DRAFT ALTERNATIVE LAKE ROTORUA CATCHMENT NITROGEN POLICY

11 July 2013

DISCLAIMER: THIS DRAFT PAPER IS NOT AN ENDORSED COLLECTIVE POSITION

This draft paper has been prepared by the executive committee of the Lake Rotorua Primary Producers Collective with input from Simon Park and DairyNZ's Ollie Parsons. It is an alternative to the grand parenting and sector nitrogen allocation approaches in the draft BOPRC paper prepared for StAG's 18 June 2013 meeting. It is intended as a basis for discussion with Collective members, BOPRC and StAG.

This draft takes account of Collective AGM feedback (9 July) but does not constitute an endorsed or formal Collective position. This draft will be further revised following StAG's 16 July meeting and prior to presentation to BOPRC's Strategy, Policy and Planning Committee on 17 September 2013.

1. The Collective's Nitrogen Policy Principles

a. Farmers are committed to working with StAG, and BOPRC in particular, to give effect to Points 10 and 11 of the Oturoa Agreement (OA) and RPS Policy WL6B:

> *OA 10: It is agreed that the timeframe to meet the 435 tonne sustainable annual nitrogen load for Lake Rotorua will be 20 years from 2012 to 2032.*
>
> *OA 11: In this regard an intermediate target will be set for the reduction of nitrogen loss within the catchment to achieve 70% of the required reduction in the first 10 years followed by 30% in the remaining 10 years. The intermediate targets will be confirmed as part of the Rules and Incentives programmes currently under development by BOPRC in consultation with the Lake Rotorua Catchment Stakeholder Advisory Group.*

b. Farmers are committed to collaborating with the Rotorua community and industry partners to achieve the RPS nutrient level and water quality targets.

c. To achieve the 2032 target and the catchment-wide intermediate target of 70%, farmers agree to a sharing of the responsibility and costs fairly between farmers and the wider community through the public mitigation fund.

d. A lack of critical research on viable low N farming systems within the Lake Rotorua Catchment requires the collaboration of industry and BOPRC to develop an Allocation Framework that is underpinned by a commitment to science and innovation that will minimise the negative economic impacts on the Rotorua economy while meeting the requirements of RPS WL6B. We refer to Point 13 of the Oturoa Agreement:

> *OA 13: In this respect the Parties agree that the Collective with the support of the BOPRC and in collaboration with industry research organisations will work with farmers to develop individual farm plans and collective solutions to meet nutrient reduction targets.*

2. Collective's Nitrogen Policy Framework

Nitrogen allocations and reduction targets

a. Farmers will meet a "nitrogen discharge allowance" (NDA) by 2032 based on sector averages of:
   - 35 kgN/ha[1] for dairy, with an upper limit of 40 and lower of 30 kgN/ha
   - 13 kgN/ha for drystock, with an upper limit of 17 and lower of 9 kgN/ha.

b. The upper and lower NDA range limits will account for a combination of:
   - physical factors (e.g. soils, rainfall and slope) beyond farmer control
   - historic N losses based on Rule 11 benchmarks.

c. The basis for NDA ranges can be agreed later, provided there is no net proportional change between sector allocations nor between farmer and fund reduction responsibilities.

d. Individual farmer NDAs for the 2032 target will be confirmed by 2022.

e. Nitrogen reductions prior to 2032 are voluntary but will be subject to incentives and a comprehensive roll out of farm nutrient management plans by 2015.

f. Reductions beyond NDAs are voluntary with primary responsibility allocated to the public incentive fund, and anticipated to be 100 tN in aggregate.

g. A parallel gorse replacement project, estimated at 30 tN reduction, is offset against the overall pastoral farmer reduction target.

Incentives

h. Farmers support a public mitigation fund to meet the 70% target in 2022 by investment in land use change and farm infrastructure. At least two thirds of the $45.5m incentive fund will focus on buying N beyond NDAs, with the incentive structure (flat rate, tender etc) to be agreed later.

i. A modest "per kg N" incentive flat rate will be available to meet NDA levels, with the incentive starting N threshold(s) to reflect "good" nutrient practices.

j. Gorse replacement with trees will attract a costed per hectare incentive rate.

