SUBMISSION TO THE PROPOSED PLAN CHANGE 1 TO THE NATURAL RESOURCE PLAN

To: Greater Wellington Regional Council
Submitter: PF Olsen Ltd

Greater Wellington REgional Council

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Submission High level points

The NES-CF High hierarchical level and the Stringent Rule

It is essential to mention that forestry activities are regulated by the National Environmental Standard for Commercial Forestry (NES-CF), previously called the National Environmental Standard for Plantation Forestry (NES-PF). This is considered secondary legislation with a higher hierarchical place than a Regional Plan. The NPS-FM is considered a national policy direction with no legislative characteristic. Therefore, the interaction between the NPS-FM and NES-CF plays a key role, as the Regional Council needs to give effects to both documents.

NES-PF came into force on 1 May 2018, and since then, the standards for core forestry activities have been implemented everywhere in New Zealand. However, it has only been 5 years since the commencement. Forestry activity is considered a long-term activity, around a 25-year cycle. Therefore, it is unknown whether the NES-CF provisions are generally efficient in giving effect to the directives in the NPS-FM. This can only be measured after a complete cycle of the forest is undertaken under the NES-CF regulations.

Another point is that when NES-CF was created, the section 32 analysis assessed the regulatory effects on freshwater[1]. In summary, research found the afforestation effects on pasture land significantly improve a range of water quality attributes within 4-6 years of planting. Conversely, sedimentation and the deposition of excessive slash from forestry activities can adversely affect freshwater bodies and aquatic communities[2].

There are many mechanisms within NES-CF to mitigate adverse effects on watercourses. The purpose of NES-CF, both regional and territorial setback provisions, is to provide an essential function for maintaining water quality, biodiversity corridors, buffering effects, and providing habitat for freshwater aquatic ecosystems within forested areas.

In April 2021, the Minister of Forestry confirmed the validity and efficiency of the NES-CF with the Report on the Year One Review of the NES-PF. Overall, the NES-PF has increased regulatory oversight of plantation forestry and increased attention to good forestry practices. However, changes could improve environmental outcomes about wilding tree risk calculators, slash management provisions, and biodiversity provisions[3].

[1] Minister for Primary Industries. 2017. Proposed National Environmental Standard for Plantation Forestry: Section 32 Evaluation. Technical Paper N 2017/44.

[2] Above n 2, at 46.

[3] Minister for Primary Industries. 2021. Report on the Year One Review of the National Environmental Standards for Plantation Forestry. Wellington: Ministry for the Environment.

Another important point raised was how the stringent rules were applied by Councils during the plan-making process, especially when giving effect to the NPS-FM. In addition, the relevant changes in NES-CF, mainly concerning technical amendments to slash management, forestry activities, and earthworks, have been done considering the environmental impact on water quality, sedimentation, erosion, indigenous birds, fish species, and other indigenous species, as per consultation papers[4].

Regulation 6 of the NES-CF sets out the matters over which councils may retain or make more stringent rules. A more strict rule may only be used to achieve an objective in the NPS-FM or some policies of the NZ-CPS (Regulation 6 (1) (a) and (b)).

Despite that being allowed by the NES-CF, some limitations within the stringency rules can be applied by the Regional Council when giving effect to the NPS-FM. In exercising this flexibility for new laws, councils are bound by section 32(4) of the RMA, which requires councils to evaluate rules that are more stringent than an NES and demonstrate that this is justified in the region's circumstances[5].

As explained previously, the regulations under the NES-CF aim to mitigate, reduce and minimise environmental effects on freshwater bodies, mainly discharge into waterways. Additionally, the long-term effects over the lifecycle of the forest under the national standards are not entirely noticeable yet. Therefore, the s 32 evaluation needs to consider all these factors.

Furthermore, s 43A (5) of the RMA sets that if NES allows an activity or is stated as a permitted activity, the following provision applies to the plans or proposed plan:

(a) a plan or proposed plan may state that the activity is a permitted activity on the terms or conditions specified in the plan; and
(b) the terms or conditions specified in the plan may deal only with effects of the activity that are different from those dealt with in the terms or conditions specified in the standard; and
(c) if a plan's terms or conditions deal with effects of the activity that are the same as those dealt with in the terms or conditions specified in the standard, the terms or conditions in the standard prevail.

The rationale under this section is to avoid double legislation for the same activity, as the effects of the activity have been assessed by the NES thoroughly by s 32 analysis. Unless a specific situation has not been considered previously, there is no need for regional or district planning to do this over again through a regional rule.

[4] Ministry for the Environment. 2023. Recommendations and decisions report on amendments to the National Environmental Standards for Plantation Forestry (NES-PF). Wellington: Ministry for the Environment, at 47.
[5] Above n 2, at 49.

This also aligns with the court's strategies when interpreting sections of the RMA, taking the permitted baseline as an example. The Court of Appeal created the permitted baseline test[6], which means eliminating environmental effects from a permitted activity from consideration when deciding on notification or a substantive application. The justification for this is that the relevant NES allows permitted activities without consent on the basis that they were considered previously and are considered acceptable in the relevant area (and may have minimal environmental effects). The permitted baseline is not a mandatory test, but it is a discretion that the council may exercise. It is usually applicable in the resource consent procedure. However, it shows the rationale that if an environmental effect has been considered and the activity has the status of permitted activity, this should be noticed by the Consent Authority. Therefore, the same rationale can be applied here.

Further, with the enactment of the Natural Built Environment Act 2023, the Central Government proposed a new transitional National Framework that will be implemented, concentrating over 20 national documents into one, including the NES-CF, over time. That is the reason why the NES-PF has been amended to include carbon forests in the secondary legislation, and also giving Councils more control of the location of the forest and amendments to better align with NPS-FM and the National Planning Framework.

Considering the ongoing efforts to streamline national regulations, including the proposed National Framework under the Natural Built Environment Act 2023, the ORC must align its policies with these overarching standards. This alignment will not only ensure consistency but also prevent duplication of effort, as the effects of forestry activities have already been comprehensively assessed under the NES-CF regulations.

In conclusion, a thorough review of the proposed legislative changes is recommended, taking into account the existing NES-CF regulations, research findings, and the impending National Framework. This approach will enable the GWRC to create consistently aligned policies conducive to the sustainable development of forestry activities in the region.

Some TAS is inconsistent with Clause 3.11 (8) NPS-FM

GWRC when setting the TAS, on his report Greer at all (2023) apparent non-compliance with Clause 3.11 (8) of NPS-FM. This clause mandates the proper consideration of environmental outcomes, target attribute states of receiving environments, connections between water bodies, and information from freshwater accounting systems when setting target attribute states.

[6] Bayley v Manukau City Council [1999] 1 NZLR 658

It has come to my attention that the GWRC may not have appropriately followed the specified clause in setting target attribute states. There seems to be a lack of due consideration given to the environmental outcomes, target attribute states of receiving environments, and connections between water bodies, as required by the clause.

It appears that the target attribute states set by the regional council do not adequately reflect a comprehensive understanding of the environmental outcomes, potentially leading to suboptimal results for the aquatic ecosystems in the region.

The connection between water bodies and their impact on receiving environments does not seem to have been thoroughly considered, raising concerns about the effectiveness of the target attribute states in addressing broader ecological concerns.

The submission raises questions about the utilization of freshwater accounting systems to inform the setting of target attribute states. It is crucial to ensure that the most accurate and up-to-date information is considered to promote effective environmental management.

I recommend a thorough review and revision of the target attribute states in accordance with the requirements outlined in Clause 3.11 (8) of NPS-FM. This review should include a reassessment of environmental outcomes, connections between water bodies, and the integration of information from freshwater accounting systems.

The lack of alignment between the Whaitua Recommendation Report and the Proposed Rules and Objectives – Unreasonableness and improper consultation

Section 32 Report: Part C set the question if the objectives in the proposed plan are consistent with mana whenua and community outcomes. The NPS-FM requires regional councils to develop long term visions, values, environmental outcomes and target attribute states for freshwater waterbodies and their receiving environment together with mana whenua and the community.

Te Awarua-o-Porirua Whaitua Implementation Programme recommendations does not align with the proposed rules in Plan Change 1. The recommendations in relation to forestry are 54, 55, 56 and 57. None of this recommendations state retirement of forestry activity or any major change of land use. Quite opposite, the recommendations are undertaking good practice standard following the NES-CF specifications. This is reinforced by Te Whanganui-a-Tara WIP recommendation 37 that is to promote best practices in plantation forestry and monitor for compliance.

Plan Change 1 is major departure from these recommendations with very stringent rules in relation to forestry activities.

The lack of assessment of the effectiveness of forestry rules

While the NPS-FM makes the setting of limits (as rules) mandatory for all attributes listed in Appendix 2A, it does not require that TASs must be achieved by limits alone. The NPS-FM also allows for action plans and consent conditions to play a part in achieving TASs for Appendix 2A attributes. That is the approach adopted by PC1.

According to Section 32 Report: Part D, Table D1, the proposed rules in relation to forestry and earthworks (WR.23 and WR.26) are related to contribute to the achievement of NPS-FM Appendix 2A, mainly to suspended fine sediment and dissolved reactive phosphorus (DRP).

Section 32 Report relied on assessment of effectiveness of the rules meet the target attribute states done by Greer 2023a and 2023b. The methodology used by Greer was not peer reviewed and there are some flaws.

On chapter 3.2 of Greer 2023a and Greer 2023b reports, the author assesses the alignment of the proposed provision and BSP to the following proposed activities: retirement (in relation to farm land only), space planting, livestock exclusion, riparian management, stormwater management, discharge from wastewater network, land-use change not associate with retirement and practice change other than livestock exclusion, riparian planting and space planting.

Oddly enough the assessment for retirement, space planting and riparian management rules was done based on farming activity not forestry activities. It is unclear whether Earthworks Policy WH.P29 combined with the conditions of Rule WH.R23 and the matters of discretion in Rule WH.R24 includes forestry earthworks activities.

In relation to the change of rural land uses, there is a note in both reports with the following word:

"Note: The proposed provisions also require that highest erosion risk land currently used for plantation forestry must no longer be used for this once existing tree are harvested. However, this is not considered in this assessment as the implications on land-cover and sediment losses are unclear." (underline)

Further, in relation to the Practice change other than livestock exclusion, riparian planting and space planting, the report mentioned the proposed provisions: Vegetation Clearance on land with high erosion risk (Rule WH.R17 to Rule WH.R19); Plantation Forestry (Rule WH.R20 to Rule WH.R22);and Farming activities on 20ha or more of land (Rule WH.R27), where the impact on contaminant losses cannot be quantified. (p. 34 Greers 2023a and p.31 Greers 2023b).

Therefore, is clear that the aforementioned reports have not assess the effectiveness of the forestry rules in particular.

In relation to section 32 report, there was underline presumption, contrary of the newest scientific reports, that the forestry activities is the major cause sedimentation, therefore rules ensuring that plantation forestry does not establish or endure on highest erosion risk land, and that the most appropriate management practices are employed in plantation forestry and for woody vegetation clearance on highest erosion risk land rendering way more stringent rules, comparing to the NES-CF without any assessment how effective the national standards has being playing.

The Lack of Scientific-Based Decisions in Relation to Forestry Rules

The draft plan from the Wellington Regional Council (WRC) appears to assume that forestry, even permanent indigenous forestry, is detrimental to freshwater quality, especially concerning discharge. It also fails to properly account for the significant environmental and economic benefits provided by plantation forestry.

There are various studies and expert opinions on forest management practices and their impact on the environment are discussed, particularly in New Zealand. The studies, such as research by Zhang et al. in 2010, align with the advice given by experts like Dr. John Quinn from NIWA. These experts provided recommendations for resource consent conditions related to activities such as forest harvesting.

The key point is that the setback distances recommended in the proposed regulations by the ORC seem inconsistent when considering different activities. For instance, the setback distance for planting and replanting trees is suggested to be 50 meters, while agricultural activities like grazing have a much smaller setback of 3 meters. The concern is that these distances don't align with scientific findings, such as those in the Zhang et al. study, which suggest that most benefits are achieved within much smaller setback distances from water bodies.

Additionally, comparisons with other studies, such as McDowell & Wilcox in 2008 and Fahey & Marden in 2006, indicate that the sediment yield from forestry activities is significantly lower than that from pastoral systems. Despite this, the proposed regulations seem to treat these activities with the exact setback distances.

Furthermore, there is no consideration in the GWRC plans to deal with existing drainage systems, such as clay tile pipes and plastic drain pipes, which directly contribute nutrient enriched water to surface water. Studies indicate the positive impact of trees on water quality and question the rationale behind the wide setbacks proposed for tree planting near water bodies.

