
**Further submission
of
China National Forestry
Group
regarding**

**Greater Wellington
Regional Council
Natural Resources Plan
– Plan Change 1,**

**Hearing Stream 2
Ecosystem Health &
Water Quality**



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Preliminaries

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Introduction

Following are further submissions in relation to the submission points raised in the original substantive submissions of China Forestry Group (CFG) in response to the proposed Greater Wellington Regional Council Natural Resources Plan Change 1 (PC1).

These further submissions relate to the specific CFG submission points addressed in the GWRC Section 42A reports and supporting technical reports as prepared for the Hearing Stream 2.

Who are we?

CFG are owners of forests in the Greater Wellington Region. The forests are commercial plantations forests that occur in various parts of the wider region but include the 3,800 gross hectares of what were the Council owned forest assets that were sold as cutting rights by the Regional Council in 2018 (see map Appendix 1). CFG also own freehold forests in the Wairarapa and considerable estate nationwide.

Day-to-day management of the forests in the Southern North Island is undertaken by the forest management services firm Forest 360 (based in the Wellington Region) in accordance with management agreements and plans exercised between the two parties. All management of the past GWRC forests is undertaken in accordance with the terms and conditions of the 'Cutting Right' agreements including regular reporting to and liaison with GWRC staff on matters including management and coordination of risks and interactions related to the extensive public use of parts of the estate, protection of important historic features, biodiversity matters and regular operational compliance monitoring.

Forest 360 hold FSC environmental certification for the estates that are the subject of this submission.

CFG and its associates are thus part of the communities of Whaitu Te Whanganui -a-Tara and Te Awarua-o-Porirua and their outputs and efforts contribute directly to the social, economic and environmental fabric of the local and wider region.

Key Matters of Submission

Objectives and Ecosystem Health & water quality

In relation to the matters of the objectives and ecosystem health and water quality of PC1 To be addressed in hearing stream 2, CFG submitted specifically on the following points:

Table 1

Plan Item	Initial CFG stance	Decision sought
Objectives		
WH01	S288.038 Lack of clarity in the meaning of Wai-ora state/ 'natural character' and the impacts of climate change.	<i>The description needs to include the caveat that natural character refers to a waterbodies state in response to a variety of input conditions that are managed to achieve a level of naturalness. However, issues such as climate change and in particular storm frequency and intensity may, in the future, mean 'natural character' is not the same as the targets being strived for now. The risk is a mismatch between what is attempting to be legally enforced and what is achievable!</i>
WH02	General support	NA
WH03	General support	NA
WH06	General support	NA
WH08	General support	NA
WH09	S288.044 Requirement for attribute improvement in all river reaches if TAS not met in Prt FW management unit monitoring sites	<i>This does not reflect good management. Adjust to reflect A failure to meet TAS at a part FMU monitoring site should require identification of the problem source and a focus on raising the TAS performance in that area. TAS in some sub catchments may be met already and not practicably able to be improved.</i>
P.01	S288.081 As for WH01, lack of clarity about meaning of natural state	<i>The description needs to include the caveat that natural state refers to a waterbodies state in response to a variety of input conditions that are managed to achieve a level of naturalness. However, issues such as climate change and in particular storm frequency and intensity may in the future mean 'natural state is not the same as the targets being striven for now. The risk is legally enforceable unachievable goals!</i>
P.02	General Support	
P.03	General Support	
P.06	S288.085 As for WH09	<i>This does not reflect good management. Adjust to reflect a failure to meet TAS at a part FMU monitoring site should require identification of the problem source and a focus on raising the TAS performance in that area. TAS in some sub catchments may be met already and not practicably able to be improved.</i>

Plan Item	Initial CFG stance	Decision sought
Ecological Health		
WH.P1 &P.P1	Sub-clause (d) refers to requirements to achieve changes to land use activities.	<i>The common usage of the term 'land use' is often more associated with rural or primary production land uses. In the context of this plan it <u>needs clarification to include urban land use</u> since this is a major source of contaminants.</i>
WH.P2 & P.P2	Sub-clause(f) refers to 'requiring <u>active management</u> earthworks, forestry etc...	<i>As stated this is a meaningless term – such activities are already actively managed!. <u>Amend to reflect management of these activities in accordance with established regulatory frameworks and good practice codes.</u> Similar modifications could be applied to sub-clause (h) since of themselves, farm plans are not actions that improve water quality, they are a means to describe the good practice codes, regulations and actions that will be applied to a site.</i>
WH.P4		<u>More work is required.</u> While not disagreeing with the aggregated outcome reflected at the WQ monitoring site, there has been insufficient WQ monitoring in the wider sub-catchment to partition out the primary constituent cause of the poor clarity therefore action to achieve the outcome may be mis targeted.
WH.P8	Support	NA
WH.R1	Support	NA
P.P4	Clarify landuse includes urban landuse/	<i>Clarify landuse includes urban landuse/</i>

The amendments recommended in the GWRC Section 42(A) Appendix 4 report are listed in Appendix 2.

