JOHN TURKINGTON LIMITED

John Turkington Ltd
PO Box 98
MARTON 4741
p: 06 327 5263
m: 0274 458 410
e: office@jtl.co.nz
w: jtl.co.nz

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Greater Wellington Regional Council
Environmental Policy
PO Box 11646
Manners Street
Wellington 6142

Attn: Hearings Adviser
By email: regionalplan@gw.govt.nz

Subject: SUBMISSION, NATURAL RESOURCES PLAN - PLAN CHANGE 1

Tēnā koe,

We are writing in relation to proposed Plan Change 1 ("PC1") of the Greater Wellington Regional Council ("GWRC") Natural Resources Plan ("NRP").

John Turkington Limited ("JTL") is a forestry management company based in Marton, Rangitīkei. Our primary operating areas include Waikato, Taranaki, Hawkes Bay, Manawatū-Whanganui, Greater Wellington, Otago, and Southland regions.

The majority of the forestry activities undertaken by JTL are controlled by the National Environmental Standards for Commercial Forestry ("NES-CF", the "National Standards").

Please accept the matters raised herein as the written submission of JTL on proposed PC1 of the NRP.

The submitters do not wish to be heard in support of their submissions at a hearing.

The submitters would consider presenting a joint case with others at a hearing who make similar submissions.

The submitters support the submissions of the following submitters in addition to their own submission:

- China National Forestry Group
- Forest Enterprises
- Juken New Zealand

Summary of JTL submission:

The main points of concern about the GWRC PC1 are as follows:

- The NES-CF have clear and comprehensive controls in place to manage forestry and environmental effects, including regulating sediment discharges to water.
- GWRC have not provided sufficient evidence or justification for the forestry restrictions in PC1, nor how the NES-CF controls are insufficient for managing forestry or its environmental effects.
- GWRC have not provided the justification required for the application of stringency under NES-CF regulation 6 for PC1.
- PC1 appears to duplicate the existing controls already required under the NES-CF, including the use of erosion mapping and management plan requirements.
- There is a strong lack of empirical evidence provided by GWRC regarding purported adverse environmental effects from forestry activities, including consideration for connectivity and sediment yield and the link with forestry activities and water quality, despite a large source of peer-reviewed literature on these factors and the relationship with commercial forestry.
- JTL promotes the correct application of stringency under the NES-CF for specific additional controls to the existing NES-CF framework to address water quality concerns, as the preferred approach and an alternative to the PC1 consented regime proposed.

Background to NES-CF:

1. The NES-CF establishes a permitted activity regime to manage the environmental effects of commercial forestry activities under the Resource Management Act 1991 ("RMA"), including: core forestry activities of - afforestation, pruning and thinning to waste, earthworks, river crossings, harvesting, quarrying, mechanical land preparation, and replanting; ancillary activities - slash traps, indigenous vegetation clearance, non-indigenous vegeatation clearance; and general provisions - discharges, disturbances and diversions, noise and vibration, dust, indigenous bird nesting, and fuel storage and refuelling.
2. The NES-CF operating framework supports a predominately "permitted activity" approach by encouraging foresters to comply with specific permitted activity conditions and standards.
3. Resource consent is required where permitted standards or conditions cannot be met, or in instances of high and very high erosion susceptibility land class (dependent on the activity).
4. Management Plans are required for highest risk forestry activities to demonstrate how permitted activity standards and conditions will be achieved for the operation at a site-specific level, including methods for erosion and sediment control.
5. Activities must be notified to the relevant regional council authority, and management plans must be provided to the Council for review, if requested.
6. A permitted activity cost recovery mechanism allows for Councils to undertake proactive compliance monitoring of any sites deemed by them to be of interest (i.e., highest risk).

7. Importantly, the NES-CF regulations incorporate a range of permitted "discharge standards" for forestry-related contaminants, including sediment.

8. A summary table of permitted "discharge standards" and associated regulations of the NES-CF has been prepared to assist with this submission. These can be referred to in Appendix 1.

Te Mana o te Wai

9. JTL supports the principles of Te Mana o te Wai.

10. JTL supports the application of Te Mana o te Wai in the National Policy Statement for Freshwater Management, through the development of effective policies, objectives, and rules for the proposed NRP, where these are:

    a. necessary to realise Te Mana o te Wai;

    b. necessary to achieve target attribute state for freshwater management;

    c. supported by appropriate empirical evidence;

    d. consistent with the existing operating framework of the NES-CF; and

    e. implemented in accordance with relevant statutory provisions.

11. In our view any proposed or amended policy, objective, or rule of PC1 intended to give effect to Te Mana o te Wai must be able to demonstrate that it is necessary to do so.

12. We do not comment on the effectiveness of the policies, objectives or rules of proposed PC1 in relation to Te Mana o te Wai.

