Section 42A report & technical evidence

Rural Land Use

Greater Wellington
Te Pane Matua Taiao

Introduction to rural land use – Mr Gerard Willis

Gerard Willis BRP (Hons), MNZPI

Consultant/contractor, Enfocus Ltd, Auckland

Involved in rural (land use and diffuse discharge) provisions of the NRP

Authored nutrient and *E.coli*-related rural provisions of PC1 and s32 Report.

Operative NRP and rural land use

Farming land use and associated diffuse discharges not regulated in TWT or ToPA, except,

Some conditions on PA rules in relation to specific farming activities - cultivation and break feeding (setbacks) and discharges from offal pits, silage making and storage, farms dumps, collected animal effluent and fertiliser (setbacks and other matters)

Stock exclusion rules apply (but not everywhere)

If a farm is to be irrigated with 'new water'.

PC1 – Rural (farming) overview: 5 strand strategy

1. Focus on pastoral farming >20ha (>5ha for horticulture) to align with the national Freshwater Farm Plan regime (Part 9A of the RMA and associated FW-FP Regulations) - **FEPs** required
2. Consent to **change land use** (>4ha) to a use recognised as being more 'intensive'
3. Increased **stock exclusion** obligations where NBLs for visual clarity are not met
4. New requirements within FEPs to manage **erosion risk** (establishment of woody vegetation required for mapped erosion risk land)
5. Farming between 4-20ha of pastoral or arable land does not require an FEP but is required to **register** with council and undertake annual nitrogen N risk assessment

Rural land use: Context

1102 submission points (164 submitters) and 727 further submission points (17 submitters)

Analysis and recommendations undertaken across 10 issues in section 42A report

Issue 1: Categorisation of provisions

Freshwater Planning Instrument	Part 1, Schedule 1
Policies WH.P21, WH.P22, WH.P23, WH.P24, WH.P25, WH.P26, WH.P27, P.P20, P.P21, P.P22, P.P23, P.P24, P.P25. **Rules** WH.R26, WH.R27, WH.R28, WH.R29, WH.R30, WH.R32, P.R25, P.R26, P.R27, P.R28, P.R29. **Definitions** annual stocking rate, effective hectares, intensive grazing, recognised nitrogen risk assessment tool, registration, sacrifice paddocks, small stream riparian programme, stocking rate, stock unit, erosion and sediment management plan, erosion risk treatment plan, harvesting, highest erosion risk land (pasture), high erosion risk land (pasture) **Methods** M42 **Schedules** 33, 34, 35 and 36 **Maps** 90, 93, 96, 97	**Method** M44
Disapplication of Policies P72, P73 and P76 and Rules R110, R111 and R112	Disapplication of Policies P70, P71 and P74

Issue 1 - Categorisation of provisions to the FPP

No changes recommended to the categorisation of provisions between the FPP and P1S1 processes

Context: Issues and provisions in this topic

Issue	No. of submissions and further submissions	Provisions
2. Overall approach, especially • Whether current water quality warrants the approach • Regulatory approach vs a non regulatory approach	400	All
4A. Nutrient and E.coli management	99	*Strategy*: Policies WH.P2 and P.P20 *Nitrogen*: Policies WH.P22 and P.P21
4B. Required use of a recognised nitrogen risk assessment tool (RNRAT) by both small block and large farm owners	14	Definition of 'nitrogen discharge risk' and Part C of Schedule 36
5. Whether small rural land holdings should be subject to registration	234	Rules WH.26 and P.R25 and Schedule 35
6. Farming (including whether land use change should be restricted)	238	*Large Blocks*: Rules WH.R27 , P.R26 *Consents*: Rules WH.R30, WH.R32, P.R27 and P.R29 *Land Use Change*: Policies WH. P25 and P.P24 and Rules WH.R31 and P.R 28
7. Stock Exclusion from water bodies	251	Policy WH.P26, Rule WH.R28, Schedule 36 Part F and Maps 96 and 97
8. Erosion risk management	264	Policies WH.P23, P.P22 and associated controls in Rules WH.R.27 and P.R26, Schedule 36 Parts B and E, Maps 90 and 93
10. Requirement for and content of FEPs	130	Policies WH.P22 (c) (i), WH.P24 and P.P21 (c) (i) and P.P23. Rules WH.R27 (including Table 8.6 and P.R26 (including Table 9.5) and Schedule 36
11. Definitions	163	

Supporting technical evidence - questions arising from submissions

Overall approach

Is our knowledge base adequate, and monitoring and management framework fit for purpose?
Dr Michael Greer

Nutrient and *E.coli* Management

Can we adequate asses n loss risk through the FEP process?
Mr Jamie Peryer

Farming & land use change

Does pastoral land use pose more of a sediment loss risk than commercial forestry?
Mr James Blyth

Stock Exclusion

How may kilometres of stream are there in Makara?
Dr Michael Greer

Erosion risk Management

How was mapping done, what are the limitations?
Mr Tom Nation

How much reduction in sediment can we expect provisions to achieve?
Mr James Blyth

How much landowner support does/can GWRC provide?
Mr Jamie Peryer

Is revegetation always feasible and what other erosion control treatments are there?
Mr Jamie Peryer

Farm Environment Plans

What's the cost of a FEP?
Mr Jamie Peryer

What is a realistic phase in timetable for FEPs?
Mr Jamie Peryer

Effectiveness

How effective will PC1 provisions be (as notified and as recommended to be amended) at achieving TASs? – Dr Michael Greer

Issue 2: Overall Approach (9 sub issues)

Costs of regulation – considered cost implication in all issues and provisions however a completely non regulatory approach would not be consistent with the Clause 3.12 (1) (c) of the NPSFM that requires that limits on resource use be established *as rules*.

Pests and pest management – pests will be contributing to some water quality issues. However, farming is also a contributor and requires management. GWRC's investment in pest management is a matter to be addressed in other fora.

Non-regulatory support (Method M44) – Amendment to recognise 'partnership', CCCV and wetlands.

GWRC as an exemplar – Refer submitters to 'Recloaking Papatūanuku' (See Appendix 6)

Stream Shading (Policies WH.P27 and P.P25) – Amendment to (a) refer to supporting (not just promoting) stream shading; (b) acknowledge benefits of stream shading beyond managing periphyton risk (consistent with Ms O'Callahan's HS2 evidence)

Issue 2: Overall Approach (Cont.)

Map clarity – Addressed in relation to erosion risk management

Provisions disapplied – No amendments proposed on the basis that retaining application of policies would cause a conflict in the planning provisions in TWT and TAoP.

Forestry – Greater alignment through amendment to forestry provisions rather than amendment to farming provisions (See s42A prepared by Mr Watson).

Water quality (sources and contributions) – Continue with notified approach based on advice of Dr Greer

Monitoring, and managing for, cumulative effects– Dr Greer

- PC1 focused on managing cumulative effects at a catchment scale, rather than direct effects at a farm scale.
- TAS sites representative of cumulative adverse effects and land-cover patterns across their part-FMU, reflect average impact of discharges and land-use.
- TASs can be achieved through:
  - Requiring that all streams meet the TASs; or
  - Requiring all emitters to reduce so that the TASs is achieved at the specified sites.
- PC1 takes the latter approach - scientifically justified.
- Land-use activities or discharges that directly contribute to freshwater quality at a TAS site should be managed in accordance with the TASs set for that site.

Issue 4A: Nutrient and *E.coli* Management

Amend to recognise (in relation to WH.P21and P.P20)

- Sediment is not in the chapeau but the policy clearly includes a focus on sediment loss.
  - ***Recommendation***: *Add 'sediment' to chapeau*
- Capping is not feasible due to the absence of a tool able to be used for that purpose
  - ***Recommendation***: *Remove reference to 'capping' discharges (retaining "minimising")*
- Revegetation to address erosion risk will not always be feasible and mapped highest Erosion risk land is not sufficiently reliable
  - ***Recommendation***: *Remove reference to 'establishing woody vegetation' referring instead simply to erosion risk 'treatment'*
- The first priority in stock exclusion should be streams >1m wide
  - ***Recommendation***: *Focus stock exclusion on water bodies 'wider than 1m'.*

Issue 4A - Nutrient and *E.coli* Management (Cont.)

Amend to recognise (in relation to WH.P22 and P.P21)

- Capping is not feasible due to the absence of a tool able to be used for that that purpose
  - ***Recommendation***: *Remove reference to 'capping' discharges (retaining "minimising")*
- There is no RNRAT to assess N loss risk
  - ***Recommendation***: *Remove reference to N risk on large and small blocks being assessed by a RNRAT and to N loss risk from small blocks not increasing over time*
- The further examination of N loss risk on small blocks can be assessed without registration.
  - ***Recommendation***: *Include commitment to further investigate N loss risk from small blocks.*

Issues 4B: Recognised Nitrogen Risk Assessment Tool

- Tool that allows for quantified assessment of N loss risk to be used by both small block owners and large farms to demonstrate N loss does not increase - anticipated it would be MfE Nitrogen Risk Assessment tool (RIT).
- Imminent but not yet available
- Not recommended for use as proposed by PC1

Recommendations:

- ✓ Delete requirement to use RNRAT (Amend Part C, Schedule 36)
- ✓ Delete definition of RNRAT
- ✓ Amend Policies WH.P22 and P.P21 to delete reference to RNRAT and nitrogen discharge assessment of small blocks (clauses (a) and (b))
- ✓ Amend the definition of 'nitrogen discharge risk' to remove reference to quantified assessment

Issue 5: Small block registration

- Consenting regime for farming not compliant with PA conditions

Recommendations:

- ✓ Delete requirement for registration (Rules WH.R26 and P.R25)
- ✓ Amend Policies WH.P22 and P.P21 by removing reference to ‘smaller rural properties that are intensively farmed’.
- ✓ Delete Schedule 35
- ✓ Delete Method M41

Issue 6: Farming (large blocks)

- If area farmed >20 (for pasture/arable) or 5ha (for horticulture) FEP required by prescribed dates
- Issues: threshold applied, lack of evidence about issue and matters related to FEPs (broad brush approach, reporting of input data to GWRC, timeframes)

Recommendations:

✓ Retain with amendment to Rules WH.R27 and P.R26 to reflect revised approach to FEPs (discussed later)

Issue 6: Farming (consents)

- Consenting regime for farming not compliant with PA conditions
- Consequential amendments required as a result of deleting small block registration

Recommendations

✓ Retain but amend Rules WH.R30 and P.R27 to remove reference to the small block rules (in chapeau) and delete “change” from clause (d)

Issue 6: Farming (land use change)

- Consenting regime for land use change to more intensive use
- Greater flexibility sought particularly for horticulture and for conversion of forestry to pasture but:
  - ✓ no evidence of issue for horticulture; and
  - ✓ evidence that forestry conversion to pasture would increase sediment risk
- Concern reference to rural land use could capture activities operating in rural areas that are not primary production

Recommendations:

- ✓ Amend Policies WH.P25 and P.P24 to refer 'primary production land use' (rather than 'rural land use')
- ✓ Amend Rules WH.R31 and P.R28 to increase the threshold for permitted land use change from 4 to 5ha

Issue 7: Stock Exclusion

Small stream riparian programme (SSRP) focused on stream <1m where visual clarity NBL is exceeded (Mākara and Mangaroa).

National standards recently amended meaning streams >1m wide would not be stock excluded, creating perverse planning outcome.

Issue 7: Stock exclusion (cont)

Recommendations

- ✓ Amend Rules WH.R28 and WH.R29 to limit rule to the Mākara catchment, limit exclusion to streams >1m wide, remove reference to the SSRP, extend the date by which exclusion is required to the end of 2028
- ✓ Amend Schedule 36 by deleting reference to a SSRP and replacing with a requirement to exclude stock from streams >1m wide (with discretion to not stock exclude streams outside a mapped low slope area where it is demonstrated to be impractical – as determined through the FEP certification process)
- ✓ New definition and map (Map 96A) of 'low slope land'.

Issue 8: Managing Erosion Risk

Requirement for an Erosion Risk Treatment Plan (ERTP) as part of the FEP that achieves revegetation of mapped **Highest erosion risk** land and similarly effective treatment on mapped **High Erosion Risk land**.

Policies WH.P23, P.P22 and associated controls in Rules WH.R.27 and P.R26, Schedule 36 Parts B and E, Maps 90 and 93.