Figure 3 below is an extract from Zhang et al. 2010

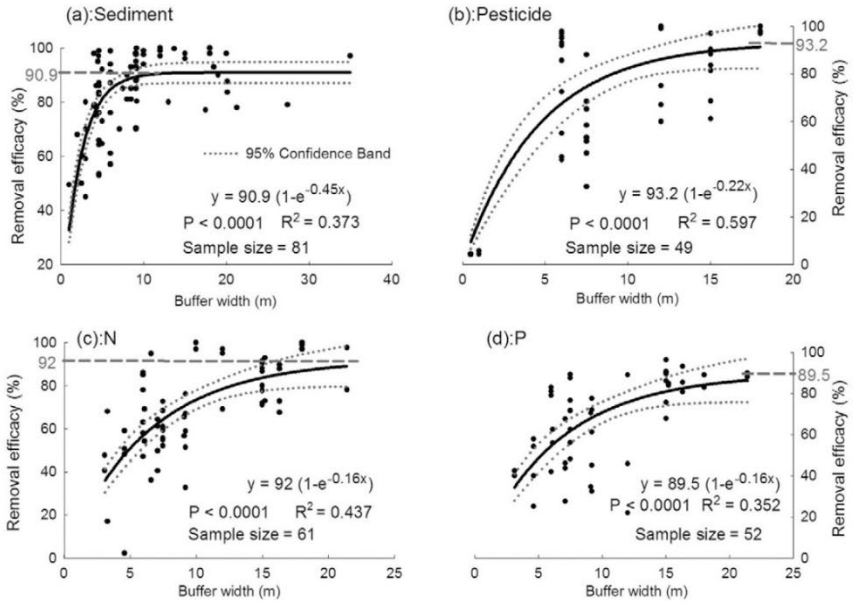


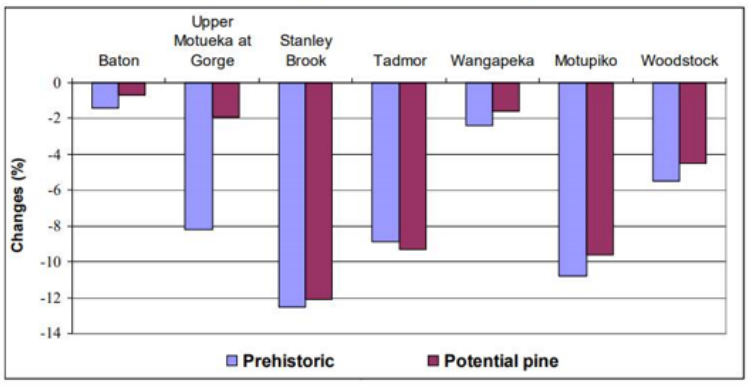
Fig. 3. Pollutant removal efficacy vs. buffer width for each pollutant. Black dots are data and lines are model predictions. Dotted red lines indicate 95% confidence band. The limiting value of *K* is shown in pink with a dotted line. Details of the model are given in each figure for (a) sediment, (b) pesticides, (c) N, and (d) P.

When it comes to the non-take use of rainfall by commercial forestry and indigenous forest as opposed to pasture, and the implications for streamflow, we respectfully refer you to the Integrated Catchment Management Study that Tasman District, the Cawthron Institute, and Landcare Research. This studyran collaboratively with forestry and farming stakeholders in the Motueka catchment. River flows today are artificially high due to deforestation by European settlers and fires since 850-900 BP, coincident with early Maori occupation. Based on the modelling of physical hydrological processes, the graph below is highly relevant because it demonstrates that there is no significant difference in the hydrological impact of recloaking the landscape in indigenous or exotic trees. We presume that ORC regards natural reversion to indigenous vegetation in a positive light.

Motueka ICM Research Summary for TDC short May2010updatex (landcareresearch.co.nz)

2. Managing land uses in harmony with freshwater resources

River and coastal hydrology: Changes and intensification of land use have impacted stream flows and water quality. Computer models help us understand why these changes occur. We have calibrated a SWAT catchment water balance model to compare the effects of different vegetation cover throughout the catchment on river flows. We have also developed a simple water balance model WATYIELD for unmonitored catchments to estimate how streamflows will change if land cover is changed (eg planting or cutting down forests).



The Motueka catchment SWAT flow and contaminant model showed that river flow at Woodstock is about 21% higher now than under prehistoric bush land cover, and with maximum possible afforestation would be about 16% higher. Nutrient flows down the river systems have been modelled using SWAT and bacterial inputs to the bay have been predicted using a faecal die-off model. Simulated Motueka river and contaminant flows feed into the Tasman Bay coastal circulation and ecosystem models to understand catchment impacts on the bay. Model results from the IDEAS model (see below) predict the in-stream and marine impacts of future land use and aquaculture scenarios.

At a more detailed scale, PhD student Kiran Kumar has shown that the average daily transpiration (February to April) rate of crack willows in the Waiwhero wetland was more than four times that estimated for pasture, i.e. willows consume huge amounts of water!

Given that landslides and consequent debris flows are extremely rare events in commercial forest settings in Otago, it leaves us perplexed as to why GWRC would promote this approach.

In summary, there is a lack of consistency and scientific basis for the proposed retirement rules near water bodies. We advocate for a more evidence-based approach to setting these regulations.

The Disparity in treatment between land use activities

The current disparity in treatment between agricultural and forestry land use poses significant disadvantages for the forestry sector. While agriculture, the dominant land user in New Zealand, faces regulations addressing contaminants such as nitrogen, phosphorus, sediment, and microbes, forestry regulations, as outlined in the draft Plan Change 1, primarily focus on potential increased water discharge related to sediment.

This unequal treatment, evident in existing land use policies, not only obstructs the growth of both sectors but also presents challenges for water quality and imposes unnecessary obstacles for foresters. The preferential regulatory leniency enjoyed by

farming practices over forestry activities is unwarranted and contradicts scientific evidence highlighting adverse effects associated with forestry.

Such disparities violate principles of social justice and equality enshrined in the legal system, demanding prompt rectification as an ethical and legal duty. The social and economic consequences of this unequal treatment for foresters are severe, manifesting in financial burdens, limited resource access, and reduced growth opportunities, ultimately hindering rural development.

While both farming and forestry have environmental implications, the preferential treatment of farming practices can result in imbalanced land use, decreased freshwater quality, and soil degradation. Promoting fair treatment between farming and forestry is essential for a sustainable approach to land management, preserving natural resources for future generations.

The Economic Impact and unreasonably change of land use with the Proposed retirement Rules

These proposals not only affect the financial value of the forests but also have significant consequences for the people and businesses relying on the forestry industry.

According to s 32 Analysis under the RMA, the Council needs to evaluate the economic costs and benefits associated with the proposed change. This involves assessing the financial implications for both the proponents and the affected community. Overall, the economic impact of the proposed rules will be a huge burden to the forestry sector and the community in general.

The retirement rule not allowing forestry in high erosion areas will cause a huge economic impact terms of losing plantation forestry and ETS liability will be triggered as some of the land certainly will be captured by the scheme.

Besides the financial burden, s 85 (1) of the RMA states that no provision in the plan can take the interest in land deemed unusable or injuriously affected. The provisions WH.R22 and P.R21 expressly prohibit afforestation, earthworks or mechanical land preparation for plantation forestry on highest erosion risk land. Despite that is some flaws into the mapping, there is a huge disconnection between the effects of forest into the environment and freshwater. This has been completely not taking into account when proposed the retirement rules.

The section 32 report is vague on the economic analysis of the impact of such retirement rules.

Clearly, there is no justification for such extreme rule, it has been proven that afforestation in comparison with farming, retain most attribute for freshwater purposes.

However, harvesting is the forestry activity that causes the most sedimentation and it has not been prohibited according to the new proposed plan.

For FOA submission to ORC
6/11/2023
Dean Meason
Scion

Water Yield

Estimates of catchment water use (water yield) by planted forests such as radiata pine have been traditionally investigated with paired catchment studies. They estimate changes in annual water yield by comparing total stream flow between catchments with different landuses. A number of paired sites were established in NZ from the 1950s to the 1970s, including Glendhu. The problem with such studies are fourfold; (1) they do not measure directly tree water use nor hydrological processes like evapotranspiration, (2) they typically do not measure groundwater, (3) they are case specific, thus empirical results of one catchment cannot be applied to another catchment, even if the catchment is nearby (Bren 2016) and (4) they rely on assumptions that may not be true (Meason et al. 2019). Davis and Fahey (2005) highlighted the large uncertainty in water yield from these previous studies and concluded more research was required.

Unlike pasture, New Zealand hydrology studies for both native and planted forest catchments have demonstrated that a significant amount of rainfall is retained from storm events, thus reducing the flooding impact downstream (Fahey and Rowe 1992). Conversely, almost all rainfall from storms on pasture catchments immediately runoff into the stream. Analysis of streamflow of the pasture and radiata pine catchments from the Purukohukohu Experimental Basin in the central North Island found that total summer base flow was higher for the radiata pine forested catchment than the adjacent pasture catchment for 19 of the 23-year time period (Scion 2020, Figure 1). Conversely, there was more streamflow from the pasture during stormflow (rainfall) events (Figure 1). Thus, planted forests act as water storage during the winter months and may release the winter rainfall as low flows during the drier months. It is unclear from previous studies if planted forests had a positive, neutral or negative impact on low stream flows (Meason et al. 2019). With the massive changes in the primary sector in the last 30 years, results from forest hydrological studies from the 1950s-1970s may not be suitable for answering today's questions about water.

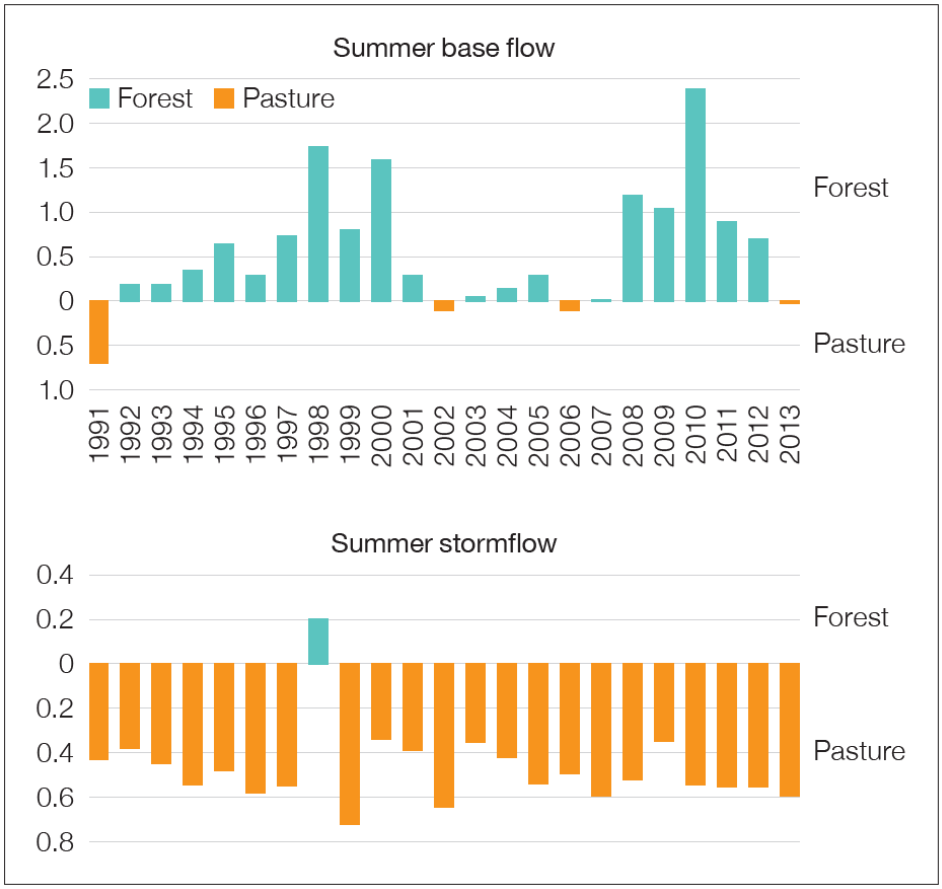


Figure 1: Relative difference in total summer base (top graph) and storm (bottom graph) stream flow between the radiata pine forest catchment and pasture over 23 years at the Purukohukohu Experimental Basin (Scion 2020).

Recent research in Australia has brought into question how the results from paired catchment studies, which are typically located in small headwater catchments, scale up to regional catchments (Benyon et al., 2009). A study in southwest Victoria in 2008 found there was no change in large catchments stream flow despite large scale afforestation over tens of thousands of hectares from the late 1990s to the mid-2000s (Sinclair, et al., 2008a, 2008b). The scaling issue with hydrological processes is recognised internationally as an important issue for interpreting and extrapolating catchment studies (e.g. Vereecken et al., 2015) and this is also an important issue for New Zealand (Meason et al. 2019).

The Forest Flows MBIE Endeavour Programme (www.forestflows.nz), led by Scion's Dean Meason, was developed to address the above problems. Its primary objectives are to directly measure planted trees water use, quantify water storage and release from planted forest catchments across a rainfall gradient (long term total annual rainfall 800-3000mm). It uses an integrated series of terrestrial and remote sensing measurements to identify the mechanisms controlling water use, storage and release. It has also developed a new process-based hydrological model that is directly applicable for existing and future planted forests. Preliminary results from four of the five primary research sites found that annual radiata pine tree water use ranged from 13.5% to 36.7% (Figure 2), well below estimates from earlier New Zealand studies (Davie and Fahey 2005). The majority of the remaining precipitation left the catchments as stream water or groundwater. The Forest Flows programme is currently compiling its biophysical data and will be providing full results in early 2024.