Implementation

k. Farm scale implementation will be developed with BOPRC, the Collective and industry agencies, including the scope and funding of farm nutrient management plans and advisory services.

l. Consents to discharge nitrogen will be in place by 2022 and will include NDAs to be met by 2032.

Reviews

m. Progress and technical reviews, consistent with the RPS and Oturoa Agreement, will link with transparent reporting, ongoing applied research and adaptive management.

N reduction responsibility	tN
Farmers meet NDAs by 2032	140
Gorse project by 2022	30
Mitigation fund with focus on meeting 70% by 2022	100
Total N reduction	**270**

Table 1: Summary of N loss reduction responsibilities

[1] All nitrogen loads (tN) and per hectare nitrogen loss rates (kgN/ha) are annual loads and rates in this paper.

3. Policy Context

The Collective's initial response to the draft BOPRC staff allocation paper (June 2013) was opposition to both grand parenting and sector averaging. There is some support for a hybrid approach that combines elements of both but it would be very difficult to define a hybrid acceptable to most Collective farmers. A more detailed set of Collective responses (to the initial staff paper) is appended to this report.

The Collective bases its views on the practical experience of its members, StAG discussion and expert advice, including the Farmer Solutions Project report (FSP, December 2012) and the recent "expert panel" report on low N loss farm scenarios (May 2013). More work is required in terms of on-farm practicality and costs, and the aggregate reductions and costs.

This paper does not address Collective concerns about the relative emphasis on N Vs P mitigation, and that the Lake Rotorua TLI target has been met recently for a number of reasons, including alum dosing.

4. Collective Policy Detail

This paper aims to provide and overall policy framework and some credible numbers on N loss rates and incentive levels that illustrate how the Collective's approach can meet RPS targets within the likely $45.5m incentive budget. It is based on what appears achievable rather than starting from a theoretical allocation basis. It is expected that specific N thresholds and incentive rates will change as collaborative decision-making progresses and as more information becomes available. The risks are set out and compared with the approaches in the draft staff paper in Section 9.

The Collective prefers a pragmatic approach to nitrogen allocation – key elements are:

a. Determine a range of low but economically viable N loss limits, or Nitrogen Discharge Allowances (NDAs). Different NDAs will apply to dairy and drystock (based on 2001-2004 land use) and will account for factors outside farmer control e.g. soil type, rainfall and slope. This means there will be a range of NDAs for dairy and for drystock farms. For simplicity, this paper will use single NDAs drawn from the expert panel report and leave the potential range of NDAs to later analysis. This implies that the average of all NDAs across a sector will equal the single sector NDAs used here.

b. NDAs will not be mandatory until 2032 and can be varied as a result of N trading among farmers.

c. Reductions to NDAs will receive an incentive in the order of $125 per kilogram of nitrogen (kgN), relative to one or the lowest of:
    a. current sector average N loss - this report uses FSP estimates: 45 and 16 kgN/ha for dairy and drystock respectively
    b. the current N loss
    c. potentially a level reflecting "good nutrient practices" although this can be difficult to define given farm variability.

Example: A dairy farm currently leaching 40 would be incentivised to reduce by 5 to an NDA of 35. A dairy farm currently leaching 50 would receive an incentive to reduce from 45 to 35 but would not receive an incentive for the initial decrease from 50 to 45 [All units in kgN/ha/yr; to simplify, any physical factor or grand parent NDA weighting is ignored].

d. In the case of gorse to trees conversion, a "per hectare" incentive will apply, based on the actual cost of pinus radiata establishment. This will apply even if native succession is the preferred and technically viable option to replace gorse stands. For this paper, an approximate equivalent incentive of $100 per kgN is used to enable aggregate cost and reduction calculations.