Issue 8: Erosion Risk Mapping – Mr Tom Nation

- Erosion risk mapping was originally carried out by Collaborations to support the Council's land management team to identify erosion Critical Source Areas (CSAs) in the Takapu and Pouewe part Freshwater Management Units.
- The mapping was expanded to cover TAoP and TWT Whaitua's to help with the implementation of PC1.
- The Collaborations erosion risk mapping did not consider the draft RPS definition of highly erodible land which was being developed simultaneously.

Issue 8 Erosion Risk Mapping – Mr Tom Nation

- The mapping represents 'hillslope erosion risk' which is the intersection of surficial (surface) erosion analysis and landslide erosion.
    - The surficial analysis was based on the RUSLE (Revised Universal Soil Loss Equation) and used rainfall, slope, flow accumulation, landcover, and soil data to map potential sediment loss.
    - Erosion risk categories for notified PC1 were generated from the surficial erosion layer and were based on area-quantiles relative to each Whaitua and land cover: ‘Highest risk’ is the most erodible 10% land. 'High risk' is the most erodible 30% land.

Issue 8 Erosion Risk Mapping – Mr Tom Nation

- The Landslide analysis mapped at-risk land above 26 degrees without woody vegetation cover.
- The resulting two layers were intersected to ensure the mapped surficial risk land was also potentially susceptible to landslide erosion.
- Erosion risk categories were assigned to three land cover classes: pasture, forestry and non-forestry woody vegetation.

Issue 8 Erosion Risk Mapping – Mr Tom Nation

- The risk layers were designed to spatially identify potential erosion risk and enable prioritisation of sediment mitigations to achieve sediment load reductions. The practicality, design, and cost to mitigate any land identified in the erosion risk mapping was not considered.
- There has not been any filtering applied to the risk pixels resulting in small, single pixel areas defined as ‘High risk’ or ‘Highest risk’. An exercise of aggregating and/or filtering the smaller pixels could occur.
- The notified PC1 risk area quantiles (i.e. highest risk and high risk) represent relative risk and have been calculated at the Whaitua scale for each of the three land cover classes. Redefining the scale at which the erosion mapping is considered will change the risk area quantiles.

Issue 8 Erosion Risk Mapping – Mr Tom Nation

- The erosion risk mapping does not account for sediment delivery processes such as interception or deposition or assess connectivity to the stream network.
- Earthworks, forestry harvest, or other land-disturbing activities were not considered. Similarly, already-implemented erosion control measures such as established pole planting or sediment retention bunds are not accounted for in the current iteration of the risk layers.

Issue 8 Erosion Risk Mapping – Mr Tom Nation

PC1 Revised Provisions (HS3)

- Collaborations summarised the streambank erosion susceptibility index made available by MfE, within each Whaitua and part-FMU to rank each REC reach from most to least susceptible. This dataset was included in the original mapping provided to the council and has now been included in the PC1 revised provisions map set.

- A revised version of the erosion risk mapping was requested by the Council in February 2025. The request was for the top 'High-risk' category (top 30%) to be removed. Only the top 10th percentile land is identified, and has now been reworded as 'potential erosion risk' rather than highest erosion risk.

Issue 8: Erosion Risk Management

Recommendations

- ✓ Focus on to Highest Erosion Risk land only to better match GWRC support (and based on evidence of Mr Blyth and Dr Greer – see later)
- ✓ Bring the separate pasture, forestry and woody vegetation maps together to a single map per Whaitua and (Maps 90 and 93) relabel as ‘potential erosion risk land’
- ✓ Require FEP to identify ‘priority erosion risk land’ using:
  - Maps 90 and 93 as a guide only
  - stream bank erosion using maps (Maps 90A and 93A) as a guide
- ✓ Allow for the FEP to specify the appropriate risk treatment (recognising revegetation will not be possible everywhere)
- ✓ Insert new definitions of ‘potential erosion risk land’ and ‘priority erosion treatment land’
- ✓ Apply the ERTP regime only in part FMUs where the visual clarity TAS is exceeded.

Issue 10: Farm Environment Plans

All properties >20ha require a FEP, existing Schedule Z of the NRP extended by PC1's Schedule 36

Designed to align with, but be independent of, national regulation (but review pending)

Policies WH.P22 (c) (i), WH.P24 and P.P21 (c) (i) and P.P23. Rules WH.R27 (including Table 8.6 and P.R26 (including Table 9.5) and Schedule 36

Supporting technical evidence - questions arising from submissions

Overall approach

Is our knowledge base adequate, and monitoring and management framework fit for purpose?
Dr Michael Greer

Nutrient and *E.coli* Management

Can we adequate asses N loss risk through the FEP process?
Mr Jamie Peryer

Farming & land use change

Does pastoral land use pose more of a sediment loss risk than commercial forestry?
Mr James Blyth

Stock Exclusion

How may kilometres of stream are there in Makara?
Dr Michael Greer

Erosion risk Management

How was mapping done, what are the limitations?
Mr Tom Nation

How much reduction in sediment can we expect provisions to achieve?
Mr James Blyth

How much landowner support does/can GWRC provide?
Mr Jamie Peryer

Is revegetation always feasible and what other erosion control treatments are there?
Mr Jamie Peryer

Farm Environment Plans

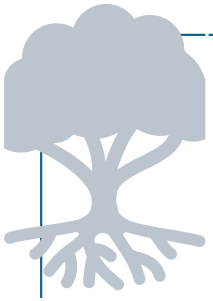
What's the cost of a FEP?
Mr Jamie Peryer

What is a realistic phase in timetable for FEPs?
Mr Jamie Peryer

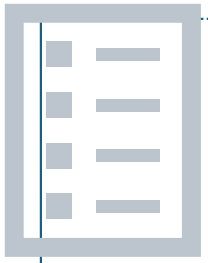
Effectiveness

How effective will PC1 provisions be (as notified and as recommended to be amended) at achieving TASs? – Dr Michael Greer

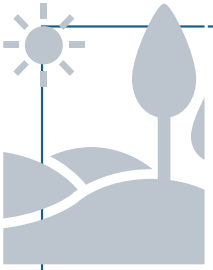
Issue 10: GWRC landowner support – Mr Jamie Peryer



Environment Restoration programmes



Farm Environment plans



Erosion Risk Treatment

Issue 10: GWRC landowner support – Mr Jamie Peryer

Environment Restoration team - Four incentive programmes

Programmes support specific activities

Prioritised differently – generally actions that have highest impact on catchment

Table 1: The Council's incentives programmes outline

Programme	Actions supported	Subsidy	Annual operational budget*	Funding Source
Wellington Region Erosion Control Initiative (WRECI)	Treatment of erosion prone land, where treatment includes stock exclusion fencing/land retirement, afforestation (native and exotic), poplar and willow pole planting	50% (30% for *Pinus radiata* afforestation)	$1.9M	33% funded by Ministry for Primary Industries**, remainder by rates and landowner contributions.
Sustainable Land Use Fund (SLUF)	Actions supporting catchment water quality or biodiversity outcomes including stock exclusion fencing, planting, water reticulation, effluent improvements, good management practices	50% (30% for reticulation, effluent and irrigation)	$2.2M	Funded by rates and landowner contributions.
Riparian Programme	Stock exclusion fencing and planting within riparian areas	50%	$363k	Funded by rates and landowner contributions.
Wetland Programme	Stock exclusion fencing, planting and weed control. Selective wetland creation/construction	50% for fencing 100% for pest plant control (3 years) 100% funding for plant supply (to a cap)	$527k	Funded by rates and in-kind contributions from landowners

**2025/2026 Financial year; budget excludes staff time costs and overheads.*

*** Ministry for Primary Industries (MPI) portion is funded via the Hill Country Erosion Fund (HCEF) until 2026/27 financial year. Application for future funding MPI from HCEF will be submitted in 2026. Rates funding is secured beyond 2026/27 to 2034, year 10 of the Council's long-term plan.*

Issue 10: GWRC landowner support – Mr Jamie Peryer

Erosion treatment

~40 ha/year in TAoP, ~90 ha/year in TWT

Other funding for activities – PCC 100% subsidies, community groups

Table 3: The Council's incentives programmes summary for 2022-23 and 2023-24 financial years (combined) in Te Whanganui a Tara and Te Awarua-o-Porirua Whaitua.

		Environment Restoration programmes			
		WRECI	**SLUF**	**Riparian**	**Wetland**
Te Whanganui a Tara	**Programme spend**	$191k	$74k	$482k	$24k
	Programme outputs	187 ha afforestation and reversion	Riparian and afforestation projects	9 riparian sites 5,311m fencing 15,583 plants	5 wetlands supported
Te Awarua-o-Porirua	**Programme spend**	$322k	$162k	$76k	$23k
	Programme outputs	80 ha afforestation and reversion	Riparian, wetland, afforestation and reversion projects	2 riparian sites 450m fencing 3,300 plants	1 wetland supported

Issue 10: Farm Environment Plans – Mr Jamie Peryer

https://www.gw.govt.nz/environment/land-use/farm-plans/

A farmer's guide to Farm Plans in the Wellington Region

Certified Farm Environment Plans are a practical way for farmers and growers to identify, manage and reduce the impact of farming on the freshwater environment.

Certified Farm Environment Plans (cFEP) required in NRP

Schedule Z requires risk assessment and action plan

17 provisionally accredited certifiers

cFEPs cost $1,000-$10,000

Average - $3,000-$4,000

Issue 10: Farm Environment Plans – Mr Jamie Peryer

Erosion Risk Treatment Plans

Addition of schedule 36 – ERTP (all TWT and Takapu FMU)

→

Allows tailored approach to erosion management

→

Utilise a range of effective mitigations and GMPs

Issue 10: Farm Environment Plans – Mr Jamie Peryer

Table 5: Strugnell voluntary Farm Environment Plan – implemented actions

Focus area	Mitigation or treatment	Sediment outcome
Grazing	Soil and fertiliser review – ensure soil health is optimal	Healthy soil = healthy sward of grass reduces surficial sediment runoff
	Managing pasture to not overgraze	Retaining grass cover after grazing limits surficial sediment runoff
Critical Source Areas	Fence off source areas – track water tables, exposed banks, wet areas	Stock are not able to pug these spaces and release sediment into water
	Plant a filter strip below high traffic area	Sediment generated is captured in filter strip
	Sensitive track construction and maintenance – regular cutoffs, cast soil stabilisation	Tracks built and maintained using good practices will generate less sediment
Soil conservation/erosion control	Retire steep faces from grazing – fencing	Stock removal from steep slopes removes tread/grazing damage and allows vegetation to regenerate, stabilising the land from gully, slide and slump erosion.
	Pole planting in gullies and along stream	Root systems from poles will hold banks together reducing the impact of streambank and gully erosion
	Retire remnant forest	Once stock are removed from the forest ground cover is able to regenerate reducing surficial erosion
	Retire and plant seepage wetlands	Removing stock from wetlands will reduce sediment generated by pugging and once reverted, seepage wetlands act as filters for sediment laden water

Table 6: The estimated effectiveness of erosion and sediment control for mitigations that could be applied to Te Whanganui a Tara and Te Awarua-o-Porirua as described in the Manaaki Whenua review

Erosion Type	Mitigation	Effectiveness
Surface Erosion	Wetlands	60–80%
	Sediment retention ponds	30-70%
	Grass buffer strips	40%
	Cover crops	40%
Landslides	Space-planted trees	70%
	Afforestation or reversion	90%
Gully Erosion	Space-planted trees	70%
	Afforestation or reversion	90%
	Debris dams	80%
Earthflows	Space-planted trees	70%
	Afforestation or reversion	90%
Bank Erosion	Riparian fencing and/or planting	50%

Issue 10: Farm Environment Plans – Mr Jamie Peryer

Number of cFEPs:

40 TAoP

90 TWT

Timeframes consider

Planning

Engagement

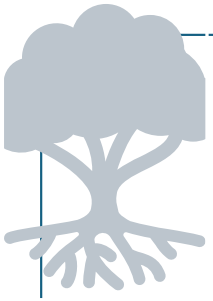
Certifier development

Table 4: Proposed phase in of certified Farm Environment Plans:

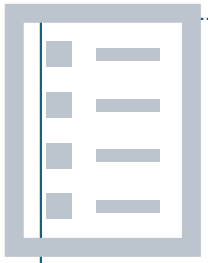
Part FMU Te Whanganui-a-Tara	**Part FMU Te Awarua-o-Porirua**	**Proposed Due date**
South-west coast rural streams *Korokoro Stream*		30 Dec 2027
	Pouewe Taupō Takapū *Wai-O-Hata*	30 September 2028
Te Awa Kairangi rural streams and rural mainstems Wainuiomata rural streams *Parangārehu catchment streams* *Ōrongorongo, Te Awa Kairangi and Wainuiomata small forested and* *Te Awa Kairangi forested mainstems* *Te Awa Kairangi lower mainstem*		30 June 2029

NB Italicised FMUs are likely to have few or no properties requiring cFEPs.