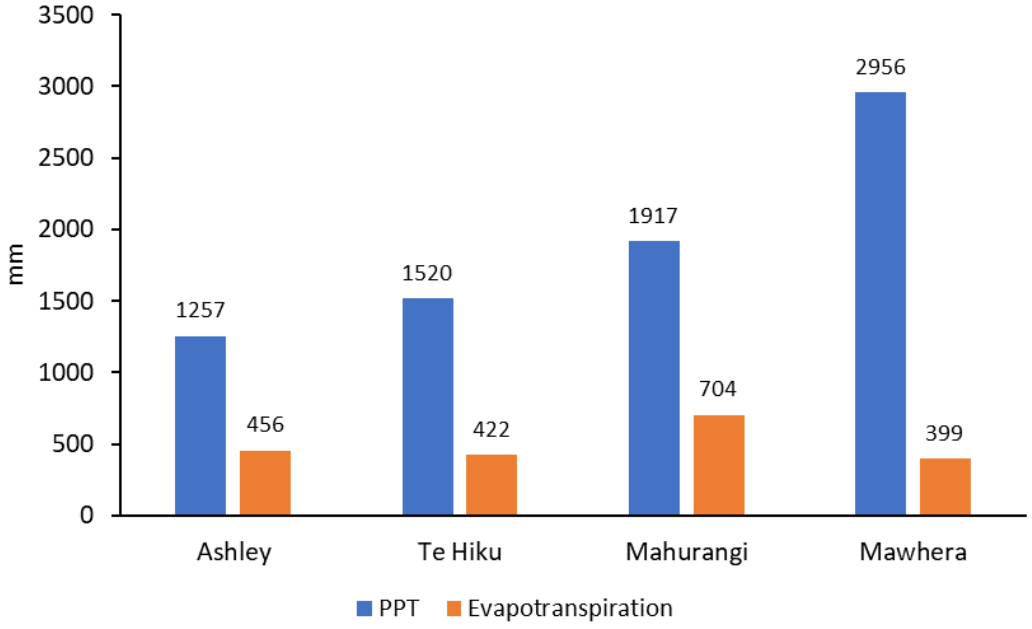


Figure 2: Preliminary water balance calculations of annual evapotranspiration of radiata pine planted forest catchments and 2022 annual rainfall for four of the Forest Flows MBIE programme primary research sites; Ashley Forest (Canterbury), Te Hiku Forest (Northland), Mahurangi Forest (Auckland), and Mawhera Forest (West Coast).

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Vereecken, H., Huisman, J.A., Hendricks Franssen, H.J., Brüggemann, N., Bogena, H.R., Kollet, S., Javaux, M., van der Kruk, J. and J. Vanderborght. 2015. Soil Hydrology: Recent Methodological Advances, Challenges, and Perspectives. *Water Resources Research* 51: 2616–2633.

View Submitter Details

Submitter No.	S18
Submitter Name	PF Olsen Ltd
Online submitter	Yes
Raw submission lodged	Yes

Raw submission points

These are submission points that were lodged as part of an online submission. They have not been summarised.

Raw sub point number	Provision	Support/oppose	Decision sought	Reasons
S18.1	Afforestation	Support	Retain the definition of afforestation.	PF Olsen supports the consistency with a high-order plan like the NES-CF.
S18.2	Earthworks	Amend	Amend the definition of Earthworks to provide consistency within the Natural Resource Plan and also clearly state that the earthworks rules do not apply to forestry earthworks, as this activity already has default rules under the NES-CF.	The definition of Earthworks captures two different scenarios. One more restriction for Whaitua Te Whanganui-a-Tara and Te Awarua-o-Porirua. In another Whaitua, the earthworks definition is quite lenient, with much exclusion for minor disturbances. This needs to be clarified within the region. For example, one landowner could repair an existing road or track without resource consent. At the same time, the same activity would require resource consent in Whaitua Te Whanganui-a-Tara and Te Awarua-o-Porirua. There needs to be more consistency within the legislation. It also needs to be clarified if the rules for Earthworks will be applied to forestry earthworks outside of the rules WR.20, WR.21, WH.R22, P.R19, P.R20 and P.R21.
S18.3	Harvesting	Support	Retain the definition of harvesting.	PF Olsen supports the consistency with a high order plan like the NES-CF.
S18.4	Highest erosion risk land (plantation forestry)	Oppose	Delete the mapping layer or have it peer reviewed to establish its scientific validity.	The Erosion Risk Mapping for Te-Awarua-o-Porirua and Te-Whanganui-a-Tara was developed mainly using three primary erosion types: surficial erosion, shallow landslides and streambank erosion. Page 5 of the report states that the "Pasture erosion risk has been calculated for each Whaitua within the area defined by the LCDB as "High-producing grassland" and "Low-producing grassland". Risk quantiles were calculated first, then any pixels not at risk of shallow landslides removed". The 'highest-risk' land currently in pasture is defined as the most erodible 10% by area, and 'high-risk' land in pasture is defined as the most erodible 30% by region within each Whaitua. There is more research available to determine landslide susceptibility by the Smarter Targeting of Erosion Control (STEC) MBIE Endeavour research programme (2018-2023) led by Manaaki Whenua – Landcare Research (MWLR), which is usually peer-reviewed.
S18.5	Highest erosion risk land (pasture)	Oppose	Delete the mapping layer or have it peer reviewed to establish its scientific validity.	The Erosion Risk Mapping for Te-Awarua-o-Porirua and Te-Whanganui-a-Tara was developed mainly using three primary erosion types: surficial erosion, shallow landslides and streambank erosion. Page 5 of the report states that the "Pasture erosion risk has been calculated for each Whaitua within the area defined by the LCDB as "High-producing grassland" and "Low-producing grassland". Risk quantiles were calculated first, then any pixels not at risk of shallow landslides removed". The 'highest-risk' land currently in the pasture is defined as the most erodible 10% by area, and 'high-risk' land in the pasture is defined as the most erodible 30% by region within each Whaitua. There is more research available to determine landslide susceptibility by the Smarter Targeting of Erosion Control (STEC) MBIE Endeavour research programme (2018-2023) led by Manaaki Whenua – Landcare Research (MWLR), which is usually peer-reviewed.
S18.6	High erosion risk land (pasture)	Oppose	Delete the mapping layer or have it peer-reviewed to establish its scientific validity.	The Erosion Risk Mapping for Te-Awarua-o-Porirua and Te-Whanganui-a-Tara was developed mainly using three primary erosion types: surficial erosion, shallow landslides and streambank erosion. Page 5 of the report states that the "Pasture erosion risk has been calculated for each Whaitua within the area defined by the LCDB as "High-producing grassland" and "Low-producing grassland". Risk quantiles were calculated first, then any pixels not at risk of shallow landslides removed". The 'highest-risk' land currently in the pasture is defined as the most erodible 10% by area, and 'high-risk' land in the pasture is defined as the most erodible 30% by region within each Whaitua. There is more research available to determine landslide susceptibility by the Smarter Targeting of Erosion Control (STEC) MBIE Endeavour research programme (2018-2023) led by Manaaki Whenua – Landcare Research (MWLR), which is usually peer-reviewed.
S18.7	Highest erosion risk land (woody vegetation)	Oppose	Delete this definition	More comprehensive information is required regarding the highest erosion risk for woody vegetation. The technical report accompanying the mapping system lacks substantial details concerning this specific layer, rendering it inadequate to substantiate any provisions in Plan Change 1.
S18.8	Mechanical land preparation	Support	Retain the definition of mechanical land preparation.	PF Olsen supports the consistency with a high order plan like the NES-CF.
S18.9	Replanting	Support	Retain the definition of replanting.	PF Olsen supports the consistency with a high order plan like the NES-CF.
S18.10	Stabilisation	Amend	Amend to clarify meaning across the entire plan and to avoid doubt, state that earthworks for forestry do not abide by this definition. For plantation forestry, default to the NES-CF.	There needs to be more internal consistency where stabilisation could have a different meaning in different areas—also, uncertainty if this applies to forestry earthworks activity.
S18.11	Vegetation clearance (for the purposes of Rules WH.R20, WH.R21 and P.R19, P.R20)	Support	Retain the definition of vegetation clearance.	PF Olsen supports the consistency with a high-order plan like the NES-CF.
S18.12	Objective O18: Rivers, lakes, natural wetlands and coastal water are suitable for contact recreation and Māori customary use.	Amend	Amend the provision to be consistent across the region.	The National Policy Statement for Freshwater Management recognises Maori Customary uses as a significant attribute that should be uniformly upheld throughout the entire region

S18.13	Policy P36: Restoring Wairarapa Moana	Oppose	Amend to change the word restore for the aim of restoring the ecological health and significant values of Wairapara Moana.	PF Olsen would like to highlight the significance of adhering to legislative principles when making laws, as this ensures the proposed changes' effectiveness, clarity, and fairness. The principles are precision, clarity, consistency, coherence, flexibility, and future-poofing. Concerning the latter, legislation should incorporate language that allows adaptability to changing circumstances. Avoiding overly specific details when unnecessary ensures that the law remains relevant over time. It can not use extreme words like restore or avoid that give the impression of a prediction of the future.
S18.14	5.4.4 Uses of beds of lakes and rivers general conditions.	Amend	Amend to exclude forestry activities of compliance with the general condition (n).	The only condition that will apply for forestry activity will be (n), which is related to Schedule F2a (birdsrivers) or Schedule F2b (birds-lakes). Section 32 Report states that the economic impact is low to moderate, even mentioning this might result in higher costs for resource consent applications. There are sizeable financial implications for this provision. Also, the provision does not consider that NES-CF requires most activities management plans, including threatened species mitigation.
S18.15	Method 39: Freshwater Action Plan for Nationally Threatened freshwater species within Whaitua Te Whanganui-a-Tara and Te Awarua-o-Porirua Whaitua.	Amend	Amend to include that an independent body will do the report, which should be peer-reviewed for its validity.	There is no mention of an independent review or peer review of the findings by this programme.
S18.16	Method M40: Fish passage action plan programme for Whaitua Te Whanganui-a-Tara and Te Awarua-o-Porirua Whaitua.	Amend	Amend to include that an independent body will do the report , which should be peer-reviewed for its validity.	There needs to be an independent or peer review of the reports.
S18.17	Method M41: Identifying and responding to degradation in freshwater bodies within Whaitua Te Whanganui-a-Tara and Te Awarua-o-Porirua Whaitua.	Amend	Amend to include that an independent body will do the report , which should be peer-reviewed for its validity.	There needs to be an independent or peer review of the reports.
S18.19	Objective WH.O1: The health of all freshwater bodies and the coastal marine area within Whaitua Te Whanganui-a-Tara is progressively improved and is wai ora by 2100.	Amend	Amend this provision to delete the natural state and include the best freshwater quality possible according to the receiving environment.	Several queries arise regarding the assessment of the natural state of water. Should we define the natural state based on the conditions when the first humans arrived in New Zealand? If this historical benchmark is deemed appropriate, achieving such a determination within a 100-year timeframe appears impractical. Additionally, the water resources in New Zealand now support nearly 5 million more people, and it is imperative that we account for the considerable impact this has on the environment.
S18.20	Objective WH.O5: By 2040 the health and wellbeing of the Parangarahu Lakes and associated natural wetlands are on a trajectory of improvement towards wai ora.	Amend	Amend the provision to based on a suitable table consistent with NPS-FM.	This provision warrants a review, given that the validity of Table 8.2, cited as the target attribute, has been contested in this submission. Consequently, the provision should be revised to incorporate an appropriate table.
S18.21	Table 8.2 Target attribute states for lakes.	Amend	Review and revise the target attribute states according to the requirements outlined in Clause 3.11 (8) of NPS-FM. This review should include a reassessment of environmental outcomes, connections between water bodies, and the integration of information from freshwater accounting systems.	GWRC, when setting the TAS on his report, Greer at all (2023) apparent non-compliance with Clause 3.11 (8) of NPS-FM. This clause mandates the proper consideration of environmental outcomes, target attribute states of receiving environments, connections between water bodies, and information from freshwater accounting systems when setting target attribute states. The GWRC may not have appropriately followed the specified clause in setting target attribute states. There is a lack of due consideration given to the environmental outcomes, target attribute states of receiving environments, and connections between water bodies, as required by the clause. The target attribute states set by the regional council do not adequately reflect a comprehensive understanding of the environmental outcomes, potentially leading to suboptimal results for the aquatic ecosystems in the region. The connection between water bodies and their impact on receiving environments does not seem to have been thoroughly considered, raising concerns about the effectiveness of the target attribute states in addressing broader ecological concerns. The submission raises questions about using freshwater accounting systems to inform the setting of target attribute states. It is crucial to ensure that the most accurate and up-to-date information is considered to promote effective environmental management.
S18.22	Table 8.3 Primary contact site objectives in rivers.	Amend	Review and revise the target attribute states according to the requirements outlined in Clause 3.11 (8) of NPS-FM. This review should include a reassessment of environmental outcomes, connections between water bodies, and the integration of information from freshwater accounting systems.	GWRC, when setting the TAS on his report, Greer at all (2023) apparent non-compliance with Clause 3.11 (8) of NPS-FM. This clause mandates the proper consideration of environmental outcomes, target attribute states of receiving environments, connections between water bodies, and information from freshwater accounting systems when setting target attribute states. The GWRC may not have appropriately followed the specified clause in setting target attribute states. Clause 3.11 (8) of NPS-FM requires more due consideration of the environmental outcomes, target attribute states of receiving environments, and connections between water bodies. The target attribute states set by the regional council need to adequately reflect a comprehensive understanding of the environmental outcomes, potentially leading to suboptimal results for the aquatic ecosystems in the region. The connection between water bodies and their impact on receiving environments has not been thoroughly considered, raising concerns about the effectiveness of the target attribute states in addressing broader ecological concerns. The submission raises questions about using freshwater accounting systems to inform the setting of target attribute states. It is crucial to ensure that the most accurate and up-to-date information is considered to promote effective environmental management.
S18.23	Table 8.4: Target attribute states for rivers.	Amend	Review and revision of the target attribute states in accordance with the requirements outlined in Clause 3.11 (8) of NPS-FM. This review should include a reassessment of environmental outcomes, connections between water bodies, and the integration of information from freshwater accounting systems.	GWRC, when setting the TAS on his report, Greer at all (2023) apparent non-compliance with Clause 3.11 (8) of NPS-FM. This clause mandates the proper consideration of environmental outcomes, target attribute states of receiving environments, connections between water bodies, and information from freshwater accounting systems when setting target attribute states. The GWRC may not have appropriately followed the specified clause in setting target attribute states. Clause 3.11 (8) of NPS-FM requires more due consideration of the environmental outcomes, target attribute states of receiving environments, and connections between water bodies.

