

Report to the Collaborative Stakeholder Group – for information

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To: Collaborative Stakeholder Group
From: Helen Ritchie, CSG Independent facilitator
Subject: **CSG approach to managing nitrogen**
Section **For Information**

Disclaimer

This report has been prepared by CSG independent facilitator for the use of Collaborative Stakeholder Group Healthy Rivers: Wai Ora Project as a reference document and as such does not constitute Council's policy.

1 Purpose

This report tracks the development of the CSG approach to managing nitrogen up to May 2016. This record is to support the deliberations required for CSG to make decisions on this matter in order to finalise the Plan change.

Recommendation:

1. That the report '**CSG approach to managing nitrogen**' (Doc #6308127 dated 26 May 2016) be received.

CSG approach to managing nitrogen

Paper prepared by CSG Independent Facilitator 26 May 2016 for CSG information

Overview

CSG has looked at many options for managing nitrogen since September 2015. Initially, an 'Overseer subgroup' recommended to CSG that a property-level limit for N would be best suited for Stage 2 of the process (i.e. to delay setting property-level limits for N in this Plan change period). In October 2015, CSG consulted with the community about a 'no more than 10% increase' rule. Having received feedback on that option, other ideas to control increases in discharges were explored, including a moratorium on conversions, a matrix of non-complying land use change, a 'no increase in any discharge' rule, and a graduated range of percentage reductions.

In March, the Policy Mix document CSG had agreed was presented to the Healthy Rivers Wai Ora committee. It contained policies about holding and reducing contaminants. In terms of rules, it contained Rule 2 constraining major land use change, and Rule 4 which contained the concept of bringing back pastoral emitters over the 75%ile for N loss. Those below 75%ile were to 'hold and reduce using Good Management Practices'. Feedback was provided by some committee members that CSG needed to be sure of hitting its 10% targets and not continuing the 'permissive approach' of the current regional plan.

As further discussions occurred in sub-groups, CSG members sought to provide for some flexibility for Maori land, and yet to deliver a Plan change that would be considered robust enough under the requirements of the National Policy Statement: Freshwater Management 2014. The perspective was expressed that 'caps' on land use would be required to deliver on 'limits' in the water. Furthermore, as some pastoral farmers would be undergoing significant change in their farm systems in order to meet the '75%ile' cap, it was seen to be important to restrain others from increasing discharges. A further piece of feedback from the Technical Leaders' Group was that unless the Plan change contained a regulatory mechanism to cap N increases, the TLG would not model that as part of the policy mix simulation (instead, current trends in increasing N loss would be modelled).

Consequently, the recommendation came back to CSG from the sub-group process for a framework around managing N that included: specific nitrogen rules (Establish N Reference Point; hold and reduce using 5-year rolling average; 75%ile come down) + Rule 2 (land use change) + Rule 8 (Maori land use change) + Rules 4-6 (farm environment plans). This was taken back to CSG25 on 5th April 2016. Subsequently, at CSG26, vegetable growers' minimum practices were added to this package.

At CSG27 on 9th May, CSG members expressed concerns about the above approach. In combination with other matters (such as offsets policies for diffuse sources developed in parallel through the plan drafting sub-group, and a lack of definitive dates for the transitional period to end), CSG members were anxious that this framework for managing N was too closely aligned with a 'grandparenting' approach and was overly restrictive of flexibility for lower emitters. The suggested package was not seen to adequately reflect the intent of CSG to send signals to higher emitters that they had to reduce more, to reward those emitting less, and to avoid allocating in the first Plan change period while transitioning to a future allocation framework.

Further additions have been suggested at sub-groups in May to policies to clarify that reductions in the first period should be commensurate with the level of loss (i.e. those emitting more need to make more reductions) and to add a link to the 10% water targets into the policy about vegetable production.

At CSG28, modelling information will be made available to CSG regarding whether the current policy mix is likely to achieve the '10%' targets for the water. In light of this information, CSG will need to determine the way forward for managing nitrogen as well as other contaminants. The challenge will be to find a solution that manages nitrogen across the spectrum of N loss, across all sectors, in order to provide assurance of meeting water quality targets while reflecting CSG intent for proportionate reductions, and providing for flexibility as the CSG deems appropriate.