Achieving target attribute states

13. In our view any new or amended policy, objective, or rule of PC1 intended to give effect to a specified target attribute state must be able to demonstrate that it is necessary.

14. Section 32 Report, Part B (page 54), 'Table B7: Sediment load reductions required to meet the visual clarity TAS Part-FMU', identifies that TWT TAS "Whakatikei R. @ Riverstone" has a baseline clarity median of 4m, which is equal to the specified target clarity (attribute) state of 4m; meaning that the baseline mean annual TSS load (t/year) of 3,189 for the catchment requires no further reductions in sediment load to meet the clarity target.

15. GWRC 'Freshwater quality monitoring technical report' (J. Milne, and A. Perrie, revised February 2006), page 104; identifies that 24% of the catchment area of the Whakatiki River at Riverstone comprises plantation ("commercial") forest.[1] This appears to be the greatest proportion of commercial forestry represented in any of the monitoring data provided in the Section 32 report, and incorporates forests identified as being on the highest erosion risk land in the proposed Plan.

16. In our view such a large proportion (24%) of catchment area would be sufficient to demonstrate any trend between the landuse and water quality monitoring results observed, where clarity is used as a measure of sediment yield (TSS). And despite the larger proportion (64%) of the

[1] https://www.gw.govt.nz/assets/Documents/2006/02/Freshwater-Quality-Monitoring-Technical-Report-Screen-Version.pdf

catchment being indigenous forest cover (a passive landuse), any significant contribution of sediment derived from commercial forest landuse (24%) within the catchment would presumably have been noticeable in the data.

17. It appears from the scientific data that current forest landuse, controls, and management practices, as regulated under the NES-CF (previously the NES-PF), are sufficient to achieve the desired target attribute state for freshwater clarity.

18. This finding is unsurprising, as it is noted in the scientific literature that:

> *"Forests have a strong influence on the water quality of catchments. They moderate the local climate, which in turn influences the quantity, temperature and overall quality of stream water. As a result, planted forests almost always yield better water quality than other developed land uses, including agriculture and urban development."* [2]

19. It follows that commercial forestry as a landuse, in any of its forms, is beneficial for water quality; and that planting commercial forests (afforestation and replanting) should be encouraged, and not restricted or prohibited, by the proposed NRP.

20. We therefore question if any of the amended policies, objectives and rules relating to commercial forestry landuse are necessary to achieve target attribute states in other FMU or part-FMU, based on the Council's own environmental monitoring data from a catchment that is representative of commercial forestry landuse.

21. JTL opposes any proposed or amended rules in PC1 for commercial forestry, on the basis that they are not necessary for achieving the target attribute state for visual clarity and total suspended sediment, and that current National Standards are appropriate for managing forestry activities and their effects in the context of the policies and objectives of the proposed NRP.

Appropriate empirical evidence

22. It is important that any proposed or amended polices, objectives or rules related to commercial forestry are supported by appropriate empirical evidence.

23. Further to the example given above - whereby the scientific evidence does not necessitate the changes proposed - we also note the following:

24. Technical report 'Erosion Risk Mapping for Te-Awarua-o-Porirua and Te-Whanganui-a-Tara' (Collaborations, August 2023)[3], outlines a methodology for identifying the highest erosion risk land in each FMU, by landuse type; and is supported by spatial erosion risk layers, referenced in the Plan.

25. Importantly, Section 4.3, 'Limitations', page 10 of that report comments:

> *"Erosion risk maps do not account for sediment delivery processes such as interception or deposition or assess connectivity to the stream network."*

[2] https://www.scionresearch.com/__data/assets/pdf_file/0007/60577/Water_quality_info_sheet.pdf
[3] https://www.gw.govt.nz/assets/Documents/2023/10/Easton-Nation-and-Blyth-2023.-Erosion-risk-mapping-for-TAoP-Whaitua-and-Whaitua-TWT.pdf

26. It is clear from reading the Collaborations report, that aside from developing a specific scale model for highest erosion risk in each FMU, that the model does not provide any scientific relationship between erosion risk, sediment delivery (connectivity), sediment yield, or receiving environment target state attributes, such as (but not limited to) visual clarity.

27. Connectivity and sediment yield are fundamental considerations for understanding catchment dynamics and fluvial geomorphology (important drivers of water quality and catchment health), and there exists a large source of peer-reviewed literature on these factors and the relationship with commercial forestry[4] [5] [6].

28. We therefore question how the spatial model of erosion risk can apply as a meaningful tool for managing water quality from land used for commercial forestry operations, particularly without any evidence of GWRC having given due consideration to the existing literature on connectivity and sediment yield.

29. At its highest, the proposed spatial model can be used to consider highest erosion risk within a catchment, but it bears no direct relationship to the water quality of that catchment.