S18.24	Policy WH.P2 Management of activities to achieve target attribute states and coastal water objectives.	Amend	Amend to exclude forestry activities.	There needs to be a specific mention of what target attributes states regulating forestry activities are trying to achieve. GWRC seems inconsistent and disproportionately stringent when comparing forestry activities to pastoral systems, as evidenced by studies like McDowell & Wilcox (2008) and Fahey & Marden (2006). Moreover, research indicates the positive impact of trees on water quality, raising questions about the rationale behind strict rules proposed for tree planting near water bodies. The argument extends to the non-take use of rainfall by commercial forestry and indigenous forest compared to pasture, with the Integrated Catchment Management Study in the Motueka catchment providing relevant insights. While river flows today may be influenced by historical deforestation, the study suggests that reforesting with indigenous or exotic trees yields similar hydrological impacts. Despite the rarity of landslides and debris flows in commercial forest settings in the Wellington region, the GWRC's promotion of stringent rules in this context appears perplexing. New Zealand hydrology studies such as Mason (2003) comparing native and planted forest catchments with pasture areas reveal a notable difference in rainfall retention during storm events. Unlike pasture, forests, specifically radiata pine, exhibit significant rainfall retention, mitigating downstream flooding. Analysis of the Purukohukohu Experimental Basin data in the central North Island demonstrates that radiata pine forested catchments consistently have higher total summer base flow over 19 of 23 years compared to adjacent pasture catchments. This suggests that planted forests function as water storage during winter, releasing rainfall gradually as low flows in drier months. Conversely, pasture catchments exhibit immediate runoff into streams during storm events, leading to higher streamflow. This information is derived from Fahey and Rowe (1992) and Scion (2020) In conclusion, there needs to be more consistency and scientific foundation in the proposed rules for forestry in activities near water bodies. Advocacy for a more evidence-based approach to shaping these regulations is underscored by the various studies and expert opinions. Despite this Forestry activities are governed by the National Environmental Standard for Commercial Forestry (NES-CF), a high-level legislation with a superior hierarchical position compared to Regional Plans. Unlike Regional Plans, the NES-CF is considered secondary legislation, with the NES-PF (National Environmental Standard for Plantation Forestry) as its predecessor. The NES-CF, coupled with the National Policy Statement for Freshwater Management (NPS-FM), provides a comprehensive framework that Regional Councils must adhere to when formulating their rules. Implemented in May 2018, the NES-CF sets standards for core forestry activities across New Zealand. However, given the long-term nature of forestry activities, lasting approximately 25 years, the efficiency of NES-CF provisions in aligning with the NPS-FM directives can only be fully assessed after a complete forest cycle under these regulations. The NES-CF includes mechanisms to mitigate adverse effects on watercourses, emphasising its role in maintaining water quality, biodiversity corridors, buffering effects, and providing habitat for freshwater aquatic ecosystems within forested areas. While regional councils can retain or establish more stringent rules under Regulation 6 of the NES-CF, such rules must align with the objectives of the NPS-FM and NZ-CPS policies. Despite the flexibility provided by NES-CF, regional councils must justify any rules more stringent than NES through a thorough evaluation, as mandated by section 32(4) of the Resource Management Act (RMA). This evaluation should consider the long-term effects on freshwater bodies over the forest lifecycle, sedimentation, erosion, and the impact on indigenous species. Furthermore, Section 43A (5) of the RMA emphasises that if an NES allows an activity as a permitted activity, regional plans should only duplicate legislation if specific circumstances warrant it. This aligns with the court's strategies, such as the permitted baseline test, which eliminates already-considered environmental effects from further consideration during the consent process. Section 32 report, at p.107, clearly states that NES-CF has not been considered in the proposed legislation. With the proposed Natural Built Environment Act 2023, there is a move towards consolidating national documents, including the NES-CF, into a transitional National Framework. In light of these changes, the GWRC is urged to align its policies with overarching standards, preventing duplication of effort and ensuring consistency. In conclusion, a comprehensive review of proposed legislative changes is recommended, to consider existing NES-CF regulations, research findings, and the impending National Framework. Aligning policies with these standards will enable the GWRC to develop consistently aligned and sustainable policies for forestry activities in the region.
S18.25	Policy WH.P3: Freshwater Action Plans role in the health and wellbeing of waterways.	Amend	Amend to seek partnership with the local community and primary industry.	The policy explicitly addresses collaboration with mana whenua concerning freshwater, a crucial resource. However, the Regional Council should pursue independent scientific consultation and solicit feedback from the community and primary industries to ensure comprehensive decision-making.
S18.26	Policy WH.P4: Achievement of the visual clarity target attribute states.	Amend	Amend to incorporate a new Table.	This provision warrants a review, given that the validity of Table 8.4, cited as the target attribute, has been contested in this submission. Consequently, the provision should be revised to incorporate an appropriate table.
S18.27	Table 8.5: Sediment load reductions required to achieve the visual clarity target attribute states.	Amend	Review and revise the target attribute states according to the requirements outlined in Clause 3.11 (8) of NPS-FM. This review should include a reassessment of environmental outcomes, connections between water bodies, and the integration of information from freshwater accounting systems.	GWRC, when setting the TAS, was based on Greer at all (2023), which has an apparent non-compliance with Clause 3.11 (8) of NPS-FM. This clause mandates the proper consideration of environmental outcomes, target attribute states of receiving environments, connections between water bodies, and information from freshwater accounting systems when setting target attribute states. The GWRC may not have appropriately followed the specified clause in setting target attribute states. There needs to be more due consideration given to the environmental outcomes, target attribute states of receiving environments, and connections between water bodies, as required by the clause. The target attribute states set by the regional council need to adequately reflect a comprehensive understanding of the environmental outcomes, potentially leading to suboptimal results for the aquatic ecosystems in the region. The connection between water bodies and their impact on receiving environments has not been thoroughly considered, raising concerns about the effectiveness of the target attribute states in addressing broader ecological concerns. The submission raises questions about using freshwater accounting systems to inform the setting of target attribute states. It is crucial to ensure that the most accurate and up-to-date information is considered to promote effective environmental management.

S18.28	Policy WH.P23: Achieving reductions in sediment discharges from farming activities on land with high risk of erosion.	Amend	Amend to seek consistency rules between farming and forestry.	A notable divergence in approach by the Greater Wellington Regional Council (GWRC) is evident when applying rules to farming versus forestry activities. The rationale behind this disparity is aimed at reducing sediment discharge in high-risk erosion land associated with farming. A systematic process is in place for farmers, allowing them to gradually comply with the rule without jeopardising their land use. Conversely, for forestry, a stringent policy mandates the retirement of forestry in high erosion-risk land (WH.P28). The current imbalance in the treatment of agricultural and forestry land use poses significant disadvantages for the forestry sector. While agriculture, the predominant land user in New Zealand, faces regulations addressing contaminants such as nitrogen, phosphorus, sediment, and microbes, the draft Plan Change 1 primarily focuses on potential increased water discharge related to sediment in forestry operations. This unequal treatment, embedded in existing land use policies, not only hinders the growth of both sectors but also presents challenges for water quality, imposing unnecessary obstacles for foresters. The regulatory leniency granted to farming practices over forestry activities is unwarranted and contradicts scientific evidence pointing to adverse effects associated with forestry. These disparities infringe upon principles of social justice and equality enshrined in the legal system, necessitating prompt rectification as both an ethical and legal duty. The social and economic consequences of this unequal treatment for foresters are severe, resulting in financial burdens, limited resource access, and reduced growth opportunities, ultimately impeding rural development. While both farming and forestry entail environmental implications, the preferential treatment of farming practices can lead to imbalanced land use, diminished freshwater quality, and soil degradation. Promoting fair treatment between farming and forestry is indispensable for a sustainable approach to land management, preserving natural resources for future generations.
S18.29	Policy WH.P25: Managing rural land use change.	Oppose	Delete this provision or review it in alignment with the reason below.	This policy imposes extreme limitations on land use. While PF Olsen acknowledges the importance of effective land management and environmental conservation, the current formulation of this rule may need to be more relaxed, potentially impeding sustainable development and responsible land use practices. Firstly, it is crucial to emphasise the need for a balanced and flexible approach in formulating land use regulations. The intention behind the rule is to address environmental concerns. Still, there is a risk that an excessively stringent approach may hinder economic activities, discourage investment, and limit the community's growth potential. This policy should be reviewed and consideration of the following points: Scientific Basis: Ensure that the rule is grounded in scientifically supported evidence demonstrating the necessity and proportionality of the proposed restrictions. Flexibility: Introduce provisions allowing case-by-case evaluations, considering specific circumstances and the potential for innovative and sustainable land use practices that adhere to environmental standards. Economic Impact Assessment: Conduct a comprehensive economic impact assessment to understand the potential ramifications on local businesses, property values, and overall economic vitality. This assessment should guide adjustments to the rule to minimise adverse effects. Community Engagement: Facilitate meaningful community engagement to incorporate diverse perspectives and local knowledge into decision-making. This ensures that the rule reflects the needs and aspirations of the community it seeks to serve. Adaptive Management: Implement mechanisms for ongoing monitoring and adaptive management, allowing for adjustments to the rule as new information emerges and technologies evolve.

S18.30	Policy WH.P28: Achieving reductions in sediment discharges from plantation forestry.	Oppose	Delete the policy	Several aspects of the proposed policy require careful reconsideration. 1. Contesting the Extreme Nature of Retirement Rules: The retirement rules proposed in Plan Change 1, specifically prohibiting forestry activities in high erosion areas, appear excessively stringent. This extreme provision may lead to significant economic burdens for the forestry sector, triggering liabilities under the Emissions Trading Scheme (ETS) and devaluing affected land. I urge the GWRC to reassess the economic impact and necessity of such retirement rules, ensuring a balanced approach considering the financial implications for the industry and the community. 2. Need for Alignment with NES-CF and Scientific Approach: PF Olsen emphasises the need for greater alignment with the National Environmental Standard for Commercial Forestry (NES-CF) and a more scientific approach in formulating forestry regulations. The NES-CF, secondary legislation, sets standards for forestry activities across New Zealand. The proposed rules should be consistent with NES-CF provisions and supported by scientifically sound evidence, considering the positive impacts of well-managed forests on water quality and biodiversity. 3. Disparity in Treatment between Land Use Activities: The unequal treatment between agricultural and forestry land use is evident in the proposed plan. This disparity not only obstructs the growth of both sectors but also contradicts scientific evidence. The preferential leniency towards farming practices over forestry activities is unwarranted and requires prompt rectification to promote fairness and sustainability in land management. 4. Lack of Scientific-Based Decisions: The proposed retirement rules for forestry activities need a scientific foundation, overlooking the positive impact of well-managed forests on freshwater quality. The assumptions about forestry's detrimental effects on sedimentation must be reevaluated in light of comprehensive studies and expert opinions, ensuring evidence-based decision-making. 5. Economic Impact and Unreasonable Change of Land Use: The economic impact of the proposed retirement rules on the forestry sector, triggering ETS liabilities and rendering land unusable, requires a more detailed analysis. Section 85(1) of the Resource Management Act (RMA) prohibits provisions that deem land unusable or injuriously affected without justification. The economic burden and effects on land use need careful consideration in the finalisation of Plan Change 1. In conclusion, PF Olsen would like the GWRC to conduct a comprehensive review of the proposed retirement forestry activity, considering the points raised in this submission. Aligning policies with existing legislation, scientific evidence, and economic realities will lead to consistently aligned and sustainable regional land management policies.
S18.31	Policy WH.P29: Management of earthworks.	Amend	Amend to clarify if this policy applies to forestry earthworks.	It is unclear if this policy will be applied to forestry earthworks. NES-CF should be the default legislation for forestry earthworks, as it provides good managing practices, limits soil disturbance, and requires erosion and sediment control.
S18.32	Policy WH.P30: Discharge standard for earthworks.	Amend	Amend to clarify if the policy applies to forestry earthworks.	It is unclear if the discharge standards for earthworks apply to forestry earthworks. NES-CF has its own criteria for discharge. There is no need for more restriction, and if the Regional Council prefer to strict the rules, despite the flexibility provided by NES-CF, regional councils must justify any regulations more stringent than NES through a thorough evaluation, as mandated by section 32(4) of the Resource Management Act (RMA).
S18.33	Policy WH.P31: Winter shut down of earthworks.	Oppose	Delete the provision	PF Olsen advocates for removing the proposed winter shutdown of earthworks rule, as outlined in the WH.P31. The winter shut down of earthworks rule may have unintended consequences and hinder certain legitimate activities without a commensurate environmental benefit. 1. Economic Impacts on Construction and Development: The proposed winter shut down of earthworks rule has the potential to impose significant economic burdens on construction and development projects. Winter months are critical for advancing infrastructure projects, and the mandatory shut down could lead to delays, increased costs, and logistical challenges. I recommend a thorough economic impact assessment to evaluate the consequences of such a rule on local businesses, employment, and project timelines. 2. Alternative Mitigation Measures: Rather than a blanket prohibition, PF Olsen suggests exploring alternative mitigation measures that can be implemented during winter months to address concerns about soil erosion and sedimentation. This could include enhanced erosion control measures, sedimentation ponds, or other best management practices that allow essential earthworks to proceed responsibly without compromising environmental goals. 3. Flexibility in Implementation: Consideration should be given to incorporating flexibility in the rule's implementation, allowing for case-by-case evaluations based on project-specific circumstances. This would enable responsible earthworks to continue under strict environmental controls, ensuring that development activities are aligned with sustainable practices without unnecessary constraints. 4. Aligning with Regional and National Standards: Ensure that the proposed rule aligns with national standards. Striking a balance between environmental protection and facilitating essential construction activities is crucial. Aligning the rule with existing standards ensures that it contributes meaningfully to environmental goals while not unduly impeding legitimate and responsible development.

