



AGENDA

Policy & Planning

Tuesday 22 November 2022, 1.00pm

Policy and Planning Committee

22 November 2022 01:00 PM - 02:30 PM



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Purpose of Policy and Planning Committee meeting

This committee attends to all matters of resource management, biosecurity and related environment policy.

Responsibilities

Prepare and review regional policy statements, plans and strategies and convene as a Hearing Committee as and when required for the hearing of submissions.

Monitor plan and policy implementation.

Develop biosecurity policy.

Advocate, as appropriate, for the Taranaki region.

Other policy initiatives.

Endorse submissions prepared in response to the policy initiatives of organisations.

Membership of Policy and Planning Committee

Councillor C S Williamson (Chairperson)	Councillor B J Bigham (Deputy Chairperson)
Councillor D M Cram	Councillor S W Hughes
Councillor A L Jamieson	Councillor D H McIntyre
Councillor C L Littlewood (ex officio)	Councillor N W Walker (ex officio)

Representative Members

Councillor C Filbee (STDC)	Councillor G Boyde (SDC)
Councillor B Haque (NPDC)	Ms L Gibbs (Federated Farmers Representative)
Ms E Bailey (Iwi Representative)	Mr P Moeahu (Iwi Representative)
Mr M Ritai (Iwi Representative)	

Health and Safety Message

Emergency Procedure

In the event of an emergency, please exit through the emergency door in the committee room by the kitchen.

If you require assistance to exit please see a staff member.

Once you reach the bottom of the stairs make your way to the assembly point at the birdcage. Staff will guide you to an alternative route if necessary.

Earthquake

If there is an earthquake - drop, cover and hold where possible.

Please remain where you are until further instruction is given.



Whakataka te hau

Karakia to open and close meetings

Whakataka te hau ki te uru	Cease the winds from the west
Whakataka te hau ki tonga	Cease the winds from the south
Kia mākinakina ki uta	Let the breeze blow over the land
Kia mātaratara ki tai	Let the breeze blow over the ocean
Kia hī ake ana te atakura	Let the red-tipped dawn come with a sharpened air
He tio, he huka, he hauhu	A touch of frost, a promise of glorious day
Tūturu o whiti whakamaua kia tina.	Let there be certainty
Tina!	Secure it!
Hui ē! Tāiki ē!	Draw together! Affirm!

Nau mai e ngā hua

Karakia for kai

Nau mai e ngā hua	Welcome the gifts of food
o te wao	from the sacred forests
o te ngakina	from the cultivated gardens
o te wai tai	from the sea
o te wai Māori	from the fresh waters
Nā Tāne	The food of Tāne
Nā Rongo	of Rongo
Nā Tangaroa	of Tangaroa
Nā Maru	of Maru
Ko Ranginui e tū iho nei	I acknowledge Ranginui above and
Ko Papatūānuku e takoto ake nei	Papatūānuku below
Tūturu o whiti whakamaua kia	Let there be certainty
tina	Secure it!
Tina! Hui e! Taiki e!	Draw together! Affirm!



Date 30 August 2022, 10.30am

Venue: Taranaki Regional Council Boardroom, 47 Cloten Road, Stratford

Document: 3096787

Members	Councillor	C L Littlewood	<i>Committee Chairperson</i>
	Councillor	N W Walker	<i>Deputy Chairperson</i>
	Councillor	M J McDonald	
	Councillor	D H McIntyre	
	Councillor	E D Van Der Leden	
	Councillor	C S Williamson	
	Councillor	M G Davey	
	Councillor	D N MacLeod	<i>ex officio</i>

Representative

Members	Councillor	C Young	South Taranaki District Council
	Councillor	G Boyde	Stratford District Council
	Councillor	S Hitchcock	New Plymouth District Council
	Ms	B Bigham	Iwi Representative
	Ms	L Tester	Iwi Representative
	Mr	P Moeahu	Iwi Representative <i>zoom</i>
	Mr	P Muir	Federated Farmers

Attending	Councillor	D L Lean	Taranaki Regional Council	
	Mr	S J Ruru	Chief Executive	
	Mr	A D McLay	Director - Resource Management	
	Ms	A J Matthews	Director - Environment Quality	
	Mr	D R Harrison	Director - Operations	
	Mr	M J Nield	Director - Corporate Services	
	Mr	C Spurdle	Planning Manager	
	Mr	C Vicars	Team Leader - Land & Water	
	Ms	J Harvey	Scientist - Groundwater	
	Ms	F Jansma	Scientist - Water Quantity	
	Mr	S Tamarapa	Iwi Communications Officer	
	Mr	C Wadsworth	Strategy Lead	
	Mr	C Woollin	Communications Adviser	
	Miss	R S Sweeney	Governance Administrator	
				<i>One member of the media and one member of the public.</i>

Apologies Apologies were received and sustained from Councillor M P Joyce Littlewood/Van Der Leden

Notification of Late Items Riparian planting review progress update – Councillor N W Walker.

1. Confirmation of Minutes – 26 July 2022

Resolved

That the Policy and Planning Committee of the Taranaki Regional Council:

- a) takes as read and confirms the minutes and resolutions of the Policy and Planning Committee of the Taranaki Regional Council held in the Taranaki Regional Council Boardroom, 47 Cloten Road, Stratford on Tuesday 26 July 2022 at 10.30am
- b) notes the recommendations therein were adopted by the Taranaki Regional Council on Tuesday 9 August 2022.

Muir/MacLeod

2. Freshwater Implementation Report August 2022

- 2.1 Mr C Wadsworth, Strategy Lead, spoke to the memorandum to provide the Committee with a Freshwater implementation programme update.

Recommended

That the Taranaki Regional Council:

- a) receives the Memorandum on Freshwater implementation programme.

Young/MacLeod

3. Groundwater Quality – State of Environment Monitoring 2015-2020

- 3.1 Ms J Harvey, Scientist – Groundwater, spoke to the memorandum to provide the Committee with an overview of the findings and recommendations of the report Groundwater Quality - State of the Environment Monitoring Report 2015-2020.
- 3.2 A copy of the technical report accompanies this memorandum, and is available via the Council's website. This item was accompanied by a brief presentation.

Recommended

That the Taranaki Regional Council:

- a) receives the memorandum and technical report *Groundwater Quality – State of the environment Monitoring 2015-2020* and notes the specific recommendations therein.

McDonald/Williamson

4. Assessment of Escherichia coli (E. Coli) load reductions required to achieve freshwater objectives in the rivers of the Taranaki region

- 4.1 Ms A J Matthews, Director – Environmental Quality, spoke to the memorandum to provide the Committee with an overview of the findings of a recent report commissioned by the Council, Assessment of Escherichia coli load reductions required to achieve freshwater objectives in the rivers of the Taranaki region by Land Water People (LWP).

- 4.2 The Committee asked if riparian planting could contribute to naturalised E. Coli levels and whether they were likely to be a significant contributor to overall catchment pathogen loads. Mrs A J Matthews, Director – Environment Quality advised that a recent study had found that naturalised E. coli contributes low concentrations, but are not such a significant contributor that they confuse or confound testing.

Recommended

That the Taranaki Regional Council:

- a) receives the technical report, *Assessment of Escherichia coli load reductions required to achieve freshwater objectives in the rivers of the Taranaki region* and notes that the outputs will provide useful context as we continue work to implement the requirements of the NPS-FM.
Williamson/Boyde

**Mr S Ruru left the meeting at 11:21am*

5. High Court Decision on Proposed Otago Regional Policy Statement

- 5.1 Mr C Spurdle, Planning Manager, spoke to the memorandum to update Members on the recent High Court decision on the Proposed Otago Regional Policy Statement (PORPS) and its implications for the Taranaki Regional Council's (TRC) plan reviews under the Resource Management Act 1991 (RMA).
- 5.2 Mr A D McLay, Director – Resource Management, acknowledged and thanked Mr C Spurdle, Planning Manager, on his valuable contributions to the Council during his long employment, which was reinforced by the Committee.

Recommended

That the Taranaki Regional Council:

- a) receives the memorandum titled *High Court decision on Proposed Otago Regional Policy Statement*
- b) notes the limiting nature of the High Court's decision that only freshwater matters related to quality and quantity can be consider to be a planning instrument under section 80A of the RMA
- c) notes that the Court's decision means that the public process of the Council's *Proposed Natural Resources Plan* will involve two public processes run in conjunction with each other
- d) determines that this decision be recognised as not significant in terms of section 76 of the *Local Government Act 2002*
- e) determines that it has complied with the decision-making provisions of the *Local Government Act 2002* to the extent necessary in relation to this decision; and in accordance with section 79 of the Act, determines that it does not require further information, further assessment of options or further analysis of costs and benefits, or advantages and disadvantages prior to making a decision on this matter.

Walker/Williamson

6. Submission in support of Temporary Fishing Closure in Taranaki

- 6.1 Mr C Wadsworth, Strategy Lead, spoke to the memorandum to seek feedback and endorsement from Members on a submission on a request from Taranaki iwi for a temporary fishing closure on the Taranaki coast.

Recommended

That the Taranaki Regional Council:

- a) receives this memorandum Submission in Support of Temporary Fishing Closure in Taranaki
- b) adopts the submission and add the need for greater monitoring and enforcement of fisheries regulations
- c) determines that this decision be recognised as not significant terms of section 76 of the *Local Government Act 2002*
- d) determines that it has complied with the decision-making provisions of the *Local Government Act 2002* to the extent necessary in relation to this decision; and in accordance with section 79 of the Act, determines that it does not require further information, further assessment of options or further analysis of costs and benefits, or advantages and disadvantages prior to making a decision on this matter.

Young/Van Der Leden

- 6.2 Following a discussion, an amendment of the submission was made to recognise the importance of having sufficient warranted fisheries staff in the region to monitor and enforce the regulations and that community fisheries officers could be trained to assist. Recommendation (b) above was accordingly modified.