e. Reductions beyond NDAs are voluntary and will attract a significantly larger incentive per kgN, with the incentive set at a single level that will both exhaust the anticipated $45.5m fund and achieve

the 435 tN target. This has the deliberate effect of sharing the risk of achieving the 435 tN target between the farmers and the uptake of the incentive fund.

f. Operational factors need to be defined, including:
    i. RMA rules framework, especially transition from Rule 11, resource consent status, commencement dates, monitoring expectations (farmer and BOPRC), the compliance regime and provisions for N trading between landowners;
    ii. The design of the incentive fund, especially criteria and fund governance, focused on buying and retiring N;
    iii. Enabling NDA leasing to provide flexibility to farmer without permanent asset value loss;
    iv. Enabling nitrogen trading;
    v. Ensure the District Plan's TDR mechanism effectively complements the incentive fund e.g. by acting as an additional incentive for land use change that achieves reductions beyond NDAs. The scope for TDRs was explored at LWQS's symposium on 4 July 2013;
    vi. Further assessment of on-farm costs and expert assistance needed to achieve NDAs, and the role of industry Environmental Management Systems;
    vii. Encouragement of research, on-farm trials and innovation around low N loss farming and alternative land uses.

g. Robust progress reviews based on RMA statutory requirements, the Oturoa Agreement and evolving catchment and lake science research.

5. Current N loss status

The Collective does not share BOPRC's view that there is adequate information on the table regarding current N loss rates and areas. Relative to most NZ catchments, the Lake Rotorua catchment is data-rich in terms of ROTAN, Rule 11 database and Farmer Solutions Project analysis. However, there is uncertainty on current 2013 N loss levels and there are discrepancies in land use areas between different studies. It is suggested we know enough to debate and choose a broad direction on N allocation. In reality, the debate (for farmers) quickly turns on what areas and N loss rates apply, how they relate to current areas/loss rates and if/how they will meet RPS targets.

For this paper, a combination of FSP N loss rates and ROTAN land use areas is used. This gives an aggregate rural sector N loss of 485 tN, less than the 526 tN based on ROTAN (see Section 7 and Table 2 below).

6. Rationale for different incentive levels

Two main "per kgN" incentive levels are envisaged, with gorse conversion at a third and lower level of incentive applied on a per hectare basis.

Reductions to NDA levels will generally by "easier" and cheaper where they can be achieved by on-farm management changes i.e. generally excluding major on-farm infrastructure investment, farm system changes and land use change. NDA levels generally be beyond "good nutrient practice" for both dairy and drystock and therefore warrant a financial incentive "carrot". As noted above, a possible incentive level of $125/kgN will apply to NDA levels based on the expert panel estimates of 35 & 13 kgN/ha for dairy and drystock respectively. This incentive level can be adjusted (both kgN and $ values), provided it remains both a credible incentive and significantly lower than incentives for reductions beyond NDA levels. FSP identified relatively cost-effective mitigation practices on dairy farms, such as substituting imported maize feed for urea-driven pasture feed, at or below $150/kgN. At an incentive level of $125/kgN, it is inevitable that many farmers will have to bear some of the cost to achieve NDA levels.

The cost of mitigating each kgN tends to rise steeply once the easier farm management options are exhausted. This is especially true for drystock farms where, apart from tweaking the stock mix and male/female cattle ratios, major reductions can only be achieved by significantly lower stocking rates and/or conversion to trees. Therefore it is necessary to apply a higher incentive level for reductions beyond NDAs. In practice, this is likely to encompass:

- major dairy farm system changes and new infrastructure
- land use change, covering: dairy to low N lifestyle, and/or trees; drystock to trees.

The conversion of pasture land to trees is assumed in this paper despite FSP and anecdotal comment highlighting widespread farmer resistance to growing trees instead of livestock.

In practice, both levels of incentives can fully overlap. For this paper, they are separated to enable calculation of aggregate costs and N reductions.

