

28 May 2020

The Chief Executive
Waikato Regional Council
Private Bag 3038
Waikato Mail Centre
Hamilton 3240

Dear Vaughan

Plan Change 2: Taupō Overseer

To provide some context for the CNI Iwi Holdings Limited (CNIHHL) submission on Plan Change 2, we include some background on the Settlement.

As part of the settlement of the historical claims of Iwi the Central North Island, CNI Forest Lands were vested in CNI Iwi Holdings Limited (CNIHHL) on 1 July 2009, to be held in Trust on behalf of all beneficiaries of the CNI Iwi Collective (in excess of 100,000 people), consisting of:

- i. Ngāi Tuhoe; and
- ii. Ngāti Manawa; and
- iii. Ngāti Rangitihī; and
- iv. Ngāti Tuwharetoa; and
- v. Ngāti Whakaue; and
- vi. Ngāti Whare; and
- vii. Raukawa; and
- viii. The Affiliate Te Arawa Iwi/Hapu

CNI Iwi Land Management Ltd (CNIILML) is a wholly owned subsidiary company of CNI Iwi Holdings Limited (CNIHHL). CNIILML manages the CNI Forest Lands on behalf of CNIHHL and advances the objectives of CNIHHL in accordance with the Deed of Settlement.

CNIILML is charged with ensuring that the economic potential of the CNI Forests Land is developed and maximised to the fullest extent possible, but in a sustainable manner and having regard to the cultural and environmental features of the land. As a prudent land owner CNIHHL aspires to spread its income risk, by having a range of land use activities, which create a diversified income portfolio. Currently the CNIHHL land is heavily exposed to a long term tree crop (monoculture plantation forest) with a consequential exposure to all the risks associated with a single use.

The land returned in 2009 was encumbered with Crown Forestry Licences which progressively terminate over 35 years, ending in 2045. Nearly 15,000 Ha of this land is in the Taupo catchment.

While CNIHHL understands that Waikato Regional Council sees Proposed Plan Change 2 as being a technical fix to allow for the continued use of Overseer, this Change also appears to have policy implications that are detrimental to CNIHHL, including a rule change to an exceedingly constrained pathway for changing land use on Settlement land (from controlled to non-complying). These will serve to perpetuate historic impediments to development. Waikato Regional Council appears to be

alert to aspects of this issue and intends to address it in a subsequent related Plan Change that will provide an opportunity reconsider the allocation process more generally. There appears to be quite a hiatus between Plan Change 2 which creates a material reduction in the position of CNIHL, and the signalled further change.

CNIHL's recent experience in the Bay of Plenty regarding the allocation of N leach is that to seek any gains in allocation is a very expensive exercise. This means that any existing allocation is of great value.

Past use of this Settlement land has not contributed to the water quality issues that Plan Change 2 seeks to address. The role of Settlement Land to offsetting the discharge of contaminants from other developed land has not been adequately recognised or accounted for.

Thank you for the opportunity to present our concerns via the submission process.

Please find attached CNI Iwi Holding Limited submission on Plan Change 2.

NAME AND CONTACT DETAILS	ADDRESS FOR SERVICE OF SUBMITTER
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I am directly affected by an effect of the subject matter of the submission that:

- adversely effects the environment, and
- does not relate to the trade competition or the effects of trade competition.

I could not gain an advantage in trade competition through this submission.

I wish to speak at the hearing in support of my submissions.

If others make a similar submission I will consider presenting a joint case with them at the hearing

Yours sincerely

Emailed 28 May 2020, hard copy to follow.

Alamoti Te Pou

General Manager CNIILML

Annex A - CNI Submission on Proposed Waikato Regional Plan Change 2 – Taupo Overseer