Further Submissions in response - Objectives

WH01 (a similar concern applies to P.01)

CFG acknowledge adjustments made and believe these to better reflect a long -term view about the direction of travel, the details of which are more specifically addressed through the 2040 objectives elucidated in WH09.

A significant component of CFG’s initial concern though also related to climate induced ‘events’ expressed as *“However, issues such as climate change and in particular storm frequency and intensity may in the future mean ‘natural state’ is not the same as the targets being striven for now. The risk is legally enforceable unachievable goals!”*

The Secn 42 report and explanations, as now proposed, leave the improved description around WH01 to deal with the long-term vision with the detail to be addressed in the shorter-term objectives and the targets set in the TAS tables 8.4 and also 9.2.

WH09 has also been amended and CFG acknowledge the changes as an improvement, particularly in terms of clarifying the hierarchy between WH01 and WH09 and the setting of priorities for action and the reference to the targets set in table 8.4.

CFG remain concerned however as to the mechanism(s) by which potential uncontrollable influence around the magnitude of Target Attribute States (TAS) might be recognized and accommodated.

We note:

- In the evidence of Dr Greer when discussing the meaning of ‘maintenance’ (para 53) within an attribute state with numeric TAS targets and regular continuous monitoring. Dr Greer refers to trend analysis and how an attribute would not be considered to be maintained if:
 - 53.1 If trend analysis indicates a deteriorating trend is more likely than not since the baseline period;*
 - 53.2 The trend is inconsistent with what would be expected based on climate cycles over the period for assessment; and*
 - 53.3 There is evidence of a human activity contributing to the trend.*

This is followed by the Note: *“Note: This approach means there may be instances where an attribute is considered to have been maintained despite it being in a worse attribute state than its baseline state”.*

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- As described in the Secn 42A report, the fact that baselines for many TAS were set as at 2017, and new baselines cannot be retrospectively backdated to that time is acknowledged. However, in the report by Blythe related to sediment yields in the Mangaroa it is noted:

“21.2 There is potential to expand upon the previous assessments used to inform Table 8.5 and Table 9.4 in PC1 as they only utilised 5-years of paired monitoring data above detection level to develop correlations between visual clarity and TSS. This should be extended to account for the complete record (if data was available) from 2011 to 2021 to improve correlations, recognising some landuse change may have occurred over this time”.

“42Changes in suspended sediment load due to landuse changes and implementing mitigations (for example, land retirement or pole planting) can take many years, if not decades to be expressed as water quality improvements, particularly when accounting for inter-annual variations in climate”

“46 Sediment is highly variable and tied strongly to storm events and landuse practices. As visual clarity and TSS data is collected through SOE monitoring (~12 per year, per site), it is possible that event-based sediment loads may have been missed, or rainfall intensity may have been lower than normal. No climatic analysis has been completed due to time constraints to compare the last 5-years of rainfall against the ‘baseline’ (2012-2017) period”.

“50 As discussed in paragraph 47 and presented in Table 1, it is evident in some PC1 streams (across both Whaitua) that greater event based paired sampling in the short term, or consideration of current visual clarity state over a longer time period (to account for variabilities in climate and landuse that may be missed in monthly SOE) would be helpful to reduce this uncertainty in visual clarity current state and comparison to the PC1 TASs”

It is CFG’s view that these points raised in GWRC expert evidence reflect some of the concerns underlying our submission point. The issue is not that the targets should be abandoned or considered wrong but rather what is the feed back loop that is built into the system to recognise the potential for increasing stochastic events as a result of climate change influences?

We and GWRC are not in a position to predict accurately how these changes may materialise in the region, but we can expect increased frequency and severity in storm events. Under such scenarios, the landscapes will respond in the only way they can, irrespective of land cover, and that implies increased erosion, landsliding and stream channel erosion and reconfiguring. All these could lead to significant increases in sediment delivery and pressures on aquatic ecosystem health, the effects of which span years and are driven by extremes rather than averages.

CFG therefore remain concerned, not about the existence of the TAS baselines and setting of targets which are necessary management, but by how the system is to differentiate between expected efficacy of actions to meet targets based around recently established and measured baselines and the possibility that concurrently the ‘natural state’ of waterbodies is or will be challenged by matters over which there is little control. We believe this matter needs to be addressed in the plan or the plan referenced to an established methodology by which this issue would be addressed. Its omission is a potentially serious flaw and is of particular relevance when plan rulemaking proposes significant changes and constraints upon land use.