7. Assumptions used

For the purpose of making progress, this paper assumes the following:

a. Pastoral land use is simplified to dairy and drystock, with the latter including dairy support and lifestyle blocks;
b. Current land use areas are taken from ROTAN (5050ha dairy; 16125ha drystock), even though Rule 11 benchmarked areas are lower, especially for drystock. This discrepancy is true even allowing for the difference between surface and groundwater catchment area i.e. there is about 4500ha additional in the ROTAN groundwater catchment.
c. Current average N loss rates are taken from Farmer Solutions Project i.e. 49 & 16 kgN/ha/yr for dairy and drystock respectively.
d. The viable NDAs used in this paper are: Dairy = 35 kgN/ha; Drystock = 13 kgN/ha, acknowledging this is not viable for dairy support and other more intensive drystock systems.
e. Groundwater lags and possible attenuation is ignored, although it is noted that ROTAN's assumed dairy and drystock N loss rates of 56 & 16 kgN/ha correspond to lake exports of 54.1 and 15.7 kgN when ROTAN sector load results are back-calculated.
f. Possible impacts of Overseer version changes are ignored, although it is acknowledged that the current version 6 increases N loss levels associated with higher rainfall, pumice soils and cropping (relative to versions 5.x used in Rule 11 benchmarking and FSP).

The Collective has not indicated a preference for sector average allocation. N loss sector limits are used in this paper for simplicity. If more sophisticated and later analysis applies a range of N limits within a sector, or a hybrid adjustment to account for grandparenting, this will not change the net result, provided the sector's weighted average remains the same.

The starting point, in terms of areas and N loss rates, warrants clarification because it affects achievability and the RPS "70% by 2022" target. It does not directly affect the ultimate RPS target of 435tN by 2032.

To clarify the possible starting point(s), ROTAN, Rule 11 and FSP values are summarised in Table 1 below:

ROTAN 2011	Area, ha	avg NL kgN/ha	N load tN
dairy	5050	54.1	273
drystock	16125	15.7	253
total pasture	**21175**		**526**
Rule 11 database (extrapolated)[2]			
dairy	5107	49.8	254
drystock	16448	16.3	269
drystock excluding dairy support[3]	(14252)	13.8	(196)[4]
dairy support[3]	(2196)	26.2	(58)[4]
total pasture	**21555**		**523**
ROTAN areas with Rule 11 avg N loss			
dairy	5050	49.8	249
drystock	16125	16.3	272
total pasture	**21175**		**515**
ROTAN areas with FSP avg N loss			
dairy	5050	45	227
drystock	16125	16	258
total pasture	**21175**		**485**
Reduction needed to meet 256 tN			229

Table 2: Summary of N loss rates and areas

The Collective considers that the final combination in Table 2 is the most rationale "current" estimate for policy analysis i.e. use of ROTAN sector areas (using the larger groundwater catchment, and avoiding the area coverage gaps in the Rule 11 database), and the FSP N loss rates as the most up-to-date figures of current N loss. This combination gives a current pastoral N load of 485 tN. To achieve the pastoral N target of 256 tN, the reduction needed from land currently in pasture (21,175ha in ROTAN) is 229 tN. In terms of the (ROTAN-based) 270 tN reduction target, 51 tN or 15% has already be achieved.

Nutrient best practice

It is also assumed that most farmers are close to nutrient best practice, at least in terms of the practices identified in Overseer and the fertiliser industry's Code of Practice e.g. matching N fertiliser use to pasture requirements, applying "little and often", avoiding winter and/or wet periods, adequate effluent application area etc. This is consistent with FSP interview findings, even though there will be examples where this is not the case. Overall, it is generally valid that N load reductions below the estimated current pastoral load of 485 tN/yr will require N mitigation beyond "best nutrient practice".

Gorse adjustment applied to pastoral reduction target

The estimated achievable gorse N reduction is about 30 tN[5] (Opus 2012). The Collective's view is that the pastoral sector N target should be adjusted from 256 tN to 286 tN. This is not a trivial change as the last tN mitigated will be the most expensive. Gorse N mitigation is very cost-effective.