The information collected here tracks the history of CSG ideas for N management to aid in these deliberations.

History

When	Where	What
Sep-Nov 2015	Overseer sub-group meetings	<ul style="list-style-type: none"> • Looked at how to achieve reductions in nutrients and best use of Overseer tool • Recommended not setting property level limit to make reductions across the board as many mitigations are outside Overseer and tool does not work well for all sectors • Recommended getting reductions in N from highest emitters in the first period; others to make reductions by putting Good Management Practices (GMPs) in place • Overseer to be used to inform farm plans and find reductions from highest emitters • Property level limit to be part of 2nd Plan change to bring about further reductions • If no numerical limit set for first Plan change, considered that properties would still have to benchmark and would have to reverse any increases in second phase of Plan change when property level limits came in
Oct 2015	Community engagement period	<ul style="list-style-type: none"> • Consulted with community on: <ul style="list-style-type: none"> ○ '< 10% intensification' rule ○ Using farm plans in first stage of change and moving to property level limits in second stage of change
Nov 2015-Jan 2016	CSG workshops	<ul style="list-style-type: none"> • Considered feedback from community and sectors – 10% intensification could be too much; does not reflect seasonal variability and adjustments to stocking for drystock; want to see a moratorium on conversions... • Developed the matrix of land use change showing which land uses could change
Feb 2016	Sector engagement	<ul style="list-style-type: none"> • Sector engagement on matrix of land use change
Feb-Mar 2016	CSG workshops	<ul style="list-style-type: none"> • Considered feedback from sectors – matrix complex and hard to deal with mixed land use • Discussed different options for managing N and land use change including 'Any increase in discharge to be non-complying' • Settled on Rule 2 focusing on specific changes • Set N benchmark years as 14/15 & 15/16 • Considered scaled % reductions for N
22 March	Policy Mix document	<ul style="list-style-type: none"> • Policy 15.4 'Avoid increases in discharges'

2016		<ul style="list-style-type: none"> • Policy 15.6 ‘Make reductions’ • Rule 2 prevented major land use change • Rule 7 established benchmarking years • 75%ile appeared as part of Rule 4 • For those below 75%ile, N to be managed through specified GMPs for farm plans
23 March 2016	Property plan sub-group	<ul style="list-style-type: none"> • Considered feedback from HRWO committee – are you sure you will hit your 10% mark? Iwi concerned about permissive approaches • Suggested to establish Nitrogen Reference Point and not to allow an increase (using 5 year rolling average) • Dry stock sector sought flexibility around this • Needs more definite transition period and clarity allocation will replace this approach • Suggested moving 75%ile cap into Rule 7; suggested to establish it using dairy data per FMU and then apply to all pastoral • Seeking % reduction from vegetable growers
1 st April 2016	Maori land sub-group	<ul style="list-style-type: none"> • Discussions around a Plan change without limits on the land – question if it would be NPS compliant (need to show how you are going to achieve the target in the water) • Concern if there is no ‘hold’ on other land while seeking further increase for Maori land
1 st April 2016	Property plan sub-group	<ul style="list-style-type: none"> • Concern about requiring 75%ile to come back while others could be going in opposite direction • Agreed to take suggestions about N rule to CSG; look at how it will work for different sectors (horticulture reductions, drystock rolling average); move 75%ile out of Rule 4
4 th / 5 th April 2016	CSG25 workshop	<ul style="list-style-type: none"> • Property plan sub-group report in agenda pack; report back on April 5th suggested the no increase (hold the line) on 5-yr rolling average approach; drystock request for flexibility for switching stock types; need to show this is interim; how to set the 75%ile; proportionality discussion (bell curves); clarify if you retire areas in your property you can intensify on other areas if you stay below cap. • Discussion of appropriate approach to get reductions from vegetable production • Agreed to avoid ‘benchmarking’ terminology • TLG policy simulation assumptions discussed - without a control on N increases they would