Walker/Van der Leden

7. Pest pathway programmes underway

- 7.1 Mr D R Harrison, Director – Operations, spoke to the memorandum to brief Members' on a new project with the Council partnering with the Ministry for Primary Industries (MPI) to increase awareness of biosecurity risks and pathways into Taranaki.

Recommended

That the Taranaki Regional Council:

- a) receives this Memorandum *Pest pathway programmes underway*
- b) notes Alligator weed has now been discovered in Taranaki with a delimiting survey now planned before control options can be assessed.

Williamson/Boyde

8. General Business

8.1 Riparian Review Programme Update

- Mr D R Harrison, Director – Operations, provided an update on the review of the Riparian Review Project, specifically around the appointment Dr Reece Hill to conduct the investigation, field work and interviewing riparian plan holders. It was anticipated the review would be completed by the end of this calendar year or by the commencement of 2023 Committee meetings. Feedback was welcomed and should be directed to Mr D Shearman – Land Services Manager.

8.2 Recognition

- Councillor C L Littlewood thanked the staff who were involved in the response to the very high August rainfalls.
- The Chairperson thanked the Committee and Iwi Representatives for their valuable input towards the Policy & Planning Committee during the last 3 year term.

There being no further business the Committee Chairperson, Councillor C L Littlewood, declared the meeting of the Policy and Planning Committee closed at 11.56m. The meeting closed with a karakia.

Minutes authenticated pursuant to Model Standing Orders 27.4

Taranaki Regional

Council Chairperson: _____

C L Littlewood

Taranaki Regional

Chief Executive: _____

S Ruru



Date 22 November 2022

Subject: **Agenda Memorandum Freshwater Implementation Report August 2022**

Approved by: A D McLay, Director - Resource Management
S J Ruru, Chief Executive

Document: 3124043

Purpose

1. The purpose of this memorandum is to provide the Committee with a Freshwater implementation project update.

Recommendation

That the Taranaki Regional Council:

- a) receives the update on Freshwater implementation programme.

Background

2. The Council has prepared an implementation programme of the Government's Freshwater programme. The purpose of this memorandum is to update Members on progress in implementing the project. The implementation programme has previously been presented to, and approved by, the Committee.

Financial considerations—LTP/Annual Plan

3. This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

4. This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002*, the *Resource Management Act 1991* and the *Local Government Official Information and Meetings Act 1987*.

Iwi considerations

5. This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Community considerations

6. This memorandum and the associated recommendations have considered the views of the community, interested and affected parties and those views have been recognised in the preparation of this memorandum.

Legal considerations

7. This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.


Appendices/Attachments






Document 3122458: Freshwater Implementation Report for 22 November 2022





Freshwater Implementation Project Report to Policy & Planning Committee

22 November 2022

Executive Summary	
	<p>Progress has continued, with all programme areas meeting schedule.</p> <p>Focus for the past month has been on background studies for science and economic/social impacts, planning the next six months of implementation and a project risk review.</p>
Project Programme	
<p>Key project achievements during the last reporting period</p> <ul style="list-style-type: none"> • Specific implementation activities: <ul style="list-style-type: none"> ○ Policy and plan drafting continuing - with a review of the overall Natural Resources Plan project timeline. ○ On-boarding the two Pou Taiao and jointly agreeing a work programme and deliverables. ○ Environment Quality has commissioned a number of research projects to feed into the limit setting process and engagement (which will take place in 2023). ○ FMU Storymaps completed and gone live for community engagement. ○ N-Cap reporting system has gone live. Given the issues with implementation of the national level system, Compliance team focus for this year is on education and tuning systems for 2022-23. ○ Hill country plans covered approximately 12,000 ha – which is above target for the year. Result reflects effectiveness of communications programmes and on-the ground effort from the LM team. ○ Engagement process moved into the next phase –and marks TRC’s first use of the “Social Pinpoint” on-line tool. Early indications are that it is proving very successful, with higher than expected site hits. 	
<p>Key upcoming activities and milestones in the next reporting period</p> <ul style="list-style-type: none"> • Develop the implementation plan for the six months to July 2023. A summary of the plan will be presented to this Committee once developed (in the new year). • Continue developing models and science for baselines and limit setting (including sediment, e-coli and phosphorus). • Kick off a series of internal cross-functional “technical teams” to support input into the above work. • Commission economic and social impact analysis to support the engagement on limits (engagement proposed for mid-2023). • Continue Social Pinpoint engagement and use of FMU Storymap engagement. • Continue to embed Pou Taiao into the team – including continuing to support P&P reciprocating the office share and working out of Te Ataiwa offices. • Consents team finalise development of an agreed compensation structure for iwi engagement on (smaller scale) consent applications – being developed with Ngaruahine. • Close out of N-Cap engagement for this season and preparation to increase uptake and data provision for 2022-23 year, including supporting lookback on national tracking tool development. • Iwi Communications team to lead initial engagement with Ngati Maniapoto. 	
HSE Updates	
<p>Nothing significant to report</p>	

Workstream Status Summary		
Workstream	Tracking	Comments/Clarifications
Tangata whenua partnerships		<ul style="list-style-type: none"> Commenced engagement with Ngati Maniapoto following their settlement agreement and the legislation coming into force. The settlement legislation requires TRC to enter a "relationship agreement" – with similar focus (but as yet no detail) to the Ngati Maru JMA. Engaging with and supporting iwi around the region to implement frameworks to assess and manage FW health – using tools such as Mauri Compass and other similar frameworks. Particular interest from Ngarauru – and good work progressing with them.
Policy and Planning		<ul style="list-style-type: none"> Plan drafting continues in accordance with overall implementation targets. Pou Taiao started work, including part time working from TRC offices. A work programme and deliverables has been jointly developed, focusing on FW, but including broader elements of engagement and strengthening engagement. Early feedback from both iwi and TRC staff about the Pou Taiao role and potential contribution is very positive. Undertaking a review of key natural resources/FW issues and a resulting gap analysis of policy to ensure ultimately that NRP/FWP will deliver desired outcomes. Review results will be presented to this Committee in Q1, (calendar) 2023.
Science Services		<ul style="list-style-type: none"> Continued working with specialist consultants to undertake the modelling work needed to inform baseline and limit setting activities. Supported project lead on working with consultants to establish a framework and focus for economic and social impact modelling – which will also support limit setting. With Comms, finalised and published the FMU Storymaps that describe key elements of the FMU's and the risks, issues and opportunities in those FMU's. Established and started working with cross organisational technical teams – designed to provide input on key elements of the EQ FW implementation programme.
Consents		<ul style="list-style-type: none"> Continued working with Compliance to review farm dairy effluent consent replacement processes. Continued updating consent application forms for s 14 (water use) and s 15 (discharges) activities. Working with Ngaruahine to develop an agreed cost model for consent applicants who need to engage with iwi – looking to provide a basis for fair compensation for iwi time.
Compliance		<ul style="list-style-type: none"> Continuing closing out dairy consents across the month. N-Cap reporting commenced when the national system went live in October. On-going issues with the fertiliser company systems limited the number of submissions. At date of drafting this report, 293 farms had submitted, with 2 exceedances (1t 191kg/ha/yr and 194kg/ha/yr). Compliance team focus is on engagement/education and preparing for an effective system in 2023.

Workstream	Tracking	Comments/Clarifications
Operations		<ul style="list-style-type: none"> • Hill country team has signed up 12,000ha new farm plans – beating the 10,000ha annual target. Given the disruptions of the year, this is a good result! • Fresh Water Farm Plan (FWFP) working papers have been released, with an expectation of regulations that set out the final shape of the system being released mid-2023. Operations are co-ordinating input, response and readiness across the Council.
Engagement		<ul style="list-style-type: none"> • Finalised reports on the first round of engagement with primary sector and industry groups; summarising key messages and the scope of the engagement. • Preparing for the next round of engagement – looking at topics around FW values and quantity allocations. • Supporting numerous teams with specific comms for elements of the overall FW Programme (eg., N-Cap, farm plans) • Launched updated FW pages on TRC website, including using Social Pinpoint – an on-line engagement tool – to facilitate interaction and engagement with the general community. Uptake so far has been good, with over 1900 visits by 378 users – and 39 comments/survey responses received.

Project Risk/Opportunity Management				
Description	Risk Cause and Effect	Mitigation Strategy	Risk Rating (unmitigated)	Comments (including current actions)
Challenges in conducting effective engagement with tangata whenua as required under the NPS-FM	<p>Challenges in tangata whenua resourcing and the timelines that the TRC is required to meet may place pressure on the ability of staff to engage fully with iwi and hapu.</p> <p>Additionally, this pressure can lead to a misalignment between TRC and iwi/hapu that can create tension or can lead to requests for engagement that further test the relationships.</p>	<p>Where possible, seek to develop timelines that recognise the demands/requirements and limitations of all parties.</p> <p>Make use of the Pou Taiao as a voice for both iwi/hapu and council. In doing so, look to increase the capacity of all parties to engage.</p> <p>Ultimately, TRC is the body with the legal obligation to develop the FW Package. Where it is not possible to accommodate other timelines, there will be a need for Council to find a pragmatic way forward that allows it to meet its obligations. .</p>	High	<p>The reduced focus on covid, has let iwi authorities focus on other topics, including FW.</p> <p>With the on-boarding of Pou Taiao, their work plan is being developed. It will pay particular attention to them acting as a bridge in this area.</p> <p>Iwi Communications are seeking to engage from early in 2023 on a range of key topics, including Te Mana o te Wai and ????. This programme has been discussed with other FW Leads and will endeavour to provide information to those functions in a timely fashion.</p> <p>Officers are developing a process that will enable multiple teams to engage with iwi and hapu. The desire is to enable a co-ordinated approach on multiple topics that enables progress to be maintained in a way that meets project timelines while recognising iwi and hapu needs.</p> <p>Register and record interactions for future reference. This step can save repeat engagements and also provides a record for FW Commissioners where timelines can't be compromised.</p>