[2] The areas are extrapolated from actual benchmarked properties to include non-benchmarked property within the Rule 11 surface catchment plus additional groundwater catchment outside the surface catchment boundary.
[3] The dairy support Rule 11 data is shown for completeness. The rest of the paper combines it with drystock.
[4] These loads are not summed as they are already accounted within the combined drystock load.

8. Analysis

Reductions to NDA levels

The use of NDAs set at 35 & 13 kgN/ha for dairy and drystock, and incentives of $125/kgN for reductions below current N loss levels (FSP's 45 & 16, as shown in Table 1), plus a 30 tN "gorse project" incentivised at $100/kgN (for gorse to trees), the following progress is envisaged:

Reductions to NDA levels				Incentives costs			
	Area, ha	NDA, kgN/ha/yr	N load, tN/yr		incentive	reduction from current N loss	cost
dairy	5050	35 (or 30-40)[6]	177		$/kgN	tN	$m
drystock	16125	13 (or 10-16)[6]	210	meet NDA	125	99	12.4
totals	**21175**		**386**	Gorse	100	30	3.0
gorse			-30		**subtotals**	**129**	**15.4**
net load			**356**				

Table 3: N load and incentive costs after meeting NDA levels and completing the gorse project

The net load of 356 tN is shown in Table 3 as a 129 tN reduction from the current load of 485 tN. However, it represents a 169 tN reduction from the 526 tN pastoral load estimated in ROTAN, which corresponds to a 63% of the overall 270 tN rural reduction target.

Further reductions to achieve the 435 target – the last 100 tN

Table 3 indicates that meeting NDAs will reduce aggregate N load by 99 tN from current levels, and includes an additional 30 tN from gorse conversion. The combined incentive fund cost is $15.4m i.e. using about one third of the total fund. This still leaves a further 100 tN reduction to be achieved with $30.1m. If a flat incentive rate is applied, this equates to $300/kgN.

It is difficult to predict how farmers will respond to mitigating beyond NDA levels, and many will regard an incentive around $300/kgN as inadequate. To test this, a future catchment land use scenario is suggested in Table 4 that has been manipulated to achieve an aggregate N load of 286 tN (the rural load target adjusted for the 30 tN gorse project).

land use	Area, ha	N leach	N load	Incentives to achieve 435		
dairy at NDA	2000	35	70	funds available		30.1
dairy below NDA	1500	28	42	reduction needed	100	
dairy to lifestyle	1050	13	14	incentive	reduction	cost
dairy to trees	500	3	1.5	$/kgN	tN	$m
drystock low NL	11000	13	143	300	100	30.1
drystock to trees	5125	3	15			
totals	**21175**		**286**	total incentive fund		45.5

Table 4: Potential future land use scenario to achieve 286 tN from land currently in pasture

[5] Based on Opus data: 864 ha gorse leaching 38 kgN/ha; 14% or 121 ha converted to drystock @ 13 kgN/ha; 86% or 743 ha converted to pines @ 3 kgN/ha; reduction from 33 to 4 tN or a net reduction of 29 tN.

[6] These suggested ranges are needed to reflect variable physical factors and/or grand-parent weighting, and would replace the single value NDAs provided the average of NDAs was equivalent.

The scenario illustrated in Table 4 is highly speculative. It does indicate one combination of mitigated dairy, drystock and land use change that is capable of meeting the target. Key points and justifications are:

a. 40% of dairy land continues at its NDA, 30% goes beyond NDA but stays in dairy at an average N loss of 28 kgN/ha. This latter figure was the low end of the expert panel assessment of viable dairying, has lower profit and requires major system changes and/or infrastructure investment.
b. 30% of dairy land changes land use, split between about 20% converting to "lifestyle" and 10% to trees. Given the profit and/or value loss, an effective TDR "top-up" incentive could be valuable in achieving this level of land use change.
c. 11,000ha or 68% of drystock land remains as drystock at NDA levels. It is not considered viable to mitigate beyond the NDA of 13 kgN/ha, so the additional reduction is assumed via drystock conversion to trees. Table 3 indicates over 5000 ha of such land use change. While FSP indicates a modest gap between average drystock profitability and a forest annuity income, the associated capital value loss is a much greater hurdle.
d. The emphasis on land use change to trees in Table 3 is a deliberatively simplified scenario for policy analysis purposes. Farmers have signalled a reluctance to invest in forestry. Innovative land use options (including alternative forestry species / regimes) that yield better profitability and cash-flow than conventional pinus radiata systems will be an important part of the land us mix.