S18.34	Rule WH.R17: Vegetation clearance on highest erosion risk land – permitted activity.	Amend	Amend this rule to default to the NES-CF standards for vegetation clearance.	PF Olsen supports the vegetation clearance rules under the NES-CF, and there is no need to be more stringent. Limiting the vegetation clearance for only two situations is a departure from the NES-CF. There is a need for greater alignment with the National Environmental Standard for Commercial Forestry (NES-CF) and a more scientific approach to formulating forestry regulations. The NES-CF, being secondary legislation, sets standards for forestry activities across New Zealand. The proposed rules should be consistent with NES-CF provisions and supported by scientifically sound evidence, considering the positive impacts of well-managed forests on water quality and biodiversity.
S18.35	Rule WH.R18: Vegetation clearance on highest erosion risk land – controlled activity.	Amend	Amend this rule to default to the NES-CF standards for vegetation clearance.	PF Olsen supports the vegetation clearance rules under the NES-CF, and there is no need to be more stringent. Limiting the vegetation clearance for only two situations is a departure from the NES-CF. There is a need for greater alignment with the National Environmental Standard for Commercial Forestry (NES-CF) and a more scientific approach to formulating forestry regulations. The NES-CF, being secondary legislation, sets standards for forestry activities across New Zealand. The proposed rules should be consistent with NES-CF provisions and supported by scientifically sound evidence, considering the positive impacts of well-managed forests on water quality and biodiversity.
S18.36	Rule WH.R17: Vegetation clearance on highest erosion risk land – permitted activity.	Amend	Amend this rule to default to the NES-CF for vegetation clearance rules.	PF Olsen supports the vegetation clearance rules under the NES-CF, and there is no need to be more stringent. Limiting the vegetation clearance for only two situations is a departure from the NES-CF. There is a need for greater alignment with the National Environmental Standard for Commercial Forestry (NES-CF) and a more scientific approach to formulating forestry regulations. The NES-CF, being secondary legislation, sets standards for forestry activities across New Zealand. The proposed rules should be consistent with NES-CF provisions and supported by scientifically sound evidence, considering the positive impacts of well-managed forests on water quality and biodiversity.
S18.37	Rule WH.R20: Plantation forestry – controlled activity.	Oppose	Amend this rule to allow the plan to recognise the permitted activity status from NES-CF.	As written in the plan, the default activity status for forestry activities is controlled for Whaitua Te Whanganui-a-Tara, which is a huge bypass of the NES-CF. PF Olsen emphasises the need for a comprehensive review of the proposed rules in relation to forestry activities, aligning them with existing recommendations and scientific evidence. 1. Lack of Alignment with Whaitua Recommendations: The Te Awarua-o-Porirua Whaitua Implementation Programme recommendations, specifically numbers 54, 55, 56, and 57, need to align with the stringent rules proposed in Plan Change 1. These recommendations advocate for good practice standards in forestry, following the specifications outlined in the National Environmental Standard for Commercial Forestry (NES-CF). The departure from these recommendations raises concerns about the coherence and appropriateness of the proposed forestry regulations. 2. Inadequate Assessment of Forestry Rules: The Section 32 Report, particularly Part D and Table D1, highlights the proposed rules' contribution to achieving the National Policy Statement for Freshwater Management (NPS-FM) Appendix 2A. However, there are notable areas for improvement in the assessment methodology conducted by Greer in 2023a and 2023b. The lack of a peer-reviewed process and flaws in the assessment, particularly the evaluation of retirement, space planting, and riparian management rules based on farming activity, cast doubt on the effectiveness of the proposed forestry rules. 3. Unjustified Stringency in Forestry Regulations: The presumption underlying the proposed rules that forestry activities are a significant cause of sedimentation contradicts recent scientific reports. Numerous studies and expert opinions, including those of Zhang et al. (2010) and Dr. John Quinn from NIWA, challenge this assumption. The disparity in the treatment of forestry compared to pastoral systems, without considering the environmental and economic benefits of plantation forestry, raises questions about the scientific basis of the proposed regulations. 4. Positive Impact of Trees on Water Quality: Scientific studies, such as Mason (2003), highlight the positive impact of trees, specifically radiata pine, on water quality. Contrary to the assumed detrimental effects, planted forests are water storage during winter, releasing rainfall gradually and mitigating downstream flooding. The proposed rules, especially those restricting tree planting near water bodies, need a more nuanced understanding of the positive contributions of well-managed forests. In conclusion, PF strongly urges the GWRC to reconsider the proposed forestry regulations in light of the concerns above. An evidence-based approach, aligning with existing recommendations and acknowledging the positive impacts of forestry on water quality, will contribute to the development of regulations that are both environmentally sound and conducive to sustainable economic growth.

S18.38	Rule WH.R21: Plantation forestry – discretionary activity.	Amend	Amend the status to "controlled activity", outlining specific criteria where landowners can meet the requirements.	Setting a discretionary activity status for forestry activity in Whaitua Te Whanganui-a-Tara, is very restrictive, which is a huge bypass of the NES-CF. PF Olsen emphasises the need for a comprehensive review of the proposed rules in relation to forestry activities, aligning them with existing recommendations and scientific evidence. 1. Lack of Alignment with Whaitua Recommendations: The Te Awarua-o-Porirua Whaitua Implementation Programme recommendations, specifically numbers 54, 55, 56, and 57, need to align with the stringent rules proposed in Plan Change 1. These recommendations advocate for good practice standards in forestry, following the specifications outlined in the National Environmental Standard for Commercial Forestry (NES-CF). The departure from these recommendations raises concerns about the coherence and appropriateness of the proposed forestry regulations. 2. Inadequate Assessment of Forestry Rules: The Section 32 Report, particularly Part D and Table D1, highlights the proposed rules' contribution to achieving the National Policy Statement for Freshwater Management (NPS-FM) Appendix 2A. However, there are notable areas for improvement in the assessment methodology conducted by Greer in 2023a and 2023b. The lack of a peer-reviewed process and flaws in the assessment, particularly the evaluation of retirement, space planting, and riparian management rules based on farming activity, cast doubt on the effectiveness of the proposed forestry rules. 3. Unjustified Stringency in Forestry Regulations: The presumption underlying the proposed rules that forestry activities are a significant cause of sedimentation contradicts recent scientific reports. Numerous studies and expert opinions, including those of Zhang et al. (2010) and Dr. John Quinn from NIWA, challenge this assumption. The disparity in the treatment of forestry compared to pastoral systems, without considering the environmental and economic benefits of plantation forestry, raises questions about the scientific basis of the proposed regulations. 4. Positive Impact of Trees on Water Quality: Scientific studies, such as Mason (2003), highlight the positive impact of trees, specifically radiata pine, on water quality. Contrary to the assumed detrimental effects, planted forests are water storage during winter, releasing rainfall gradually and mitigating downstream flooding. The proposed rules, especially those restricting tree planting near water bodies, need a more nuanced understanding of the positive contributions of well-managed forests. In conclusion, PF strongly urges the GWRC to reconsider the proposed forestry regulations in light of the concerns above. An evidence-based approach, aligning with existing recommendations and acknowledging the positive impacts of forestry on water quality, will contribute to the development of regulations that are both environmentally sound and conducive to sustainable economic growth.
S18.39	Rule WH.R22: Plantation forestry on highest erosion risk land – prohibited activity.	Oppose	Delete the provision	This extreme provision does not align with existing recommendations and scientific evidence. 1. Lack of Alignment with Whaitua Recommendations: The Te Awarua-o-Porirua Whaitua Implementation Programme recommendations, specifically numbers 54, 55, 56, and 57, need to align with the stringent rules proposed in Plan Change 1. These recommendations advocate for good practice standards in forestry, following the specifications outlined in the National Environmental Standard for Commercial Forestry (NES-CF). The departure from these recommendations raises concerns about the coherence and appropriateness of the proposed forestry regulations. 2. Inadequate Assessment of Forestry Rules: The Section 32 Report, particularly Part D and Table D1, highlights the proposed rules' contribution to achieving the National Policy Statement for Freshwater Management (NPS-FM) Appendix 2A. However, there are notable areas for improvement in the assessment methodology conducted by Greer in 2023a and 2023b. A peer-reviewed methodology and flaws in the assessment, particularly the assessment of retirement, space planting, and riparian management rules based on farming activity, are necessary for the effectiveness of the proposed forestry rules. 3. Unjustified Stringency in Forestry Regulations: The presumption underlying the proposed rules that forestry activities are a significant cause of sedimentation contradicts recent scientific reports. Numerous studies and expert opinions, including those of Zhang et al. (2010) and Dr. John Quinn from NIWA, challenge this assumption. The disparity in the treatment of forestry compared to pastoral systems, without considering the environmental and economic benefits of plantation forestry, raises questions about the scientific basis of the proposed regulations. 4. Positive Impact of Trees on Water Quality: Scientific studies, such as Mason (2003), highlight the positive impact of trees, specifically radiata pine, on water quality. Contrary to the assumed detrimental effects, planted forests are water storage during winter, releasing rainfall gradually and mitigating downstream flooding. The proposed rules, especially those restricting tree planting near water bodies, need a more nuanced understanding of the positive contributions of well-managed forests.
S18.40	Rule WH.R23: Earthworks – permitted activity.	Amend	Amend to default to NES-CF concerning forestry earthworks.	It is uncertain if the rules for permitted activity will apply to forestry earthworks.