Description	Risk Cause and Effect	Mitigation Strategy	Risk Rating (unmitigated)	Comments (including current actions)
<p>Maintaining a full complement of staff with the skills and experience needed to implement the FW Package.</p>	<p>In current employment markets, there is a high demand for a number of the key roles needed for FW Implementation, which has meant that all employers have experienced higher than usual turnover rates. Examples include planners/policy analysts, scientists and land management professionals.</p> <p>As well as creating gaps or making new roles hard to fill, where there is a level of turnover, new staff take time to come up to full effectiveness. This period limits some team outputs, both due to the new staff and the need to devote experienced staff to training duties.</p>	<p>Recruit ahead of the LTP to get into the market early and continue with organisational development work.</p> <p>Maintain watching brief on key roles. Look also at retention strategies, including opening opportunities for people to work or move across teams.</p> <p>For some roles where there are limited opportunities to recruit, consultants may need to be used to maintain momentum.</p>	<p>High</p>	<p>On-going focus – including discussion and collaboration amongst FW Leads on ways to support each other’s teams and needs.</p>

Description	Risk Cause and Effect	Mitigation Strategy	Risk Rating (unmitigated)	Comments (including current actions)
<p>Lack of clarity and guidance due to gaps in key Government advice or changes in the policy/legal framework</p>	<p>Some FW Implementation elements need to be developed in the absence of clear guidance – which may result in changes later if Government position changes. This lack of guidance also increases risks of a need for rework.</p> <p>Examples of areas where there are gaps in clear guidance include:</p> <ul style="list-style-type: none"> • Managing diffuse nitrogen loss risks (including the applicability of Overseer) • Managing climate change impacts on freshwater. 	<p>Recognise that some level of risk is unavoidable.</p> <p>Maintain strong presence on Government (especially MfE) and sector working groups.</p> <p>Maintain contacts with other regional council <i>Essential Freshwater</i> teams.</p> <p>Develop tools and processes that based on established or determined best practice.</p>	<p>High</p>	<p>This item has been identified as a key project risk since early in the project. There are no indications from government that TRC should expect this risk to change.</p> <p>To a large extent, the only approach available is to take the risk – and to be ready to respond.</p> <p>Current FW related risks that apply include:</p> <ul style="list-style-type: none"> • Freshwater Farm Plans – content and timeline • Natural and Built Environments Act – timelines and content • Strategic Planning Act – timeline and content • Agricultural Emissions Pricing – potential overlap with FW and added administrative requirements on farmers (potential for negative feedback to be directed at TRC)

Description	Risk Cause and Effect	Mitigation Strategy	Risk Rating (unmitigated)	Comments (including current actions)
<p>Lack of strong processes and consistent record keeping tools means a reliance on multiple systems to generate the evidence needed for FW Commissioner review of FW Plan development</p>	<p>TRC does not currently have a formalised CRM system to record (among other things) stakeholder engagement.</p> <p>Instead, staff rely on a number of different spreadsheet based systems that have links to relevant files.</p> <p>These spreadsheets are neither as reliable nor as secure as a dedicated CRM. Multiple systems also run the risk of inconsistencies or duplications in data entered.</p> <p>The overall result is a risk that TRC may struggle to provide key information needed to satisfy questions and inquiries from FW Commissioners on the FW Plan.</p>	<p>Until a CRM is established, the most that can be done is for staff to be careful in managing and maintaining the records.</p> <p>Discussions have been had about opportunities to standardise and integrate spreadsheet systems.</p> <p>The most complete mitigation strategy would be to implement and use a CRM. This type of tool is one of the upgrades being considered in the Digital Strategy implementation.</p>	<p>Medium - High</p>	<p>Supporting the Digital Strategy roll out – which includes in the project list, taking up the CRM modules in packages that are currently being implemented.</p>

Description	Risk Cause and Effect	Mitigation Strategy	Risk Rating (unmitigated)	Comments (including current actions)
<p>Consultants are encouraging clients to request early renewal of discharge consents (primarily dairy) in order to help them avoid the upcoming NPS-FM and potential FW Plan requirements.</p>	<p>The current FW plan makes dairy discharges a controlled activity. However, under the new regime (including NPS-FM and NES-F requirements), these discharges will be subjected to greater controls.</p> <p>By making renewal applications under the current regime, applicants will earn a window where they are able to keep discharging treated effluent well after the new regime comes into effect.</p>	<p>Use RMA s 104 provisions to incorporate NPS-FM considerations.</p> <p>In so doing, look to establish a default position of grant consents only for a limited time until the new plan comes into effect. Applicants would be able to demonstrate reasons for moving from this position and obtaining longer term consents.</p>	<p>Medium</p>	<p>Compliance and Consents to work together to develop a response that takes account of those factors that the Council can exercise control over in the current environment.</p>
<p>There are increasingly vocal sections of the community who are not aligned/in agreement with the overall direction of environmental management.</p>	<p>The community is not fully aligned with the direction proposed in the NRP and overall FW Implementation around a number of issues, (eg., wetland drainage and takes in over-allocated catchments).</p> <p>Officers are concerned that sectors of the community may look to put excessive/undue pressure on Councillors and staff.</p>	<p>Engage community as widely as possible, both on content of implementation and efforts to win 'hearts and minds'</p>	<p>High</p>	<p>Officers are preparing reports for up-coming Committee meetings on key FW issues – for review and endorsement by Councillors.</p> <p>Continue to provide updates by way of this report – and to present key studies, milestones and other reports for review.</p> <p>Extensive engagement programme being undertaken – looking to ensure that communities are aware of what is being proposed, that they have their say and that, as far as possible, recommendations and reasons for decisions are transparent.</p>



Date: 22 November 2022

Subject: **National Policy Statement - Highly Productive Land**

Approved by: A D McLay, Director - Resource Management
S J Ruru, Chief Executive

Document: 3119386

Purpose

1. The purpose of this memorandum is to inform the Committee of the recent release of the National Policy Statement - Highly Productive Land (NPS-HPL) and the implications for Council operations.

Executive summary

2. On 18 September 2022 the NPS-HPL was released by the Minister for the Environment, and it came into force on 17 October 2022. The release of the document follows consultation on a draft NPS-HPL in October 2019.
3. The NPS-HPL provides direction to improve the way highly productive land (HPL) is managed under the Resource Management Act 1991 (RMA) and as such provides direction to Councils on how to map and zone HPL, and manage subdivision, use and development of the resource.
4. At a summary regional councils are required to:
 - 4.1. Identify HPL and manage the effects of subdivision, use and development on HPL in an integrated manner with territorial authorities.
 - 4.2. Map HPL at a regional scale and include such a map within the Regional Policy Statement (RPS) through the Sch1 process of the RMA, within 3 years of commencement of the NPS-HPL.

Recommendations

That the Taranaki Regional Council:

- a) receives this Memorandum - National Policy Statement - Highly Productive Land.
- b) notes the requirements to map Highly Productive Land are to be included in the work programme of the proposed Natural Resources Plan.

Background

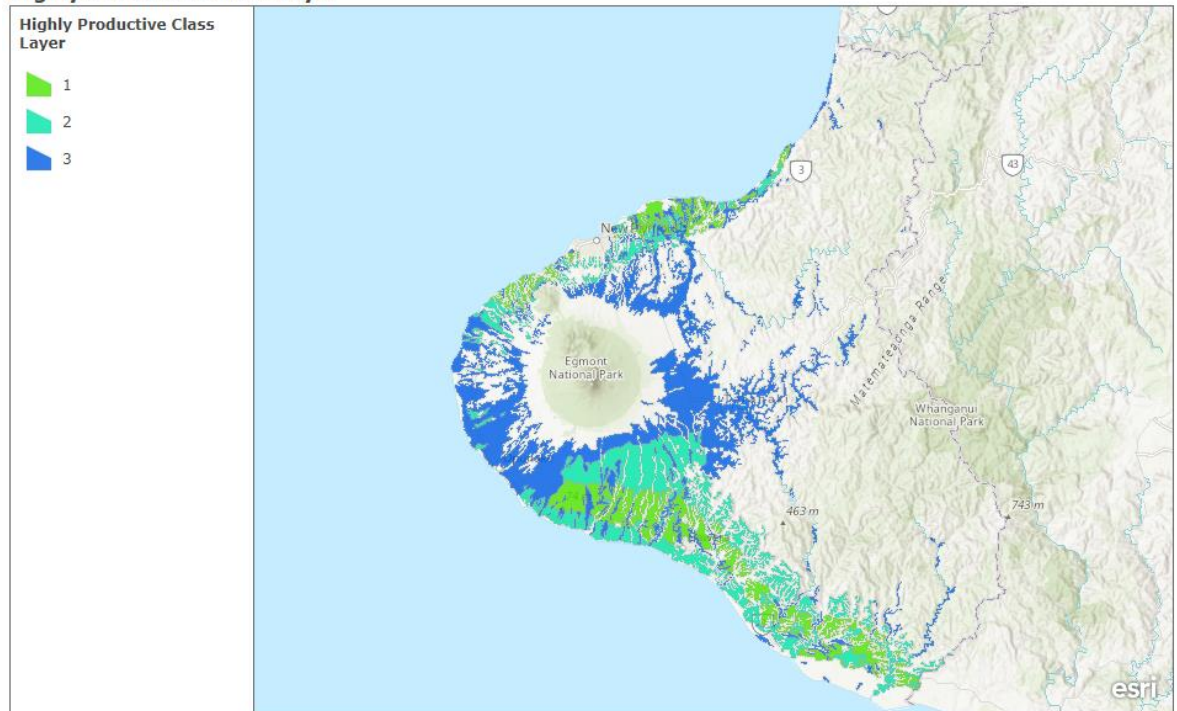
5. Coming into force on 17 October 2022, the intent of the NPS-HPL is to improve how HPL is protected from inappropriate subdivision, use and development. HPL essentially refers to land which is the most fertile, versatile and productive land which has the fewest limitations. It is best suited for food and fibre production.
6. There is a relationship between the NPS HPL and the NPS-Urban Development (NPS-UD). The objective of the NPS-UD is to ensure New Zealand has well-functioning urban environments that enable all people and communities to provide for their social, economic and culture wellbeing, now and into the future. In releasing the NPS-HPL, the government has acknowledged that whilst there is a need to provide housing for people this should not come at the expense of land that is best suited to growing food. The protection of HPL will also have economic and employment benefits to the community and supports the primary sector.
7. In identifying (and mapping) what is considered HPL, direction from the government is to utilise the Land Use Capability Class (LUC) data set, as mapped by the New Zealand Land Resource Inventory¹. The LUC system categorises land into eight classes according to its long-term capability to sustain one or more productive uses based on physical limitations and site specific management needs. Productive capability depends on physical qualities of the land, with limitations considered that may affect productivity and land management options².
8. Specifically it is LUC 1, 2 and 3 that the NPS-HPL considers to be a basis for identifying HPL. These being the classes identified as the most versatile, with minimal limitations and suitable for primary production.
9. Until such time that regional councils undertake a region specific mapping exercise³, HPL is considered to refer to land, at the commencement date of the NPS, that is:
 - 9.1. zoned general rural or rural production and is LUC 1, 2 or 3 land; and
 - 9.2. is not land identified for future urban development, or subject to Council initiated, adopted or notified plan change to rezone to urban or rural lifestyle.
10. In Taranaki, land considered to be LUC 1, 2 and 3 equates to approximately 25% of the region, as show on the map below.