Early reductions below NDA levels

Some landowners may proceed quickly to reduce N loss below NDA levels e.g. by land use change. Different farmers will make mitigation decisions at different speeds. The two main reduction groups (from "current to NDA" and "below NDA") are not sequential. This is important to allow landowner flexibility and to meet the 70% target by 2022 because the suggested NDAs (required by 2032 but incentivised as soon as possible) plus the gorse project still falls short with an aggregate 169 tN reduction or 63% of 270 tN.

Ability to meet the "70% by 2022" reduction target

RPS WL6B(c) states: *"...A catchment intermediate target for the managed reduction of nitrogen loss is to be set to achieve 70% of the required reduction from 746 t/yr to 435 t/yr by 2022".*

The 2022 intermediate target front-loads N reduction requirements. It applies to all reduction actions achievable by 2022, including engineering actions (50 tN) and gorse (30 tN). These are additional to post-2004 farm reductions, estimated at 51 tN in Table 2 (relative to ROTAN's current rural load of 526 tN), or 42 tN relative to 746 tN[7] in WL6B. 70% of 311 tN is 218 tN. The situation is summarised in Table 5 below:

Actions by 2022	tN reduction
Already achieved based on FSP	42
Gorse project	30
Engineering actions	50
subtotal N reduction	**122**
70% by 2022 reduction target	218
Further reductions needed from farms	**96**

Table 5: N reductions to 2022

[7] The 746 tN figure comes from the 2009 Rotorua-Rotoiti Action Plan, compared with 755 tN from ROTAN (2011)

Table 4 illustrated one combination of how the overall rural reduction target could be met by 2032. Similarly, there will be multiple combinations of farm land use and management changes capable of delivering the additional 96 tN reduction needed by 2022, based on the calculation in Table 5. For example, it would appear feasible that such reductions to 2022 could be evenly split between land use change and management change (including infrastructure investment), with farm N loss rates intermediate between now (45/16 kgN/ha for dairy/drystock, FSP) and the 2032 NDA levels (35/13 kgN/ha for dairy/drystock).

9. Risks and Benefits of the Collective's Approach

The Collective acknowledges that the draft policy outlined in this paper does not guarantee the 435 tN target will be met. This is because the mandatory NDA levels are set to maintain farmer viability, albeit at reduced profitability which in turn is offset (to varying degrees) by the $125/kgN reduction incentive. The consequent allocation sums to 386 tN, or 356 tN after adjusting for gorse reductions. Responsibility for achieving the balance of the required reduction – 100 tN – belongs with the incentive fund.

The risk of not meeting the 435 target (and 70% by 2022) needs to be contrasted with allocation schemes that may mathematically sum to 435 tN, but which are subject to risks of:

- Greater negative economic and social impacts on farmers and the wider community
- Greater likelihood of non-compliance such that the 435 target is not met.