CFG are also aware of the supplementary submissions from the Wellington Farm Forestry Association (WFFA) related to the effects of the CDOM arising from a tributary of the Mangaroa Part Freshwater Management Unit. The further work done by GWRC to adjust for the influence of that natural component is acknowledged. We note and agree the submission by WFFA that the adjusted target is still subject to some uncertainty, and they seek to have the adjustment recognised as interim.

This situation serves to illustrate the similarity of potential problems that could arise if baselines set from data covering too limited timeframes, or periods that are more climatologically stable, are then applied into a future that may well be subject to less stability, unless there is an agreed protocol and methodology to isolate the uncontrollable influence.

WH09 (a similar concern applies to P.06)

CFG originally submitted on these two items because they appeared to suggest that if there was a failure to meet a TAS target state in a Part Freshwater Management Unit, the requirement was to then improve water quality attributes 'in all rivers and river reaches within the Part Freshwater Management Unit.

CFG acknowledge the advice from Dr Greer interpreting the meaning of 'Maintain' in relation to the TAS measured status and targets as against the 'Bands' they may fall within.

CFG acknowledges also that amendments made to the text of WH09 and agree it improves clarity and guidance in applying the intentions. Notwithstanding that we remain concerned about the modified statement "(a) where a target attribute state in Table 8.4 is not met, the state of that attribute is improved ~~throughout in all rivers and river reaches in~~ the **part Freshwater Management Unit** so that the target attribute state is met within the timeframe indicated within Table 8.4".

CFG believes this statement still undermines the imperative that there may be relatively obvious and manageable actions that can be addressed in a reach or sub-catchment rather than the implied across-the-board adjustments affecting all parties. We are aware of the submission by the Wellington Branch of the Farm Forestry Association and the example of the Mangaroa r. While that example has a particular technical reason as to why a sub-catchment is contributing disproportionately to the low Suspended Sediment status of the whole part freshwater management unit, it does serve to illustrate the concern with the current wording in that addressing that localized issue flows through, markedly altering what is required in the whole part freshwater management unit.

CFG suggest that to provide for the flexibility to adopt more targeted actions where attributable, the text should be further amended as "(a) where a target attribute state in Table 8.4 is not met, the state of that attribute is improved ~~throughout in all rivers and river reaches in~~ **sufficiently where required within** the **part Freshwater Management Unit** so that the target attribute state is met within the timeframe indicated within Table 8.4"

The adjustments proposed by GWRC also raise two other considerations.

- 1) CFG are uncertain as to the efficacy of sub-clause (b) stating that '...where a target attribute state is met, the state of that attribute is at least maintained in all rivers within the part freshwater management unit'. While we support the objective, unless all reaches and river tributaries are subject to sampling it may not be possible to identify whether the attribute is maintained (at least in the short-term) in those rivers, and there will be no baseline in any case. Modelling can assist at a policy level but it would be a risky proposition at a site level. A similar argument may be put for sub-clause (c).
- 2) Our reading of sub-clause (e) is that this aims to document the means by which (b) and (c) might be achieved in a practical sense. We agree. This, particularly sub-clause (e) (i) "~~when the specific policies and rules are fully satisfied, then the target attribute states can be considered to be consistent with this objective~~", then folds back into the crux of the issues of concern to the forest sector, that being the policies and rules proposed by GWRC as they would affect forestry. The critical question which will be addressed in hearing stream 3 is the justification for applying more stringency than the regulations contained in the NES-CF when the requirement is that stringency can only be applied to give effect to a national instrument (such as the NPS/NES-FW) if the stringency need is properly evaluated and informed by data.

Further submission in response – Ecosystem health and water quality

WH.P1 (a similar concern applies to P.P1 & P.P4)

CFG was concerned that the term land use would be interpreted by many in discourse surrounding the PC1 changes as applying to rural primary production only and sought that the term should be clarified to ensure inclusion of all land including urban.

For other reasons this term has been completely removed from all locations. CFG supports that change.

WH.P2 (a similar concern applies to P.P2)

CFG were concerned that a passage referencing 'active management' to achieve plan outcomes was unhelpful in its context.

For multiple reasons this whole passage has been removed. CFG support that change.

