises under 10ha in size. Key concerns related to the social impacts of reducing horse numbers, and the inability to efficiently manage grass growth and lifestyle lots with the stock numbers provided for by Schedule LR2.
30. Caucusing identified a number of options to amend schedule LR2. At all times the intent to achieve the overarching target of 435tN/yr was kept in mind along with the need to avoid the requirement of reallocation of the nitrogen load.
31. An overview of the caucusing held and outcomes are provided within Appendix 4 of the Councils Memorandum to the Panel dated 13 April 2017.

Council staff recommendation

32. It is recommended that the Panel accept the revisions made to Schedule LR2 – Stocking Rate Table.

2.6 Definitions

Submission 21-11, 56-27, 53-66, 66-103, 71-8, FS6-67, 43-24, FS15-7
Points:

2.6.1 Clarification of Commercial Horticulture, Dairying and Cropping

33. In response to submissions received to PPC10 new definitions for Commercial horticulture, Dairying and Cropping were proposed to identify the scale of commercial activity intended to be managed by PPC10.
34. Evidence provides by Brown Owl Organics Ltd highlighted that the proposed definitions did not provided the level of clarification and certainty as intended. Caucusing held with the submitter and internal council discussions resulted in calculations being completed to determine losses from horticultural activities and a revised set of definitions being proposed along with an additional definition of community gardens (see PPC10 track change version 7).
35. An overview of the caucusing held and outcomes are provided within Appendix 1 of the Councils memorandum to the Hearing Panel dated 13 April 2017

2.6.2 House block

36. Evidence presented during the hearing highlighted inconsistencies with the definition and use of the term 'house block' by PPC10. These inconsistencies had been enhanced through changes made to Schedule LR5 to list the reference files for house block, plantation forestry and bush scrub (see Table LR8)

37. Amendments have been made to remove these inconsistencies, this resulting in the definition of house block being revised, row 7 of Table LR3 being deleted, and inclusion of the term 'house block' within Schedule LR1(D) bullet point 2.

2.6.3 Good Management Practices

38. In response to evidence submitted during the course of the hearing related to best management practices a definition was included to clarify what such practices were considered to be.

Council staff recommendation

39. It is recommended that the Panel accept the revisions made to the proposed definitions for commercial cropping, commercial dairying, commercial horticulture, household garden and house block.
40. It is recommended that the Panel approved the new definitions proposed for good practices and community garden.

2.7 Other changes to PPC10

41. The following changes have been completed in response to evidence raised during the hearing process:
- Correction to Policy WL6B(c)
 - Referring to good management practises within LRP8 for consistency purposes.
 - Corrections to LRP10 to refer to effective areas exceeding 10ha
 - Revision of proposed Policy LRP15 to provide sufficient direction in the assessment of non-complying activities.
 - Clarification that trading occurring after 2022 will not result in permitted activities becoming non-complying (Rules LRR2(c), LRR3(b), LRR4(d), LRR5(c), LRR6(d), LRR7(b)).
 - Amendments to clarify the intent of rule LRR7(a)1
 - Clarification that PC10 has a focus of managing land use to influence losses from a farm enterprise (Rules LRR1(a), LRR4(c), LRR5(a), LRR6(b), LRR7(c)).
 - Clarifying the intent of assessment criteria (iii) of Rules LRR8, LRR9, LRR10, LRR11.
 - Consistency in the use of significant farm system change

Council staff recommendation

42. It is recommended that the Panel accept the revisions made as shown within PPC10 track change version 7.

Please note that PPC 10 track changes version 7 is attached by way of pdf as a separate document for ease of reference.