S18.41	Rule WH.R24: Earthworks – restricted discretionary activity.	Amend	Amend to default to NES-CF concerning forestry earthworks.	It is uncertain if the rules for permitted activity will apply to forestry earthworks.
S18.42	Rule WH.R25: Earthworks – non-complying activity.	Amend	Amend to default to NES-CF concerning forestry earthworks.	It is uncertain if the rule applies to forestry earthworks.
S18.43	Rule WH.R26: Farming activities on a property of between 4 hectares and 20 hectares – permitted activity.	Amend	Amend to seek equal treatment between forestry and farming.	The current disparity in treatment between agricultural and forestry land use poses significant disadvantages for the forestry sector. While agriculture, the dominant land user in New Zealand, faces regulations addressing contaminants such as nitrogen, phosphorus, sediment, and microbes, forestry regulations, as outlined in the draft Plan Change 1, primarily focus on potential increased water discharge related to sediment. This unequal treatment, evident in existing land use policies, not only obstructs the growth of both sectors but also presents challenges for water quality and imposes unnecessary obstacles for foresters. The preferential regulatory leniency enjoyed by farming practices over forestry activities is unwarranted and contradicts scientific evidence highlighting adverse effects associated with forestry. Such disparities violate principles of social justice and equality enshrined in the legal system, demanding prompt rectification as an ethical and legal duty. The social and economic consequences of this unequal treatment for foresters are severe, manifesting in financial burdens, limited resource access, and reduced growth opportunities, ultimately hindering rural development. There is no justification for not having a similar retirement rule for farming activities.
S18.44	Rule WH.R27: Farming activities on 20 hectares or more of land – permitted activity.	Amend	Amend to seek consistent treatment between farming and forestry rules.	The current disparity in treatment between agricultural and forestry land use poses significant disadvantages for the forestry sector. While agriculture, the dominant land user in New Zealand, faces regulations addressing contaminants such as nitrogen, phosphorus, sediment, and microbes, forestry regulations, as outlined in the draft Plan Change 1, primarily focus on potential increased water discharge related to sediment. This unequal treatment, evident in existing land use policies, not only obstructs the growth of both sectors but also presents challenges for water quality and imposes unnecessary obstacles for foresters. The preferential regulatory leniency enjoyed by farming practices over forestry activities is unwarranted and contradicts scientific evidence highlighting adverse effects associated with forestry. Such disparities violate principles of social justice and equality enshrined in the legal system, demanding prompt rectification as an ethical and legal duty. The social and economic consequences of this unequal treatment for foresters are severe, manifesting in financial burdens, limited resource access, and reduced growth opportunities, ultimately hindering rural development. There is no justification for not having a similar retirement rule for farming activities.
S18.45	Table 8.6: Phase-in of farm environment plans for part Freshwater Management Units.	Oppose	Delete the table 8.6	The current disparity in treatment between agricultural and forestry land use poses significant disadvantages for the forestry sector. While agriculture, the dominant land user in New Zealand, faces regulations addressing contaminants such as nitrogen, phosphorus, sediment, and microbes, forestry regulations, as outlined in the draft Plan Change 1, primarily focus on potential increased water discharge related to sediment. This unequal treatment, evident in existing land use policies, not only obstructs the growth of both sectors but also presents challenges for water quality and imposes unnecessary obstacles for foresters. The preferential regulatory leniency enjoyed by farming practices over forestry activities is unwarranted and contradicts scientific evidence highlighting adverse effects associated with forestry. Such disparities violate principles of social justice and equality enshrined in the legal system, demanding prompt rectification as an ethical and legal duty. The social and economic consequences of this unequal treatment for foresters are severe, manifesting in financial burdens, limited resource access, and reduced growth opportunities, ultimately hindering rural development. There is no justification for not having a phase-out for farming and retirement land use for forestry. Why not apply the rationale and have a phase-out programme for forestry?
S18.48	Objective P.O1: The health of Te Awarua-o-Porirua's groundwater, rivers, lakes, natural wetlands, estuaries, harbours and coastal marine area is progressively improved and is wai ora by 2100.	Amend	Amend this provision to delete the natural state and include the best freshwater quality possible according to the receiving environment.	Several queries arise regarding the assessment of the natural state of water. Should we define the natural state based on the conditions when the first humans arrived in New Zealand? If this historical benchmark is deemed appropriate, achieving such a determination within a 100-year timeframe appears impractical. Additionally, the water resources in New Zealand now support nearly 5 million more people, and it is imperative that we account for the considerable impact this has on the environment.
S18.49	Objective P.O6: Water quality, habitats, water quantity and ecological processes of rivers are maintained or improved.	Amend	Amend the provision to be based on a suitable table consistent with NPS-FM	This provision warrants a review, given that the validity of Table 9.2, cited as the target attribute, has been contested in this submission. Consequently, the provision should be revised to incorporate an appropriate table.
S18.50	Table 9.2: Target attribute states for rivers.	Amend	Review and revise the target attribute states according to the requirements outlined in Clause 3.11 (8) of NPS-FM. This review should include a reassessment of environmental outcomes, connections between water bodies, and the integration of information from freshwater accounting systems.	GWRC, when setting the TAS, is based on Greer at all (2023). This report shows apparent non-compliance with Clause 3.11 (8) of NPS-FM. This clause mandates the proper consideration of environmental outcomes, target attribute states of receiving environments, connections between water bodies, and information from freshwater accounting systems when setting target attribute states. The GWRC may not have appropriately followed the specified clause in setting target attribute states. As required by the clause, more due consideration must be given to the environmental outcomes, target attribute states of receiving environments, and connections between water bodies. The target attribute states set by the regional council need to adequately reflect a comprehensive understanding of the environmental outcomes, potentially leading to suboptimal results for the aquatic ecosystems in the region. The connection between water bodies and their impact on receiving environments has not been thoroughly considered, raising concerns about the effectiveness of the target attribute states in addressing broader ecological concerns. The submission raises questions about using freshwater accounting systems to inform the setting of target attribute states. It is crucial to ensure that the most accurate and up-to-date information is considered to promote effective environmental management.

S18.51	Policy P.P2: Management of activities to achieve target attribute states and coastal water objectives.	Amend	Amend to exclude forestry activities from the regulation referred to in the policy WH.P2.	NPS-FM determines that regulation needs to be specific to the target attributes states are trying to achieve when regulating forestry activities. GWRC seems inconsistent and disproportionately stringent when comparing forestry activities to pastoral systems, as evidenced by studies like McDowell & Wilcox (2008) and Fahey & Marden (2006). Moreover, research indicates the positive impact of trees on water quality, raising questions about the rationale behind strict rules proposed for tree planting near water bodies. The argument extends to the non-take use of rainfall by commercial forestry and indigenous forest compared to pasture, with the Integrated Catchment Management Study in the Motueka catchment providing relevant insights. While river flows today may be influenced by historical deforestation, the study suggests that reforesting with indigenous or exotic trees yields similar hydrological impacts. Despite the rarity of landslides and debris flows in commercial forest settings in the Wellington region, the GWRC's promotion of stringent rules in this context appears perplexing. New Zealand hydrology studies such as Mason (2003) comparing native and planted forest catchments with pasture areas reveal a notable difference in rainfall retention during storm events. Unlike pasture, forests, specifically radiata pine, exhibit significant rainfall retention, mitigating downstream flooding. Analysis of the Purukohukohu Experimental Basin data in the central North Island demonstrates that radiata pine forested catchments consistently have higher total summer base flow over 19 of 23 years compared to adjacent pasture catchments. This suggests that planted forests function as water storage during winter, releasing rainfall gradually as low flows in drier months. Conversely, pasture catchments exhibit immediate runoff into streams during storm events, leading to higher streamflow. This information is derived from Fahey and Rowe (1992) and Scion (2020) In conclusion, there needs to be more consistency and scientific foundation in the proposed rules for forestry in activities near water bodies. Advocacy for a more evidence-based approach to shaping these regulations is underscored by the various studies and expert opinions. Despite this Forestry activities are governed by the National Environmental Standard for Commercial Forestry (NES-CF), a high-level legislation with a superior hierarchical position compared to Regional Plans. Unlike Regional Plans, the NES-CF is considered secondary legislation, with the NES-PF (National Environmental Standard for Plantation Forestry) as its predecessor. The NES-CF, coupled with the National Policy Statement for Freshwater Management (NPS-FM), provides a comprehensive framework that Regional Councils must adhere to when formulating their rules. Implemented in May 2018, the NES-CF sets standards for core forestry activities across New Zealand. However, given the long-term nature of forestry activities, lasting approximately 25 years, the efficiency of NES-CF provisions in aligning with the NPS-FM directives can only be fully assessed after a complete forest cycle under these regulations. The NES-CF includes mechanisms to mitigate adverse effects on watercourses, emphasising its role in maintaining water quality, biodiversity corridors, buffering effects, and providing habitat for freshwater aquatic ecosystems within forested areas. While regional councils can retain or establish more stringent rules under Regulation 6 of the NES-CF, such rules must align with the objectives of the NPS-FM and NZ-CPS policies. Despite the flexibility provided by NES-CF, regional councils must justify any rules more stringent than NES through a thorough evaluation, as mandated by section 32(4) of the Resource Management Act (RMA). This evaluation should consider the long-term effects on freshwater bodies over the forest lifecycle, sedimentation, erosion, and the impact on indigenous species. Furthermore, Section 43A (5) of the RMA emphasises that if an NES allows an activity as a permitted activity, regional plans should only duplicate legislation if specific circumstances warrant it. This aligns with the court's strategies, such as the permitted baseline test, which eliminates already-considered environmental effects from further consideration during the consent process. Section 32 report, at p.107, clearly states that NES-CF has not been considered in the proposed legislation. With the proposed Natural Built Environment Act 2023, there is a move towards consolidating national documents, including the NES-CF, into a transitional National Framework. In light of these changes, the GWRC is urged to align its policies with overarching standards, preventing duplication of effort and ensuring consistency. In conclusion, a comprehensive review of proposed legislative changes is recommended to consider existing NES-CF regulations, research findings, and the impending National Framework. Aligning policies with these standards will enable the GWRC to develop consistently aligned and sustainable policies for forestry activities in the region.
S18.52	Policy P.P3: Freshwater Action Plans role in the health and wellbeing of waterways.	Amend	Amend to seek partnership not just with mana whenua but with the local community and primary industry.	The policy explicitly addresses collaboration with mana whenua concerning freshwater, a crucial resource. However, the Regional Council should pursue independent scientific consultation and solicit feedback from the community and primary industries to ensure comprehensive decision-making.
S18.53	Policy P.P4: Contaminant load reductions.	Amend	Amend to incorporate a new Table of contaminants load reduction.	This provision would warrant a review since the validity of Table 9.1 and Table 9.3, cited as the target attribute, has been contested in this submission. Consequently, the provision should be revised to incorporate the appropriate tables.
S18.54	Table 9.3: Harbour arm catchment contaminant load reductions.	Support	Review and revise the target attribute states according to the requirements outlined in Clause 3.11 (8) of NPS-FM. This review should include a reassessment of environmental outcomes, connections between water bodies, and the integration of information from freshwater accounting systems.	GWRC, when setting the TAS, was based on Greer at all (2023), which has an apparent non-compliance with Clause 3.11 (8) of NPS-FM. This clause mandates the proper consideration of environmental outcomes, target attribute states of receiving environments, connections between water bodies, and information from freshwater accounting systems when setting target attribute states. The GWRC may not have appropriately followed the specified clause in setting target attribute states. There needs to be more due consideration given to the environmental outcomes, target attribute states of receiving environments, and connections between water bodies, as required by the clause. The target attribute states set by the regional council need to adequately reflect a comprehensive understanding of the environmental outcomes, potentially leading to suboptimal results for the aquatic ecosystems in the region. The connection between water bodies and their impact on receiving environments has not been thoroughly considered, raising concerns about the effectiveness of the target attribute states in addressing broader ecological concerns. The submission raises questions about using freshwater accounting systems to inform the setting of target attribute states. It is crucial to ensure that the most accurate and up-to-date information is considered to promote effective environmental management.

S18.55	Table 9.4: Part Freshwater Management Unit sediment load reductions required to achieve the visual clarity target attribute state.	Amend	Review and revise the target attribute states according to the requirements outlined in Clause 3.11 (8) of NPS-FM. This review should include a reassessment of environmental outcomes, connections between water bodies, and the integration of information from freshwater accounting systems.	GWRC, when setting the TAS, was based on Greer at all (2023), which has an apparent non-compliance with Clause 3.11 (8) of NPS-FM. This clause mandates the proper consideration of environmental outcomes, target attribute states of receiving environments, connections between water bodies, and information from freshwater accounting systems when setting target attribute states. The GWRC may not have appropriately followed the specified clause in setting target attribute states. There needs to be more due consideration given to the environmental outcomes, target attribute states of receiving environments, and connections between water bodies, as required by the clause. The target attribute states set by the regional council need to adequately reflect a comprehensive understanding of the environmental outcomes, potentially leading to suboptimal results for the aquatic ecosystems in the region. The connection between water bodies and their impact on receiving environments has not been thoroughly considered, raising concerns about the effectiveness of the target attribute states in addressing broader ecological concerns. The submission raises questions about using freshwater accounting systems to inform the setting of target attribute states. It is crucial to ensure that the most accurate and up-to-date information is considered to promote effective environmental management.
S18.56	Policy P.P20: Managing diffuse discharges of nutrients and Escherichia coli from farming activities.	Amend	Amend to include the retirement of farming activity in high-risk erosion land (pasture) and highest erosion-risk land (pasture).	A notable divergence in approach by the Greater Wellington Regional Council (GWRC) is evident when applying rules to farming versus forestry activities. The rationale behind this disparity is aimed at reducing sediment discharge in high-risk erosion land associated with farming. A systematic process is in place for farmers, allowing them to gradually comply with the rule without jeopardising their land use. Conversely, for forestry, a stringent policy mandates the retirement of forestry in high erosion-risk land (WH.P28). The current imbalance in the treatment of agricultural and forestry land use poses significant disadvantages for the forestry sector. While agriculture, the predominant land user in New Zealand, faces regulations addressing contaminants such as nitrogen, phosphorus, sediment, and microbes, the draft Plan Change 1 primarily focuses on potential increased water discharge related to sediment in forestry operations. This unequal treatment, embedded in existing land use policies, not only hinders the growth of both sectors but also presents challenges for water quality, imposing unnecessary obstacles for foresters. The regulatory leniency granted to farming practices over forestry activities is unwarranted and contradicts scientific evidence pointing to adverse effects associated with forestry. These disparities infringe upon principles of social justice and equality enshrined in the legal system, necessitating prompt rectification as both an ethical and legal duty. The social and economic consequences of this unequal treatment for foresters are severe, resulting in financial burdens, limited resource access, and reduced growth opportunities, ultimately impeding rural development. While both farming and forestry entail environmental implications, the preferential treatment of farming practices can lead to imbalanced land use, diminished freshwater quality, and soil degradation. Promoting fair treatment between farming and forestry is indispensable for a sustainable approach to land management, preserving natural resources for future generations.
S18.57	Policy P.P22: Achieving reductions in sediment discharges from farming activities on land with high risk of erosion.	Amend	Amend to include the retirement of farming activity in high-risk erosion land (pasture) and highest erosion-risk land (pasture).	A notable divergence in approach by the Greater Wellington Regional Council (GWRC) is evident when applying rules to farming versus forestry activities. The rationale behind this disparity is aimed at reducing sediment discharge in high-risk erosion land associated with farming. A systematic process is in place for farmers, allowing them to gradually comply with the rule without jeopardising their land use. Conversely, for forestry, a stringent policy mandates the retirement of forestry in high erosion-risk land (WH.P28). The current imbalance in the treatment of agricultural and forestry land use poses significant disadvantages for the forestry sector. While agriculture, the predominant land user in New Zealand, faces regulations addressing contaminants such as nitrogen, phosphorus, sediment, and microbes, the draft Plan Change 1 primarily focuses on potential increased water discharge related to sediment in forestry operations. This unequal treatment, embedded in existing land use policies, not only hinders the growth of both sectors but also presents challenges for water quality, imposing unnecessary obstacles for foresters. The regulatory leniency granted to farming practices over forestry activities is unwarranted and contradicts scientific evidence pointing to adverse effects associated with forestry. These disparities infringe upon principles of social justice and equality enshrined in the legal system, necessitating prompt rectification as both an ethical and legal duty. The social and economic consequences of this unequal treatment for foresters are severe, resulting in financial burdens, limited resource access, and reduced growth opportunities, ultimately impeding rural development. While both farming and forestry entail environmental implications, the preferential treatment of farming practices can lead to imbalanced land use, diminished freshwater quality, and soil degradation. Promoting fair treatment between farming and forestry is indispensable for a sustainable approach to land management, preserving natural resources for future generations.