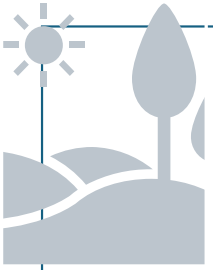
Issue 10: GWRC landowner support – Mr Jamie Peryer



Environment Restoration programmes



Farm Environment plans



Erosion Risk Treatment

Issue 10: Farm Environment Plans

- Proceed with FEP provisions largely as recommended but ensure they stand independent of national regulations and ensure timeframes are realistic.

Recommendations

- ✓ Amend Part A of Schedule 36 to:
  - delete reference to the Resource Management (Freshwater Farm Plans) Regulations 2020
  - clarify that the NRP definition of 'Farm Environment Pan Certifier' applies to the PC1 provisions
- ✓ Clarify the erosion risk assessment methodology (Part D of Schedule 36) in light of move away from strict use of erosion risk mapping.
- ✓ Amend the phase-in dates for FEPs in Tables 8.6 and 9.5 (Rules WH.R27 and P.R26) by extending the dates so that all are in place by the end of 2029 (with December 2027, September 2028 dates for priority part FMUs)

Issue 11: Definitions – consequential changes

Delete all definitions related:

- solely to small block registration provisions
- to the RNRAT

Include new definitions of:

- Potential erosion risk land (referencing Maps 90 and 93)
- Priority erosion risk land
- Low slope land

Amend definition of:

- Nitrogen discharge risk

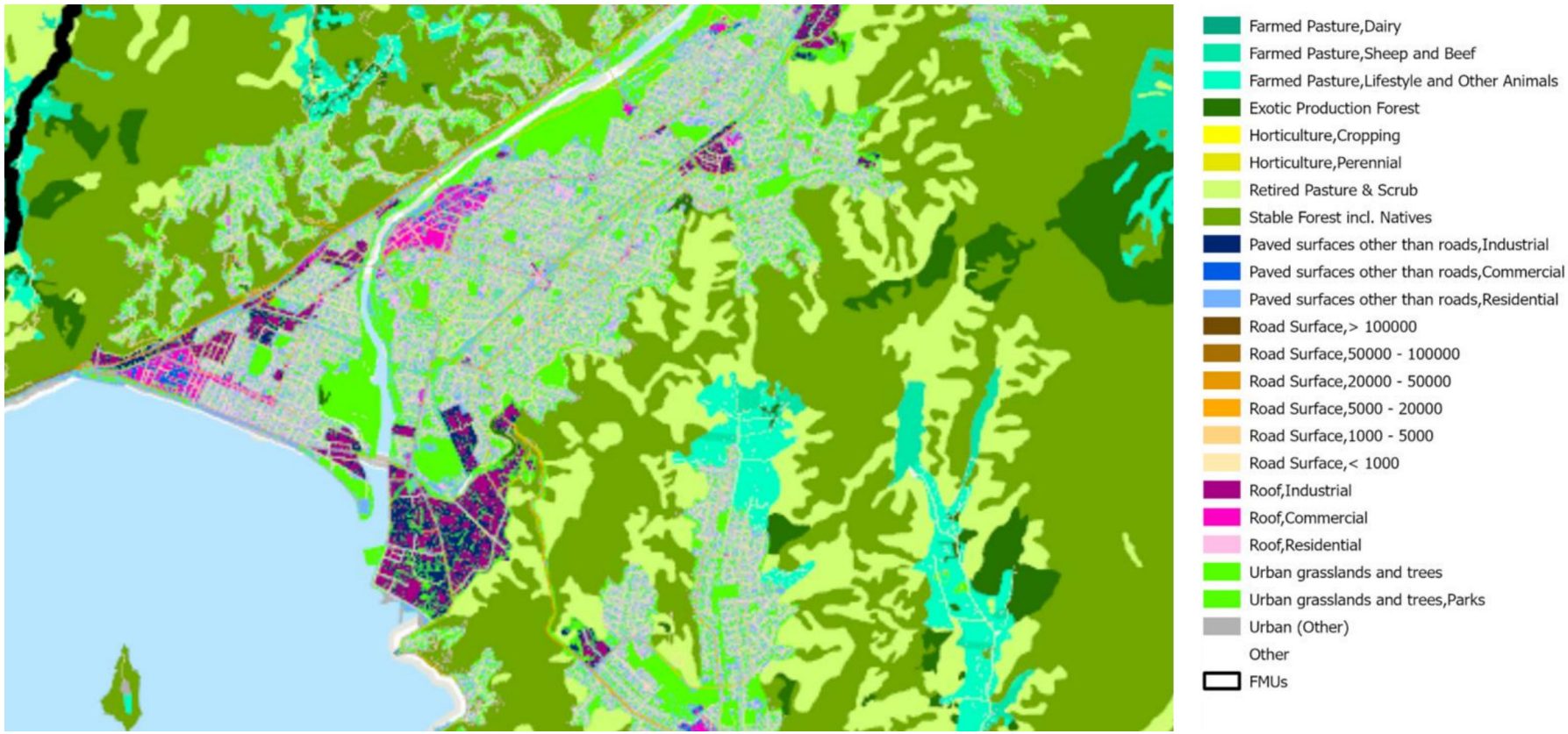
Issue 8: CLM modelling – Mr James Blyth

- To support PC1 notified and revised provisions, a contaminant load model (CLM) was developed for Zinc, Copper and Sediment.
- CLM is a simplified annual average load model, utilising highly detailed spatial landuse layers and assigning yields (i.e. kg/m2/year) to estimate loads.
- It allows for simplistic scenarios, assessing load reductions rapidly – but does not model complex hydrology or water quality (concentrations).
- The PC1 – CLM used spatial data and existing CLM's from both TAoP and TWT Whaitua processes, merged into a single model.

Issue 8: CLM modelling – Mr James Blyth

- The baseline represents 2012 landuse configuration (approx).
- From the baseline, a Future Development State (FDS) was built that added historical development from 2012 to 2024 and predicted future infill/greenfield to ~2053. Climate change is not accounted for.
- This FDS CLM was then used to assign appropriate PC1 notified provisions, to test the effectiveness of sediment and metal load reductions (as a % to TAS sites) against the baseline.
- The intent of this model is to support the S32 analysis and revised provisions, noting its limitations (see Blyth 2025 Appendix A - HS3 evidence).
- Dr Greer has analysed whether revised provisions can achieve TAS, with support of the model predictions.

Issue 8: CLM modelling and results – Mr James Blyth



Issue 8: CLM Sediment Results – Mr James Blyth

- PC1 notified (read Blyth 2025 evidence Appendix A for context)

Table 12. Sediment results for TAS catchments.

TAS Catchment*	Sediment		
	Baseline	PC1-FDS	Scenario Change in Load
	t/year	t/year	% change from baseline
Hutt River at Boulcott	80712	76013	-6%
Hutt River at Te Marua Intake	21973	21680	-1%
Korokoro Stream at Cornish St Bridge	1395	1282	-8%
Mangaroa River at Te Marua	11850	9500	-20%
Taupo Stream at Plimmerton Domain	1135	949	-16%
Duck Creek at Tradewinds Drive Bridge	1386	809	-42%
Horokiri Stream at Snodgrass	3926	3113	-21%
Pauatahanui Stream at Elmwood Bridge	3898	3199	-18%
Porirua Stream at Milk Depot	4358	3994	-8%
Whakatikei River at Riverstone	7486	7161	-4%
Makara Stream at Kennels	9374	5854	-38%
Hulls Creek adjacent Reynolds Bach Drive	784	729	-7%
Wainuiomata River Downstream of White Bridge	15230	14630	-4%
Waiwhetu at Whites Line East	799	801	0%
Karori Stream at Makara Peak Mountain Bike Park	538	536	0%
Black Creek at Rowe End Parade	822	824	0%
Kaiwharawhara Stream at Ngaio Gorge	1293	1294	0%

*TAS catchments are nested, e.g. the Hutt River at Boulcott includes Hutt River at Te Marua Intake, Mangaroa River at Te Marua, and Whakatikei River at Riverstone sites.

Table 13. Sediment results for Porirua Harbour catchments.

Porirua Harbour Catchment	Porirua Harbour Arm	Baseline	PC1-FDS	Scenario Change in Load
		t/year	t/year	% change from baseline
Whitireia at Mouth	Onepoto	81	81	0%
Onepoto Fringe at Elsdon		63	62	-1%
Hukatai Stream at Mouth		49	42	-15%
Porirua at Mouth		6180	5315	-14%
Direct to Onepoto mid		97	91	-6%
Direct to Onepoto North		80	76	-6%
Direct to Onepoto South		74	34	-54%
Kahotea Stream (Onepoto Park)		82	66	-19%
Next to Mahinawa		42	35	-16%
Total - Onepoto		**6748**	**5803**	**-14%**
Horokiri and Motukaraka at Mouth	Pauatahanui	4452	3545	-20%
Kakaho at Mouth		1956	1295	-34%
Ration at Mouth		363	355	-2%
Motukaraka		35	34	-3%
Pauatahanui at Mouth		4207	3503	-17%
Pauatahanui village		18	17	-1%
Browns Bay		175	170	-3%
Direct to Pautahanui (mid)		30	32	9%
Lower Duck Creek at Mouth		1470	892	-39%
Total - Pauatahanui		**12704**	**9843**	**-23%**
Total - Porirua Harbour		**19452**	**15649**	**-20%**

Issue 8: CLM Sediment Scenario Results

- Additional CLM scenarios were considered in Blyth 2025 HS3 evidence Appendix B
- Mr Willis considers the **Provisional Scenario 2** to represent an appropriate backstop and likely *worst case* scenario.
- **Provisional Scenario 2**: PC1-CFL (current funding level) represents the current rate of retirement and revegetation implemented under the Wellington Region Erosion Control Initiative (WRECI) and implementation of modified riparian fencing provisions
- Equivalent to ~130 ha retired/planted to 2040 (~1,950 ha total)

Issue 8: CLM Sediment Scenario Results

- Provisional Scenario 2: PC1 – CFL results

Table 4. Provisional Scenario 2: PC1-CFL sediment results for TAS catchments.

TAS Catchment*	Baseline	PC1-CFL Scenario	Scenario Change in Load
	t/year	t/year	% change from baseline
Hutt River at Boulcott	80712	76859	-5%
Hutt River at Te Marua Intake	21973	21748	-1%
Korokoro Stream at Cornish St Bridge	1395	1332	-5%
Mangaroa River at Te Marua	11850	9841	-17%
Taupo Stream at Plimmerton Domain	1135	1094	-4%
Duck Creek at Tradewinds Drive Bridge	1386	932	-33%
Horokiri Stream at Snodgrass	3926	3494	-11%
Pauatahanui Stream at Elmwood Bridge	3898	3576	-8%
Porirua Stream at Milk Depot	4358	4164	-4%
Whakatikei River at Riverstone	7486	7343	-2%
Mākara Stream at Kennels	9374	7291	-22%
Hulls Creek adjacent Reynolds Bach Drive	784	729	-7%
Wainuiomata River Downstream of White Bridge	15230	14694	-4%
Waiwhetu at Whites Line East	799	801	0%
Karori Stream at Makara Peak Mountain Bike Park	538	537	0%

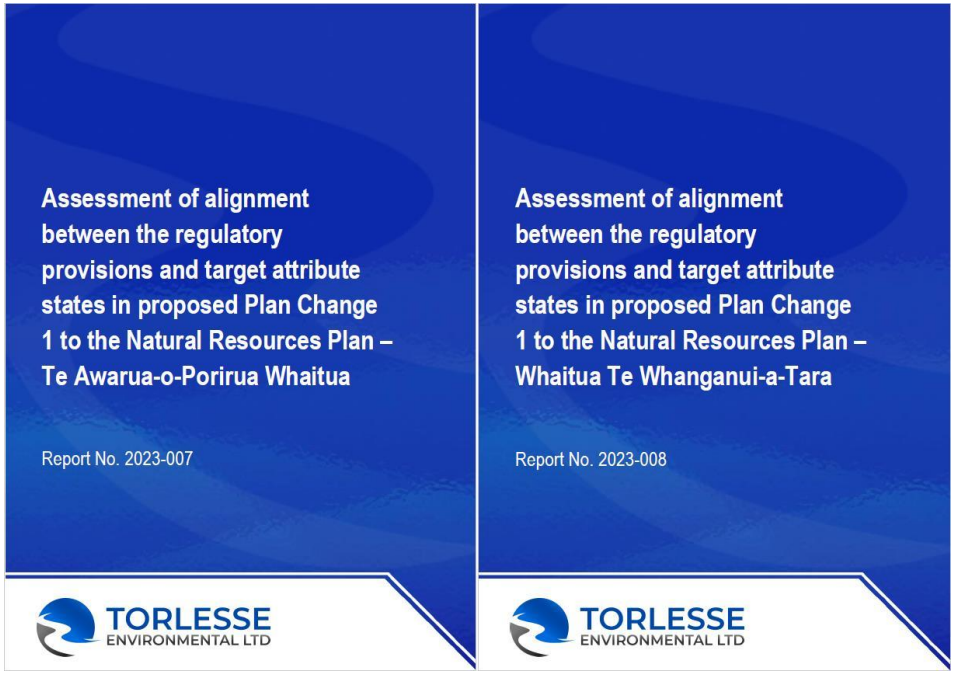
Table 5. Provisional Scenario 2: PC1-CFL sediment results for Porirua Harbour catchments.