30. Sediment entering receiving environments is a factor of erosion, connectivity, and transport, within the landscape. These factors relate to how land is used and managed. The NES-CF provides numerous controls of forestry activities to address sediment entering water, including minimum water clarity and ecological standard (see Appendix 1).

31. On this basis JTL also opposes any rules related to identified highest erosion risk land, landuse and discharge consent thresholds, and erosion and sediment management plans, as they relate to commercial forestry activities; because they do not consider management practices beyond erosion risk, and are already adequately controlled for within the NES-CF.

32. Further, Section 32 Report, Part D (page 107) states:

> *"The existing regime for commercial forestry operations contributes to the sedimentation issues being addressed by Plan Change 1."*
>
> *"Current plantation forest management practices and the regulatory framework are not adequate to address the improvement needed to meet objectives for water quality, ecosystem health and mana whenua values in these FMUs."*

33. There is no empirical evidence provided by the Section 32 analysis that substantiates either of these claims.

34. Firstly, based on the Council's own water quality monitoring data, the existing regime controlled by the NES-CF does not appear to contribute any additional sediment that would be necessary to address to achieve water clarity targets within the catchments monitored with that land use.

[4] NZ Farm Forestry - Plantation Forestry and Erosion (nzffa.org.nz)
[5] TamPak_chap5.indd (nrc.govt.nz)
[6] Sediment yields from plantation forestry and pastoral farming, coastal Hawke's Bay, North Island, New Zealand on JSTOR

35. Secondly, the Section 32 report does not attempt to justify how current forest management practices, or the current regulatory framework are inadequate to address the water quality improvements needed.

36. If the Council considers that non-compliance with the NES-CF is contributing to the issue, then it must be noted that non-compliance with a rule is entirely different to non-performance of that rule to achieve a desired environmental outcome. GWRC appears to be conflating these two very different considerations.

37. We have seen no empirical evidence in the Council reports that identifies either:

    a. substantive non-compliance for forestry operations with the NES-CF (nor its predecessor the NES-PF); or

    b. non-performance of any NES-CF/PF rules at achieving current or future state water quality standards.

Existing framework of the NES-CF

38. We submit that any proposed or amended rule must be consistent with the existing operating framework of the NES-CF.

39. The NES-CF provides a comprehensive regulatory framework for the environmental management of forestry operations across New Zealand, this includes the management of sediment discharges, and existing management planning requirements for earthworks and other land disturbing activities, afforestation, harvesting, and forestry quarrying.

40. Importantly, forestry earthworks, harvesting, and quarrying activities each have permitted discharge standards that must be complied with for forestry operations. These are identified in Appendix 1 of our submission.

41. To use an example from the NES-CF regulations for forestry earthworks:

> *Sediment originating from earthworks must be managed to ensure that after reasonable mixing it does not give rise to any of the following effects on receiving waters:*
>
> *a. any conspicuous change in colour or visual clarity:*
> *b. the rendering of fresh water unsuitable for consumption by farm animals:*
> *c. any significant adverse effect on aquatic life.*
>
> [Regulation 26]
>
> *All disturbed soil must be stabilised or contained to minimise sediment entering into any water and resulting in—*
>
> *a. the diversion or damming of any water body; or*
> *b. damage to downstream infrastructure, property, or receiving environments including the coastal environment.*
>
> [Regulation 31(1)]

Any discharge of sediment into water or to land in circumstances that may result in it entering water, disturbance of the bed or vegetation in the bed of a river or lake, or diversion of water associated with a commercial forestry activity is a permitted activity if subclauses (3) and (4) are complied with and—

b. earthworks comply with regulations 24 to 33:

[Regulation 97(1)]

42. The sediment discharge provisions of the NES-CF form an important component of the permitted activity standards for forestry earthworks under the current regulatory regime, and apply irrespective of the identified erosion susceptibility of the land.

43. Importantly, when analysed together, the sediment limit (bottom line) expressed in NES-CF regulation 26(a) which requires that there be no 'conspicuous change in colour or visual clarity' from forestry earthworks (and other land disturbing activities), supports the premise that existing 'A' grade visual water standards in commercially forested catchments will be either maintained or improved. (Proposed Change 1 to the Natural Resources Plan for the Wellington Region October 2023, page 65). [7]

44. It is our belief that Council has overlooked the role of water quality standards (namely permitted activity discharges) already provided for by the NES-CF. We therefore question if further deviation from these standards currently expressed by the National Standards is necessary or defensible.

45. Similarly, the NES-CF also already contains requirements for land disturbing forestry activities to prepare and submit to Council (upon request) forestry management plans with the following detail:

Water quality and sediment

The plan must identify, for sites with a water body, the risks from material that is mobilised, including woody debris, slash, or sediment, to the following if they are located downstream of the commercial forestry activity:

(c) rivers, lakes, estuaries, and the sea:

(d) drinking water supplies.