		<p>not model a 'hold N' scenario.</p> <ul style="list-style-type: none"> CSG25 notes – 'Want to include a provision for no increase from your benchmark year (on a 5-year rolling average basis'
12 th and 22 nd April 2016	Property plan sub-group meetings	<ul style="list-style-type: none"> Discussion on aligning dates – suggestion that after reference point date (July 2018), cap on N applies; default if not at 75thile is to hold and make reductions (PA rule) 75thile people to have plan in place by 2020 (they join Tranche 1) showing how they will get down by 2026 Vegetable sector brought back a proposal for practices that all growers would be required to adopt to reduce nutrients and sediment
28 th / 29 th April	CSG26 workshop	<ul style="list-style-type: none"> Report back from Property Plan sub-group explained approaches for those above and below 75thile. Included recommendation to draft a rule for those below 75thile to hold and decrease on a 5 year rolling average – passed as a resolution on 29th April Vegetable growers' minimum standards presented and this approach endorsed – confirmed they need to establish a N ref pt.
9 th May	CSG27 one-day	<ul style="list-style-type: none"> Concerns raised about whether rule framework reflected intent; capping in first stage = grandparenting; offsetting for diffuse discharges sounds more like allocation has occurred; not sending right messages about those emitting more needing to come back further; flexibility for those with lower losses
17 th May	Property plan sub-group meeting	<ul style="list-style-type: none"> Noting N hold and reduce and 75thile now not in Rule 7 – incorporated into Rules 5&6 Discussion on concerns around N approach Concern about what 'land suitability' will mean for managing N in Upper Waikato FMU Drystock sector feedback paper received – alternative idea for more flexibility at low end Discussion about how to allow flexibility and meet 10% target and make allowance for Maori land in an over-allocated catchment Policy and implementation staff feedback paper received – concern about a 'Taupo style' N rule being applied at this scale – presented Option 1 – treat N same as other contaminants or Option 2 – using Overseer to hold people to a number – concerns about

		<p>how to monitor and enforce this option</p> <ul style="list-style-type: none"> • Recommended option to monitor either against a list of actions to reduce N in farm plan OR against an Overseer number demonstrating no increase i.e. Option 1 plus 'good data capture' • Recommended removing offsets policy for diffuse discharges and ensuring allocation principles are well defined; Stage 1 interim.
20 th May	Property plan sub-group meeting	<ul style="list-style-type: none"> • Further consideration of how N approach relates to Schedule X: Requirements of a FEP • Add 'alternative method or model' to options alongside Overseer • Vegetable producers - required GMPs incorporated into Schedule X • Further discussion about approach to vegetable growing – recommend to include in Policy that there will be a reduction, linked to the 10% targets in water

Helen Ritchie

CSG independent facilitator

Appendix

Meeting notes on this topic since Policy Mix presented 22 March 2016

March 23rd Property Plan sub-group

Excerpts from the notes

4. Messages from Healthy Rivers Wai Ora Committee, 22 March 2016

- Want to know we'll achieve 10% in 10 years (what assurance can CSG provide the plan change will achieve this)
- Clarify interim targets
- Iwi are concerned about permissiveness of the plan (what can CSG build in to show that we can make progress)

11. Nitrogen

Vegetable/Arable/Horticulture – cap, numeric (10%? X% reduction in root zone N loss across section),

Pastoral – Cap? Dairy 75thile (per FMU)

Build this into Rule 7 –

- required to benchmark,
- no increase (hold the line) in 5 year rolling average.
- Those over 75thile must reduce to 75thile. (per FMU)
- 75thile cap to be set by dairy but then apply to all pastoral land users

Start point is 2 base years 14-15, 15-16 (everyone start here) – no increase in rolling average over 5 years (until allocation system based on land suitability principle is defined).

Rule needs to be interim measure e.g. put an expiry clause in the plan to ensure that this hold the line policy does not go on past this plan change. Linked to allocation principle - need clear reference in the plan change to put in place an allocation system based on land use suitability. Reinforce CSG's requests to WRC to ensure the development of this allocation system over the next 5 years.

The dry stock sector spoke of the need for flexibility to adjust their systems according to market dynamics which could see some changes in N loss rates due to shift of stock class from year to year. Request for a flexibility range e.g. plus or minus x% or x units of Nitrogen per ha per year. Discussion as to whether the concept of rolling average covered this idea.