Porirua Harbour Catchment	Porirua Harbour Arm	Baseline	PC1-CFL Scenario	Scenario Change in Load
		t/year	t/year	% change from baseline
Whitireia at Mouth	Onepoto	81	81	0%
Onepoto Fringe at Elsdon		63	62	-1%
Hukatai Stream at Mouth		49	42	-15%
Porirua at Mouth		6180	5559	-10%
Direct to Onepoto mid		97	91	-6%
Direct to Onepoto North		80	76	-6%
Direct to Onepoto South		74	34	-54%
Kahotea Stream (Onepoto Park)		82	66	-19%
Next to Mahinawa		42	35	-16%
Total - Onepoto		**6748**	**6047**	**-10%**
Horokiri and Motukaraka at Mouth	Pauatahanui	4452	3975	-11%
Kakaho at Mouth		1956	1641	-16%
Ration at Mouth		363	362	0%
Motukaraka		35	35	0%
Pauatahanui at Mouth		4207	3880	-8%
Pauatahanui village		18	17	0%
Browns Bay		175	170	-3%
Direct to Pautahanui (mid)		30	32	9%
Lower Duck Creek at Mouth		1470	1015	-31%
Total - Pauatahanui		**12704**	**11129**	**-12%**
Total - Porirua Harbour		**19452**	**17176**	**-12%**

Dr Greer – Science input to provision drafting

- Two reports assessed notified provisions contribution to achieving notified TASs from Whaitua Scenario testing.

- Prior to their publication, scenario testing results also used to inform the notified provisions of PC1



Michael Greer – Science input to provision drafting

- Specifically:
  - Requirement to retire or treat erodible pastoral land driven by whaitua scenario testing;
  - Stock exclusion provisions broadly consistent with what scenario testing suggested is needed to achieve or contribute to TASs.
  - Inclusion of earthworks TSS standard (intent) meant to drive a level of sediment removal consistent with Whaitua scenarios that achieved TASs/coastal objectives (90%).

- Whaitua science did not consider management of vegetation clearance of commercial forestry as a mechanism to reduce sediment losses.

Assessment of the likelihood of the notified & amended PC1 TASs being met under the notified regulatory provisions

- To inform the S32 analysis, scenario assessment results used to assess how proposed regulatory provisions of PC1contribute to notified TASs.
- Mr Blyth has since modelled impacts of the notified and amended rural land-use provisions on sediment.
- The notified provisions:
  - Consistent with the achievement of 71% of the notifed rural TASs; However
  - Unlikely to achieve 15% of the notified rural TASs, largely due to *E. coli* ;
  - Go beyond what is require to archive the remaining 13% of the notified rural TASs; and

Assessment of the likelihood of the notified & amended PC1 TASs being met under the notified regulatory provisions

Whaitua	Part-FMU	Ammon.	Nitrate	Clarity	*E. coli*	Diss. inorg. N	Diss. react. P	Overall
TWT	Ōrongorongo, Te Awa Kairangi and Wainuiomata small forested and Te Awa Kairangi forested mainstems	✓	✓	✓	✓	✓	✓	✓
	Te Awa Kairangi lower mainstem	✓	✓	✓	✓	✓	✓	✓
	Te Awa Kairangi rural streams and rural mainstems	✓	✓	↓	↓	✓	↑	↓
	Wainuiomata rural streams	✓	✓	↑	↓	✓	✓	↓
	Parangārehu catchment streams and South-west coast rural streams	✓	✓	↓	↓	✓	✓	↓
	Korokoro Stream	✓	✓	✓	✓	✓	✓	✓
TAoP	Taupō	✓	✓	✓	↓	✓	↑	↓
	Pouewe	✓	✓	✓	↓	✓	↑	↓
	Wai-o-hata	✓	✓	↑	↓	✓	↑	↓
	Takapū	✓	✓	✓	↓	✓	↑	↓
	Te Rio o Porirua and Rangituhi	↑	✓	✓	↓	✓	↑	↓

Assessment of the likelihood of the notified & amended PC1 TASs being met under the notified regulatory provisions

- To inform the S32 analysis, scenario assessment results used to assess how proposed regulatory provisions of PC1contribute to notified TASs.
- Mr Blyth has since modelled impacts of the notified and amended rural land-use provisions on sediment.
- The notified provisions:
  - Consistent with the achievement of 71% of the notifed rural TASs; However
  - Unlikely to achieve 15% of the notified rural TASs, largely due to *E. coli* ;
  - Go beyond what is require to archive the remaining 13% of the notified rural TASs; and
  - Do not result in a significantly more (~2%) of the of the amended TASs being achieved.

Assessment of the likelihood of the notified & amended PC1 TASs being met under the notified regulatory provisions

Whaitua	Part-FMU	Ammon.	Nitrate	Clarity	*E. coli*	Diss. inorg. N	Diss. react. P	Overall
TWT	Ōrongorongo, Te Awa Kairangi and Wainuiomata small forested and Te Awa Kairangi forested mainstems	✓	✓	✓	✓	✓	✓	✓
	Te Awa Kairangi lower mainstem	✓	✓	✓	✓	✓	✓	✓
	Te Awa Kairangi rural streams and rural mainstems	✓	✓	↓	↓	✓	↑	↓
	Wainuiomata rural streams	✓	✓	↑	↓	✓	✓	↓
	Parangārehu catchment streams and South-west coast rural streams	✓	✓	↓	↓	✓	✓	↓
	Korokoro Stream	✓	✓	✓	✓	✓	✓	✓
TAoP	Taupō	✓	✓	✓	↓	✓	↑	↓
	Pouewe	✓	✓	✓	✓	✓	↑	✓
	Wai-o-hata	✓	✓	↑	✓	✓	↑	✓
	Takapū	✓	✓	✓	↓	✓	↑	↓
	Te Rio o Porirua and Rangituhi	↑	✓	✓	↓	✓	↑	↓

Assessment of the likelihood of the notified & amended PC1 TASs being met under the notified regulatory provisions

- To inform the S32 analysis, scenario assessment results used to assess how proposed regulatory provisions of PC1contribute to notified TASs.
- Mr Blyth has since modelled impacts of the notified and amended rural land-use provisions on sediment.
- The notified provisions:
  - Consistent with the achievement of 71% of the notifed rural TASs; However
  - Unlikely to achieve 15% of the notified rural TASs, largely due to *E. coli* ;
  - Go beyond what is require to archive the remaining 13% of the notified rural TASs; and
  - Do not result in a significantly more (~2%) of the of the amended TASs being achieved.
- The amended provisions only result in one less of the amended TASs being achieved than the notified provisions

Assessment of the likelihood of the notified & amended PC1 TASs being met under the notified regulatory provisions

Whaitua	Part-FMU	Ammon.	Nitrate	Clarity	*E. coli*	Diss. inorg. N	Diss. react. P	Overall
TWT	Ōrongorongo, Te Awa Kairangi and Wainuiomata small forested and Te Awa Kairangi forested mainstems	✓	✓	✓	✓	✓	✓	✓
	Te Awa Kairangi lower mainstem	✓	✓	↓	✓	✓	✓	↓
	Te Awa Kairangi rural streams and rural mainstems	✓	✓	↓	↓	✓	↑	↓
	Wainuiomata rural streams	✓	✓	↑	↓	✓	✓	↓
	Parangārehu catchment streams and South-west coast rural streams	✓	✓	↓	↓	✓	✓	↓
	Korokoro Stream	✓	✓	✓	✓	✓	✓	✓
TAoP	Taupō	✓	✓	✓	↓	✓	↑	↓
	Pouewe	✓	✓	✓	✓	✓	↑	✓
	Wai-o-hata	✓	✓	↑	✓	✓	↑	✓
	Takapū	✓	✓	✓	↓	✓	↑	↓
	Te Rio o Porirua and Rangituhi	↑	✓	✓	↓	✓	↑	↓

Other technical matters raised in submissions/evidence – Dr Greer

- The farming communities of Akatarawa and Mangaroa do contribute to *E. coli* contamination in the lower reaches of the Hutt River.
- PC1 does not require a universal improvement in visual clarity to a natural state.
- I do not agree that nitrogen loss management is unnecessary as there is an environmental risk associated with allowing an increase.
- Unable to comment on the import of managing nitrogen losses from small blocks.

WIP recommendations – rural activities

Te Awarua-o-Porirua WIP	PC1
Rec 58 – determine **priority areas** for reducing sediment and work with landowners to develop environment plans	Includes maps of Highest and High erosion risk land based on 10th and 30th percentile risk. [S42 limits this to 10%ile only and renames as "potential" erosion risk land]
Rec 59 – develop a regulatory framework to undertake farm-scale mapping to identify erosion prone land in priority areas and **require landowners to develop a plan** setting out how sediment loss will be reduced	As notified PC1 did not expressly provide for farm-scale mapping [but the s42A recommends this to be inserted (hence the mapping being described as "potential" risk areas)]
Rec 60 - GW align programmes/funding to support sediment mitigation in priority area (and ensures **sufficient support** is avaiable – Rec 61)	This recommendation cannot be actioned by PC1. However, the commitment to supporting is expressed in Method M44. [The s42 report recommends resizing the erosion management obligations to better fit the available supporting resource].
Te Whanganui-a-Tara WIP	
Rec 33 – provide sufficient **land management advisory services** to support landowners	As above, not itself a PC1 action, but Method M44 does commit to providing support for landowners
Rec 34 – support landowners to exclude livestock, consider further stock exclusion regulations if they are identified as a significant source of contaminants	Existing programmes support stock exclusion/riparian management (discussed in the evidence of Jamie Peryer). Further regulation is proposed because sediment and *E.coli* from farming livestock is a significant source (evidence of Michael Greer)
Rec 35 – investigate alternative **incentives** to increase landowners' uptake of revegetation (eg rates rebates)	Method M44 does commit to investigate rates rebates
Rec 36 – support development of **property-specific information** to inform Freshwater Farm Plan development	Amendment recommend to Method M44 to expressly recognise this role.

Summary

Fundamental challenge to the approach adopted by PC1 not accepted - considered consistent with practice elsewhere and with the NPSFM.