Erosion and sedimentation

The plan must include—

(a) a description of the management practices that will be used to avoid, remedy, or mitigate risks due to forestry earthworks that have been identified on the map, including, in sufficient detail to enable site audit of the management practices to be carried out,—

(i) the proposed erosion and sediment control measures to be used; and

(ii) the situations in which they will be used; and

(b) the following minimum erosion and sediment control measures:

(i) water run-off control measures:

(ii) sediment control measures during construction and during harvest:

[7] https://www.gw.govt.nz/assets/Documents/2023/10/Full-Plan-Provisions-including-Clause-16-changes-made-on-6-December-2023.pdf

(iii) the method to be used to manage excess fill for large-scale cut and fill operations and, if the method is end-haul, the proposed disposal location:
(iv) methods to be used to stabilise batters, side cast, and cut and fill.

[Schedule 4]

46. It would appear, as well as unnecessarily overriding the existing discharge standards of the NES-CF, the proposed NRP is also duplicating existing requirements of the National Standards for forestry operations to have a management plan to address erosion and sedimentation from land disturbing activities.

47. We reiterate earlier comments made - there has been no evidence provided in Council reports that demonstrates that the current NES-CF framework for managing erosion, sediment, and water quality is deficient either in current monitoring data or desired future state. There is also no evidence provided by Council that the existing Forestry Earthworks and Harvest Management Plans within the NES-CF is in any way insufficient for appropriately managing forestry activities.

Implementation in accordance with statutory provisions

48. Our final point – the proposed plan change must be implemented in accordance with relevant statutory provisions.

49. The RMA provides rules/regulations through regional and district plans, as well as through national environmental standards.

50. The relationship between plan rules and national environmental standards is expressed through section 43B RMA:

> *(1) A rule or resource consent that is more stringent than a national environmental standard prevails over the standard, if the standard expressly says that a rule or consent may be more stringent than it.*
> *(2) For the purposes of subsection (1),—*
> *(a) a rule is more stringent than a standard if it prohibits or restricts an activity that the standard permits or authorises.*

51. Regulation 6 NES-CF sets out the matters for which plan rules may be more stringent or more lenient (as the case may be). In relation to freshwater instruments:

> *(1) A rule in a plan may be more stringent than these regulations if the rule gives effect to—*
> *(a) an objective developed to give effect to the National Policy Statement for Freshwater Management:*

52. It is therefore generally accepted that the National Environmental Standards take primacy over Plan rules unless the Standards expressly provide otherwise.

53. The approach of the proposed NRP should therefore be to *complement* the existing framework of the NES-CF and to only introduce more stringent rules where these are *necessary* to achieve an objective developed to give effect to the NPS-FM.

54. The current proposals go much further than this, and seek to replace the current permitted activity approach of the National instrument with a consenting regime, more stringent activity status, and

alternate high risk erosion mapping and erosion and sediment plans which duplicate provisions of the National Standards, leading to regulatory inconsistency.

55. While regulation 6 of the NES-CF allows for a council to provide more stringent rules to meet an objective giving effect to the NPS-FM, there is a process to be undertaken by the council to justify any application of stringency. We refer you to Section 32 (4) of the RMA which states:

> *(4) If the proposal will impose a greater or lesser prohibition or restriction on an activity to which a national environmental standard applies than the existing prohibitions or restrictions in that standard, the evaluation report must examine whether the prohibition or restriction is justified in the circumstances of each region or district in which the prohibition or restriction would have effect.*

56. MPI published the NES-PF Plan Alignment Guidance, which includes specific guidance on where plan rules may be more stringent that the NES-PF (now NES-CF) under Regulation 6. This guidance is intended to assist with consistent interpretation and to help minimise implementation inconsistency and risk:

> *"It is also important to ensure that more stringent rules only prevail over the NES-PF in appropriate circumstances to ensure the underlying policy objectives of the NES-PF to achieve consistency and certainty in the management of plantation forestry activities are not compromised".*

57. As noted above, section 32(4) of the RMA also requires councils to demonstrate that proposed rules (including rules being rolled over as part of a plan review) are justified in the context of the particular region/district. This is important as the circumstances provided for in Regulation 6 are not in of themselves justification for more stringent rules – they simply allow more stringent rules in certain circumstances when site-specific factors warrant this.

58. The starting point when assessing the need for a more stringent rule under Regulation 6(1)(a) is firstly to demonstrate the NES-CF controls are not sufficient to achieve a plan objective that gives effect to the NPS-FM.

59. To assist Council with this analysis we have provided a summary of permitted activity effects, including discharge standards, for the current NES-CF, set out in Appendix 1 of our submission.