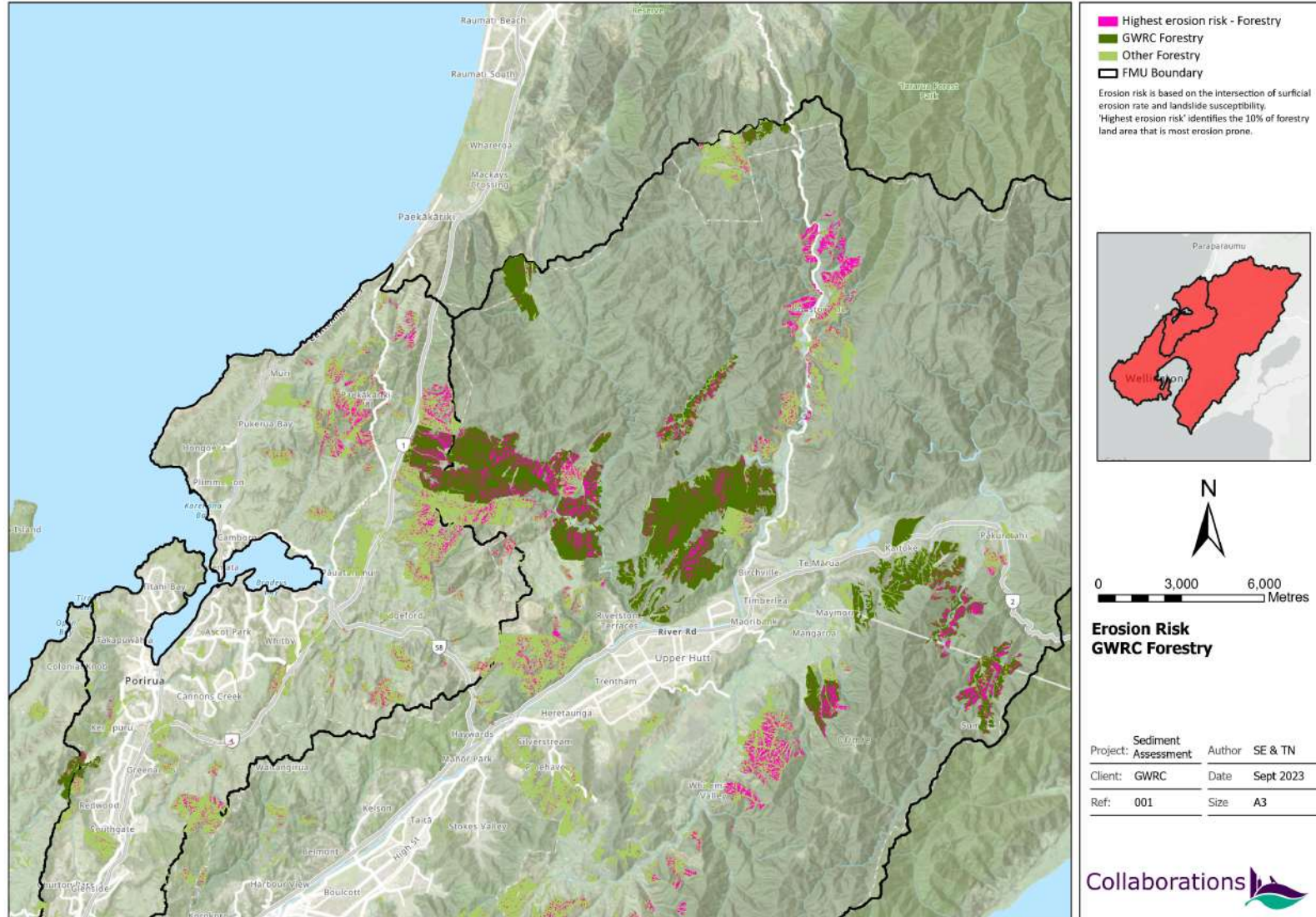
WH.P4

CFG were concerned that the poor visual clarity standard in the Mangaroa required further work to understand and partition out any key drivers for that result. CFG acknowledge GWRC has done further work in relation to CDOM from a tributary catchment resulting in a significant reduction in the TAS. It is noted from the commentary in the expert advice that there may be room to undertake further refinement of the correlation between visual clarity and the influence of CDOM to better adjust for higher flows climatic variation. To this extent CFG support the Wellington Farm Forestry Associations call that the new TAS still be regarded as interim.

Other matters

- WH06: CFG indicated general support for this objective and did not seek any decision. We note however that this objective has recommended amendments. While unlikely to be material to the forestry sector, sub-clause (b) seeks that saltwater intrusion be avoided and that there be no landward movement of the saltwater/freshwater interface. GFC question whether this can be achieved in the face of predicted sea level rise especially given the legal meaning of the term 'avoid'?
 - CFG note the adjustments to the TAS tables 8.8 and 9.2 linked to the objectives. We note the adjustments to the suspended fine sediment TAS for the Mangaroa adjusted for CDOM but support WFFA in the notion that this should still be interim given uncertainties that remain.
 - CFG also acknowledge the additional work technical work undertaken to provide an update of current water quality sampling point status (Table 4 Greer) as an indication of the current status relative to targets compared to the 2017 baselines. As a minimum, the updated status does not seem to imply any substantial adverse impact attributable forestry in the catchments in which production forests exist, notwithstanding the suspended fine sediment complications arising in the Mangaroa.
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Appendix 1 CFG estate affected by proposed plan.