Many sound submission points raised

Wide range of amendments made in response including:

Deletion of registration requirement for small blocks

Modification of stock exclusion requirements

Refinement/making more flexible erosion management provisions and better alignment with availble GWRC support

Improved consistency with the WIPs

Effectiveness in achieving (revised) TAS not materially affected – noting that the E.coli TASs pose a serious challenge (regardless of the approach taken)

Section 42A Report & Technical Evidence

Forestry and Vegetation Clearance

Greater Wellington
Te Pane Matua Taiao

s42A author and introduction to topic

s42A Author

- Shannon Watson - Consultant Planner (GHD)
- Not involved in developing provisions for PC1 but involved in summarising submissions on PC1

Current regulatory environment (NRP)

- Vegetation clearance on **erosion prone land** (land with a pre-existing slope of 20 degrees) up to 2 ha permitted activity if it meets s107 tests, debris not placed where it can enter a water body or it is required as part of a Freshwater Farm Plan
- Vegetation clearance that is not permitted is either a restricted discretionary activity (if associated with a renewable generation activity) or a discretionary activity
- Other than where works need to occur closer to a wetland than the setbacks in the NES-PF or where works in the bed of a river associated with forestry occur during indigenous bird nesting, roosting or foraging critical periods, forestry activities are not regulated under the current NRP
- Forestry is managed solely under the NES-PF - amended in 2023 to include exotic continuous-cover (carbon/permanent) forestry and now referred to as the NES-CF

Updates to evidence

- Date of NES-CF needs to be amended to 2017 (not 2023)
- Appendix 2 of rebuttal evidence – corrections to location of hyphen in "exotic continuous-cover" in definitions and provisions and terminology in Method M44A (clause (b)

Forestry and Vegetation Clearance: Context

Submissions

- 607 submissions and 727 further submissions received
- 149 submissions and 211 further submissions received on vegetation clearance provisions (WH.R17 – WH.R19 and P.R16-P.R18 and Schedule 33)
- 177 submissions and 257 further submissions received on forestry provisions (WH.P28 and P.P26, WH.R20-WH.R22 and P.R19-P.R21 and Schedule 34)
- 64 submissions and 76 further submissions on the definitions
- 35 submissions and 40 further submissions on highest erosion risk land mapping - Maps 91 and 94 (woody vegetation) and Maps 92 and 95 (plantation forestry)
- 273 submissions and further submissions in general opposition to forestry provisions in PC1

Key issues

- Alignment of PC1 with national direction (specifically Regulation 6 of the NES-CF (stringency test)
- Robustness of evidence – evidence to satisfy stringency test and also the efficacy and effectiveness of the operative NRP vegetation clearance rules
- Methodology for identification and classification of highest erosion risk land
- Consistency of PC1 with WIP recommendations

Forestry and Vegetation Clearance: Supporting evidence

Overall approach

Contributions of sediment generating activities on the suspended fine sediment TAS
Dr Michael Greer

Observations

Performance of the NES-CF
Mr Kevin Reardon

Council's implementation of the NES-CF
Mr Joshua Pepperell

Erosion risk mapping

How was the erosion risk mapping done, what are the limitations?
Mr Tom Nation

Sediment loads from forestry

Sediment loads from forestry vs other land uses
Mr James Blyth

Effectiveness

How effective will PC1 provisions be (as notified and as recommended to be amended) at achieving TAS? – Dr Michael Greer

Issue 1: Categorisation of provisions

Provision in FPI	Process (as notified)	S32 report justification	Recommendation
Policies WH.P28 and P.P26 Rules WH.R17, WH.R18, WH.R19, P.R16, P.R17, P.R18 WH.R20, WH.R21 and WH.R22, P.R19, P.R20, P.R21 Definitions: afforestation, erosion and sediment management plan, harvesting, highest erosion risk land (plantation forestry), highest erosion risk land (woody vegetation), mechanical land preparation, registered forestry advisor, replanting, vegetation clearance (for the purposes of WH.R20, WH.R21, P.R19, P.R20) Schedules 33, 34 Maps 91, 92, 94, 95	FPP	These policies, rules, method and supporting definitions, schedules and maps focus on the management of rural land use activities, forestry, and vegetation clearance. These provisions seek to manage the use of land to achieve freshwater outcomes. They relate to objectives that give effect to the NPS-FM.	Retain provisions in the FPP process
Rules R105, R107	P1S1	As part of Plan Change 1 some of the existing NRP provisions no longer apply in TAoP and/or TWT. Symbols have been inserted as part of the plan change to identify these provisions. These objectives, policies and rules have the coastal icon and form part of the Regional Coastal Plan	Retain as P1S1
Rules, R104, R106	FPP	As part of Plan Change 1 some of the existing NRP provisions no longer apply in TAoP and/or TWT. Symbols have been inserted as part of the plan change to identify these provisions. These objective, policies and rules relate to freshwater and the Council has decided that they should form part of the FPP.	Recategorise to P1S1

Vegetation clearance provisions as notified

- Rules WH.R17 and P.R16 - Vegetation clearance on highest erosion risk land (woody vegetation) permitted if associated with erosion risk treatment as part of a farm plan or pest plant control and debris not placed where it could enter a surface water body
- Rules WH.R18 and P.R17 - All other vegetation clearance exceeding 200m^2 on highest erosion risk land (woody vegetation) a controlled activity if consent included an Erosion and Sediment Management Plan consistent with Schedule 33
- Rules WH.R19 and P.R18 – All vegetation clearance on highest erosion risk land (woody vegetation) where Erosion and Sediment Management Plan not provided is a discretionary activity
- Schedule 33: Erosion and Sediment Management Plan specifically for vegetation clearance activities
- Maps 91 and 94 – highest erosion risk land (woody vegetation) mapping identifies where vegetation clearance rules apply under PC1

Vegetation clearance – submissions summary

Some support (e.g. Forest & Bird, EDS, Taranaki Whānui) but submitters largely opposed to PC1 vegetation clearance rules as notified

- Carve-outs for specific activities (national grid, farm tracks, roads and highways, fire breaks)
- Opposition due to mapping accuracy, pixelation and the methodology for classifying erosion risk
- Requiring consent for vegetation clearance > 200m2 too restrictive and a larger threshold sought
- Definition for pest plants
- Information requirements of Schedule 33 too prescriptive and management objectives unrealistic

Issue 2: General comments

- Transpower request for reference to NESETA at start of the Chapter – addressed in Hearing Stream 1
- Submissions from Woodridge seeking rules be combined rather than duplicated for each Whaitua – addressed in Hearing Stream 1
- Recommended Deletion of WH.P2 and P.P2 in Hearing Stream 2 removing policy direction for vegetation clearance in PC1 – Policy P107 not recommended to be 'disapplied' to these Whaitua so no 'policy gap' created

Evidence base for PC1 vegetation clearance rules

- TAoP WIP considered NRP vegetation clearance rules appropriate (section 11.2 TAoP WIP report). These rules have not changed materially since they were considered then. Vegetation clearance is not specifically assessed in the TWT WIP report
- Council has no understanding of the scale of vegetation clearance being undertaken in these Whaitua
- Council has no understanding of the influence of vegetation clearance activities on TAS in these Whaitua
- Main effects Council trying to manage through vegetation clearance rules (and Schedule 33) covered by other provisions in PC1 (e.g. earthworks)
- No evidence that existing NRP rules will not achieve TAS so no need to replace them

Issue 3: WH.R17 and P.R16

Recommended change	Reasons
• Retain NRP definition of erosion prone land as the 'trigger' for where vegetation clearance rules in PC1 apply	• Methodology and approach to erosion risk mapping in PC1 not certain enough where the location of the land (being included in the mapped areas) is a trigger for consent
• Incorporate operative NRP Rule R104 (allow up to 2ha clearance) into PC1 permitted activity rules • Restrict the circumstances where a clearance limit does not apply • Clarify pest plants are those listed in Table 1 and Appendix 2 of the Greater Wellington Regional Pest Management Strategy 2019-2039 • Incorporate s107 tests from Rule R104 into PC1	• Retains intent to generally allow vegetation clearance to implement an erosion risk treatment plan for the farm or for pest plant control - intent of NRP R105 needed to be covered in PC1 in recognition that Freshwater Farm Plans could take a different form in future • Evidence base does not support limiting vegetation clearance as a permitted activity to only 200m^2. No assessment of the efficacy or effectiveness of the NRP vegetation clearance rules • Overlap between vegetation clearance and earthworks and the 'not applicable to Whaitua' icons result in NRP rules re-written into PC1 to avoid permitted activity rules in NRP but rules when permitted activity standards not met being in PC1 • Clearer for plan users to have all vegetation clearance rules that may apply in the same place in the plan • Intent of PC1 is to protect water quality, clearance for pest plant control and unwanted organisms still have the potential for adverse effects - not appropriate for areas of clearance for these activities to be unlimited in all circumstances • Recommended amendments appropriate - do not change how activities were intended to be managed under PC1 or NRP

Issues 4, 5 and 6: WH.R18 and P.R17, WH.R19 and P.R18 and Schedule 33

Change	Reasons
WH.R18 and P.R17 Re-write R106 of the NRP into Rules WH.R18 and P.R17 and change from controlled activity to restricted discretionary	• No evidence that a mandatory consent requirement for vegetation clearance exceeding 200m^2 is appropriate or necessary • Unable to determine any amendments that might be needed - challenging to satisfy s32 or s32AA of the RMA - amendments would be arbitrary and NRP rules should be retained • Required due to consequences of R106 covering both earthworks and vegetation clearance and Ms Vivian recommending R106 not apply to these Whaitua • Activity status needs to change to restricted discretionary to avoid making WH.R18 and P.R17 less restrictive than R106 of the NRP
WH.R19 and P.R18 Re-write R107 of the NRP into Rules WH.R19 and P.R18	Required for plan implementation due to consequences of R107 covering both earthworks and vegetation clearance and Ms Vivian recommending R107 not apply to these Whaitua
Schedule 33 Delete	• Effects focused on soil disturbance (e.g. earthworks) rather than vegetation clearance. • Schedule 33 did not provide any relevant direction related to managing vegetation clearance effects. • Soil disturbance and management of activities which disturb soil are already covered by earthworks provisions in PC1 and the *Erosion and Sediment Control Guidelines for the Wellington Region*

Forestry provisions introduction and context

- 177 submissions and 257 further submissions on provisions (WH.P28 and P.P26, Rules WH.R20-WH.R22 and P.R19-P.R21, Schedule 34)
- Some support for PC1 as notified but general tenor of submissions is (strong) opposition
- Polarising views - on one side (forestry sector) provisions go too far and on the other (EDS/Forest & Bird) consider notified provisions required to give effect to NPS-FM
- Main concerns – robustness of evidence (stringency test), erosion risk mapping methodology, implications of forced retirement of plantation forestry post current harvest cycle on highest erosion risk land and financial costs (ETS), investment certainty
- The provisions go beyond WIP recommendations and came as a ‘shock’ to the sector

NES-CF 2017 (formerly NES-PF 2017)

- The NES-CF comprises a mix of rules and standards depending on the erosion susceptibility classification (ESC) of the underlying land. Only activities on red zone land result in a 'default' requirement to obtain resource consent
- Four types of activity classifications in the NES-CF (Permitted, Controlled, Restricted Discretionary and Discretionary) which apply to a range of activities. Not all of the activities in the NES-CF are included in PC1. Replanting was also intended to be managed by PC1 but drafting errors mean this was missed as notified
- Permitted activities can occur provided the accompanying standards set out in the NES-CF are met. These include limits and controls on setbacks, areas of soil disturbance, and measures to limit sediment and slash and debris affecting downstream environments
- The key management measures under the NES-CF are forest planning requirements (or forest management plans) which must be prepared in accordance with the relevant Schedule(s) of the NES-CF
- In most cases, assessment of whether an activity meets NES-CF standards can only be made once Council receives a notification of works or during a compliance visit
- Council can request a copy of the forest management plan and request amendments but if the plan includes the information required by the NES-CF then the plan meets the permitted activity standards
- Council can monitor compliance with the plan and recover costs of monitoring and enforcement under Regulation 106 of the NES-CF - cost recovery does not currently extend to monitoring of replanting
- There is no red zoned land currently subject to forestry activity in these Whaitua - forestry in these Whaitua operates on a 'high-trust' model

Forestry provisions in PC1 as notified

- Policies WH.P28 and P.P26 – identification of highest erosion risk land (plantation forestry); require an Erosion and Sediment Management Plan (forestry) for all forestry activities; prevent establishment of plantation forestry and continuation of plantation forestry beyond the current harvest cycle on highest erosion risk land (plantation forestry)
- WH.R20 and P.R19 – afforestation, earthworks, mechanical land preparation, vegetation clearance and harvesting for plantation forestry require consent as a controlled activity. Controlled activity conditions include a discharge limit (100g/m^3), the requirement for an Erosion and Sediment Management Plan prepared in accordance with Schedule 34 and the visual clarity TAS for any relevant catchment in a pFMU being met
- Rules WH.R21 and P.R20 – If controlled activity conditions not met consent required as a discretionary activity
- Rules WH.R22 and P.R20 – Afforestation, earthworks and mechanical land preparation on highest erosion risk land are prohibited
- Schedule 34 – Requires an Erosion and Sediment Management Plan for forestry to be prepared and certified by a registered forestry advisor. Intent to give GWRC the ability to withhold consents until management plans were of appropriate standard. Also includes management objectives requiring discharge limits and revegetation with permanent woody vegetation or native planting on highest erosion risk (plantation forestry) land after next harvest
- Maps 92 and 95 – highest erosion risk land (plantation forestry) identifies areas where prohibition of new or prevention of further existing identified forestry activities applies in PC1