S18.58	Policy P.P24: Managing rural land use change.	Oppose	Delete this provision or review it in alignment with the reason below.	This policy imposes extreme limitations on land use. While PF Olsen acknowledges the importance of effective land management and environmental conservation, the current formulation of this rule may need to be more relaxed, potentially impeding sustainable development and responsible land use practices. Only allows resource consent change in land use when, by Policy P75, the diffuse discharge of nitrogen, phosphorus, sediment and Escherichia coli of the more intensive activity is demonstrated to be the same or less than the activities being replaced is very extreme. Firstly, it is crucial to emphasise the need for a balanced and flexible approach in formulating land use regulations. The intention behind the rule is to address environmental concerns. Still, there is a risk that an excessively stringent approach may hinder economic activities, discourage investment, and limit the community's growth potential. This policy should be reviewed and consideration of the following points: Scientific Basis: Ensure that the rule is grounded in scientifically supported evidence demonstrating the necessity and proportionality of the proposed restrictions. Flexibility: Introduce provisions allowing case-by-case evaluations, considering specific circumstances and the potential for innovative and sustainable land use practices that adhere to environmental standards. Economic Impact Assessment: Conduct a comprehensive economic impact assessment to understand the potential ramifications on local businesses, property values, and overall economic vitality. This assessment should guide adjustments to the rule to minimise adverse effects. Community Engagement: Facilitate meaningful community engagement to incorporate diverse perspectives and local knowledge into decision-making. This ensures that the rule reflects the needs and aspirations of the community it seeks to serve. Adaptive Management: Implement mechanisms for ongoing monitoring and adaptive management, allowing for adjustments to the rule as new information emerges and technologies evolve.
S18.59	Policy P.P26: Achieving reductions in sediment discharges from plantation forestry.	Oppose	Delete the policy	Several aspects of the proposed policy require careful reconsideration. 1. Contesting the Extreme Nature of Retirement Rules: The retirement rules proposed in Plan Change 1, specifically prohibiting forestry activities in high erosion areas, appear excessively stringent. This extreme provision may lead to significant economic burdens for the forestry sector, triggering liabilities under the Emissions Trading Scheme (ETS) and devaluing affected land. I urge the GWRC to reassess the economic impact and necessity of such retirement rules, ensuring a balanced approach considering the financial implications for the industry and the community. 2. Need for Alignment with NES-CF and Scientific Approach: IPF Olsen emphasises the need for greater alignment with the National Environmental Standard for Commercial Forestry (NES-CF) and a more scientific approach in formulating forestry regulations. The NES-CF, secondary legislation, sets standards for forestry activities across New Zealand. The proposed rules should be consistent with NES-CF provisions and supported by scientifically sound evidence, considering the positive impacts of well-managed forests on water quality and biodiversity. 3. Disparity in Treatment between Land Use Activities: The unequal treatment between agricultural and forestry land use is evident in the proposed plan. This disparity not only obstructs the growth of both sectors but also contradicts scientific evidence. The preferential leniency towards farming practices over forestry activities is unwarranted and requires prompt rectification to promote fairness and sustainability in land management. 4. Lack of Scientific-Based Decisions: The proposed retirement rules for forestry activities need a scientific foundation, overlooking the positive impact of well-managed forests on freshwater quality. The assumptions about forestry's detrimental effects on sedimentation must be reevaluated in light of comprehensive studies and expert opinions, ensuring evidence-based decision-making. 5. Economic Impact and Unreasonable Change of Land Use: The economic impact of the proposed retirement rules on the forestry sector, triggering ETS liabilities and rendering land unusable, requires a more detailed analysis. Section 85(1) of the Resource Management Act (RMA) prohibits provisions that deem land unusable or injuriously affected without justification. The economic burden and effects on land use need careful consideration in the finalisation of Plan Change 1. In conclusion, PF Olsen would like the GWRC to conduct a comprehensive review of the proposed retirement forestry activity, considering the points raised in this submission
S18.60	Policy P.P27: Management of earthworks sites.	Amend	Amend to clarify if this policy does not apply to forestry earthworks.	It is unclear if this policy will be applied to forestry earthworks. This should not, as NES-CF has already provided for good management practices, limiting soil disturbance and requiring erosion and sediment control.
S18.61	Policy P.P28: Discharge standard for earthworks sites.	Amend	Amend to clarify that the discharge standards for earthworks do not apply to forestry earthworks.	It is unclear if this policy will be applied to forestry earthworks. This should not, as NES-CF has already provided for good management practices, limiting soil disturbance and requiring erosion and sediment control.

S18.62	Policy P.P29: Winter shut down of earthworks.	Oppose	Delete this policy	PF Olsen advocates for removing the proposed winter shutdown of earthworks rule, as outlined in the WH.P31. The winter shut down of earthworks rule may have unintended consequences and hinder certain legitimate activities without a commensurate environmental benefit. 1. Economic Impacts on Construction and Development: The proposed winter shut down of earthworks rule has the potential to impose significant economic burdens on construction and development projects. Winter months are critical for advancing infrastructure projects, and the mandatory shut down could lead to delays, increased costs, and logistical challenges. I recommend a thorough economic impact assessment to evaluate the consequences of such a rule on local businesses, employment, and project timelines. 2. Alternative Mitigation Measures: Rather than a blanket prohibition, PF Olsen suggests exploring alternative mitigation measures that can be implemented during winter months to address concerns about soil erosion and sedimentation. This could include enhanced erosion control measures, sedimentation ponds, or other best management practices that allow essential earthworks to proceed responsibly without compromising environmental goals.
S18.63	Rule P.R16: Vegetation clearance on highest erosion risk land– permitted activity.	Amend	Amend this rule to default to the NES-CF standards for vegetation clearance.	PF Olsen supports the vegetation clearance rules under the NES-CF, and there is no need to be more stringent. Limiting the vegetation clearance for only two situations is a departure from the NES-CF. There is a need for greater alignment with the National Environmental Standard for Commercial Forestry (NES-CF) and a more scientific approach to formulating forestry regulations. The NES-CF, being secondary legislation, sets standards for forestry activities across New Zealand. The proposed rules should be consistent with NES-CF provisions and supported by scientifically sound evidence, considering the positive impacts of well-managed forests on water quality and biodiversity.
S18.64	Rule P.R17: Vegetation clearance on highest erosion risk land – controlled activity.	Amend	Amend this rule to default to the NES-CF standards for vegetation clearance.	PF Olsen supports the vegetation clearance rules under the NES-CF, and there is no need to be more stringent. Limiting the vegetation clearance for only two situations is a departure from the NES-CF. There is a need for greater alignment with the National Environmental Standard for Commercial Forestry (NES-CF) and a more scientific approach to formulating forestry regulations. The NES-CF, being secondary legislation, sets standards for forestry activities across New Zealand. The proposed rules should be consistent with NES-CF provisions and supported by scientifically sound evidence, considering the positive impacts of well-managed forests on water quality and biodiversity.
S18.65	Rule P.R18: Vegetation clearance – discretionary activity.	Amend	Amend this rule to default to the NES-CF for vegetation clearance rules.	PF Olsen supports the vegetation clearance rules under the NES-CF, and there is no need to be more stringent. Limiting the vegetation clearance for only two situations is a departure from the NES-CF. There is a need for greater alignment with the National Environmental Standard for Commercial Forestry (NES-CF) and a more scientific approach to formulating forestry regulations. The NES-CF, being secondary legislation, sets standards for forestry activities across New Zealand. The proposed rules should be consistent with NES-CF provisions and supported by scientifically sound evidence, considering the positive impacts of well-managed forests on water quality and biodiversity.

S18.66	Rule P.R19: Plantation forestry – controlled activity.	Amend	Amend this rule to allow the plan to recognise the permitted activity status from NES-CF.	As written in the plan, the default activity status for forestry activities is controlled for Te Awarua-o-Porirua Whaitua, which is a huge bypass of the NES-CF. PF Olsen emphasises the need for a comprehensive review of the proposed rules in relation to forestry activities, aligning them with existing recommendations and scientific evidence. 1. Lack of Alignment with Whaitua Recommendations: The Te Awarua-o-Porirua Whaitua Implementation Programme recommendations, specifically numbers 54, 55, 56, and 57, need to align with the stringent rules proposed in Plan Change 1. These recommendations advocate for good practice standards in forestry, following the specifications outlined in the National Environmental Standard for Commercial Forestry (NES-CF). The departure from these recommendations raises concerns about the coherence and appropriateness of the proposed forestry regulations. 2. Inadequate Assessment of Forestry Rules: The Section 32 Report, particularly Part D and Table D1, highlights the proposed rules' contribution to achieving the National Policy Statement for Freshwater Management (NPS-FM) Appendix 2A. However, there are notable areas for improvement in the assessment methodology conducted by Greer in 2023a and 2023b. The lack of a peer-reviewed process and flaws in the assessment, particularly the evaluation of retirement, space planting, and riparian management rules based on farming activity, cast doubt on the effectiveness of the proposed forestry rules. 3. Unjustified Stringency in Forestry Regulations: The presumption underlying the proposed rules that forestry activities are a significant cause of sedimentation contradicts recent scientific reports. Numerous studies and expert opinions, including those of Zhang et al. (2010) and Dr. John Quinn from NIWA, challenge this assumption. The disparity in the treatment of forestry compared to pastoral systems, without considering the environmental and economic benefits of plantation forestry, raises questions about the scientific basis of the proposed regulations. 4. Positive Impact of Trees on Water Quality: Scientific studies, such as Mason (2003), highlight the positive impact of trees, specifically radiata pine, on water quality. Contrary to the assumed detrimental effects, planted forests are water storage during winter, releasing rainfall gradually and mitigating downstream flooding. The proposed rules, especially those restricting tree planting near water bodies, need a more nuanced understanding of the positive contributions of well-managed forests. In conclusion, PF strongly urges the GWRC to reconsider the proposed forestry regulations in light of the concerns above. An evidence-based approach, aligning with existing recommendations and acknowledging the positive impacts of forestry on water quality, will contribute to the development of regulations that are both environmentally sound and conducive to sustainable economic growth

Raw submission documents

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Document name	File	Description	Upload date
Forestry water flow research	20231117deanmeasonwaterflowssubmission.docx		11/12/2023 18:16
Submission high level points	20231201pfolsensubmissiongreaterwellingtonplanchange1draft2docx.docx	This is the high level points reasoning	11/12/2023 18:35