Removing effective hectares (e.g. setbacks, retired areas) – confirmed concept would be that if you do this after benchmarking you can intensify elsewhere on other land within your property

April 1st Maori Land sub-group

Excerpt from the notes

Discussion on Policy Option 3 for Maori land

- It has no limit and therefore not NPS compliant – no assurance we will keep within the limit in the water
- All options that are NPS compliant create a cap. If cap and have a resource consent application process then come under the RMA provisions – first in first served regime.
- Our current ‘caps’ in the Policy Mix
 - Cap in water (targets)
 - 75%ile
 - Hold current N & make reductions via GMPs
 - Rule 2 = certain land use changes capped
- Modelling will show impact of high, medium and low range scenarios on our water limit
- When we get the results from TLG we have to see if we need to ‘cap’ how much change occurs via this pathway

April 1st Property Plan sub-group

Excerpt from the notes

2. *Recap on where we got to last meeting*

- Property plans benchmarking (everybody above low intensity)
- No increase from your benchmark year (14/15 and 15/16)
- GMPs, rolling 5 year average, 10 year sunset clause, until allocation – based on land suitability
- 75%ile for pastoral use – discussion over doing this per sector or using dairy sector to set
- Agreement from group at last meeting was to set using dairy sector benchmark data, and then apply to any pastoral use
- Horticulture making a reduction %N – to be discussed further
- Using 75%ile and benchmarks - not setting number now but collecting data (aim for 100% dataset) – set per FMU and use clear protocols for benchmarking
- Note - Cultivation on non-hort land (is much greater extent than vege cropping – 5X)
- N flexibility requested for dry stock – to be raised at CSG

Summary of agreements from the day

Take suggestions about N rule to CSG on Tuesday; look at how it will work for different sectors (horticulture reductions, drystock rolling average)

April 4/5th CSG25

Property plan sub-group report back on April 5th

Written report in Agenda pack contains the following on p153

6 Nitrogen rule

Build this into Rule 7 –

- Required to benchmark
- No increase (hold the line) in 5 year rolling average
- Those over 75%ile must reduce to 75%ile (to be set per FMU)
- 75%ile cap to be set by dairy benchmarking but then apply to all pastoral land users
- Suggested rule “for pastoral use, you must be below x number (75%ile?), and demonstrate reduction in N loss overseer of x% through GMPs”
- Not setting the cap now as a number - 75%ile to be defined using data collection for 14/15 and 15/16 years from dairy, and then apply to all pastoral
- Vegetable/Horticulture– cap, numeric (10%? X%?) reduction in N loss across sector
- Discussion of use of benchmark years and 5-year rolling average to show no increase/ some decrease – drystock request flexibility to increase within a fixed range to reflect that if they switch stock class their number goes up (e.g. dairy grazers)
- Rule must be clearly interim (sunset clause) and linked to allocation based on land suitability principle
- Removing effective hectares (e.g. setbacks, retired areas) – confirmed that if you do this after benchmarking you can intensify on other land within your property

And summary on p155:

<p>7 Nitrogen benchmarking</p>	<p>Expand this rule – 75%ile to come in here as well as benchmarking; + clarify if you are under 75%ile you cannot increase from benchmark years and you make reductions via sector GMPs. Rule must be clearly interim (sunset clause) and linked to allocation based on land suitability principle. Rule should also cover removing effective hectares (e.g. setbacks, retired areas) – if you do this after benchmarking you can intensify on other land within the same property.</p> <p>Build into Rule 7 –</p> <ul style="list-style-type: none"> • Required to benchmark • No increase (hold the line) in 5 	<p>Dairy request not to set figure now as industry data collected on proviso it would not be used for regulatory purposes – propose to collect data for benchmarking years and then set the 75%ile cap using that.</p> <p>Discussion of use 5-year rolling average to show no increase/ some decrease – drystock request flexibility to increase within a fixed range to reflect that if they switch stock class their number goes up (e.g. dairy grazers).</p>
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	<p>year rolling average</p> <ul style="list-style-type: none"> • Those over 75%ile must reduce to 75%ile (to be set per FMU) • 75%ile cap to be set by dairy benchmarking but then apply to all pastoral land users • Not setting the cap now as a number - 75%ile to be defined using data collection for 14/15 and 15/16 years from dairy • Vegetable production – cap N + numeric (10%? X%?) reduction in N loss across sector 	<p>Discussion of appropriate reduction to require of commercial vegetable grower.</p>
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Recommendation from this report included that the CSG discuss and confirm:

a) the suggested approach to the Nitrogen rule, as outlined in Sections 6 and 7 of this report