Issue 7: Scope of PC1 forestry provisions

- S32 recognized the NES-CF would be published post PC1 but provisions did not incorporate the anticipated requirements of the NES-CF - exotic continuous-cover (or permanent/carbon) forestry was not within the scope of PC1 as notified
- Omission of 'replanting' as an activity included in Rules WH.R20-WH.R22 and P.R19-P.R21 and the omission of 'vegetation clearance' as an activity included in Rule P.R19 also brought scope of PC1 into question
- Omission of replanting significant as if included in Rules WH.R22 and P.R21 all new plantation forest and any continuation of existing plantation forestry beyond current harvest cycle (through prohibition of replanting) would be prohibited
- Explanatory notes referenced the NES-FW rather than the NES-PF (now NES-CF) and included some regulations in the NES-CF which were not relevant to PC1

Regulation 6 of the NES-CF (stringency test)

- Regulation 6 of the NES-CF allows Council's to make rules in plans more stringent than the NES-CF if the rule (amongst other matters) gives effect to an objective developed to give effect to the NPS-FM
- The stringency test is the key matter of contention for this topic - addressed at length in my s42A report, submitter evidence, my rebuttal evidence and legal submissions
- My position is that, in pFMU's where suspended fine sediment is not meeting TAS, to achieve TAS the NPS-FM requires rules in PC1 which go beyond the NES-CF (where TAS not met stringency is justified)
- Where TAS are being met, the stringency test is not met and the NES-CF prevails (principle of no harm no foul)

Clause 1.6 of the NPS-FM and s32 RMA

- In meeting the stringency test, assessment is then required against s32 of the RMA
- My thought process for s32 followed:
  - Clause 3.12 requires Council to identify and set limits as rules to meet TAS and this means rules beyond those in place are needed to give effect to the NPS-FM where TAS are not met
  - The evidence and advice from Mr Reardon indicates a disconnect between the NES-CF and its ability to manage effects on water quality in these Whaitua. In part confirmed by the evidence of Mr Pepperell (noting Council's limited information on performance of the NES-CF in these Whaitua)
  - The evidence of Dr Greer and Mr Blyth illustrates that where SFS TAS are not being met, forestry activities will be contributing to those TAS not being met
  - Evidence is limited and more could be done to understand the influence of forestry activities on achievability of the TAS and the efficacy and effectiveness of the NES-CF in these Whaitua. But the available evidence suggests 'more' than the current requirements of the NES-CF is needed to meet TAS. If not through PC1 where will this occur?
  - Approx 47% increase in harvest area expected in ~ next 5 years = higher risk of degradation and continuation of failure to meet SFS TAS (and objectives of PC1 and NPS-FM)
  - Applying s32 tests through the lens of clause 1.6 of the NPS-FM, relying solely on the NES-CF with support of non-regulatory methods is not an appropriate response where TAS not met. Equates to delaying decision making because of uncertain information and is inconsistent with the NPS-FM
  - To interpret the evidence in a manner which best gives effect to the NPS-FM, PC1 requires regulation beyond the NES-CF

Approach to recommended amendments

- Striking a balance between direction of the NPS-FM and costs and implications for landowners and forestry sector recognising uncertain evidence and Councils limited implementation of the NES-CF
- Clarify where rules apply – implementation framework of the TAS to be confirmed but recommended explanatory notes better explain implications of the TAS and how the TAS apply in the context of Rules WH.R20 and P.R19
- No technical guidance or evidence to prescribe more specific restrictions – e.g. more stringent or nuanced earthworks areas or volumes, specific setbacks, harvest limits
- Some support for direction of travel of RPS Change 1 given limitations of erosion risk mapping and current appeal on RPS Change 1
- Recommended amendments intended to “hold the line” while more substantive changes to the legislative framework related to forestry are progressed given ~47% increase in harvest area in these Whaitua in next 5 years
- Trying to avoid or minimise effects before they occur rather than mitigate or remedy (ambulance at the bottom of the cliff)
- Doing nothing and relying on the NES-CF where TAS not met would be inconsistent with NPS-FM

Issue 8: WH.P28 and P.R26

Recommended amendments	Reasons
Reframe WH.P28 and P.P26 to focus on *management* of adverse effects rather than *minimising* adverse effects	• Provides more focused policy direction through which Council can decline consents (if needed) • Better supports the direction of Policy CC.6 of the RPS in the absence of provisions which direct prevention or prohibition of certain forestry activities in identified locations
Removal of prohibition of new and prevention of continuation of forestry on highest erosion risk (plantation forestry) land	• Methodology and approach to erosion risk mapping in PC1 is not certain enough to be used to restrict or prevent a specific land use • Emissions Trading Scheme implications for landowners have not been properly evaluated by Council • Technical evidence (Mr Blyth and Mr Peryer) indicates that challenges with natives could lead to greater sediment losses than if land replanted with plantation forest after harvest (over ~50 year timeframe)
Shift from using PC1 erosion risk mapping as 'blunt tool' restricting land use to more of a 'trigger' for further assessment as part of forestry management plan process	• Rebuttal evidence confirmed erosion risk mapping is 'best available' and should not be sidelined completely • Aligns with approach taken by Mr Willis for rural land use topic where mapping used as a guide to indicate higher risk areas which require assessment at property scale during FEP process • Supports Policy CC.6 of RPS Change 1
Better direction for plan users regarding matters of consideration for any consenting process via clauses (c) and (d).	• Improved direction for Council or plan users as to matters for consideration as part of consenting process (e.g. matters to have regard to when setting conditions)
Recognition of emerging practice in the regulatory framework where practicable through new clause (e)	• Provides direction that emerging practice and sector-led initiatives which seek to improve outcomes for water quality should be supported and recognized in consenting processes where practicable
Policy (rather than non-regulatory) support for permanent forests (indigenous or exotic) and alternative forestry strategies and practices that will reduce sediment impacts through new clause (f)	• Better implements direction of travel of RPS Change 1 which is to encourage permanent forest and forestry practices which improve water quality outcomes (as well as indigenous biodiversity and climate change resilience) – right tree right place

Erosion Risk Mapping – Mr Nation

- Erosion risk categories were assigned to three land cover classes; pasture, forestry and non-forestry woody vegetation. Risk quantiles were calculated specific to each land cover, and as such, the risk categorisation is only relative within that land cover class.
- Forestry erosion risk has been calculated for each Whaitua and is based on potential erosion risk on land currently in forestry. Forestry area is derived from the LCDB v5.0 categorisation of “Exotic Forest” and “Forest – Harvested”.
    - The layer does not account for the harvest status or tree-age profile of forestry land, nor does it account for forestry harvest activities.
- Non-forestry woody vegetation erosion risk has been calculated for each Whaitua and is based on non-forestry woody vegetation land covers. It was created to estimate the area where vegetation removal may increase erosion risk.

Farming vs. Forestry – Mr Blyth

- Sediment production from pastoral farming (primarily sheep and beef) was compared against plantation forests
- A comprehensive literature base was used to inform conclusions, including paired catchment studies
- When comparing catchments of similar climate, topography and geology, over the long-term native forest catchments will deliver the lowest sediment loads, likely followed by plantation forestry, with pastoral land uses often delivering the highest sediment load.
- When mature, plantation forests typically generate low amounts of sediment from landsliding and surface erosion

Farming vs. Forestry

- There is a 'risk' period in forests, for up to 8-years during and post harvest, where sediment generation can be significantly greater (i.e. 5 times baseloads).
- When considering forestry versus farming loads over a 30 year period, including one clearfell harvest cycle, I estimated:
  - Plantation forestry may deliver **30-62%** of pastoral load, with load dependent on land management practices (LMP) and climate over the 'vulnerable' harvested period
- LMP play a significant role in reducing sediment from both pastoral and plantation forests

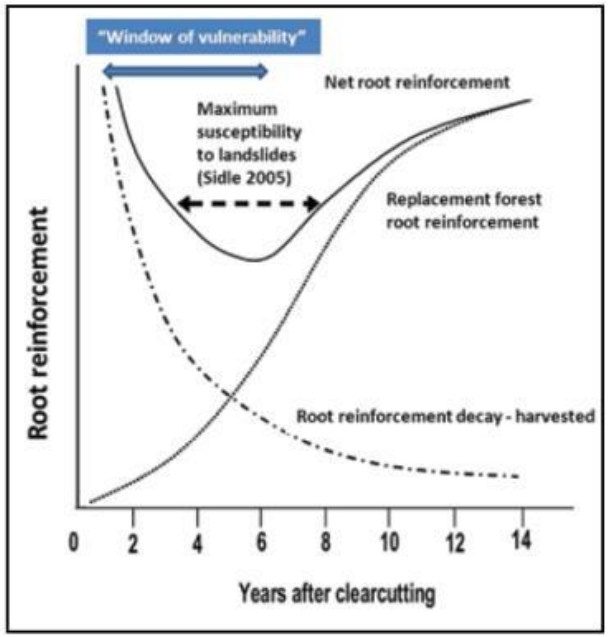


Figure 3: Change in root strength following harvest and period of vulnerability, as presented in Phillips et al. (2012)[4] and reproduced in Eastland Wood Council (2022)[13].

Farming vs. Forestry

- Localised water quality monitoring of streams within forestry harvest areas in PC1 is not available, instead, reliance on SOE monitoring

- If forested land was harvested and retired, but not planted in natives, sediment generation from that land could be worse in the short term than replanting in pines, however in the long term (50+ years), the balance would likely shift favouring natives.

Issue 9: WH.R20 and P.R19

Recommended amendments	Reasons
Removal of mandatory consent requirement for forestry activities under PC1. Rules in PC1 only apply where suspended fine sediment TAS not met	• Stringency test unable to be satisfied in pFMU's where TAS being met (no harm no foul)
Reframe rule to: • Focus on discharge of sediment rather than the use of land other than where the activity is afforestation or replanting • Restricted discretionary activity with matters for discretion focused on effects on water quality	• Limited sediment impacts for afforestation and replanting as an activity – focus of regulating these activities is reducing future impacts on water quality during earthworks and harvest by managing the location (support Policy CC.6) • Effects managed by PC1 are confined enough that a restricted discretionary activity status is appropriate
Include replanting in list of activities in WH.R20 and P.R19 and vegetation clearance in P.R19	• Drafting errors by Council
Removal of discharge standard for forestry activities	• Mr Reardon's evidence confirms visual assessment (conspicuous change in colour or clarity) is more appropriate in the forestry context
Replacement of reference to plantation forestry with reference to commercial forestry	• Better aligns with the terminology of the NES-CF
New explanatory notes and amendments to existing notes to clarify the activities and/or locations of commercial forestry which require a consent under PC1	• Clarify afforestation and replanting of exotic continuous-cover forests outside the scope of PC1 as notified • Clarify what sites TAS are to be assessed at and the implications of meeting/not meeting TAS in the context of commercial forestry activities

Issue 9: Supporting non-regulatory methods

Recommended amendments	Reasons
Method M44A Work with the forestry sector to: • identify areas at greatest risk of effects from forestry • investigate the best ways to manage risks in those locations (incentives, rates relief, financial support for revegetation or conversion to permanent forest) • promote education and good management practice in forestry • develop consent conditions to manage effects and collect information about the performance of forestry activities and their impacts on water quality across the forest lifecycle	• Consistent with the WIP recommendations for TWT and TAoP • Supports Policy CC.6 and Method CC.4 of RPS Change 1 • Will contribute to maintenance of TAS where TAS met and help meet TAS where improvement required
Method M44B Develop a programme to increase the capability of Council officers and a charging policy to ensure effective regulation of forestry by August 2026	• Non-regulatory methods focused on improving practice need to be supported by effective regulation from Council
Schedule 27 Minor amendments to support implementation	• Amendments to support recommended non-regulatory methods (M44A and M44B) and align with recommended new definitions to support implementation

Issue 10: WH.R21 and P.R20

Recommended amendments	Reasons
Delete Rules WH.R20 and P.R19	• Potential effects of relevance to PC1 restricted to water quality and can be appropriately managed by restricted discretionary activity rules WH.R20 and P.R19 • Evidence base is not strong enough to support activity status that goes beyond restricted discretionary

Issue 11: WH.R22 and P.R21

Recommended amendments	Reasons
Delete Rules WH.R22 and P.R19	• Same as reasons for recommending removal of policy direction requiring prevention and prohibition of forestry on highest erosion risk land in WH.P28 and P.P26 (mapping limitations, ETS implications, sediment impacts increasing over ~50 year timeframe, unintended consequences for biodiversity (weed and pest problems))

Technical Evidence on Forestry – Mr Reardon

- My evidence relates to forestry harvesting and earthworks practices observed throughout the two Whaitua in relation to industry best practice and NES-CF Standards.
- I have seen a disconnect between the harvesting and earthworks activities observed in the field and what is permitted activity under the NES-CF.
- Many of the issues we are seeing relate to smaller woodlot harvesting. These woodlots are being harvested using lower cost harvest systems generally at the expense of higher environmental performance.