¹ https://ourenvironment.scinfo.org.nz/maps-and-tools/app/Land%20Capability/lri_luc_main

² Limitations considered include: susceptibility to erosion, steepness of slope, climate susceptibility to flooding, liability to wetness or drought, salinity, and depth, texture, structure and nutrient supply of the soil

³ as required by Clause 3.8 of the NPS-FM

Highly Productive Class Layer



The NZLRI Land Use Classification Layer reduced to just the areas with a 1,2 or 3 in the LUC Classification. This labels them as high productive zones

Discussion

Overview of NPS-HPL

11. The objective of the NPS-HPL is "*Highly productive land is protected for use in land-based primary production, both now and future generations.*"
12. Implementation of this objective and associated policies are to be achieved through identifying and mapping HPL and then applying controls as to how it is to be managed. Implementing much of the NPS-HPL will fall to territorial authorities through their District Plans.
13. Set out below is a summary of the overall policy direction to be implemented by Councils:
 - 13.1. Restrict rezoning of highly productive land, but allowing tier 1 and 2 territorial authorities to consider rezoning subject to requirements of the NPS-HPL.
 - 13.2. Avoid rezoning of HPL for rural lifestyle and avoid subdivision generally of HPL, unless provided for exemptions in the NPS-HPL, such as the productive capacity of the land over the long term is retained; the land is on specified Māori land; or the land is for specified infrastructure or defence facilities with an operation or functional need.

- 13.3. Protect HPL from inappropriate use and development. The NPS-HPL provides a list of activities, which can be considered acceptable⁴.
- 13.4. Provide an exemption for HPL to be subdivided, used or developed for activities not covered elsewhere in the NPS-FM, only where the land is subject to long term constraints, such land not being economically viable for at least 30 years.
- 13.5. Enable the continuation of existing activities where managed to the requirements set out in the NPS-FM.
- 13.6. Require the management of any reverse sensitivity and cumulative effects on HPL.

Implications for TRC

14. There are specific requirements for regional councils to implement the NPS-HPL. This predominately relates to the identification and mapping of HPL. The considerations and requirements for how Council is to undertake these tasks are set out in more detail below.
15. The identification of HPL and the management of effects of subdivision, use and development on HPL must be undertaken in an integrated way which:
 - Considers how land based primary production interacts with freshwater management at a catchment level.
 - Provides for co-ordination across administrative boundaries within and between regions; and
 - Takes a long-term strategic approach to protecting and managing HPL for future generations.⁵
16. As identified earlier in this memorandum there is a baseline approach to mapping that applies ahead of regional councils undertaking more detailed mapping. When undertaking the detailed mapping, regional councils must apply the following criteria:
 - Land that is in a general rural zone or rural production zone; and
 - Is predominately LUC 1, 2 or 3 land; and
 - Forms a large and geographically cohesive area.⁶
17. There are exemptions to the above criteria, including land that is identified as future urban development at the time of the NPS-HPL commencement date. Additional considerations may also be given to land, which is not LUC 1, 2, and 3, but has the potential to be considered HPL having regard to soil type, physical characteristics of the land and soil and climate of the area.
18. Council are required to map the HPL as soon as practicable and no later than 3 years after the commencement date of the NPS-HPL. The mapping must be undertaken at an appropriate scale that identifies individual parcels of land, and the Schedule 1 process of

⁴ Activities include but not limited to - supporting activities to the land, is on specified Māori land, is for the purpose of maintaining, restoring or enhancing indigenous biodiversity, is retiring land for the purpose of improving water quality.

⁵ Clause 3.2 Integrated Management NPS-HPL September 2022

⁶ Clause 3.4 Mapping highly productive land NPS HPL September 2022

the RMA must be used to notify the maps within a proposed Regional Policy Statement.⁷

19. As TRC are currently in the process of developing a proposed Natural Resources Plan, the requirements of the NPS-HPL are able to be addressed through this programme. This will negate the need for an additional RMA Sch 1 process to be undertaken, but is an additional resource burden that had not been foreshadowed and will need to be managed through the programme.

Next steps

20. To ensure that Council fulfils its responsibilities in accordance with the NPS-HPL, work is already underway.
21. As the NPS-HPL is already in effect, territorial authorities are applying the policy direction as they consider applications affected. The Taranaki District Councils are working together to apply a consistent approach across the region to minimise confusion to applicants. TRC are supporting this work through:
 - Providing GIS support by hosting the LUC layer on our website to enable a regional view, and working to provide the overlay of the relevant rural zones.
 - Providing technical support through hosting a workshop for District Council planners and iwi planners with the Land Management Team to improve their understanding of the Land Use Classification system, its application and limitations.
22. To address the requirements to undertake region wide mapping, staff are exploring approaches with other regional councils to apply an efficient and effective methodology. We will then begin work in collaboration with our territorial authorities and tangata whenua to formalise a scope for the mapping exercise. This will likely require the appointment of a consultant to undertake the mapping itself.
23. The mapping and associated policy framework will then be incorporated into the programme of works, delivering the proposed Natural Resources Plan.

Financial considerations—LTP/Annual Plan

24. This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

25. This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002*, the *Resource Management Act 1991* and the *Local Government Official Information and Meetings Act 1987*.

Iwi considerations

26. This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making

⁷ Clause 3.5 Identifying highly productive land in regional policy statements and district plans NPS-HPL September 2022

processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Community considerations

27. This memorandum and the associated recommendations have considered the views of the community, interested and affected parties and those views have been recognised in the preparation of this memorandum.

Legal considerations

28. This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.



Date: 22 November 2022

Subject: **National direction for plantation and exotic carbon afforestation**

Approved by: A D McLay, Director - Resource Management
S J Ruru, Chief Executive

Document: 3117215

Purpose

1. The purpose of this memorandum is to seek Members' endorsement of the Council's submission on the *National direction for plantation and exotic carbon afforestation* (the Discussion Document).
2. The deadline for submissions precluded the submission being presented to this meeting, but a draft submission was circulated for Councillor feedback ahead of submitting. A copy of the submission is attached to this agenda item.

Executive summary

3. The *National Environmental Standards for Plantation Forestry* (NES-PF) was published on 3 August 2017 and came into force on 1 May 2018. The NES-PF attempts to provide a consistent set of regulations for plantation forestry activities in Aotearoa New Zealand.
4. The NES-PF allows plantation forestry activities to be carried out as permitted activities, subject to conditions to manage potential effects on the environment. Where conditions cannot be met, the activity will require a resource consent.
5. The purpose of the NES-PF is to:
 - maintain or improve the environmental outcomes associated with plantation forestry activities; and
 - increase the efficiency and certainty of managing plantation forestry activities.
6. On 6 October 2022 the Ministry for Primary Industries (MPI) released the Discussion Document which is attached to this agenda item.
7. The Discussion Document is largely in response to the increasing afforestation rates and the challenges and opportunities that this brings. Noting that increased afforestation is related to national drivers incentivising carbon farming, the Discussion Document is closely linked with the first Emissions Reduction Plan. The Discussion Document sets out proposals to amend the NES-PF to:
 - extend the scope of the regulatory framework to include exotic carbon forests;

- seek feedback on managing the social, cultural and economic effects of forestry;
 - improve wildfire risk management; and
 - address matters identified in the Year One Review of the NES-PF.
8. In response to the Discussion Document Council officers have prepared a submission identifying a number of concerns, risk and opportunities. The Council specifically sought changes to the proposals to address a number of the resourcing and capacity concerns if a number of the options set out in the Discussion Document are incorporated into the NES-PF.
9. The deadline for the submission was 18 November 2022.

Recommendations

That the Taranaki Regional Council:

- a) receives this memorandum entitled *Submission on the National direction for plantation and exotic carbon afforestation*;
- b) notes the attached *Submission on the proposed changes to the National Environmental Standards for Plantation Forestry*;
- c) endorses the submission made on the Discussion Document of the NES-PF;
- d) determines that this decision be recognised as not significant in terms of section 76 of the *Local Government Act 2002*
- e) determines that it has complied with the decision-making provisions of the *Local Government Act 2002* to the extent necessary in relation to this decision; and in accordance with section 79 of the Act, determines that it does not require further information, further assessment of options or further analysis of costs and benefits, or advantages and disadvantages prior to making a decision on this matter.