S18.67	Rule P.R20: Plantation forestry – discretionary activity.	Amend	Revise the status to "restricted discretionary," outlining specific criteria where landowners can meet the requirements, leading to the granting of resource consent.	Setting a discretionary activity status for forestry activity in Te Awarua-o-Porirua Whaitua is very restrictive, a massive bypass of the NES-CF. PF Olsen emphasises the need for a comprehensive review of the proposed rules about forestry activities, aligning them with existing recommendations and scientific evidence. 1. Lack of Alignment with Whaitua Recommendations: The Te Awarua-o-Porirua Whaitua Implementation Programme recommendations, specifically numbers 54, 55, 56, and 57, need to align with the stringent rules proposed in Plan Change 1. These recommendations advocate for good practice standards in forestry, following the specifications outlined in the National Environmental Standard for Commercial Forestry (NES-CF). The departure from these recommendations raises concerns about the coherence and appropriateness of the proposed forestry regulations. 2. Inadequate Assessment of Forestry Rules: The Section 32 Report, particularly Part D and Table D1, highlights the proposed rules' contribution to achieving the National Policy Statement for Freshwater Management (NPS-FM) Appendix 2A. However, there are notable areas for improvement in the assessment methodology conducted by Greer in 2023a and 2023b. The lack of a peer-reviewed process and flaws in the assessment, particularly the evaluation of retirement, space planting, and riparian management rules based on farming activity, cast doubt on the effectiveness of the proposed forestry rules. 3. Unjustified Stringency in Forestry Regulations: The presumption underlying the proposed rules that forestry activities are a significant cause of sedimentation contradicts recent scientific reports. Numerous studies and expert opinions, including those of Zhang et al. (2010) and Dr. John Quinn from NIWA, challenge this assumption. The disparity in the treatment of forestry compared to pastoral systems, without considering the environmental and economic benefits of plantation forestry, raises questions about the scientific basis of the proposed regulations. 4. Positive Impact of Trees on Water Quality: Scientific studies, such as Mason (2003), highlight the positive impact of trees, specifically radiata pine, on water quality. Contrary to the assumed detrimental effects, planted forests are water storage during winter, releasing rainfall gradually and mitigating downstream flooding. The proposed rules, especially those restricting tree planting near water bodies, need a more nuanced understanding of the positive contributions of well-managed forests. In conclusion, PF strongly urges the GWRC to reconsider the proposed forestry regulations in light of the concerns above. An evidence-based approach, aligning with existing recommendations and acknowledging the positive impacts of forestry on water quality, will contribute to the development of regulations that are both environmentally sound and conducive to sustainable economic growth.
S18.68	Rule P.R21: Plantation Forestry on highest erosion risk land – prohibited activity.	Oppose	Delete the provision	This extreme provision does not align with existing recommendations and scientific evidence. 1. Lack of Alignment with Whaitua Recommendations: The Te Awarua-o-Porirua Whaitua Implementation Programme recommendations, specifically numbers 54, 55, 56, and 57, need to align with the stringent rules proposed in Plan Change 1. These recommendations advocate for good practice standards in forestry, following the specifications outlined in the National Environmental Standard for Commercial Forestry (NES-CF). The departure from these recommendations raises concerns about the coherence and appropriateness of the proposed forestry regulations. 2. Inadequate Assessment of Forestry Rules: The Section 32 Report, particularly Part D and Table D1, highlights the proposed rules' contribution to achieving the National Policy Statement for Freshwater Management (NPS-FM) Appendix 2A. However, there are notable areas for improvement in the assessment methodology conducted by Greer in 2023a and 2023b. A peer-reviewed methodology and flaws in the assessment, particularly the assessment of retirement, space planting, and riparian management rules based on farming activity, are necessary for the effectiveness of the proposed forestry rules. 3. Unjustified Stringency in Forestry Regulations: The presumption underlying the proposed rules that forestry activities are a significant cause of sedimentation contradicts recent scientific reports. Numerous studies and expert opinions, including those of Zhang et al. (2010) and Dr. John Quinn from NIWA, challenge this assumption. The disparity in the treatment of forestry compared to pastoral systems, without considering the environmental and economic benefits of plantation forestry, raises questions about the scientific basis of the proposed regulations. 4. Positive Impact of Trees on Water Quality: Scientific studies, such as Mason (2003), highlight the positive impact of trees, specifically radiata pine, on water quality. Contrary to the assumed detrimental effects, planted forests are water storage during winter, releasing rainfall gradually and mitigating downstream flooding. The proposed rules, especially those restricting tree planting near water bodies, need a more nuanced understanding of the positive contributions of well-managed forests.
S18.69	Rule P.R22: Earthworks – permitted activity.	Amend	Amend to clarify if the permitted activity requirement applies to forestry earthworks.	It is uncertain if the rules for permitted activity will apply to forestry earthworks.
S18.70	Rule P.R23: Earthworks – restricted discretionary activity.	Amend	Amend to clarify if restricted discretionary activity will apply to forestry earthworks.	It is uncertain if the rules for permitted activity will apply to forestry earthworks.

S18.71	Rule P.R24: Earthworks – non-complying activity.	Amend	Amend to clarify if restricted discretionary activity will apply to forestry earthworks.	It is uncertain if the rule for permitted activity will apply to forestry earthworks.
S18.72	Rule P.R25: Farming activities on properties of between 4 hectares and 20 hectares – permitted activity.	Amend	Amend to equally treatment of retirement of the farm land for high erosion risk land (pasture) highest erosion risk land (pasture).	The current disparity in treatment between agricultural and forestry land use poses significant disadvantages for the forestry sector. While agriculture, the dominant land user in New Zealand, faces regulations addressing contaminants such as nitrogen, phosphorus, sediment, and microbes, forestry regulations, as outlined in the draft Plan Change 1, primarily focus on potential increased water discharge related to sediment. This unequal treatment, evident in existing land use policies, not only obstructs the growth of both sectors but also presents challenges for water quality and imposes unnecessary obstacles for foresters. The preferential regulatory leniency enjoyed by farming practices over forestry activities is unwarranted and contradicts scientific evidence highlighting adverse effects associated with forestry. Such disparities violate principles of social justice and equality enshrined in the legal system, demanding prompt rectification as an ethical and legal duty. The social and economic consequences of this unequal treatment for foresters are severe, manifesting in financial burdens, limited resource access, and reduced growth opportunities, ultimately hindering rural development. There is no justification for not having a similar retirement rule for farming activities.
S18.73	Rule P.R26: Farming activities on 20 hectares or more of land – permitted activity.	Amend	Amend to include the retirement of pastoral land use with the highest erosion risk land (pasture) or high erosion risk land (pasture).	The current disparity in treatment between agricultural and forestry land use poses significant disadvantages for the forestry sector. While agriculture, the dominant land user in New Zealand, faces regulations addressing contaminants such as nitrogen, phosphorus, sediment, and microbes, forestry regulations, as outlined in the draft Plan Change 1, primarily focus on potential increased water discharge related to sediment. This unequal treatment, evident in existing land use policies, not only obstructs the growth of both sectors but also presents challenges for water quality and imposes unnecessary obstacles for foresters. The preferential regulatory leniency enjoyed by farming practices over forestry activities is unwarranted and contradicts scientific evidence highlighting adverse effects associated with forestry. Such disparities violate principles of social justice and equality enshrined in the legal system, demanding prompt rectification as an ethical and legal duty. The social and economic consequences of this unequal treatment for foresters are severe, manifesting in financial burdens, limited resource access, and reduced growth opportunities, ultimately hindering rural development. There is no justification for not having a similar retirement rule for farming activities.
S18.74	Table 9.5: Phase in of farm environment plans for Part Freshwater Management Units.	Oppose	Delete the table 9.5	The current disparity in treatment between agricultural and forestry land use poses significant disadvantages for the forestry sector. While agriculture, the dominant land user in New Zealand, faces regulations addressing contaminants such as nitrogen, phosphorus, sediment, and microbes, forestry regulations, as outlined in the draft Plan Change 1, primarily focus on potential increased water discharge related to sediment. This unequal treatment, evident in existing land use policies, not only obstructs the growth of both sectors but also presents challenges for water quality and imposes unnecessary obstacles for foresters. The preferential regulatory leniency enjoyed by farming practices over forestry activities is unwarranted and contradicts scientific evidence highlighting adverse effects associated with forestry. Such disparities violate principles of social justice and equality enshrined in the legal system, demanding prompt rectification as an ethical and legal duty. The social and economic consequences of this unequal treatment for foresters are severe, manifesting in financial burdens, limited resource access, and reduced growth opportunities, ultimately hindering rural development. There is no justification for not having a phase-out for farming and retirement land use for forestry. Why not apply the rationale and have a phase-out programme for forestry?
S18.75	Schedule 33: Vegetation Clearance Erosion and Sediment Management Plan.	Oppose	Delete this provision and default to the NES-CF	The erosion and sediment management plan has the same rationale as the management plan mandatory for forestry activities: harvest, forestry quarry, forestry earthworks, afforestation and replanting. There is no need to create a redundant erosion and sediment plan if the default in the NES-CF already covers this topic.
S18.76	Schedule 34: Plantation Forestry Erosion and Sediment Management Plan.	Oppose	Delete this schedule. Refer to NES-CF management plans.	The erosion and sediment management plan has the same rationale as the management plan mandatory for forestry activities: harvest, forestry quarry, forestry earthworks, afforestation and replanting. There is no need to create a redundant erosion and sediment plan if the default in the NES-CF already covers this topic.
S18.77	Schedule 35: Small farm registration.	Amend	Amend to include the same option for small forests	Provide equal treatment for rural production, where there is a high risk of erosion of land.
S18.78	Map 90: Highest and high erosion risk land (Pasture) – Te Awarua-o-Porirua.	Oppose	Delete the mapping layer or have it peer reviewed to establish its scientific validity.	The Erosion Risk Mapping for Te-Awarua-o-Porirua and Te-Whanganui-a-Tara was developed mainly using three primary erosion types: surficial erosion, shallow landslides and streambank erosion. Page 5 of the report states that the "Pasture erosion risk has been calculated for each Whaitua within the area defined by the LCDB as "High-producing grassland" and "Low-producing grassland". Risk quantiles were calculated first, then any pixels not at risk of shallow landslides removed". The 'highest-risk' land currently in pasture is defined as the most erodible 10% by area, and 'high-risk' land in pasture is defined as the most erodible 30% by region within each Whaitua. There is more research available to determine landslide susceptibility by the Smarter Targeting of Erosion Control (STEC) MBIE Endeavour research programme (2018-2023) led by Manaaki Whenua – Landcare Research (MWLR), which is usually peer-reviewed.
S18.79	Map 91: Highest erosion risk land (Woody vegetation) – Te Awarua-o-Porirua.	Oppose	Delete the mapping layer or have it peer reviewed to establish its scientific validity.	The Erosion Risk Mapping for Te-Awarua-o-Porirua and Te-Whanganui-a-Tara was developed mainly using three primary erosion types: surficial erosion, shallow landslides and streambank erosion. Page 5 of the report states that the "Pasture erosion risk has been calculated for each Whaitua within the area defined by the LCDB as "High-producing grassland" and "Low-producing grassland". Risk quantiles were calculated first, then any pixels not at risk of shallow landslides removed". The 'highest-risk' land currently in pasture is defined as the most erodible 10% by area, and 'high-risk' land in pasture is defined as the most erodible 30% by region within each Whaitua. There is more research available to determine landslide susceptibility by the Smarter Targeting of Erosion Control (STEC) MBIE Endeavour research programme (2018-2023) led by Manaaki Whenua – Landcare Research (MWLR), which is usually peer-reviewed.
S18.80	Map 93: Highest and high erosion risk land (Pasture) – Te Whanganui-a-Tara.	Oppose	Delete the mapping layer or have it peer reviewed to establish its scientific validity.	The Erosion Risk Mapping for Te-Awarua-o-Porirua and Te-Whanganui-a-Tara was developed mainly using three primary erosion types: surficial erosion, shallow landslides and streambank erosion. Page 5 of the report states that the "Pasture erosion risk has been calculated for each Whaitua within the area defined by the LCDB as "High-producing grassland" and "Low-producing grassland". Risk quantiles were calculated first, then any pixels not at risk of shallow landslides removed". The 'highest-risk' land currently in pasture is defined as the most erodible 10% by area, and 'high-risk' land in pasture is defined as the most erodible 30% by region within each Whaitua. There is more research available to determine landslide susceptibility by the Smarter Targeting of Erosion Control (STEC) MBIE Endeavour research programme (2018-2023) led by Manaaki Whenua – Landcare Research (MWLR), which is usually peer-reviewed.

S18.81	Map 94: Highest erosion risk land (Woody vegetationclearance) – Te Whanganui-a-Tara.	Oppose	Delete the mapping layer or have it peer reviewed to establish its scientific validity.	The Erosion Risk Mapping for Te-Awarua-o-Porirua and Te-Whanganui-a-Tara was developed mainly using three primary erosion types: surficial erosion, shallow landslides and streambank erosion. Page 5 of the report states that the "Pasture erosion risk has been calculated for each Whaitua within the area defined by the LCDB as "High-producing grassland" and "Low-producing grassland". Risk quantiles were calculated first, then any pixels not at risk of shallow landslides removed". The 'highest-risk' land currently in pasture is defined as the most erodible 10% by area, and 'high-risk' land in pasture is defined as the most erodible 30% by region within each Whaitua. There is more research available to determine landslide susceptibility by the Smarter Targeting of Erosion Control (STEC) MBIE Endeavour research programme (2018-2023) led by Manaaki Whenua – Landcare Research (MWLR), which is usually peer-reviewed.
S18.82	Map 95: Highest erosion risk land (Plantation forestry) – Te Whanganui-a-Tara.	Oppose	Delete the mapping layer or have it peer reviewed to establish its scientific validity.	The Erosion Risk Mapping for Te-Awarua-o-Porirua and Te-Whanganui-a-Tara was developed mainly using three primary erosion types: surficial erosion, shallow landslides and streambank erosion. Page 5 of the report states that the "Pasture erosion risk has been calculated for each Whaitua within the area defined by the LCDB as "High-producing grassland" and "Low-producing grassland". Risk quantiles were calculated first, then any pixels not at risk of shallow landslides removed". The 'highest-risk' land currently in pasture is defined as the most erodible 10% by area, and 'high-risk' land in pasture is defined as the most erodible 30% by region within each Whaitua. There is more research available to determine landslide susceptibility by the Smarter Targeting of Erosion Control (STEC) MBIE Endeavour research programme (2018-2023) led by Manaaki Whenua – Landcare Research (MWLR), which is usually peer-reviewed.