Appendix 2 Section 42AA outcomes

Table of GWRC recommended adjustments-Objectives

CFG Submission point	CFG Submission	GWRC Response	GWRC Secn32AA assessment
288.038	<p>WH.01 <i>The description needs to include the caveat that natural character refers to a waterbodies state in response to a variety of input conditions that are managed to achieve a level of naturalness. However, issues such as climate change and in particular storm frequency and intensity may, in the future, mean 'natural character' is not the same as the targets being strived for now. The risk is a mismatch between what is attempting to be legally enforced and what is achievable!</i></p>	<p>The health and wellbeing of Te Whanganui-a-Tara's groundwater, rivers and natural wetlands and their margins are on a trajectory of measurable improvement towards wai ora, such that by 2040:</p> <p>(a) water quality, habitats, aquatic life, water quantity and ecological processes are at a level where the state of aquatic life ecosystem health is maintained, or meaningful progress has been made towards improvement where degraded in accordance with WH.09, and</p> <p>(b) natural form and character is maintained, or where degraded, improvement has been made to the hydrology of rivers, and erosion processes, including bank stability, are improved and sources of sediment are reduced to a more natural level, and the extent and condition of indigenous riparian vegetation is increased and improved, supporting ecosystem health, and</p> <p>(c) the extent and condition of indigenous riparian vegetation is increased and improved, and</p> <p>(d) the diversity, abundance, composition, structure and condition of mahinga kai species and communities are increased, and</p> <p>(e) huanga of mahinga kai and Māori customary use for locations identified in Schedule B (Ngā Taonga Nui a Kiwa) are maintained or improved, and</p> <p>(f) mana whenua can more safely connect with freshwater and enjoy a wider range of customary and cultural practices, including mahinga kai gathering, and</p> <p>(g) mana whenua and communities can more safely connect with freshwater and enjoy a wider range of</p>	<p>Appropriateness of the objective</p> <p>The amendments to Objective WH.01 are considered to be the most appropriate way to achieve the purpose of the Act because they provide greater certainty to plan users and resource consent applicants about how the objectives are intended to be implemented i.e. the objective is a long-term objective that does not need to be applied to resource consent assessments, as it is supported by shorter term objectives which are more specific and achievable within the life of the plan. The amendments also provide for use of freshwater resources to support social, economic, environmental and cultural wellbeing while at the same time setting an expectation to protect and restore freshwater bodies wherever possible. In doing so, the amendments give effect to the NPS-FM and the principle of Te Mana o te Wai.</p>

		<p>activities, including swimming, and fishing, kayaking and rafting food-gathering, and</p> <p>(h) freshwater of a suitable quality is available for the health needs of people, and</p> <p>(i) people and communities can provide for social and economic use benefits, provided that the health and well-being of waterbodies and ecosystems is not compromised.</p>	
S288.044	<p>WH.09 <i>This does not reflect good management. Adjust to reflect A failure to meet TAS at a part FMU monitoring site should require identification of the problem source and a focus on raising the TAS performance in that area. TAS in some sub catchments may be met already and not practicably able to be improved.</i></p>	<p>Water quality, habitats, natural form and character, water quantity and ecological processes of rivers are maintained or improved by ensuring that:</p> <p>(a) where a target attribute state in Table 8.4 is not met, the state of that attribute is improved throughout in all rivers and river reaches in the part Freshwater Management Unit so that the target attribute state is met within the timeframe indicated within Table 8.4, and</p> <p>(b) where a target attribute state in Table 8.4 is met, the state of that attribute is at least maintained in all rivers within the part Freshwater Management Unit, and</p> <p>(c) where any attribute in any river or river reach is in a better state than the target attribute state, that attribute is at least maintained at the better state in every river or river reach, and</p> <p>(d) where a huanga of mahinga kai and Māori customary use for locations identified in Schedule B (Ngā Taonga Nui a Kiwa) and is not achieved, the state of the river or river reach is improved.</p> <p>(d) where improvements are required to existing wastewater or stormwater networks:</p> <p>(i) prioritise <i>E. coli</i>/enterococci reductions that contribute to achieving the targets for primary contact site locations in Table 8.3, ahead of coastal targets in Table 8.1A and then the broader part Freshwater Management Unit <i>E. coli</i> targets in Table 8.4.</p> <p>(ii) prioritise dissolved copper and dissolved zinc reductions in locations where macroinvertebrate target attribute state(s) in Table 8.4 are not met</p>	<p>The recommended amendments to Objective WH.09 are considered the most appropriate to achieve the purpose of the Act because:</p> <ul style="list-style-type: none"> • The amendments will help guide the prioritisation of sub-catchment improvements • Amendments to the chapeau to reference natural form and character will give effect to the NPS-FM and better relate outcomes to the applicable values. • The insertion of Clause (e) clarifies the nature of the objective and who is responsible for meeting the targets. • Changes to the accompanying table respond to scientific recommendations to refine the key attributes for ecosystem health. They also improve the achievability of targets, with consideration for the costs and practicability of achieving the required improvements within the specified timeframe.