Background

10. The Government is proposing changes to the NES-PF. These changes aim to enable better management of both plantation and exotic carbon forests. The Discussion Document is attached to this item.
11. Forestry is attracting increased investment due to a range of drivers, including:
 - demand for wood and wood products; and
 - a significant increase in the price of carbon credits.
12. There is a concern that these drivers may increase permanent exotic afforestation, and associated land use change, to a degree that has significant and undesirable impact on the environment, rural communities, and regional economies.
13. The first issue that the Discussion Document addresses is that, while the NES-PF was developed to specifically manage the environmental effects of plantation forests, it did not cover forests that are not intended to be harvested as it pre-dates the significant interest in exotic carbon forestry.
14. The second issue is that while councils can make land use rules beyond the scope of the NES-PF, for many valid reasons, such as resourcing constraints, the development of such rules throughout New Zealand varies widely. This has left gaps in managing the social, cultural, environmental, and economic impacts of forestry.

15. The third issue which the Discussion Document addresses is that there is no uniform regulatory or cross-agency approach to fire management. The proposal seeks to reduce the environmental effects that a wildfire in a forest might pose.
16. Lastly, the Discussion Document proposes technical amendments addressing matters through the Year One Review of the NES-PF.
17. The Discussion Document was released on 6 October 2022 by MPI and is attached to this agenda. The Discussion Document gives a detailed outline of the opportunities and challenges from afforestation activity as well as potential options for its management.
18. Key features of the Discussion Document and a summary of the Councils responses are provided in the following section.

Key features of the Discussion Document and submission

19. The submission firstly makes general comments which focus on reoccurring themes in the Councils response and the Councils overarching position. The submission then goes on to respond to each part of the Discussions Document (Part A, Part B, Part C and Part D). The submission is attached to this agenda item.

General comments

- The Council agreed it was timely for MPI to be reviewing the NES-PF, especially due to the recent promulgation of the essential freshwater package and the growing interest in carbon afforestation.
- The Council was concerned about the lack of direction within the Discussion Document which has left many important questions unanswered and fails to detail the implications of its proposals.
- A major concern is the resourcing requirements under the proposed amendments. The proposed amendments would be difficult and costly for councils to implement, especially in the wider context of new and proposed legislation. As it currently stands, proposed changes cannot be charged for. Therefore the cost will fall to the general ratepayer which the council believes that this is inappropriate.
- The Council recommended that MPI provide more clearly defined roles and responsibility for regional and district councils within its proposals rather than referring to councils collectively. This creates unnecessary complexity and difficulty in understanding the extent to which the proposals will impact on the Councils work, resourcing and technical expertise.
- The Council recommended that MPI provide an indication of timeframes to enable councils to determine whether the proposals in the Discussion Document are appropriate. Considering the current legislative pressures (notably the essential freshwater package) this information is crucial in understanding the potential implications of its proposals.
- The Council are concerned by the requirements to work with datasets that are created at a national level but implemented at a property scale. The Council recommended that MPI improve these datasets to support the implementation of the NES-PF.

Part A

20. Part A is concerned with managing the environmental (biophysical) effects of exotic carbon forests. For Part A, MPI has developed three options.

Option 1 – Keep the status quo. Councils retain power to make objective, policies and rules to manage exotic carbon forests.

Option 2 – Add a new category of ‘carbon’ forest to the NES-PF. NES-PF would apply existing regulatory controls for plantation forests to exotic carbon forests.

Option 3 – Amend the NES-PF to require a Forest Management Plan for exotic carbon forests.

21. MPIs preferred option is a combination of Options 2 and 3.

22. The following is a summary of the key submission points made for Part A.

- The submission agreed that it is necessary to manage carbon afforestation to improve environmental outcomes and to ensure sustainability over time.
- The submission opposed Option 1: Status quo as this will impose a significant increase in workload and resourcing costs to councils as well as result in national inconsistency.
- The submission was provisionally supportive of Option 2: Amending the NES-PF to include exotic carbon forestry to provide national consistency and a streamlined process that councils can swiftly implement. The submission recommended that MPI also provide a gateway for localised needs and varying regional landscapes.
- In principle, the submission supported Option 3 and considered that forest management plans would be an effective tool to manage carbon afforestation. Notwithstanding this support, Option 3 is only viable if councils are provided with the ability to charge applicants for the resourcing costs associated with time required to review, implement and monitor the forest management plans.

Part B

23. Part B is concerned with controlling the location of plantation and exotic carbon afforestation to manage social, cultural, and economic effects. For Part B, MPI has developed two options:

Option 1 - Local control - rules in district or regional plans.

Option 2 - National direction - consent requirements through the NES-PF.

24. The following is a summary of the key submission points made for Part B.

- The submission supported MPI in enabling the consideration of social, cultural and economic effects of forestry activities.
- The submission was supportive of Option 1: Local control, this will enable the social, cultural and economic effects to be spatially recognised through a regionally specific approach. This support is subject to appropriate timeframes and alignment with *Regional Spatial Strategies*.
- The submission opposed Option 2: National direction, as the management of effects would be difficult to achieve with a national ‘one size fits all’ approach.

Part C

25. Part C is concerned with improving wildfire risk management in all forests. For Part C, MPI has developed one option which is:

Option 1 - Require all forests over 1 hectare to have a wildfire risk management plan.

26. The following is a summary of the key submission points made for Part C

- The submission agreed that the NES-PF should have a role in improving wildfire risk management in forests and was supportive of creating a more streamlined regulatory approach to managing wildfires within forests.
- However, the submissions support was subject to regional councils not being responsible for attesting to the completeness of the wildfire risk management plan. The Council does not have the technical expertise to be able to fulfil this role. FENZ currently have the statutory responsibility for fire management and are best placed to work with foresters in completing, reviewing and monitoring a wildfire risk management plan over the lifecycle of the forest.

Part D

27. Part D is broken up in to four parts which are wilding conifer risk management, slash management, initial alignment with the NES-F and operational amendments.

Wilding Conifer Risk Management

28. MPI firstly proposed that the wilding conifer risk calculator and guidance be updated and secondly proposed that all forests require assessment of wilding tree risk and replanting.

- The submission supported both of these options, subject to the Council being able to charge for time spent reviewing and monitoring all the related information and scoresheets. Whilst the Council recognise wilding conifer isn't a major issue for Taranaki currently we consider that it could be an issue going forward.

Slash Management

29. MPI proposed amendments to improve clarity and direction for foresters and council compliance staff.

- The submission was supportive of MPI improving slash management provisions in the NES-PF. The submission endorsed all amendments identified in Table 4 and supported the development of additional guidance produced by MPI to encourage improved slash management practices.
- The submission further recommend that MPI work with the regional sector in developing this guidance.

Alignment with National Direction

30. The Discussion Document proposes some "straightforward changes" to the NES-PF to align it with the *National Environmental Standards for Freshwater 2020* (NES-F).

- The submission considered that MPI has made a poor attempt at aligning the NES-PF with the NES-F and that significant work remains to ensure alignment between national directions.
- The submission encouraged MPI to better align the NES-PF with the NES-F as a priority. As a minimum to ensure that the NES-PF be aligned with the NES-F regarding fish passage, and setback distance provisions for wetland and water bodies.

Operational amendments

31. MPI proposed operational amendments that relate to technical forestry practice or specific wording of the regulations. These amendments addresses matters identified through the Year One Review of the NES-PF and are proposed to better enable foresters and councils to manage the environmental effects of forestry.
 - The submission was generally supportive of the technical amendments subject to some additional guidance.

Where to from here?

32. Consultation on the Discussion Document closed on 18 November 2022. However, the submission noted that additional comments or amendments to the submission from Council (if any) will be forwarded on to MPI following the Policy and Planning Committee Meeting.

Financial considerations—LTP/Annual Plan

33. This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

34. This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002*, the *Resource Management Act 1991* and the *Local Government Official Information and Meetings Act 1987*.

Iwi considerations

35. This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Community considerations

36. This memorandum and the associated recommendations have considered the views of the community, interested and affected parties and those views have been recognised in the preparation of this memorandum.

Legal considerations

37. This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Appendices/Attachments

Document 3116125: National direction for plantation and exotic carbon afforestation - discussion paper

Document 3116160: Submission on the proposed changes to the National Environmental Standards for Plantation Forestry



Ministry for the
Environment
Manatū Mō Te Taiao

Ministry for Primary Industries
Manatū Ahu Matua



National direction for plantation and exotic carbon afforestation

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Te Kāwanatanga o Aotearoa
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Charles Fergusson Tower
PO Box 2526, Wellington 6011

www.mpi.govt.nz
0800 00 83 33
mpi.forestry@mpi.govt.nz

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MESSAGE FROM THE MINISTERS

The health of the land and our wellbeing go hand-in-hand. Our whenua is central to our identity in Aotearoa New Zealand. It is a place for us to live, make a living, and grow the food and fibre, timber and wool we need to survive. In te ao Māori, the health of animals, humans, and the environment is intimately connected. If the whenua is not healthy, every dimension of whānau wellbeing suffers.

Forests are not only central to our lives and livelihoods they are also essential to our climate change response; in 2020, forestry offset approximately 25 per cent of New Zealand's gross emissions.

While we recognise the multi-faceted value of forestry, there are increasing concerns about the growth and extent of exotic forestry and its environmental, economic, social, and cultural impact on communities. These include the conversion of whole farms to exotic forestry.

We are reviewing the National Environmental Standards for Plantation Forestry (NES-PF) to ensure the right forest is planted in the right place, and managed in the right way. This consultation forms part of a broader programme of work to ensure the long-term wellbeing of our forests and forestry sector.

Through this NES-PF consultation, we are proposing to give communities more say about local carbon farming, while making changes to improve how we manage wildfire risks and other environmental effects of exotic forestry. The consultation also seeks feedback on proposals to expand the scope of the NES-PF to include exotic carbon forests, to assess the location of exotic carbon forests and plantation forests, and to ensure the regulations remain fit-for-purpose. Through this consultation, we want to understand the impacts of these proposed changes on communities and on our whenua.