Section number	Support /Oppose	Submission	Decisions sought
Entire Plan Change	Oppose	<p>Background WRC advises that its review of Chapter 3.10 of the WRP will be done in two stages:</p> <ul style="list-style-type: none"> • Stage one – called Plan Change 2 (PC2) - is to provide for the use of updated versions of the Overseer farming model in Taupō land use consents and for associated nitrogen trading contracts, and • Stage two to address other Chapter 3.10 matters. <p>PC2 has been presented to potentially affected parties as being a targeted plan change to fix a technical issue, that being to enable a transition from one Overseer version to another (online) version.</p> <p>Although a broader Stage two is flagged as occurring sometime in the future, no details on when this will occur are provided.</p> <p>Changes as a consequence to the change to in Overseer version that occur in PC2, such as the withdrawal of 14 Tonnes of N allocated to low leaching land, are therefore in a hiatus of unknown length before these are (potentially) addressed in Stage 2.</p> <p>The s32 report identifies that the Objectives and overall policy framework of Chapter 3.10 are not being changed. The purpose of the Plan Change is to make changes to the plan in order to maintain the existing policy directions which have been developed to achieve the objectives and thereby continue to achieve the purpose of the Act. However it is hard to see how the changes that are proposed are consistent with Objective 4 and Policy 1, Policy 3 and Policy 14 of Chapter 3.10.</p> <p>The Overseer model is used by the Plan to estimate N leach from various pastoral activities to support the Plan’s purpose of reducing N leach to the Lake by 20%.</p> <p>The PC2 Section 32 report notes that if different Overseer versions are used at the same time it would not be possible to determine when 20 percent of the catchment nitrogen had been removed. Put</p>	<p>That WRC revise PC2 to constrain the use of Overseer to be a decision support tool, and to cease the use of Overseer as the tool or mechanism to support N leach catchment accounting or N leach trading.</p> <p>That WRC revise the section 32 report to:</p> <ol style="list-style-type: none"> 1. accurately identify the risks associated with locking proportionality of the Overseer model 5.4.3 to the current land uses while using Overseer FM and 2. accurately describe the policy effects for the plan provisions of PC2. Among these adverse effects are: <ul style="list-style-type: none"> • removing options for land use change for Maori land owners • changing the proportionality of N leach capacity between land uses in a way that further disadvantages low leach land uses.

another way, if different Overseer versions are in use the absence of a common denominator makes it impossible to sum modelled N leach reductions.

The s32 report also considers that the benefit of requiring the use of a single version of Overseer provides certainty for farmers to facilitate business planning, and also establishes a level playing field to allow for equitable nitrogen trading to occur – between the pastoral land uses that Overseer FM models.

CNIILML notes that the units used for N allocation in the Plan need to be:

- (1) **absolute** - to enable measurement of the 20% reduction required by the Plan, and
- (2) **accurate** - so that the N leach units are stable over time and can be used for different land uses. This would ensure that all land uses are first aware of their N leach reduction obligations and second can participate in the trading regime.

Difficulties with the approach taken in PC2 arise because:

1. The Overseer model does not provide absolute numbers. It models:
 - a. relative numbers (comparisons between different pastoral land management options)
 - b. to the bottom of the root zone (What happens between the bottom of the root zone and the lake is not known),
 - c. for some land uses only (it models horticulture poorly and does not model plantation forest).
2. Overseer has not been able to provide numbers that are accurate. This is apparent due to the significant changes over time in the model's predictions for N leach from pastoral land use despite no change of intensity of that use.

The Overseer model provides *precise* numeric outputs for each of its iterations, but different versions provide quite different outputs. I.e. instantaneous precision is not the same as making predictions that are accurate over time. This means that the proportional contribution of N leach between pastoral land uses (and between properties) is modelled differently over time, even though the nature of the activities are unchanged.

WRC trialled using the original benchmarking data and then trying to account for the trading in a numerical and proportional way. In both cases the resulting allowances modelled in OverseerFM (based on original data) showed significant skewing (where some landowners could increase intensity and

others would have to decrease intensity). Other changes to the model, such as the new methodology around stock entry and mapped blocks, made any transition using the original data nigh on impossible.

The Overseer model's ability to model land uses other than pastoral uses is poor (e.g. for horticulture) or nil (e.g. for plantation forest). This means that the proportional contribution of N leach between pastoral and non-pastoral land uses varies over time, even though these activities are unchanged.

The Plan Change has made considerable effort to retain the proportions from the Ov 5.4.3 version to the OverseerFM version, for pastoral use. This will preserve the proportions created by an inferior version of the Overseer model and force-fit them to the current (presumably more accurate) version. The trade-offs for plan certainty are therefore at considerable expense of accuracy. I.e. if more recent versions of Overseer are more accurate, it will mean that the plan is using increasingly inaccurate information.

Preserving the proportionality generated by using Ov5.4.3 (in 2008?) by retaining those same proportions in 2020 will muffle the signals that Overseer produces about likely N leach from individual properties. It will therefore muffle the ability of farmer's to respond to those signals as well.

The effort to reconcile the new overseer outputs to the old ones has not been extended to an effort to create some form of reconciliation between pastoral and other land uses to facilitate the continued use of the trading regime between high and low leaching activities.