Reducing the risk of not meeting the 435 target

A range of policy and practical initiatives can reduce the risk of falling short of the 435 tN target, or more specifically, the pastoral 256 tN component (286 tN after adjusting for a 30 tN gorse project). These are:

a. **Innovation** supported by expert advisory services will identify more efficient management and land use options than are currently available. Considering the nutrient efficiency improvements made in the past 20 years, it is reasonable to expect even greater gains given the considerable NZ and international research investments being made.

b. **Collaborative initiatives** to profile landowner intentions, particularly on land use change, and facilitate action e.g. for some forestry initiatives, linking suitable topography and access across different ownership will be important.

c. **Establish flexible investment structures**, notably forestry joint-ventures so that landowners can enjoy annual lease income (in lieu of some future harvest income) to encourage uptake.

d. **Support transferable development rights** as a top-up incentive to bridge the gap between asset value loss and what is possible from the public incentive fund.

e. **Adjust NDA and incentive thresholds** so that more funding is reserved for below NDA efforts. Given the NDA limits are already ambitious, the scope here is constrained but small adjustments may be possible.

Benefits of the Collective's Approach

The suggested Collective policy has the following advantages:

a. Significant farmer buy-in

b. A viable future for farming, albeit within tough NDA limits, with associated wider economic benefits and/or avoided costs

c. Transparency on incentive levels that will allow long-term decision making to start as soon as the policy is operative

d. It approximates an "equal effort" approach between farmers and will be seen as relatively equitable

e. It buys time to develop alternative land uses and more effective on-farm mitigation techniques.

The Collective policy provides a practical framework to achieve the catchment nitrogen and maintain rural sector economic viability and confidence to invest locally.

10. Policy areas needing further development

This paper is a working draft and needs wider input. Areas needing further work include:

a. Understanding potential policy impacts on Maori landowners and what particular opportunities need to be incorporated
b. Clarity on how 70% reduction from rural sources can be met by 2022
c. Allocation within NDA ranges that is logical and fair but avoids excessive complexity
d. Identify incentive starting thresholds e.g. good nutrient practice or current or benchmark?
e. Linking regulatory requirements in future RMA rules with recognised industry Environmental Management Systems (SMPs, LEPs) that are based on voluntary participation
f. How TDR integration will achieved
g. Transition from the current Rule 11 regime
h. Pragmatic minimum farm size thresholds for NDAs and requirements for smaller farms.

Appendix

COLLECTIVE RESPONSE TO DRAFT NITROGEN ALLOCATION PAPER

This note is the Lake Rotorua Primary Producers Collective's response to the draft allocation policy paper prepared for StAG's meeting on 18 June 2013. The views below are based on discussion at the StAG meeting and between Collective executive members.

Broad comment

1. The Collective appreciates the opportunity to have input to nutrient policy at an early stage – this is in the spirit of collaboration and the Oturoa Agreement. The paper usefully collates a large amount of information in one place.
2. This initial response is conditional. The Collective will need to consult with its wider membership. Given the complexity and wide range of possible impacts, both within and between different farm sectors, it is not possible to convey a single Collective view on many parts of the draft policy.
3. Nitrogen allocation policy needs to be developed and drafted with allocation policy. BOPRC expects an integrated package and so do farmers.
4. The Collective knows that very large reductions are needed in farm nitrogen losses in order to meet the RPS target of 435 tonnes by 2032, or 256 tN for pastoral land. This scale of N reduction will significantly lower profits and farm value with consequent economic and social impacts for the wider community. These impacts are not given nearly enough weight in the paper.
5. We need a creative collective approach to nitrogen allocation. The Collective understands that RMA policies and rules typically work at the individual property scale. Due to the scale of the reduction required in this catchment, we need to explore imaginative and collective ways of meeting the 435 tN target. The current approach risks setting farmers against each other.
6. The Collective understands BOPRC's urgency to develop policy but the current timeline risks alienating farmers, especially as the implications of allocation principles, let alone the details, are poorly understood at the farm and catchment level.
7. The current nutrient loss status of catchment farms is not well understood. Some farmers have up to date assessments (e.g. participants in the Farmer Solutions Project) but most do not. This means the aggregate situation is incomplete and individual farmers struggle to assess the implications of different allocation options. We don't know which farms are at "best practice" or what that means.
8. Lake and catchment science will continue to evolve. The scope for five and ten year reviews of the RPS and future regional plan provisions is noted within the Oturoa Agreement. Should the nitrogen target change, or the emphasis shift to phosphorus, nitrogen allocation policy will need to adjust and the paper should reflect that potential.