This consultation is especially relevant to rural communities and for Māori/iwi. Around 30% of New Zealand's 1.7 million hectares of plantation forestry is estimated to be on Māori land, and this is expected to grow to 40% as Treaty settlements are completed; Māori also make up around 40% of the forestry workforce. Hearing from our rural communities and Te Tiriti partners is an essential part of this engagement and the final policy recommendations to Government.

We have choices about how we grow the forestry sector to support its role in our transition to a prosperous low carbon society. We need to do so in a way that ensures our forests are managed to get the best outcomes for Aotearoa, our people and our environment.



Hon David Parker

Minister for the Environment



Hon Damien O'Connor

Minister of Agriculture



Hon Stuart Nash

Minister of Forestry



Hon Kieran McNulty

Associate Minister of Local Government



Hon James Shaw

Minister of Climate Change

GUIDE TO THIS DISCUSSION DOCUMENT AND CONSULTATION

We want to know your thoughts on proposals affecting afforestation and the management of plantation and exotic carbon (permanent) forests.

Scope

This consultation focuses on the regulatory controls available under the Resource Management Act 1991 (**RMA**). The proposals largely involve changes to national direction made under the RMA: the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017 (**NES-PF**). The consultation also touches on forest management covered under other legislation such as the Biosecurity Act 1993.

Out of scope of the consultation

The following types of forests and trees are **out of scope** and will not be affected by the proposals in this consultation (ie, they remain outside the scope of existing and proposed national direction at this time):

- indigenous natural forests, including harvest under Part 3A of the Forests Act 1949
- a shelter belt of forest species, where the tree crown cover has, or is likely to have, an average width of less than 30 metres
- forest species in urban areas
- nurseries and seed orchards
- trees grown for fruit or nuts
- long-term ecological restoration planting of forest species
- willows and poplars space-planted for soil conservation purposes.¹

Forests, and forestry activities, are also controlled through other regulatory regimes and national direction. These are summarised in **Appendix A**.

We are consulting on four topics relating to afforestation and management of plantation and exotic carbon forests

You may choose to provide feedback on one, some, or all of these topics.

The options and proposals covered in this consultation are set out in four parts (Parts A-D):

Proposals to extend the scope of regulatory controls over afforestation and forestry management:

Part A: Managing the environmental effects of exotic carbon forests, including those with some level of harvest and/or those transitioning to indigenous forest.

Part B: Controlling the location of afforestation (plantation and exotic carbon) to manage social, cultural, and economic effects.

Part C: Improving wildfire risk management in all plantation and exotic carbon forests.

Proposals to update the NES-PF tools and regulatory controls over forest management

Part D: Addressing matters identified through the Year One Review of the NES-PF – to better enable foresters and councils to manage the environmental effects of forestry.

Your feedback on the options and proposals will inform our decisions on which of these to progress, how to develop them further, and how we might implement them.

Terms used in this document

The following are terms used in this discussion document. Some are defined in regulation, as indicated.

Carbon forest/forestry has a similar meaning to plantation forest as defined in the NES-PF, except that it is forest that will not be harvested below a certain level of canopy cover. This type of forest is sometimes referred to as 'permanent forest'.

¹ All of this list, with the exception of indigenous forests, is excluded from the NES-PF definition of plantation forests or forestry.

INTRODUCTORY SECTIONS

Exotic means non-indigenous species of trees.

Forest species is a tree species capable of reaching at least 5 metres in height at maturity where it is located (as defined in the Climate Change Response Act 2002).

Outstanding natural features and landscapes (ONFL) means natural features and landscapes that are identified in a regional policy statement, regional plan, or district plan as outstanding, however described, and are identified in the policy statement or plan by their location, including by a map, a schedule, or a description of the area (as defined in the NES-PF).

Plantation forest is deliberately established for commercial purposes, being at least 1 hectare of continuous forest cover of forest species that has been planted and has or will be harvested or replanted, and includes all associated forestry infrastructure² (as defined in the NES-PF).

Production forest has the same meaning as plantation forest.

Significant natural area (SNA) means an area of significant indigenous vegetation or significant habitat of indigenous fauna that is identified in a regional policy statement or a regional or district plan as significant, however described, and is identified in the policy statement or plan, including by a map, a schedule, or a description of the area or by using significance criteria (as defined in the NES-PF).

Transitional forest means a particular type of exotic carbon forest which is intended to be transitioned from predominantly exotic to predominantly indigenous species over time, while maintaining a minimum canopy cover.

Giving your feedback

Submissions on these proposals will be received by the Ministry for Primary Industries (MPI) through to 5:00 pm on 18 November 2022, by email to mpi.forestry@mpi.govt.nz or by post to Submission – National Direction for Exotic Afforestation, Forestry & Bioeconomy Policy Team, Ministry for Primary Industries, PO Box 2526, Wellington 6140.

More information on how to give us feedback is in the section on **Next Steps – How to have your say**.

² Forestry infrastructure means structures and facilities that are required for the operation of the forest, including forestry roads, forestry tracks, river crossings, landings, fire breaks, stormwater and sediment control structures, and water run-off controls (as defined in the NES-PF).

SUMMARY

Background to this consultation

National Direction under the Resource Management Act

The Resource Management Act 1991 (**RMA**) is the main piece of legislation that sets out how we should manage our environment. It is largely implemented by local authorities (regional councils, unitary authorities, territorial authorities (city and district councils)). Central government supports implementation using national direction tools – national policy statements (**NPS**), national environmental standards (**NES**), national planning standards (**NPS**), and regulations under section 360 of the RMA.

National Environmental Standards for Plantation Forestry manage environmental effects in plantations

The NES-PF are regulatory controls within the resource management system, that are used to manage the effects of plantation forestry on the environment.

The NES-PF regulatory controls are nationally consistent rules (technical standards, methods, and planning requirements) that also allow more stringent (stricter) local rules to be set by councils in their district and regional plans. These regulatory controls are used to:

- maintain or improve the environmental outcomes associated with plantation forestry activities; and
- increase the efficiency and certainty of managing plantation forestry activities.

Forest estate

The role of forestry in Aotearoa New Zealand and in primary sector production has evolved over time and continues to do so.

While the forest estate is characterised by a number of large-scale forests owned by a few big companies, about 30 percent is owned by smaller growers, often as part of a farming operation or as a syndicate. Both corporate and small-scale growers supply domestic processing and export markets.

Māori have substantial and wide-ranging interests in forests and forestry.

Exotic plantations were originally established to reduce pressure on Aotearoa New Zealand's indigenous estate, and to meet forecast growth in population and demand for construction materials. Our competitive advantages in plantation management have grown the forest sector into a significant primary sector export industry, that supports communities across the country, in forest management, processing and exporting.

Afforestation

Successive governments have encouraged the planting of new forests³ (**afforestation**) to support improved environmental and economic outcomes for Aotearoa New Zealand over the decades.

Afforestation rates are increasing

The *Afforestation and Deforestation Intentions Survey, 2021*⁴ reported that total afforestation in 2022 is intended to be 68,000 hectares, of which 5,000 hectares is indigenous species. Close to 1 million hectares could be planted between 2022 and 2050 – comprising around 70 percent exotic plantation forest, 20 percent permanent exotic (carbon forest), and 10 percent indigenous forest.

In addition, from 1 January 2023 people with exotic and indigenous forest that meet the requirements of the permanent post-1989 forest category will be able to register in the NZ ETS. Modelled scenarios⁵ suggest that exotic forest afforestation could total around 2.8 million hectares over 2022–2050, with the majority managed as exotic carbon forests.

³ This includes schemes such as the *East Coast Forestry Project* (1993) to establish forests on erosion-prone land and the *Permanent Forest Sink Initiative* (2006) to contribute to our climate change targets.

⁴ <https://www.mpi.govt.nz/dmsdocument/52405-Afforestation-and-Deforestation-Intentions-Survey-2021>

⁵ Based on the 2021 Afforestation Economic Modelling report completed by the University of Canterbury's School of Forestry (Afforestation Economic Modelling (mpi.govt.nz)).

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Aotearoa New Zealand has had afforestation rates of this level before. Between 1970 and 2000, afforestation averaged 40,000 hectares a year. During the 1990s planting averaged over 40,000 hectares per year, the bulk of this incorporated into farms.

These forests helped create more resilient landscapes (standing forests provide excellent erosion control) and forests that are being harvested now are providing an income stream. However, the effects of land use changing to forestry can be significant for communities. In some areas, recent purchases of farmland for exotic afforestation, especially carbon forestry, have caused community concerns.

Opportunities from afforestation

The Government's goals for forestry⁶ extend beyond plantation forests for timber and wood products, and indigenous forests for conservation and watershed management. Forests offer significant opportunities to:

- replace carbon-intensive steel and concrete with low carbon alternatives (eg, engineered wood products) and biofuels to replace fossil fuels.
- mitigate climate change through carbon sequestration (in both plantation and carbon forests).
- protect vulnerable land (eg, erosion-prone land).

To meet these goals, Aotearoa New Zealand needs more trees, including both plantation and exotic carbon forests, and to encourage the management of indigenous forests as long-term carbon sinks.

Challenges from afforestation

The increase in the rate of afforestation and its positive and adverse effects have highlighted potential weaknesses in the regulatory framework and councils' capacity and capability to manage the expected rate of change.

The current regulatory framework provides national standards for managing the environmental effects of plantation forestry through the NES-PF – which pre-dates the recent surge of interest in carbon forestry. In addition, few councils have decided to make rules to manage matters outside the scope of the NES-PF, including the environmental effects of other types of forestry, and social, cultural and economic effects. We understand this is due in part to constraints on council capacity.