Feedback noted in the section 32 report that Iwi:

- sought that there were no unforeseen consequences to the plan change.
The s32 report does not explicitly identify that PC2 will change the proportions of N allocation between land uses compared to what was originally allocated, in a way that increases the proportion allocated to high leaching activities and reducing the proportion allocated to low leaching activities,
and
- have aspirations to develop their land.
However PC2 removes N leach allocation from Maori land and other low leach land and there is no guarantee that this will be reinstated through the Stage 2 process.

The PC2 bridging technique for farms to switch from Ov5.4.3 to OvFM, as noted above does not extend to land uses peripheral to Overseer. The section 32 report notes:

WRC should recognise the decisions Tūwharetoa has made over the years to ensure land use in the Lake catchment does not adversely affect the water bodies, by prioritising forestry development over farm development, ensuring significant riparian margins have been established and retiring large amounts of land. They want to make sure this recognition is built into the discussion about the larger second stage Chapter 3.10 review, and in particular to ensure the additional allocation of Nitrogen for foresters and owners of undeveloped land is back on the table. They considered that this additional allocation went some way to recognising the kaitiakitanga role undertaken by Tūwharetoa, although it does not recognise the full range of ecosystem services that the role has maintained.

It is concerning that there are no provisions in PC2 to ensure that any access to N allocation that is removed as a result of PC2 will definitely be reinstated through the Stage 2 process.

The s32 report notes that:

Staff are aware that the additional allocation of nitrogen for undeveloped and forested land in rule 3.10.5.4 and 3.10.5.5 is a matter that needs to be carefully considered. There is no clearly practical way of changing the current allocations into allocations that relate to updated Overseer versions.

This view is premised on an expectation that Overseer provides useful and accurate predictions and is thus worth the effort that has been made to make it work for high leach pastoral activities. Overseer does not provide accurate outputs over time, evidenced by the significant changes to the Overseer predictions between 5.4.3 and FM.

It is not clear why it is regarded as appropriate to make the considerable effort to modify the Overseer output process in PC2 to try to reflect modelling predictions for high leach pastoral use but not to address all other land uses at the same time, such that a common denominator is created for all land uses for the purpose of N leach trading.

Submission point

It is a valid policy choice to trade accuracy for certainty, but only if the risks and trade-offs of doing so are made clear in the section 32 report, by identifying where the benefits and costs lie and who they affect.

CNIIHL consider that the extent of these trade-offs is not accurately represented in the section 32 report at present, and that these trade-offs are to significant detriment to CNIIHL and their ability to use their land. CNIIHL reaches this conclusion because 3 tonnes of N allocation to low leaching standard freehold title land, which Settlement Land is a component of, has been removed by PC2, thus significantly reducing CNIIHL's ability to make any form of land use change. PC2 also changes the way that CNIIHL can participate in any N leach trades from being a controlled activity to a non-complying activity.

CNIIHL reach the conclusion that WRC are understating the effects of PC2 on non-pastoral land uses (section 32 report Page 6):

The plan change will not change the way that land use is managed in the catchment in any significant way. It will not change the impacts of land use on Lake Taupō.

The effect of PC2 is to continue to facilitate N leach trading between pastoral land uses, although the Overseer model predictions are that these are considerably higher than what Overseer 5.4.3 had predicted. PC2 removes 14 tonnes of N allocated to Maori land – possibly temporarily, although this is not entirely clear – and makes N trading between high leach and low leach land very difficult (non-complying activity).

*On the contrary, **the plan change aims to ensure land use continues to be managed in the way it has been since the Chapter 3.10 rules were established.***

Social costs of the plan change will be no more than minor.

The section 32 report does not provide any analysis on: what the removal of 14 tonnes of N allocation from Maori land means; or what the change from controlled status to non-complying means; or whether the OverseerFM model predictions of a considerably greater rate of leaching from pastoral land means the initial estimates were too low or the changes are immaterial; or the effect of changing the N leach proportions between various land uses (e.g. considerably increasing dairy leach rates while holding plantation forest rates constant over versions).