		<p>once the priorities in clause (i) above have been addressed.</p> <p>(e) the targets in Table 8.4 are managed and monitored at a part Freshwater Management Unit level, by the Council on behalf of mana whenua and the wider community, and, where specific policies and rules are included in this chapter of the plan to manage an activity, and:</p> <p>(i) when the specific policies and rules are fully satisfied, then the target attribute states can be considered to be consistent with this objective; or</p> <p>(ii) when the specific policies and rules are not satisfied, then an assessment of the impact of an activity or discharge on the achievement of the target attribute states will be required; or</p> <p>(iii) where policies and rules are not included in this chapter to manage the proposed activity, then an assessment of the impact of an activity or discharge on the achievement of the target attribute states will be required.</p> <p>[refer below for proposed changes to Table 8.4]</p>	
S288.081	<p>P.01 Include the caveat that natural character refers to a waterbodies state in response to a variety of input conditions that are managed to achieve a level of naturalness.</p>	<p>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.</p> <p><i>Note</i></p> <p>In the wai ora state:</p> <ul style="list-style-type: none"> • The values of Ngāti Toa Rangatira are upheld by way of revitalising and protecting Ngāti Toa Rangatira practices and tikanga associated with Te Awarua-o-Porirua is a taonga of Ngāti Toa Rangatira and must be respected by others • Mauri is restored and waters are in a natural state, where possible. • Ecological health is excellent in freshwater and coastal water environments • Rivers flow naturally, with ripples riffles, runs and pools, and the river beds are stony 	<p>The amendments to Objective P.01 are considered to be the most appropriate way to achieve the purpose of the Act because:</p> <ul style="list-style-type: none"> • The amendment to the first bullet point under the ‘Note’ of the objective provides a specific and measurable resource management outcome to support cultural wellbeing for Ngāti Toa Rangatira. This clarification supports plan implementation. • The remaining amendments to the objective provide greater certainty to plan users and resource consent applicants about how the objectives are intended to be implemented i.e. the objective is a long-term objective that does not need to be considered in resource consent assessments as it is supported by shorter term objectives which are more specific and achievable within the life of the plan. The amendments also provide for use of freshwater resources to support social, economic, environmental and cultural wellbeing

		<ul style="list-style-type: none"> • Mahinga kai, taonga, mahinga ika and kaimoana species are healthy, abundant, diverse, present across all stages of life, sizeable, and able to be culturally harvested by mana whenua • Mahinga kai, taonga, mahinga ika and kai moana species are safe to harvest and eat or use, including for mana whenua to exercise manaakitanga • Mana whenua and communities are able to undertake a full range of activities • Mana whenua are able to undertake cultural activities and practices • Water is able to be used for social and economic use benefits, provided that the health and well-being of waterbodies, freshwater ecosystems and coastal waters is not compromised. <p><i>Note: Objectives P.O2 to P.O6 set out what is needed to achieve progressive implementation of this long-term objective. Therefore, resource consent applicants do not need to demonstrate their proposed activities align with this objective.</i></p>	<p>while at the same time setting an expectation to protect and restore freshwater bodies wherever possible. In doing so, the amendments give effect to the NPS-FM and Te Mana o te Wai.</p>
S288.085	<p>P.O6: Water quality, habitats, water quantity and ecological processes of rivers are maintained or improved in all river reaches</p> <p>.</p>	<p>Water quality, habitats, natural form and character, water quantity and ecological processes of rivers are maintained or improved by ensuring that:</p> <ol style="list-style-type: none"> where a target attribute state in Table 9.2 is not met, the state of that attribute is improved throughout in all rivers and river reaches in the part Freshwater Management Unit so that the target attribute state is met within the timeframe indicated within Table 9.2, and where a target attribute state in Table 9.2 is met, the state of that attribute is at least maintained in all rivers within the part Freshwater Management Unit, and where any attribute in any river or river reach is in a better state than the target attribute state, 	<p>The recommended amendments to Objective P. O6 are considered the most appropriate to achieve the purpose of the Act because:</p> <ul style="list-style-type: none"> • The amendments will help guide the prioritisation of sub-catchment improvements. • Amendments to the chapeau to reference natural form and character will give effect to the NPS-FM and better relate outcomes to applicable values. • The insertion of Clause (e) clarifies the nature of the objective and who is responsible for meeting them. • Changes to the accompanying table respond to scientific recommendations to refine the key attributes for ecosystem health. They also improve the achievability of targets, with consideration for the costs and practicability of achieving the required improvements within the specified timeframe.