Discussion included drawing pictures of ‘5 year rolling average’ and ‘proportionality bell graphs’

CSG25 Notes were passed at CSG26 and contain the following comments:

From p72 in agenda pack for CSG26

- Want to include a provision for no increase from your benchmark year (on a 5-year rolling average basis)

From p75 in agenda pack for CSG26

Hold the line

- Look at N-data gathering year
- Don’t use ‘benchmarking’ terminology

April 12th Property Plan sub-group

Excerpt from the notes

Discussion on alignment of dates

- For Rule 7 all reference data will need to be collected by July 2018. Regulatory measure comes in immediately - is a property level cap on N. The default if not at 75th percentile will be hold and decrease. Isn’t a rule for this yet in the policy mix.

- Can we draft a reduction of N into the PA. If you can't make the reduction then you go into a consent and there's various ideas of what category this is.

April 22nd Property Plan sub-group

Summary of where we have got to includes the following:

Rule 7	Reference point for N if above 75 th ile (N loss/ha)	Establish N reference point	By July 2018
		Hold (5 year rolling average) and reduce via GMPs	Ongoing
		If above 75 th ile join Priority 1	July 2020
		Come back to 75 th ile	By July 2026

April 28/29th CSG26

Property plan sub-group report on Page 42 of agenda pack

1. Nitrogen can be held¹ and managed downwards once the nitrogen reference data is gathered

- Because OVERSEER can model farm-level nitrogen outputs, it is possible to put a kg/ha/year threshold in the rules, and require anyone above that threshold to reduce. This can be applied to the highest nitrogen leaching pastoral farms using a concept of 75thile.
- To ensure farms with nitrogen leaching below that threshold do not creep upwards in the life of the Plan, rules could 'cap' nitrogen (allowing a five year rolling average to allow for seasonal fluctuations).
- Further discussion on definitions and which rules contain the nitrogen cap and reduction aspects – currently listed under Rule 7.

Appendix 1 on Page 47 of agenda pack (right-hand column) says:

¹A CSG sub-group discussed this topic at length in late 2015, and concluded that "For the 2016 plan change, on balance, the sub-group believe it is not necessary or desirable to use an 'absolute' Overseer number. However, the sub-group did see benefits in considering a numerical Overseer limit in future plan changes, as it gives the public a sense of certainty that water quality limits will be achieved.

The first stage toward achieving the Vision and Strategy will need to deal with implementing the new catchment rules and the considerable task of getting property plans in place across the catchment.

If we take a staged approach to nutrient reductions, but don't choose a numerical Overseer limit for nitrogen, this assumes:

1. There will be mechanisms that control further intensification in the first stage e.g. rules to stop the upward creep of nutrient.
2. All properties will still have to create a benchmark record of their inputs and outputs (for instance, as at 2016) so that there won't be an intentional intensification push in the interim period to 'beat the system'. " Waikato Regional Council 2015. CSG subgroup: Managing nitrogen and phosphorus at a property-level. Agreement and Approval report to CSG. Doc #3574906 dated 9 October 2015

- The default for those below 75th percentile will be hold and decrease. Plan drafting - ensure there is a rule about this.

Recommendation from this report that was passed as a resolution at end of Day 2:

Recommendation:

2. That the report [Update from Farm Environment Plan CSG Sub-group] (Doc #3774338 dated 21 April 2016) be received, and
3. That the Collaborative Stakeholder Group (CSG) confirm that:
 - a. The summary of progress to date from meetings on 12th and 15th April in this report, and the verbal update at CSG 28-29th of a meeting on 22nd April, provides sufficient information for the CSG to direct staff to finalise Plan Change provisions (objectives, policies, rules and non regulatory methods) that relate to Farm Environment Plans.
 - b. The CSG will consider and make any changes to the Plan Change provisions for Farm Environment Plans, at their next CSG meeting on 9 May.