60. These permitted effects form the baseline of the water quality standards for the current regulatory regime, and therefore should be considered as the starting point for any deviation with a more stringent rule. This is an important process to follow in order to give effect to the existing National Standard, and such analysis is lacking in the Council reports.

61. The next step is to then demonstrate how a more stringent rule will achieve that objective in a more effective and efficient way than the NES-CF and that the more stringent rule is justified in the context of the region. Simply proving a link between a proposed rule and a plan objective that gives effect to the NPS-FM is not sufficient.

62. None of these proposed changes are necessary, or validly justified, in our view. It is our understanding that the Council has not undertaken any of its own research into how the NES-CF provisions have been operating; and therefore, Council has failed to provide the required empirical evidence to support these proposed changes, including evidence to show that the current regulatory regime is not sufficient to achieve a plan objective.

63. This is in stark contrast to the statement contained in the proposed NRP, page 108:

> *"The NES-PF regulation 6(1) provides that regional rules can be more stringent than NES-PF rules in specified circumstances, including to give effect to achieving objectives to meet NPS-*

FM, or to implement policies of NZCPS 2010. The future management of plantation forestry activities in these FMUs must contribute to the reduction in sediment needed to achieve the improvement in water quality required to meet the Plan objectives for rivers, estuaries, and harbours to give effect to the WIPs and the NPS-FM, in these FMUs."

64. We do not consider the proposed or amended policies, objectives or rules of NRP as they relate to commercial forestry to be either necessary or appropriately justified in accordance with the statutory provisions of Section 32(4) of the RMA that apply to this type of plan change.

Conclusion

65. It is the view of JTL that the NES-CF framework is sufficient for managing forestry activities, and Council have not provided any evidence contrary to this view.

66. However, the NES-CF provides Council with the ability to "add to" the NES-CF regulations under stringency (to give effect to the NPS-FM) where Council deems this necessary, and where Council also provides suitable justification to demonstrate how the NES-CF controls are not sufficient to achieve a plan objective to give effect to the NPS-FM.

67. It is the view of JTL that the Council should first provide evidence that the NES-CF is insufficient to meet the objectives for water quality, ecosystem health and mana whenua values in these FMUs before looking to pursue this plan change process further, or instead risk issues with the legality of the plan change.

68. Alternatively, it is the view of JTL that the Council should instead utilise the stringency ability under the NES-CF to develop more stringent rules for specific controls, noting that Council must provide evidence to show that the NES-CF controls are not sufficient to achieve a specific plan objective to give effect to the NPS-FM in order to apply a more stringent rule.

69. For example, retaining the current NES-CF permitted activity regime and management plan settings, but with the inclusion of specified water quality standards set by the proposed NRP that commercial forestry operations within each FMU/part FMU must also meet, would be an efficient application of the stringency provisions, and would achieve intended freshwater outcomes whilst maintaining consistency with the approach of the National Standards.

Nāku iti noa, nā

Myles Guy

Environmental and Landuse Business Manager

John Turkington Limited
252-254 Broadway, Marton 4710
PO Box 98, Marton 4741
M: +64 27 335 5030 | T: +64 6 327 5263
E: myles@jtl.co.nz | W: www.jtl.co.nz

Charlotte Holdsworth

GIS and Environmental Coordinator

John Turkington Limited
252-254 Broadway, Marton 4710
PO Box 98, Marton 4741
M: +64 27 210 1020 | T: +64 6 327 5263
E: charlotte@jtl.co.nz | W: www.jtl.co.nz

Appendix 1: SUMMARY OF NES-CF DISCHARGE STANDARDS

NES-CF Permitted Effects

This document sets out the permitted activity standards under the NES-CF, which establishes the environmental effects that the NES-CF controls for and indicates the permitted discharge standard.

Summary:

Effect	Activity	Permitted	Not Permitted
Sediment	Afforestation	Sediment not addressed	Sediment not addressed
	Pruning and thinning to waste	Sediment not addressed	Sediment not addressed
	Earthworks	31(1) Disturbed soil discharge to water from earthworks is **acceptable** if minimised through stabilisation or containment, and does not divert or dam any waterbody, or cause damage downstream. Reg 26 Sediment discharge from earthworks is **acceptable** if, after reasonable mixing, there is no visible change in colour or clarity, water is not made unsuitable for farm animals, or no significant adverse effects on aquatic life. 30(2) Spoil deposition is **acceptable** where it doesn't cause ground instability, isn't over slash or woody vegetation, isn't in a waterbody or SNA, or isn't on land where it may enter water.	- Visibly change in colour or clarity of water - Water rendered unsuitable for farm animals - Significant adverse effects on aquatic life
	River Crossings	Reg 44 Sediment discharge during river crossing construction, maintenance, or removal is **acceptable** if all practical steps are taken to avoid it. Any elevated sediment levels are **acceptable** for less than 8 consecutive hours.	- 41(2) Abutments that cause erosion and sedimentation are **unacceptable**. - 41(1) Sedimentation caused by a river crossing is **unacceptable**.
	Forest Quarrying	55(2) Disturbed soil discharge to water from quarrying is **acceptable** if minimised through stabilisation or containment, and does not divert or dam any waterbody, or cause damage downstream. 55(1) Sediment discharge from quarrying is **acceptable** if, after reasonable mixing, there is no visible change in colour or clarity, water is not made unsuitable for farm animals, or no significant adverse effects on aquatic life	- Visibly change in colour or clarity of water - Water rendered unsuitable for farm animals - Significant adverse effects on aquatic life
	Harvesting	67(2) Disturbed soil discharge to water from harvesting is **acceptable** if minimised through stabilisation or containment, and does not divert or dam any waterbody, degrade the receiving environment habitat, or cause damage downstream. 68(6) Discharge of vegetation, soil, or debris to water from harvesting is **acceptable** if it does not dam, divert a water body, degrade the habitat, or damage downstream infrastructure. Reg 65 Sediment discharge from harvest is **acceptable** if, after reasonable mixing, there is no visible change in colour or clarity, water is not made unsuitable for farm animals, or no significant adverse effects on aquatic life	- Visibly change in colour or clarity of water - Water rendered unsuitable for farm animals - Significant adverse effects on aquatic life - Degradation of the receiving environment

	Mechanical Land Preparation	74(2) Sediment discharge from mechanical land prep is **acceptable** if, after reasonable mixing, there is no visible change in colour or clarity, water is not made unsuitable for farm animals, or no significant adverse effects on aquatic life	- Visibly change in colour or clarity of water - Water rendered unsuitable for farm animals - Significant adverse effects on aquatic life
	Replanting	Sediment not addressed	Sediment not addressed
	Ancillary – Slash traps	89(d) Sediment discharge during slash trap construction, maintenance, or removal of a slash trap is **acceptable** if all practical steps are taken to avoid it and any elevated sediment levels are **acceptable** for less than 8 consecutive hours. Reg 90 Sediment discharge from slash traps is **acceptable** if, after reasonable mixing, there is no visible change in colour or clarity, water is not made unsuitable for farm animals, or no significant adverse effects on aquatic life	- Visibly change in colour or clarity of water - Water rendered unsuitable for farm animals - Significant adverse effects on aquatic life
	Ancillary – discharges, disturbances, & diversions	97(1) Sediment discharge is **acceptable** if relevant activity regulations are complied with, and fish spawning is not mapped or currently happening.	
Slash	Afforestation	Slash not discussed	Slash not discussed
	Pruning and thinning to waste	Pruning and thinning slash in a waterbody that is unsafe to remove and doesn't have those effects is permitted and therefore considered **acceptable**.	20(2) Pruning and thinning slash in a waterbody or 5% AEP that blocks or dams, erodes the banks, has significant adverse effects on aquatic life, or cause damage downstream is **unacceptable**.
	Earthworks	Slash not discussed	Slash not discussed
	River Crossings	Slash not discussed	Slash not discussed
	Forest Quarrying	Slash not discussed	Slash not discussed
	Harvesting	69(3)&(4) Slash from harvesting is **acceptable** in a water body or 5% AEP flood level if it does not dam or block a water body, erode the banks, have a significant adverse effect on aquatic life, or cause damage downstream. Even if it does have those effects, it is **acceptable** if it is unsafe to remove. 69(5)&(6)&(7) Large harvesting slash residue that is sound wood up to 15m³ per hectare on orange and red zone land is **acceptable**.	
	Mechanical Land Preparation	Slash not discussed	Slash not discussed
	Replanting	Slash not discussed	Slash not discussed
	Ancillary – Slash traps	Debris caught in a slash trap for less than 20 working days is **acceptable**.	86(1)(b) Debris caught in a slash trap for longer than 20 working days is **not acceptable**. 89(a)&(b) Release of any contaminants other than sediment is **not acceptable**. Release of organic matter or sediment into a water body without taking all practicable steps to avoid this is **not acceptable**.