		<p>that attribute is at least maintained at the better state in every river or river reach, and</p> <p>(d) where a huanga of mahinga kai and Māori customary use for locations identified in Schedule B (Ngā Taonga Nui a Kiwa) is not achieved, the state of the river or river reach is improved.</p> <p>(e) where improvements are required to existing wastewater or stormwater networks:</p> <p>(i) prioritise <i>E.coli</i>/enterococci reductions that contribute to achieving the targets for coastal locations noted in Table 9.1As, ahead of broader part Freshwater Management Unit <i>E.coli</i> targets in Table 9.2.</p> <p>(ii) prioritise dissolved copper and dissolved reductions in locations where macroinvertebrate target attribute state(s) in Table 8.4 are not met once the priorities in clause (i) above have been addressed.</p> <p>(f) the targets in Table 9.2 are managed and monitored at a part Freshwater Management Unit level, by the Council on behalf of mana whenua and the wider community, and, where specific policies and rules are included in this chapter of the plan to manage an activity, and:</p> <p>(i) when the specific policies and rules are fully satisfied, then the target attribute states can be considered to be consistent with this objective; or</p> <p>(ii) when the specific policies and rules are not satisfied, then an assessment of the impact of an activity or discharge on the achievement of the target attribute states will be required; or</p>	
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		(iii) where policies and rules are not included in this chapter to manage the proposed activity, a specific assessment of the impact of an activity or discharge on the achievement of the target attribute states is required. [refer below for Table 9.2]	
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Table of GWRC recommended adjustments- Ecosystem health and water quality

CFG Submission point	CFG Submission	GWRC Response	GWRC Secn32AA assessment
S288.045/ S288.085	<i>WH.P1 & P.P1 The common usage of the term 'land use' is often more associated with rural or primary production land uses. In the context of this plan it <u>needs clarification to include urban land use</u> since this is a major source of contaminants.</i>	Aquatic ecosystem health will be improved, where deteriorated, by: (a) progressively reducing the load or concentration of contaminants, particularly sediment, nutrients, pathogens and metals, entering water, and (b) restoring habitats, and (c) enhancing the natural flow regime of rivers and managing water flows and levels, including where there is interaction of flows between surface water and groundwater, and (d) co-ordinating and prioritising work programmes promoting non-regulatory methods that seek to improve aquatic ecosystem health, in accordance with M36-M45 of the plan in catchments that require changes to land use activities that impact on water.	The recommended amendments improve the effectiveness of the policy and provide suitable guidance to plan users about the actions that are expected to improve aquatic ecosystem health and where improvement is needed. There are not expected to be any additional costs beyond those previously considered in the section 32 report. There are benefits for plan users as recommended amendments make it clear that improvements are only necessary in degraded waterbodies, which may also assist with focusing available funding on improving priority locations rather than obliging this everywhere throughout the whaitua. The amendments also make clear that work programmes are non-regulatory methods which may also include other non-regulatory actions outside of methods identified in the plan.