May 9th CSG27

Excerpt from draft notes (included in agenda pack for CSG28)

- Gap between intent & wording – intent = not grandparenting, do want land suitability – rule now ‘hold the line’ – does look like grandparenting, offsets – also implies we are allocating – land use suitability needs definition – clear direction
- Locking in land use/grandparenting was meant to be interim but now looks like its very fixed. How will ‘holding the line’ be measured accurately? Overseer variable – is it fair? Wrong drivers – land values affected – telling the whole middle sector to continue on – not the right direction

Balance ‘grandparenting’ and future allocation

- Develop land suitability definition/concept more clearly in this plan change. Link more clearly to it/ develop clearer idea of end point
- Farm plan needs to let farmers know what’s coming – reduce loads; where it’s heading – fair warning ‘Everyone needs to reduce, unless you are right at the lower end, so come up with a plan about how you’ll do that’ Policy 2 + 7 add ‘& sub-catchment’
- Is there something that should apply between 50 & 75%ile? (moderate pressure) – 25 -50%ile (lower pressure) Plus sub-catchment target gives indication.

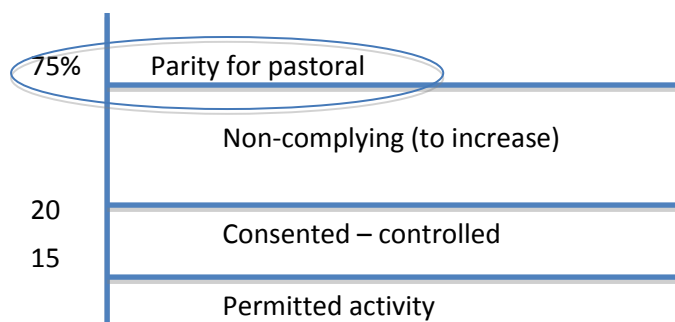
May 17th Property plan sub-group

Excerpt from notes – included in agenda pack for CSG28

Clarity of Intent – what do we want to achieve through our rules and policies

For this interim period, provide the right signals to get everyone moving in the right direction, signal allocation principles to come, proportionality – highest emitters do more, provide assurance we are managing contaminants down. Not allocating, not trading, not grand-parenting. Are considering Maori land flexibility now and on-going.

3. Feedback on draft plan change from beef and sheep - constructive way forward (refer to handout from James #XXX)



Feedback:

- a. Provides for flexibility
- b. Concerned that it provides a 'pollute up to' level
- c. Concerns that this proposal would result in more N loss to the river than currently proposed.
- d. Noted that we have over-allocated catchments and that it will take a long time to achieve the V&S

Agreements:

Keep overseer for reference point

- i. Use version 6.22 – rationale: need consistency for comparisons – note upgrade of overseer is due.

Agreed not to extend reference year options at this time

Agreed to keep N reference point for catchment accounting

- ii. How then do we hold and reduce?
- iii. How often do you need to produce data?

Reporting on annual basis on actions and overseer output but not enforced on your overseer number (refer to option 1 in paper #6209361 but with good data collection)

Identify core actions to bring nitrogen down, use overseer as a reference tool that would require using it regularly.

Rule 7 is a one off referencing – once allocation is in place then NRP and rules will change as a consequence of introducing this allocation. Allocation description clarifies that it will replace the 'hold and reduce' against reference point. Further work to be done on dates once we have this paper back in CSG.

Agreed: Policy wording to clearly signal degree of reduction (shall not increase) to be commensurate with rate of current discharges (i.e. if higher, come down more) and scale of reductions required in that sub-catchment.

Sub-catchment limit can't be attributed to individual properties however it sends a clear signal of what reductions are required, and it is the start of the FEP

Agreed: Recommend to CSG farm plan to demonstrate how 'hold and reduce' being done. Which can be EITHER a list of actions to reduce N OR annual overseer budget (N file).

May 20th Property plan sub-group

Excerpt from notes – included in agenda pack for CSG28

- Add 'alternative **method** or model approved by CEO' [as an option alongside OVERSEER]
- Put into policy 5 (vegetable policy) something along the lines of REDUCE and tie back to target of 10% of the way in 10 years