Specific comments

9. **Economic and social impacts:** The draft paper does not acknowledge the major economic contribution to the District economy from farming in the Rotorua catchment. In contrast, too much weight is given to dated tourism analysis and the implied adverse effects on tourism from poor lake water quality, especially in light of the much improved TLI. Farming typically provides higher value jobs than either tourism or forestry. The paper does refer to the Farmer Solutions Project's (FSP) estimate of total costs of $88m. It should also note the additional FSP estimate of aggregate sheep and beef farm value loss of $35m.
10. **Hybrid option status:** The paper accepts a hybrid allocation model is possible (section 5.1) but the emphasis is mainly on a choice between grand parenting and sector average allocation. It needs to be clearer from the outset that a hybrid option is equally valid.

11. **Nitrogen trading:** The indicative low nitrogen allocation levels means there will be little or no nitrogen available to trade between farms. Both dairy and drystock farmers will have lower profits and little ability to purchase nitrogen, especially in competition with a comparatively wealthy incentive fund that is actively seeking to retire nitrogen permanently.
12. **Drystock N loss of 7.7 kgN/ha is not possible:** It was clarified at StAG that BOPRC understands this N allocation level cannot be met within a viable drystock farm. This leaves a choice to either exit (and sell N) or buy N up to viable level, despite the difficulty of achieving this (see point 11 above).
13. **Initial allocation and transition unclear:** The paper focuses on the 2032 nitrogen allocation for land currently in pasture. It is not clear what nitrogen allocation will apply prior to 2032, including in the near future. Farmers currently have a Rule 11 based allocation – will this continue or be modified, and how?
14. **Good nutrient practice meaning:** The paper is confusing on the nature of good or best nutrient practices. Some farms with higher N losses may be using good practice but be an intensive dairy system yielding good profit per kg of N leached. Some farms with low N losses may simply be under-developed with very low profit per hectare. In the context of N allocation, it makes more sense to refer mainly to low or high N loss levels, or numeric levels. N loss levels will vary in part due to factors outside farmer control i.e. soil, slope and rainfall. How will this be incorporated?
15. **Gorse:** It was clarified at StAG that gorse will be tackled via incentives and the Collective supports that. Therefore the achievable gorse N reduction (about 30tN) should allow the pastoral sector N target to be adjusted from 256tN to 286tN. This is not a trivial change in the Collective's view.

The Collective's preferred approach

16. The Collective does not support either grand parenting or sector averaging. There is some support for a hybrid approach that combines elements of both but it would be very difficult to define a hybrid acceptable to most Collective farmers. Expanding on point 5 above, we prefer a fundamentally different approach to nitrogen allocation – key elements are:
    a. Determine a range of low but viable "optimal" N loss limits for dairy and drystock that account for factors outside farmer control;
    b. Assess the on-farm costs, expert assistance and timeframe to achieve those levels;
    c. Design a voluntary incentive fund and TDR mechanism to buy and retire N as cost-effectively as possible, aiming for the "70% in ten years" target;
    d. Encourage research and innovation on low N loss farming and alternative land uses;
    e. Review progress after 10 years.
17. This approach does not provide the apparent certainty of an allocation that sums strictly to 435tN (or 256tN for current pastoral land), such as provided by the grand parenting and sector averaging approaches in the staff paper. The Collective's preferred approach also requires cooperation among farmers to determine optimal N limits that effectively share the burden. However, an approach that has wide farmer buy-in and an ability to optimise economic benefits is more likely to meet the ambitious 435 tN target than an allocation based on non-viable limits and heavy reliance on farmer to farmer N trading.
18. More time is needed to develop the Collective's preferred approach. The same is true for even the "simple" grandparenting and sector approaches in the draft paper, especially impacts on actual farms. In the short term, this will limit StAG advice to BOPRC's Strategy, Policy and Planning Committee to advice on core allocation and funding principles, based on StAG progress and consensus to date.