CFG Submission point	CFG Submission	GWRC Response	GWRC Secn32AA assessment
S288.046/ S288.087	<p>WH.P2 & P.P2 <i>As stated this is a meaningless term – such activities are already actively managed!. Amend to reflect management of these activities in accordance with established regulatory frameworks and good practice codes. Similar modifications could be applied to sub-clause (h) since of themselves, farm plans are not actions that improve water quality, they are a means to describe the good practice codes, regulations and actions that will be applied to a site.</i></p>	<p>This whole section is now deleted.</p>	<p>The recommended amendments remove unnecessary duplication with the requirements of more specific provisions (policies, rules and schedules) of PC1 and the NRP and support implementation by deferring guidance on the management of activities to the relevant activity specific provisions.</p> <p>There are expected to be no additional costs as the direction provided by this policy is already included in the more activity specific provisions of the plan.</p> <p>In relation to stock exclusion, recommended amendments support implementation of the plan change by removing a policy clause that was inconsistent with the detailed policy provisions of the plan.</p> <p>In relation to riparian planting, recommended amendments (to this policy and WH.P27 below) address a gap in PC1 as notified related to the use of riparian planting to support improvements to aquatic ecosystem health by reducing effects of nutrients in diffuse charges and sediment through stabilising stream banks.</p>
S288.048	<p>WH.P4 More work is required. <i>While not disagreeing with the aggregated outcome reflected at the WQ monitoring site, there has been insufficient WQ monitoring in the wider sub-catchment to partition out the primary constituent cause of the poor clarity therefore action to achieve the outcome may be mis targeted.</i></p>	<p>To achieve the visual clarity target attribute states in Table 8.4 in part Freshwater Management Units where the target attribute state is:</p> <p>(a) met, the mean annual sediment load must be at least maintained, and</p> <p>(b) where it is not met, a percentage reduction in the mean annual sediment load must be achieved reduced as set out in Table 8.5.</p> <p>[refer below for Table 8.5]</p>	<p>The amendments to the sediment load reductions in the table respond to the new scientific evidence on the annual sediment load levels that are expected to be necessary to meet the visual clarity TAS in those part FMUs where the objectives identify an improvement is necessary. The numbers have been updated to reflect the latest modelling predictions on the annual level of reduction expected. In the case of 'Te Awa Kairangi rural streams and rural mainstems' part-FMU, this is a material reduction to recognise the natural colour issues in the Mangaroa area due to the presence of peat. The other changes are minor, and where a slightly larger load reduction is recommended, this is simply reflective of the slight deterioration of existing conditions against the target in the time elapsed since the initial modelling work was completed. Section 42A Report – Hearing Stream 2 – Ecosystem Health and Water Quality Policies – 28 February 2025 4 Submission no. Chapter Provision Text of provision with any recommended amendments Evaluation of amendment (section 32AA assessment) Costs will reduce for the 'Te Awa Kairangi rural streams and rural mainstems' part-FMU as the TAS for this location is reduced (more lenient), and so this load reduction is also reduced. The plan effectiveness benefit is the better alignment between this policy and</p>

			<p>the associated TAS objectives it gives effect to. The environmental benefits are unchanged other than for 'Te Awa Kairangi rural streams and rural mainstems' where the TAS (and this load reduction) has now been set at a more realistic level, in light of the revised provisions accommodating the natural impacts to visual clarity, i.e., the previous target would have been unachievable due to natural sources impacting visual clarity.</p>
<p>S288.089</p>	<p><i>P.P4 Clarify landuse includes urban landuse/</i></p>	<p>To achieve the visual clarity target attribute states in Table 9.4 in part Freshwater Management Units where the target attribute state is:</p> <p>(a) met, the mean annual sediment load must be at least maintained, and</p> <p>(b) where it is not met, a percentage reduction in the mean annual sediment load must be achieved as set out in Table 9.4.</p> <p>Contaminant load reductions To achieve the coastal water objectives in Table 9.1 the Plan will manage land use activities and discharges into freshwater bodies and the coastal marine area to meet the sediment, zinc and copper load reductions for each harbour arm catchment as set out in Table 9.3. [refer below for Table 9.3]</p> <p>In addition to the harbour arm catchment load reductions, the mean annual sediment load must be reduced in the Takapū part Freshwater Management Unit as set out in Table 9.4 by 2040 to achieve the visual clarity target attribute states in Table 9.2. [refer below for Table 9.4]</p>	<p>The amendments to the sediment load reductions respond to the new scientific evidence on the annual sediment load levels that are expected to be necessary to meet the part-FMU (Takapū) requiring an improvement (in Table 9.4). The load reduction numbers have been updated to reflect latest modelling predictions on the annual level of reduction likely needed to meet the improvement specified in the associated objective. In the case of the Table 9.3 coastal sediment and metal load reductions, that content has been removed on the basis that the load reductions required for sediment were not sufficiently certain for inclusion in the plan. In addition, the metal load reductions to offset for PC1 sediment load reductions are no longer required to manage ecotoxicology effects based on the new science undertaken as preparation for this hearing.</p> <p>Costs will reduce for the new (more lenient) Porirua Harbour sedimentation rate objectives that accommodate natural sedimentation rates. This is not materially affected by the removal of the sediment load targets.</p> <p>The metal load reductions have also been removed on the basis of further scientific evidence. This has been on the basis that there are no ecosystem toxicity effects needing to be avoided by metal load reductions commensurate with the expected sediment load reductions for the Porirua Harbour. On this basis, the revised policy better aligns with the technical evidence and the objectives and is more effective as a result.</p> <p>The environmental benefits are arguably lessor for the Porirua Harbour arm catchments but more realistic as previously they essentially required management of sedimentation to natural state (pre-human) levels. The objectives now discount natural state sedimentation and do not penalise unnecessarily for metal loads where such limits are not justified from an ecotoxicology perspective.</p>