Technical Evidence on Forestry – Mr Reardon

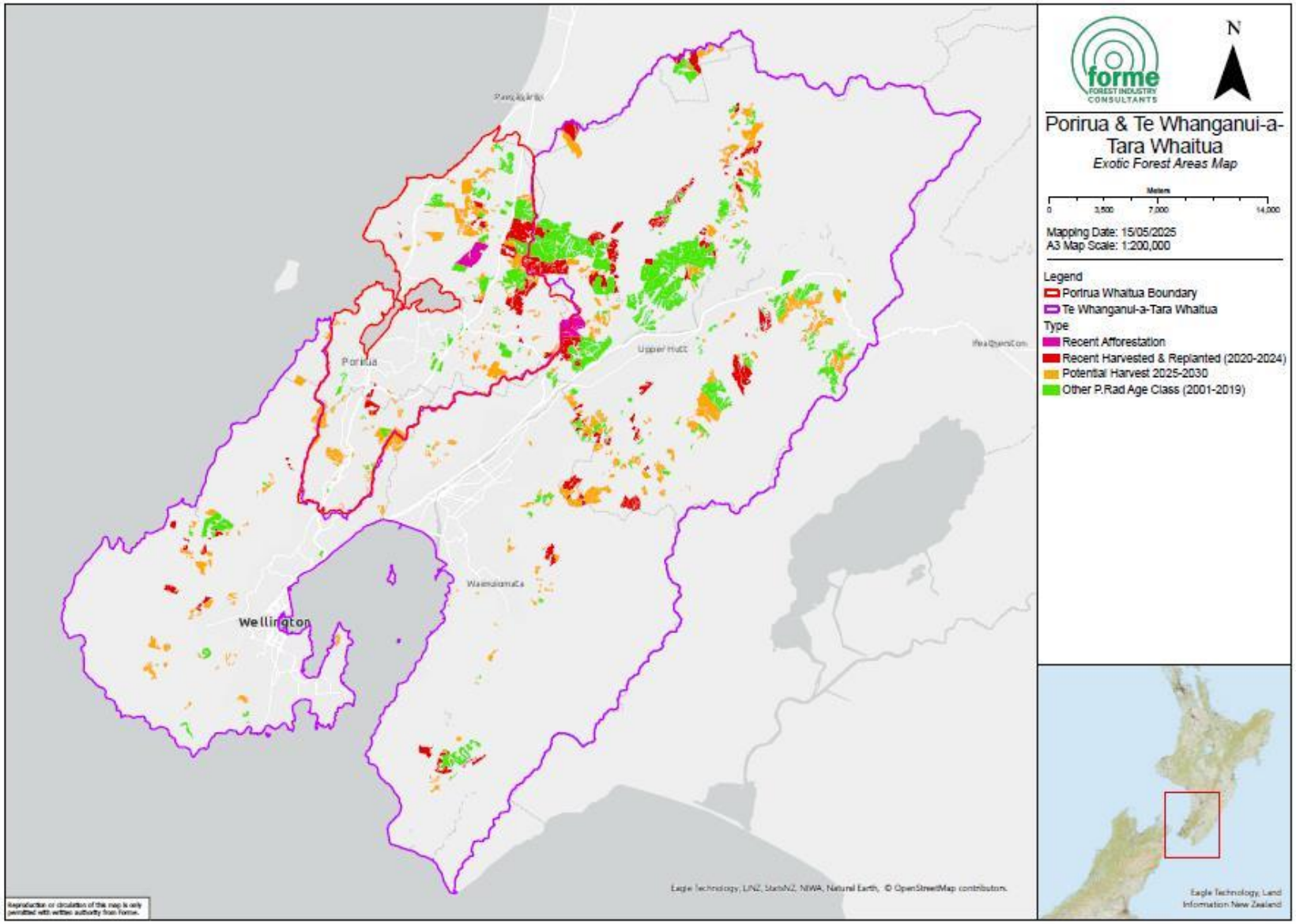
- We have completed exotic forest resource mapping within the two Whaitua.
- There has been approximately 2,167 hectares of exotic forest harvested over the last 5-year period (2020-2024) within the two Whaitua.
- 62% (1,348ha) of this harvesting occurred across smaller woodlot harvesting sites.

Technical Evidence on Forestry – Mr Reardon

- My observations across the harvest sites i have visited include;
  - The NES-CF requires low levels of harvest planning detail. A 20m contour harvest plan map looks like flat topography and suitable for ground-based logging when in reality, there may be steeper slopes better suited to cable hauler systems. I can see how this low level of harvest planning detail would make it difficult for Council officers to assess for environmental risk.
  - There is an increasing level of higher impact ground-based logging occurring on slopes that should be being harvested by lower impact harvest systems (cable hauler). Even on 2nd rotation harvest sites, where the 1st rotation was logged using cable hauler methods, these are being harvested using ground-based techniques resulting in more tracking and earthworks.
  - There is a general lack of material amendments being made to the submitted NES-CF plans. Either the harvest manager is not aware when they are breaching the Permitted Activity rules, or they are ignoring them.
  - There is a general lack of post-harvest remedial work being undertaken including little or no soil stabilisation techniques i.e. hydroseeding, poor track maintenance.

Technical Evidence on Forestry – Mr Reardon

- Based on our exotic forest resource mapping and current age class profile of forests within the two Whaitua, there will be approximately 3,181 hectares of exotic forests harvested within the next 5 years.
- 2,762ha of this harvesting (86%) will occur across multiple smaller woodlot harvesting sites.
- This represents a 47% increase in projected harvested forest area over the next 5-year period when compared to the previous 5-years.
- I would support a combined approach of a) promotion of training and upskilling of harvest & earthworks operators, b) increased compliance monitoring of forest activities, and c) tighter controls on forest activities where TAS objectives are not being met.



forme
FOREST INDUSTRY CONSULTANTS

N

Porirua & Te Whanganui-a-Tara Whaitua

Exotic Forest Areas Map

Metres
0 3,500 7,000 14,000

Mapping Date: 15/05/2025
A3 Map Scale: 1:200,000

Legend

Porirua Whaitua Boundary
Te Whanganui-a-Tara Whaitua

Type

Recent Afforestation
Recent Harvested & Replanted (2020-2024)
Potential Harvest 2025-2030
Other P.Rad Age Class (2001-2019)

Council's Compliance Monitoring Program – Mr Pepperell

- The Council receives notifications of permitted activities; processes resource consents and undertakes compliance monitoring of these activities.
- ESC within the two Whaitua is primarily made up of 'green' and 'yellow' zone.
- There are currently 4 consented activities related to harvesting and earthworks within the two Whaitua.
- Approximately 10 site visits have been undertaken in relation to forests operating entirely under permitted activity conditions of the NES-CF within the two Whaitua (includes approx. 3-4 site visits to GWRC owned forests).
- 4 Infringements issued within TWT since 2022.

Challenges identified regulating forestry under the NES-CF – Mr Pepperell

- Lack of expertise in interpreting aspects of the mapping and plans submitted under the NES-CF.
- Challenges in directing action to comply with regulation when practicality or health and safety a factor. E.g removing slash from steep cutover and/or near waterway within 5% AEP.
- Adequacy of site-specific management plans due to templated nature and ability to involve expert review and assessment.

Responses to specific matters raised in submissions – Dr Greer

- Do not agree that there is a lack of evidence linking sediment losses from commercial forestry to the sediment TASs.
- However, there is limited evidence that the PC1 commercial forestry provisions are necessary to achieve the TASs given the NES-CF.
- None of the technical statements regarding the source of sediment in the Hutt River in evidence justify relaxing the commercial forestry provisions in PC1.
- No scientific basis for changing the suspended sediment classes of different TASs sites.
- Council should develop and implement a consistent approach for determining where and when the TASs are achieved.

Responses to specific matters raised in submissions – Dr Greer

- Suggestions that "*many normal commercial forestry activities will not locate[d] anywhere near a waterway*". Are incorrect
- I do not agree with submitters that the part-FMUs should be amended to "*defined drainage catchments*".
- Land-use activities or discharges that directly contribute to freshwater quality at a TAS site should be managed in accordance with the TASs set for that site.

Issue 12: Schedule 34

Recommended amendments	Reasons
Replace Schedule 34 with requirements of NES-CF Schedules with some additional requirements (implemented through forestry management plans definition)	• Schedule 34 duplicated the requirements of Schedules 3, 4 and 6 of the NES-CF and used different terminology which would create uncertainty for plan users • NES-CF Schedules more prescriptive in terms of information requirements and more familiar to plan users than Schedule 34 as notified • Some of the level of detail sought by Council too onerous (1m digital elevation model overlay)
Remove management objectives (Section B)	• Advice from Mr Reardon indicated discharge limits are impractical in the forestry context as discharges are largely diffuse • Avoiding an increase in risk of loss of sediment to water relative to the risk of loss from the land in a natural state was unrealistic for a sediment generating activity • Requiring progressive reduction in forestry on highest erosion risk land and land to be restored or revegetated with permanent woody species post-harvest could make sediment impacts worse (increase sediment loads in the short-medium term (<50 years) and compared to other land uses (pasture). • ETS implications of not allowing replanting not properly considered by GWRC
Remove certification requirement (Section C)	• Legislation used to prescribe what criteria need to be met to be a registered forestry advisor repealed • Requiring a consent holder to obtain certification prior to submission redundant if Council are reviewing and providing approval or certification as part of a consent process
Remove ability to make amendments to ESMP (Section D)	• Unnecessary as notified. Consent conditions would prescribe whether or not changes to management plans require Council to be notified or would require re-certification of the management plan

Issue 13: Definitions (amendments)

Recommended amendments	Reasons
Minor amendments to definitions (Afforestation', 'Harvesting', 'Mechanical land preparation' and 'Replanting')	Align with current national standard (NES-CF)
Delete definition of 'Erosion and Sediment Management Plan'	Schedules 33 and 34 deleted and replaced by 'Forestry Management Plans'
Delete highest erosion risk land (plantation forestry) and highest erosion risk land (woody vegetation) definitions	Replaced by 'potential erosion risk land'
Delete definition for registered forestry advisor	Legislation referenced in the definition repealed and definition no longer used in plan with recommended deletion of Schedule 34
Amend definition for 'vegetation clearance (for the purposes of Rules WH.R20, WH.R21 and P.R19, P.R20)' to 'vegetation clearance (commercial forestry)'	Amendments to reflect the activity rather than the rules the activity relates clearer for plan users

Issue 13: Definitions (new definitions)

Recommended amendments	Reasons
New definitions for 'commercial forestry' and 'commercial forestry activity and activities'	• Align with NES-CF and support implementation of provisions in PC1 • More efficient and effective to refer to commercial forestry rather than re-writing provisions to specify which relate to plantation forestry and which relate to commercial forestry
New definitions for 'exotic continuous-cover forestry' and 'indigenous forest'	New definitions to reflect terminology in NES-CF to better support implementation
New definition for 'forestry management plans' • Substantive amendments to the s42A definition to incorporate the requirements of the NES-CF without duplicating the Schedules • Additional requirements over and above those required by the NES-CF (some of which are from notified Schedule 34)	• Responds to submitter evidence regarding concerns about duplication of the NES-CF through Schedules and it being more efficient and effective to cross-reference to the NES-CF requirements in some way • Uses the erosion risk mapping as a guide/trigger for further assessment of erosion risk at a property scale
New definition for 'Freshwater Management Unit (or FMU)'	Supports implementation
New definition for 'potential erosion risk land'	• Aligns with Mr Willis (rural land use s42A) recommendations • New definition which brings the separate pasture, forestry and woody vegetation maps together in a single map per Whaitua and (Maps 90 and 93) renamed as 'potential erosion risk land' • Incorporates highly erodible land definition from RPS Change 1 to provide some support for Policy CC.6 of RPS Change 1

Issue 14: Maps 91 and 94 (woody vegetation) and Maps 92 and 95 (plantation forestry)