		<p><i>For these reasons, the plan change is consistent with the relevant provisions in the statutory/non-statutory framework described in Appendix 1.</i></p> <p>CNIIHL do not agree that the plan change is consistent with RPS objective 3.2, RPS objective 3.9, RPS policies 4.1, 4.4, 8.3, or 8.4.</p>													
Section 32 report	Oppose	<p>Page 10 discusses meeting Objective 1: Maintenance of the current water quality of Lake Taupō but nowhere in the Section 32 report is the effect on Objective 4 discussed.</p> <p>Although Objective 1 may be met, it cannot be regarded in isolation. The assessment under section 32(1)(a) must consider the effects of PC2 on <i>all</i> the objectives of Chapter 3.10.</p>	<p>Include in the section 32 report an assessment under section 32(1)(a) of the effects of PC2 on the ability to change land use for Maori land, thus meeting Objective 4.</p>												
rule 3.10.5.3	Oppose	<p>The transition from Overseer 5.4.3 to the current OverseerFM model is proposed to be done at the level of effect of the individual farm, using the approach set out in the table below.</p> <table border="1" data-bbox="819 678 2024 1308"> <tr> <td colspan="2"><i>For the purposes of determining nitrogen leaching amounts under Rules 3.10.5.1 to 3.10.5.9 the following nitrogen leaching rates shall be applied where relevant:</i></td> </tr> <tr> <td><i>a) Use of land described under Rule 3.10.5.1 has a leaching rate of 8 kilograms per hectare per year</i></td> <td><i>Absolute number, fixed – upwards Use of stocking rate proxy applies via table 3.10.5.1</i></td> </tr> <tr> <td><i>b) Use of land described under Rule 3.10.5.2 has the following leaching rates:</i></td> <td></td> </tr> <tr> <td><i>i) Unimproved land (including gorse and broom scrubland) 2 kgN/Ha/yr ; ii) Non-nitrogen fixing plantation forest land 3 kgN/Ha/yr</i></td> <td><i>absolute, fixed proportionally less of catchment N</i></td> </tr> <tr> <td><i>c) Use of land for farming activities except under Rule 3.10.5.1, that may result in nitrogen leaching from the land and entering water, has a nitrogen leaching rate of an amount calculated using Version 5.4.3 of the OVERSEERTM nutrient budgeting model</i></td> <td><i>relative, floating - upwards</i></td> </tr> <tr> <td><i>d) advanced wastewater system Rule 3.10.6.3 leaching rate of 3.5 kgN/Ha/yr e) conventional wastewater system Rule 3.10.6.4 leaching rate of 10.0 kgN/Ha/yr</i></td> <td><i>absolute, fixed proportionally less of catchment N</i></td> </tr> </table>	<i>For the purposes of determining nitrogen leaching amounts under Rules 3.10.5.1 to 3.10.5.9 the following nitrogen leaching rates shall be applied where relevant:</i>		<i>a) Use of land described under Rule 3.10.5.1 has a leaching rate of 8 kilograms per hectare per year</i>	<i>Absolute number, fixed – upwards Use of stocking rate proxy applies via table 3.10.5.1</i>	<i>b) Use of land described under Rule 3.10.5.2 has the following leaching rates:</i>		<i>i) Unimproved land (including gorse and broom scrubland) 2 kgN/Ha/yr ; ii) Non-nitrogen fixing plantation forest land 3 kgN/Ha/yr</i>	<i>absolute, fixed proportionally less of catchment N</i>	<i>c) Use of land for farming activities except under Rule 3.10.5.1, that may result in nitrogen leaching from the land and entering water, has a nitrogen leaching rate of an amount calculated using Version 5.4.3 of the OVERSEERTM nutrient budgeting model</i>	<i>relative, floating - upwards</i>	<i>d) advanced wastewater system Rule 3.10.6.3 leaching rate of 3.5 kgN/Ha/yr e) conventional wastewater system Rule 3.10.6.4 leaching rate of 10.0 kgN/Ha/yr</i>	<i>absolute, fixed proportionally less of catchment N</i>	<p>Remove the approach of reconciling the new OverseerFM numbers to the Overseer 5.4.3 via an Overseer Reference Dataset approach from rule 3.10.5.3 and all other instances that it occurs in PC2.</p> <p>Create a reconciliation system for all land uses that enables trading between land use types to continue.</p>
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		<p>It is not clear how the proportional cross reference between land uses is made, as the methodology for change is not applied consistently across all land uses or discharges. The effect will therefore be to change proportionality for different land uses.</p> <p>The section 32 report supports the use of this approach: Model existing farm operations, as they would be if the full NDA is being used, in OverseerFM (Overseer Reference Dataset Approach). Existing farm operations should be occurring in a way that is within each farm’s NDA as required by the farm’s consent. In consultation with the farmer, the farm system is described in a way that can be accurately modelled in OverseerFM. To ensure the farm carries forward its full nitrogen allocation, if the farm is currently operating under its NDA, farm inputs will be altered as though it was using its full allocation. The resulting OverseerFM inputs will be referred to as the Overseer Reference Dataset (ORD) and is given a reference number and locked into the OverseerFM model. The ORD replaces the NDA as the ‘expression’ of the farm’s nitrogen cap.</p> <p>This has the effect of increasing the proportion of N allocated to higher leaching pastoral uses and decreasing the amount allocated to low leaching uses. This is contrary to Objectives 4, Policy 1, Policy 3 and Policy 14 of Chapter 3.10.</p>	
Rule 3.10.5.4	Oppose	<p>Te Ture Whenua land (rule status = controlled. PC2 changes this to non-complying) PC2 is described as being technical, however the change in Overseer version will remove the ability to use the nitrogen allocated to Te Ture Whenua land because of concerns that the total of 11,000 kilograms is not (able to be) pegged to the replacement OverseerFM version.</p> <p>The reasoning given is that because OverseerFM will be updated quite often, and because updated versions will model inputs differently, it would not be possible to add up different allocations from different versions of Overseer. I.e. there is a denominator problem. It is not clear why something similar to the reference dataset approach has not been used to retain relativity for low leach land uses in the way that it has for high leach land uses.</p> <p>Staff recommend that this matter be addressed during the second stage, however the date at which the other stage will be initiated is unknown. Te Ture Whenua Land can no longer use or trade N allocation, because this plan change only addresses the Overseer versioning issue for farming consents.</p>	Retain the full functionality of rule 3.10.5.4 and the ability to trade N allocation after the transition to Overseer FM