Summary of proposals

Given these opportunities and challenges, we propose to extend the scope of the regulatory framework to include exotic carbon forests and to improve wildfire management, and to address matters identified through the Year One Review of the NES-PF to better enable foresters and councils to manage the environmental effects of forestry. We also seek feedback on options to support councils to control the location of afforestation (plantation and exotic carbon) to manage social, cultural, and economic effects.

The options and proposals are set out in four parts (Parts A-D), and the preferred options (except for Part B) are summarised below. More information about officials' analysis of the range of options to address the issues can be found in the Interim Regulatory Impact Statement.

Part	Preferred options and proposals (except for Part B)
<p>Part A: Proposal to extend the scope of regulatory controls to manage the environmental (biophysical) effects of exotic carbon forests</p> <p>See questions A1 to A14</p>	<p><i>Options 2 and 3 are preferred (option 1 is the status quo)</i></p> <p>Option 2: Amend the NES-PF to include a new forest category – 'exotic carbon forest'</p> <p>Option 3: Amend the NES-PF to require Forest Management Plans (FMP) for exotic carbon forests</p>
<p>Part B: Options to extend the scope of regulatory controls to control the location of afforestation (plantation and exotic carbon) to manage social, cultural, and economic effects</p> <p>See questions B1 to B20</p>	<p><i>There is no preferred option for Part B at this stage.</i></p> <p>Option 1: Local control – rules in district or regional plans</p> <ul style="list-style-type: none"> ▪ Clarify councils' ability to make rules for matters outside of scope of the NES-PF

⁶ <https://www.mpi.govt.nz/dmsdocument/44905-Future-of-Forestry>

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Part	Preferred options and proposals (except for Part B)
	<ul style="list-style-type: none"> • Add a new power to enable councils to make more stringent (or lenient) rules than established by the NES-PF • Provide guidance and support for councils to enable communities to determine appropriate locations for forests. <p>Option 2: National direction – consent requirement</p> <p>Design and implement a new consent requirement – either by amending the NES-PF, developing a new National Environmental Standard (NES), or under the proposed new resource management legislation as part of the National Planning Framework (NPF).</p>
<p>Part C: Proposal to extend the scope of regulatory controls to improve wildfire risk management in all plantation and exotic carbon forests</p> <p>See questions C1 to C5</p>	<p>Amend the NES-PF to add a new requirement for forests over 1 hectare to have a Wildfire Risk Management Plans (WRMP) (Option 1)</p>
<p>Part D: Proposal to address matters identified through the Year One Review of the NES-PF to better enable foresters and councils to manage the environmental effects of forestry</p> <p>See questions D1 to D22</p>	<p>Wilding risk management</p> <p>Amend the NES-PF to increase the notification period for a wilding tree risk score, require submission of supporting information, and reflect updates to the Wilding Tree Risk Calculator and guidance; and</p> <p>Amend the NES-PF to add a new requirement for foresters to assess Wilding Tree Risk at replanting.</p> <p>Slash management</p> <p>Clarify that log-processing slash must be placed on stable ground</p> <p>Clarify that all slash placed on and around landing sites must be managed to avoid the collapse of slash piles</p> <p>Include a new requirement to manage slash on the cutover where there is a risk of it mobilising or causing slope failure</p> <p>Initial alignment with NES-Freshwater</p> <p>Make minor amendments to align some provisions of the NES-PF with the same provisions in the NES-Freshwater:</p> <ul style="list-style-type: none"> • fish passage requirements • culvert inverts • the definition of sediment control • general conditions for use of vehicles, machinery, equipment, and materials <p>Operational and technical issues</p> <p>Make minor amendments to address operational issues identified since the NES-PF came into force</p>

BACKGROUND

1.1 Forestry in Aotearoa New Zealand is well established and brings many benefits

Aotearoa New Zealand's forests play a vital role in supporting and sustaining our natural, physical, economic, social and cultural wellbeing. New Zealand has about 10 million hectares of forest on a total land area of about 26 million hectares. The majority (about 80 per cent) of these forests are indigenous.⁷ Exotic forests cover about 2.1 million hectares (8 per cent of the land area), with significant regional variation.

Over the last century Aotearoa New Zealand has developed a successful productive forest estate and industry. The commercial forest estate includes about 1.74 million hectares of plantation forests⁸ dominated by exotic species, notably *Pinus radiata* at 90 per cent of the estate. About 40 per cent of commercial forests are owned by Māori.⁹

Exotic forests in 2018¹⁰ and more recent conversions¹¹ are predominantly on Land Use Capability (LUC) classes 6 and 7, as shown in Figure 1.¹² LUC classes 6 and 7 comprise mainly hill and high country land. This land type is also widely used for sheep and beef farming (including strong and fine wool), particularly breeding and breeding/finishing farms, and deer. In parts of the country LUC 6 and 7 land is also used for dairying, orcharding and vineyards.

Figure 1: Exotic forest land cover across Land Use Capability (LUC) classes

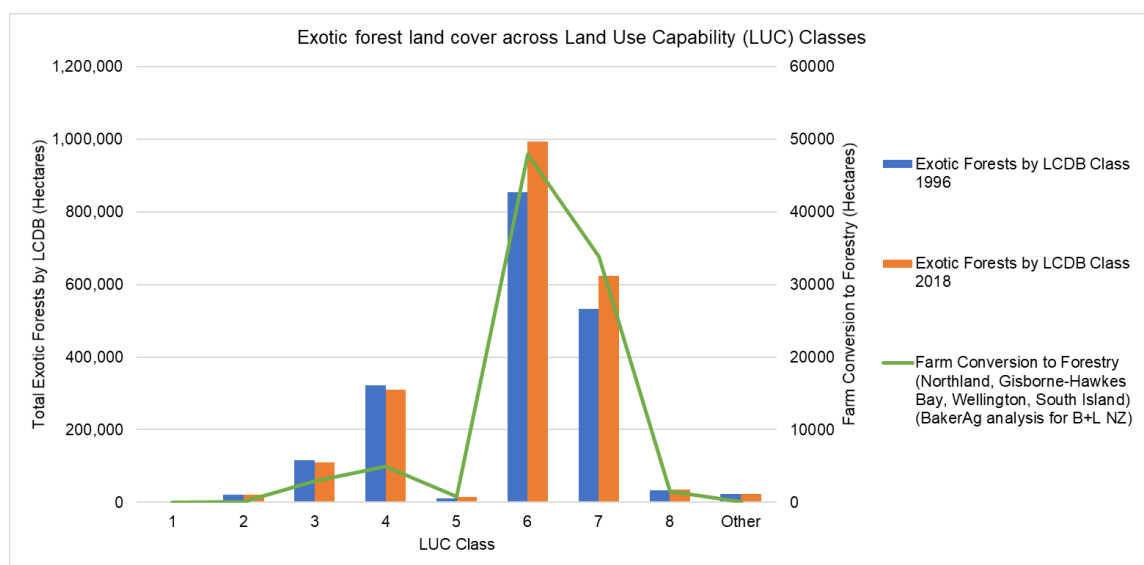


Figure 1 Legend

LCDB: Land Cover Database

LUC Class Descriptors

LUC Class 1: Suitable for a wide range of crops (0.7% of New Zealand's land area)

LUC Class 2: Suitable for many crops (4.5% of New Zealand's land area)

LUC Class 3: Restricted range of crops, intensity of cultivation is limited (9.2% of New Zealand's land area)

LUC Class 4: Occasional cropping but reduced range of crops and intensity of cultivation (10.5% of New Zealand's land area)

LUC Class 5: Non-arable, high producing (0.8% of New Zealand's land area)

LUC Class 6: Non-arable, suited to grazing, tree crops, & forestry (28.1% of New Zealand's land area)

⁷ <https://www.mpi.govt.nz/forestry/new-zealand-forests-forest-industry/about-new-zealands-forests/#:~:text=Today%2C%20New%20Zealand%20has%20a,covering%2038%25%20of%20the%20land.>

⁸ National Exotic Forest Description 2021 (mpi.govt.nz)

⁹ Ināia tonu nei: a low emissions future for Aotearoa » Climate Change Commission (climatecommission.govt.nz) (2021)

¹⁰ LUC data has been calculated for exotic forest cover using the Land Cover Database (LCDB 2018) version 5.0 Exotic forest cover consists of the following LCDB classes: Deciduous Hardwoods, Exotic Forests, and Forest – Harvested.

¹¹ Independent validation of land-use change from pastoral farming to large-scale forestry. (BakerAg, July 2021)

<https://beeflambnz.com/sites/default/files/Potential-land-use-change-pasture-to-forest-species-report.pdf>

¹² LUC descriptors are from Land Use Capability Survey Handbook, 3rd edition. Landcare Research. (2009).

LUC Class 7: Non-arable, with soil conservation measures suited to grazing and forestry in some cases (21.4% of New Zealand's land area)

LUC Class 8: Unsuitable for arable, pastoral or commercial forestry use (21.8% of New Zealand's land area)

The plantation forestry and wood processing industry contributes strongly to New Zealand's economic success. Wood products are now our fourth-largest export earner, generating an annual gross income of around \$6.7 billion, 1.6% of our Gross Domestic Product (GDP). Over 35,000 people are employed in the sector. Like our indigenous forests, plantation forests also contribute to environmental, social, cultural, and economic outcomes.