	Ancillary – discharges, disturbances, & diversions	Slash not addressed	Slash not addressed
Other contaminants	River Crossings	Not permitted	Reg 44 River crossing construction, maintenance, or removal must discharge no contaminants into water other than sediment.
	Ancillary – Slash traps	89(c) Wet concrete or concrete ingredients can come into contact with flowing or standing water (is **acceptable**) if all practicable steps are taken to avoid this.	
Bed disturbance	Earthworks	28(2) Soil disturbance in ephemeral flow paths that avoid accelerated erosion, obstruction, or diversion of water flow is **acceptable**.	
	Harvesting	68(5) Machinery disturbance to a water body is **acceptable** if minimised, and if for slash removal, crossing, or directional felling. Disturbance from slash and falling trees is less acceptable than disturbance from machinery, if machine disturbance is minimised. 68(2) Disturbance from tree felling directly across the waterbody and then full-length extraction is **acceptable**, if felling away is unsafe.	68(1) Disturbance to any waterbody or riparian zone by trees falling towards from the waterbody is **unacceptable**, unless unsafe. 68(3) Disturbance of large river systems (over 3m bankfull) by dragging trees across without full suspension is **unacceptable**.
	River Crossings	44(a)(ii) River crossing construction, maintenance, or removal that minimises disturbance to the bed of the river is **acceptable**. 44(e) River crossing construction, maintenance, or removal that requires machinery to cross the bed of a water body is **acceptable**. Also, machinery within flowing or standing water is also **acceptable** for this purpose.	Reg 39 Altering the natural alignment of the waterway is **unacceptable**.
	Ancillary – discharges, disturbances, & diversions	97(1) Bed disturbance is **acceptable** if relevant activity regulations are complied with, and fish spawning is not mapped or currently happening. 97(6) Bed disturbance of less than 20 axle movements across the wetted channel per day is **acceptable** during fish spawning. 97(6) Bed disturbance by hauling logs over the bed with butt suspension only, with disturbance by the tops along the ground and bed is **acceptable** during fish spawning. 97(6) Bed disturbance by clearing a slash trap of debris is **acceptable** during fish spawning.	97(7) A disturbance of a bed or vegetation in the bed of a river or lake associated with a commercial forestry activity that does not comply with subclause (1)(a) to (g), has the same activity status that applies if the conditions of the associated commercial forestry activity are not complied with.
Erosion of the bed or banks	River Crossings		41(1) Erosion of the bed, or instability or erosion of the banks caused by a river crossing is **unacceptable**. Reg 42 Aggradation or erosion of the riverbed due to a river crossing is **unacceptable**. 41(2) Abutments that cause erosion and sedimentation are **unacceptable**.
	Ancillary – Slash traps		86(1)(c) Erosion of the river bed by a slash trap is **not acceptable**.

Damming or diversion, Ponding or flooding	Earthworks	28(2) Soil disturbance in ephemeral flow paths that avoid obstruction of water flow is **acceptable**. 31(1) Disturbed soil discharge to water is **acceptable** if minimised through stabilisation or containment and does not dam any waterbody.	
	River Crossings		Reg 39 Damming or diverting water that causes flooding or ponding to another landowner is **unacceptable**.
	Forest Quarrying	55(2) Disturbed soil discharge to water from quarrying is **acceptable** if minimised through stabilisation or containment and does not dam any waterbody.	
	Harvesting	67(2) Disturbed soil discharge to water from harvesting is **acceptable** if minimised through stabilisation or containment and does not dam any waterbody. 68(6) Discharge of vegetation, soil, or debris to water from harvesting is **acceptable** if it does not dam a water body. 69(3)&(4) Slash from harvesting is **acceptable** in a water body or 5% AEP flood level if it does not dam or block a water body. Even if it does have those effects, it is **acceptable** if it is unsafe to remove.	
	Mechanical land prep	74(7) Disturbed soil discharge to water from mechanical land prep is **acceptable** if minimised through stabilisation or containment and does not divert or dam any waterbody.	
	Ancillary – Slash traps		84(1) Damming or ponding of water is **not acceptable**. 87(c) Flooding or ponding on land under different ownership to the forestry is **not acceptable**.
	Ancillary – discharges, disturbances, & diversions	97(1) Diversion of water is **acceptable** if relevant activity regulations are complied with, and fish spawning is not mapped or currently happening.	97(7) Diversion of water, associated with a commercial forestry activity that does not comply with subclause (1)(a) to (g), has the same activity status that applies if the conditions of the associated commercial forestry activity are not complied with.
Machinery ground disturbance	Earthworks	31(1) Disturbed soil discharge to water from earthworks is **acceptable** if minimised through stabilisation or containment, and does not divert or dam any waterbody, or cause damage downstream.	
	Forest Quarrying	55(2) Disturbed soil discharge to water from quarrying is **acceptable** if minimised through stabilisation or containment, and does not divert or dam any waterbody, or cause damage downstream.	
	Harvesting	68(4)(a) Harvesting ground disturbance greater than 5m distance from a smaller river system (less than 3m bankfull) or wetland is **acceptable**. 68(4)(b) Disturbance great than 10m distance from large river systems (over 3m bankfull) and lakes (over 0.25ha) is **acceptable**.	