Rule 3.10.5.5	Oppose	This rule faces the same issues as those faced by Rule 3.10.5.4. The staff report recommends that this rule be reviewed during the second stage of the Chapter 3.11 review. However there are no guarantees that the N allocation will be retained.	Retain the functionality of rule 3.10.5.5 and the ability to trade N allocation after the transition to Overseer FM
Rule 3.10.5.8	Oppose	<p>The section 32 report notes for Offsetting Nitrogen:</p> <p><i>If the Nitrogen Discharge Allowance for the land to which the consent applies is to be changed, either through the sale or purchase of a nitrogen discharge entitlement, the consent holder will first need to either apply for a change to the consented Nitrogen Discharge Allowance pursuant to s127 of the RMA or seek a new consent under Rules 3.10.5.6 or 3.10.5.7.</i></p> <p>Advisory note: • <u>Once the Overseer Reference Dataset is established for the land to which the consent applies, any further increase in nitrogen leaching must be offset by a corresponding and equivalent decrease in nitrogen on one or more other properties in the Lake Taupō catchment through a formal nitrogen trading process. The increase and corresponding decrease of nitrogen leaching shall be secured by changing each trading property's Overseer Reference Dataset, so that the modelled leaching using the most recent Overseer model reflects the increase or decrease of nitrogen on each of the trading properties.</u></p>	Remove the requirement to model this offsetting using Overseer or the Overseer Reference Dataset for low leaching land uses.
3.10.5.12 Nitrogen Leaching Rates	Oppose	<p>The s32 report notes: rule 3.10.5.12 does not rely on Overseer modelling so does not have to be changed at this stage. It also notes that there is further work underway to update Overseer modelling of leaching from plantation forests. Until this work is progressed, it is recommended that the leaching figures in 3.10.5.12b) be retained and reviewed during Stage 2.</p> <p>The leach rates for plantation forest and “unimproved” land are known to be inaccurate, and they are not actually <i>modelled</i> in any version of Overseer, instead a single lookup number is used. The Overseer model design and the design parameters used is inappropriate for modelling plantation forest processes, so there is unlikely to ever be an appropriate modelling tool.</p> <p>The RPV5 Section 32 report noted:</p> <p><i>Scientific measurement and modelling indicate that pastoral farm land contributes most (93 per cent) of the human-generated (and therefore manageable) nitrogen entering the Lake, with urban stormwater and wastewater being a localised nitrogen source (7 per cent).</i></p>	Provide a more realistic per hectare figure for each of plantation forest and unimproved land, to enable these land uses to occur without requiring consent and to participate in N leach trades as part of PC2

		Given the proportionally small contribution to N leach of plantation forest and “unimproved” land, providing a flat per hectare N leach rate - that reflects current scientific understanding of these land uses’ measured leach rates will be at least as accurate as any Overseer output used on the high leach land uses. I.e. there is a solution that would preserve the functionality of the N trading regime of PC2 for low leach activities.	
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<https://wrcweb.cwp.govt.nz/council/policy-and-plans/rules-and-regulation/taupo-overseer/>

<https://wrcweb.cwp.govt.nz/assets/WRC/WRC-2019/Gazetted-Ministerial-Direction-to-Enter-the-SPP-for-Proposed-Changes-to-Chapter-3-10-of-the-Waikato-Regional-Plan-21-April-2020.pdf>