Recommended amendments	Reasons
Remove link between highest erosion risk land (woody vegetation) mapping (Maps 91 and 94) and vegetation clearance rules	• Advice from Mr Blyth and Mr Nation is that erosion risk mapping more suitable as a trigger/guide for further assessment rather than for use to identify areas which require a specific response or as a trigger for consent • Given limitations of PC1 erosion risk mapping NRP erosion prone land definition more certain for plan users • PC1 erosion risk mapping not required for vegetation clearance rules as NRP rules retained
Bring together pasture, forestry and woody vegetation maps together in a single map per Whaitua (Maps 90 and 93) and rename 'potential erosion risk land'	• Aligns with Mr Willis (rural land use s42A) recommendations • See 'potential erosion risk land' definition
Recommended amendments during rebuttal evidence now use the erosion risk mapping (potential erosion risk land) as a guide/trigger for further assessment of erosion risk at a property scale via forestry management plans	• Advice from Mr Blyth and Mr Nation is that erosion risk mapping more suitable as a trigger/guide for further assessment rather than for use to identify areas which require a specific response or as a trigger for consent • Consistent with approach to mapping used in FEP process in rural land use topic

Issue 15: Not-applicable to Whaitua

- Operative NRP rules R106 and R107 include both vegetation clearance and earthworks where permitted activity standards cannot be met
- Ms Vivian is recommending R106 and R107 (as they apply to earthworks) be replaced by PC1 rules
- For vegetation clearance this would result in permitted activity rules being in operative NRP but rules when permitted activity standards not met being in PC1
- Recommend re-writing NRP vegetation clearance rules into PC1 so all rules are in one place to assist plan users
- Results in no changes to not-applicable to Whaitua icons

Issues 16 and 17: General opposition and other matters

General opposition

- 273 submissions and further submissions in general opposition to forestry provisions in PC1 – submissions (not assigned to specific forestry provisions in PC1)
- Many of these submissions largely summary statements provided in cover letters or similar statements, either additional to, or in support of, submission points on specific provisions
- The matters raised in these submission points largely addressed in the issue and provision specific analysis
- Did not result in any further recommended changes to provisions

Other matters

- CFG sought amendments to Method M44 to include “deliver a specific programme of engagement with forestry practitioners” to reflect the recommendations of the Whaitua committees - recommended new Method M44A is consistent with relief sought
- Wildfire risk – outside scope of PC1 and no specific relief sought

Difference in approach to vegetation clearance vs forestry recommendations

- No available technical evidence or other evidence from Council about scale of vegetation clearance (that is not forestry) in either Whaitua
- No evidence regarding effectiveness of operative NRP vegetation clearance rules
- Cannot support PC1 as notified and no evidence or guidance as to what amendments to provisions as notified might be appropriate for vegetation clearance
- Available information does not meet ‘best available information’ criteria in 1.6 of the NPS-FM – it is not uncertainty about the quality or quantity of available information for vegetation clearance - it is an absence of information

Remaining matters of contention

- Application of the TAS, particularly impacts on activities upstream of Hutt River @ Boulcott TAS site
- Stringency test
- Alignment with NPS-FM – one on side recommendations do not go far enough and will not give effect to NPS-FM vs regulation above NES-CF goes too far
- More nuanced or focused rules (*scale* of activities regulated)
- Erosion risk mapping – is it certain enough to be used for rules?
- If erosion risk mapping considered certain enough or can be improved without affecting scope the focus of forestry rules could be narrowed i.e. more specific rules could be applied to forestry on 'potential erosion risk land' which better aligns with Policy CC.6 of RPS Change 1

Section 42A report – Earthworks – Ms Vivian

Greater Wellington
Te Pane Matua Taiao

Background

- In the NPS-FM, sediment is a mandatory contaminant attribute subject to a limit (i.e., rule) on resource use. The discharge of sediment must be accounted for over time to meet the limit and the overall environmental outcomes for TAoP and TWT.

- In TAoP, sediment is causing a long-term degradation of the low energy receiving environments of Pāuatahanui Inlet and Porirua Harbour through increased levels of sedimentation.

- In TWT, there are no low energy receiving environments under immediate threat, however sediment is causing localised effects in river estuaries (e.g.) and in urban rivers and streams.

- PC1 seeks to use site specific regulatory approaches to implement the limits framework for sediment by imposing a discharge standard on earthworks.

A total of 449 submissions and 762 further submissions were received on this topic.

- The earthworks definition was updated to reflect the National Planning Standards (2019). The definition for earthworks within the NRP excluded a number of activities from being considered earthworks. The new definition consequently results in a number of these activities being subject to consideration under the earthworks rule framework.

- Management of earthworks – New policies and rules required the retention of all soil on site. Submissions raised concern regarding the practicality of this.

- Discharge standard – The practicality of using total suspended sediments (TSS) as a measure of water quality on earthworks sites

- Winter close down period - A significant number of submissions state that the winter shut down period does not take into account the scale, nature and duration of works, and do not support the non-complying activity status of works.

Issue 1 - Categorisation of provisions to the Freshwater Planning Process

- I have recommended amendments to Rules WH.R23 and P.R22 that would expand the application of those rules beyond discharges to freshwater to also regulate discharges to coastal water.

- If the Panel were to accept my recommended amendments to these provisions, they would need to be recatergorised into the P1S1 process. This is due the provisions then applying in the coastal marine area, resulting in the provisions forming part of the regional coastal plan component of the Natural Resources Plan.

Issue 2 - Earthworks Definition

- The earthworks definition was updated to reflect the National Planning Standards (2019).

- The definition for earthworks within the NRP excluded a number of activities from being considered earthworks.

- The new definition consequently results in a number of these activities being subject to consideration under the earthworks rule framework.

- Submissions sought exclusions to be reinserted into the definition or a rule to provide clear consenting pathway for these activities.

Issue 2: Earthworks Definition

- S42A recommendations included the insertion of a new permitted activity rule to provide a pathway from some works as a permitted activity. These include:

- thrusting, boring, trenching or mole ploughing associated with cable or pipe laying and maintenance
- the construction, repair, upgrade or maintenance pipelines, and electricity lines and their support structures, including the National Grid, and telecommunication structures or lines, and radio communication structures, and (v) firebreaks or fence lines,
- repair or maintenance of existing roads and tracks, and airfield runways, taxiways, and parking aprons for aircraft.

Further recommendations were made thorough rebuttal evidence to include "*The repair, sealing or resealing of a road, footpath or driveway.*

Issue 3 - Management of Earthworks - the practicality of retaining all soil on site during earthworks activities

- PC1 as notified included a new policy relating to the management of earthworks sites through the use of best practice erosion and sediment control measures.

- PC1 as notified included a new rule framework for earthworks. Earthworks undertaken as a permitted activity no longer included a provision for any associated discharge of sediment laden water.

- It can be impracticable in some circumstances to retain all discharges on site, even when operating in accordance with best practice guidelines, for this reason erosion sediment control devices are often designed to manage discharges during certain weather events and are constructed to allow for discharges during extreme weather events and rainfall.

Issue 3 Recommendations

- S42A recommendations included amendments to the "Management of Earthworks Sites" Policies WH.P29 and P.P27

*The ~~risk~~ adverse effects of sediment discharges from **earthworks** shall be managed by:*

- *(a) ~~requiring~~ maximising the retention of ~~uncontrolled~~ disturbed soil and sediment on the land using **good management practices** for erosion and sediment control measures that are appropriate to the scale and nature of the activity, and in accordance with the GWRC Erosion and Sediment Control Guideline for the Wellington Region (2021), for the duration of the land disturbance, and*

.....

- Consequent changes were made to the permitted and restricted discretionary activity earthworks rules to acknowledge discharges associated with earthworks activities and provide for an associated discharge under the earthworks rule framework.

Issue 4 - The Discharge Standard

- PC1 as notified introduced a new numeric discharge standard of 100gm/m3 TSS for earthworks over 3000m2.

- S42 Report discussed the practicality of using total suspended sediments (TSS) as a unit of measure of water quality on earthworks sites and the evidence basis for using 100mg/m^3 TSS concentration as an appropriate discharge standard.
- To determine TSS, samples must be sent to a laboratory for analysis. This is impractical given the nature of earthworks activities and poses further risk to the environment due to the delay in receiving results.

- NTU can be measured in-situ, and remedial actions are able to be undertaken immediately in the event of an exceedance.

- TSS measurements can be imposed as a condition of consent, and should be in part FMU's where suspended sediment is not met.

Issue 4: Recommendations

- S42A recommendation is to amend discharge standard to nephelometric turbidity units (NTU). NTU is an alternative measurement for suspended sediment. TSS measurements can still be imposed via condition of consent, but In-situ measurements will be taken by measuring NTU.

- No submitter evidence was provided which indicated further issues with the discharge standard measurement of NTU. However issues were raised regarding its applicability to coastal waters.

- I recommended further amendments to the policies through rebuttal to provide a more appropriate discharge standard for coastal waters where total suspended sediment is already over the limit.

Issue 5 - Winter shutdown of earthworks

- PC1 as notified included new policies and rules imposing a winter close-down period.

Policy WH.P31: Winter shut down of earthworks

Earthworks over 3,000m^2 in area shall:

(a) be shut down from 1st June to 30th September each year, and

(b) prior to shut down, be **stabilised** against erosion and have sediment controls in place using **good management practices** in accordance with the GWRC *Erosion and Sediment Control Guideline for the Wellington Region (2021).*

- The winter close-down period is an existing process imposed on earthworks consents throughout the region via consent conditions.

- The introduction of this process into the provisions raised significant concerns for operators and contractors across the region, largely due to its direct requirement to shutdown earthworks from 1 June to 30Th September each year. The rule framework as notified resulted in any earthworks undertaken during this period being assessed as a non-complying activity.

Issue 5: Recommendations

- Delete the winter works shut down policy and make amendment to earthworks rules to reflect this.

- The amendment to the earthworks rules will provide a pathway for applicants to apply for earthworks as a restricted discretionary activity, where works may be required to be undertaken during the winter shut down period but **only in part FMUS where the TAS for suspended sediment is being met**.

- Subsequential changes were made to the “Management of earthworks sites” policies to provide a policy framework for the minimisation of works during this period.

- The amendment recognises the diversity of different sites and catchments. The risk in not acting may result in a delay in land development activities across the region, for no environmental benefit.

Issue 5: Recommendations

- Under PC1 as notified, all earthworks unable to meet the requirements of the restricted discretionary rule, cascade to a noncomplying activity status.
- I have recommended that the activity status of this rule is amended to discretionary.
- The amended discretionary activity status indicates that the activity is capability of generating a wide range of effects, while recognising that those potential effects should generally be able to be managed to a degree in which they are less than minor.

Additional issues addressed through rebuttal: Quarrying and Regional Significant Infrastructure

- A number of submitters raised concerns about the recommended changes to the restricted discretionary rules and lack of changes to address the submissions regarding earthworks associated with **quarrying and Regional Significant Infrastructure**, and the need for these activities to occur during the winter close down period, regardless of the FMU.
- I recommended changes in my rebuttal evidence to provide for acitivties of this nature to apply for resource consent as a restricted discretionary activity.

WIP Recommendations

Te Awarua-o-Porirua WIP	PC1
Recommendation 49: Greater Wellington amends the policy and rule framework in the PNRP to set discharge standards for earthwork activities that require consent in order to achieve the sediment targets and limits in the WIP.	The section 42A recommendations still ensure a reduction in sediment discharged from earthworks sites. The imposition of a discharge standard in combination with improved site control will contribute to an overall reduction in sediment loads entering surface water bodies land disturbance activities.
Te Whanganui-a-Tara WIP	**PC1**
Recommendation 22: Activities affecting water quality will ensure that the water quality standards set in the PNRP, or the A band attribute state in the NPSFM 2020, whatever is more stringent, are achieved.	As above. It is important to note that the NPSFM attribute state for visual clarity and suspended sediment load is 'Total Suspended Solids'. This is not an appropriate unit of measure for earthworks activities due to the delay in receiving result from laboratory analysis. The S42A recommends changing the discharge standard unit of measure to NTU, a measurement which can be taken in –situ and therefore remedial actions can be undertaken. TSS can still be imposed as a monitoring and reporting requirement as a condition of consent and should be in part FMU's where the TAS for suspended sediment is not being met. This will allow council to monitor and ensure earthworks activities are being managed appropriately, contributing to improved outcomes in these FMUS.

WIP Recommendations and effectiveness of PC1

- The section 42A recommendations still ensure a reduction in sediment discharged from earthworks sites. The imposition of a discharge standard in combination with improved site control will contribute to an overall reduction in sediment loads entering surface water bodies from land disturbance activities.
- These recommended changes will ensure the TAS for suspended sediment in the NPS-FM are met while improving practicality for plan users.