Fish Passage	River Crossings	40(1) River crossings that provide for fish passage are **acceptable**. 40(1)(a) River crossings that don't provide for fish passage where it has been formally identified to the regional council that fish populations upstream would be adversely affected are **acceptable**. 40(1)(b) River crossings that don't provide for fish passage where the regional council has determined fish passage must be restricted is **acceptable**.	40(2) Not maintaining bed material in a structure on the bed of a waterway [for fish passage] is **unacceptable**.
	Ancillary – Slash traps		Reg 88 A slash trap without fish passage due to design, location, or lack of maintenance is **not acceptable**.
Receiving Environment and Aquatic Life	Pruning and thinning to waste	20(2) Slash in a waterbody that is unsafe to remove and doesn't have those effects is permitted and therefore considered **acceptable**.	20(2) Pruning and thinning slash in a waterbody or 5% AEP that has significant adverse effects on aquatic life is **unacceptable**.
	Earthworks	Reg 26 Sediment discharge, after reasonable mixing, that does not visibly change the colour or visual clarity, render the water unsuitable for farm animals, or have significant adverse effects on aquatic life is **acceptable**. 31(1) Disturbed soil discharge to water is **acceptable** if minimised through stabilisation or containment and does not cause damage to downstream receiving environments. Schedule 4(4)(3) Earthworks management plans that include a description of the management practices that will be used to avoid, remedy, or mitigate risks due to forestry earthworks and include the proposed erosion and sediment control measures to be used, the situations in which they will be used are **acceptable**.	
	Forest Quarrying	55(2) Disturbed soil discharge to water is **acceptable** if minimised through stabilisation or containment and does not cause damage to downstream receiving environments. Schedule 5(4)(3) Quarry management plans that include a description of the situations in which the proposed erosion and sediment control measures will be used, including details such a methods to avoid effects on riparian margins and water bodies, are **acceptable**.	55(1) Quarrying sediment discharge, after reasonable mixing, that has significant adverse effects on aquatic life is **unacceptable**. Quarrying sediment discharge that does not have those effects is acceptable.

	Harvesting	Reg 65 Sediment discharge from harvest is **acceptable** if, after reasonable mixing, there is no significant adverse effects on aquatic life. 66(2) A harvest plan that avoids, remedies, or mitigates adverse effects on the environment is **acceptable**. 67(2) Disturbed soil discharge to water from harvesting is **acceptable** if minimised through stabilisation or containment and does not degrade the aquatic habitat, riparian zone, freshwater body, or coastal environment. 68(6) Discharge of vegetation, soil, or debris to water from harvesting is acceptable if it does not degrade any aquatic habitat or riparian zone. 69(3)&(4) Slash from harvesting is **acceptable** in a water body or 5% AEP flood level if it does not have a significant adverse effect on aquatic life. Even if it does have those effects, it is **acceptable** if it is unsafe to remove. Schedule 6(4)(3)&(4) Harvest management plans that include a description of the management practices that will be used to avoid, remedy, or mitigate risks due to forestry harvesting and slash, and include the proposed erosion and sediment control measures to be used, the situations in which they will be used are **acceptable**. Schedule 6(4)(7) Harvest management plans that include procedures to mitigate adverse effects on identified threatened or at-risk species from the harvesting activity are **acceptable**.	66(2) A harvest plan that does not avoid, remedy, or mitigates adverse effects on the environment is **not acceptable**.
	Mechanical land prep	74(6) Sediment discharge from Mechanical land prep is **acceptable** if, after reasonable mixing, there is no significant adverse effects on aquatic life. 74(7) Disturbed soil discharge to water from mechanical land prep is **acceptable** if minimised through stabilisation or containment and does not cause damage to downstream receiving environments.	

	Replanting	Reg 77A A replanting management plan that includes all requirements in schedule 3 is acceptable. Schedule 3(4)(2) Replanting management plans that, for sites with a water body, identify the risks from material that is mobilised, including woody debris, slash, or sediment, to rivers, lakes, estuaries, and the sea are **acceptable**. Schedule 3(4)(3)(a) Replanting management plans that include a description of the erosion and sedimentation effects of replanting, including those effects that arise over the lifecycle of the forest or until a subsequent forest planning requirement are triggered is **acceptable**. Schedule 3(4)(3)(b) Replanting management plans that include a description of the measures to be used to monitor the erosion and sedimentation effects of replanting and maintain records relating to erosion and sedimentation are **acceptable**.	
Slope stability	Earthworks		31(3) Not using methods that maintain stability for batters, cuts, and side cast for quarrying is **unacceptable**. Maintaining stability is required
	Forest Quarrying		55(4) Not using methods that maintain stability for batters, cuts, and side cast for quarrying is **unacceptable**. Maintaining stability is required
	Harvesting	69(2) Slash piles on landings that do not collapse are **acceptable**.	