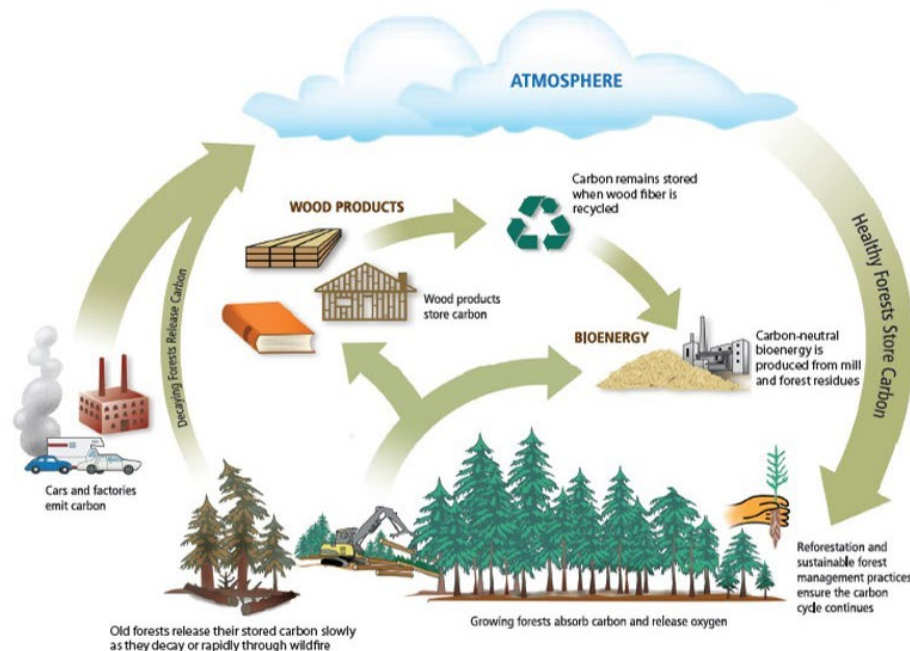
Looking forward, forests have a vital role to play as New Zealand transitions to a low-emissions economy. The Government's first Emissions Reduction Plan¹³ establishes this vision for forestry:

'By 2050, Aotearoa New Zealand has a sustainable and diverse forest estate that provides a renewable resource to support our transition to a low-emissions economy. Forestry will contribute to global efforts to address climate change and emissions reductions beyond 2050, while building sustainable communities, resilient landscapes, and a legacy for future generations to thrive.'

The Government is taking action to help the forestry and wood processing sector increase its potential – to offset emissions, replace high-emissions products with biomaterials and biofuels, enhance the natural environment by supporting biodiversity, improve water quality and stabilise erosion-prone land, and contribute to social and cultural wellbeing. A key initiative is the recently released draft Forestry and Wood Processing Industry Transformation Plan.¹⁴

Figure 2¹⁵ (below) highlights the multiple values and uses of the forestry system for emissions reduction. These now extend well beyond the timber and wood products on which Aotearoa New Zealand's forestry sector was founded.

Figure 2: Sustainable Forestry Carbon Cycle



¹³ <https://environment.govt.nz/assets/publications/Aotearoa-New-Zealands-first-emissions-reduction-plan.pdf>

¹⁴ A draft of this plan was released for consultation on 19 August 2022. <https://www.mpi.govt.nz/forestry/forest-industry-and-workforce/forestry-and-wood-processing-industry-transformation-plan/>

¹⁵ Sustainable forestry carbon cycle (Washington Forest Protection Association, 2020) adapted from California Forest Products Association materials. <https://www.wfpa.org/news-resources/blog/washington-legislature-bills-recognize-working-forests-role-in-curbing-climate-change/attachment/sustainable-forestry-carbon-cycle/>

1.2 Afforestation is expected to increase and new types of forest are emerging

Patterns of land use have changed dramatically over time and will continue to do so. The Ministry for the Environment's report, *Our Land 2021*¹⁶ identifies climate change as one of the key factors driving change in land use. Other factors include intensification of agricultural land, population growth, consumer preferences, and domestic and overseas markets.

Among other changes, the area of land in forests, and especially exotic forests, is expected to increase in response to climate change and economic incentives (see 'Afforestation projections' below).

Patterns of afforestation

On a national scale, the amount of land required for afforestation to meet national objectives for emissions reductions is a small percentage of Aotearoa New Zealand's land area. However, the pattern of afforestation is unlikely to be evenly spread. Under current emissions prices and economic conditions the communities most likely to see more plantation and exotic carbon afforestation are those where the land is mainly hill country, with some mix of exotic forestry, indigenous vegetation, and sheep, beef, deer and wool.¹⁷

We are already seeing new types of forest emerge. These include exotic carbon forests planted to sequester and store carbon towards emissions reduction targets and not intended for harvest; and 'transitional' forests actively managed to transition from exotic to indigenous species over time. We are also starting to see shorter rotation exotic plantation forests to provide feedstock for the growing bioeconomy.

Exotic afforestation projections

The Ministry for Primary Industries' *Afforestation and Deforestation Intentions Survey*¹⁸ (Survey, published in July 2022) was conducted in late 2021, when the carbon price was around \$68 per NZU and also prior to the release of the discussion document on *Managing exotic afforestation incentives*.¹⁹

The Survey reported that total exotic afforestation is intended to be around 63,300 hectares in 2022, with 47,900 hectares confirmed at the time of the survey. Radiata pine makes up 94 per cent of these intended plantings, with around 10,200 hectares expected to be permanent exotic plantings. The report noted that intentions from 2023 to 2030 are much more uncertain than those in the near-term. Landowners are largely occupied with the current year and a range of factors influence intentions in later years. Future rates of afforestation will be influenced by a variety of factors, including NZ ETS policy settings.

Rising NZU prices can be a significant incentive to established exotic forests, particularly carbon forests. Scenario modelling²⁰ at higher carbon prices indicates the post-1989 exotic forest estate could total around 1.3 million hectares by 2030 (and 3.1 million hectares by 2050), with the majority of this exotic afforestation established after 2022 planted for carbon.

¹⁶ <https://environment.govt.nz/publications/our-land-2021/>

¹⁷ Te Uru Rākau – New Zealand Forest Service estimates that up to 2.7 million hectares of low-productivity pastoral land may be suitable for new afforestation, of which around 1.5 million hectares could be suitable for production forestry, and 1.2 million hectares is suitable for new permanent forest due to steep and erosion-prone land (Te Uru Rākau – New Zealand Forest Service 'Private land potential suitable for afforestation' - r180017). These estimates are based on environmental suitability of land for forestry. They do not consider economic and logistical factors (eg, distance to port, landowner desire to shift land use to forestry).

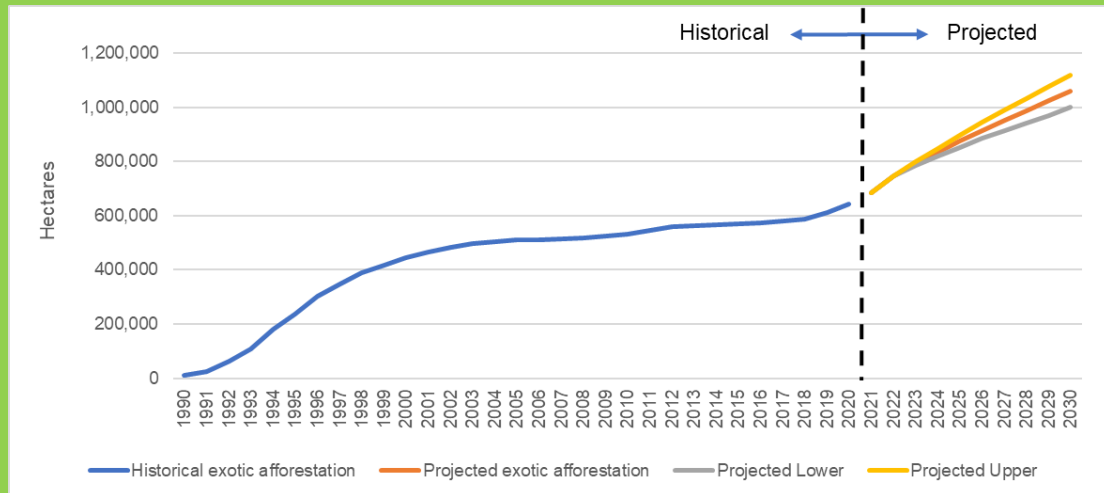
¹⁸ <https://www.mpi.govt.nz/dmsdocument/52405-Afforestation-and-Deforestation-Intentions-Survey-2021>

¹⁹ <https://www.mpi.govt.nz/consultations/managing-exotic-afforestation-incentives>. The Survey was carried out prior to the release of the discussion document *Managing exotic afforestation incentives*. The Survey does not therefore show the impact of the proposed changes to the permanent post-1989 forest category in the ETS. If changes to the permanent post-1989 forest category are progressed, actual afforestation rates may differ for the intentions reported in this Survey.

²⁰ Assumes returns for permanent exotic forests based on carbon prices equivalent to 2022 and 2026 NZ ETS cost containment reserve auction trigger price levels. Further technical information on the impact of carbon pricing on afforestation rates can be found in a separate report by the University of Canterbury, *Afforestation Economic Modelling*. Available at: www.mpi.govt.nz/dmsdocument/50302-Afforestation-Economic-Modelling-Report.

This figure below shows cumulative historical²¹ and projected afforestation projections (based on the Survey). Three projection scenarios are provided.²²

Figure 3: Exotic afforestation projections



Note: That in 1990 there was around 12,000 hectares of exotic afforestation, figures are cumulative from 1990.

- Centre line – shows baseline exotic afforestation projections of around 416,150 hectares between 2021 and 2030, comprising around 82 percent exotic plantation and 18 percent permanent exotic (carbon) forest.
- Upper and lower lines – represent “Upper” and “Lower” levels of exotic afforestation as reported in the Survey.

1.3 Growth in afforestation will have a range of effects, and bring opportunities and challenges

The expected growth in afforestation will have environmental, social, cultural and economic effects, and bring both opportunities and challenges for Māori, individuals, businesses and communities.

We recognise that indigenous and exotic forests provide important income and opportunities for Māori and other landowners eg, through integration into existing farm practices for profit, amenity, sustainability, and the environment.

However, we are also aware that the recent and projected increase in exotic afforestation, especially the emergence of exotic carbon forests on a significant scale, is raising concerns about adverse effects among some communities, primary sector interests, environmental non-governmental organisations (eNGOs) and councils. Those concerns span a range of environmental, social, cultural and economic issues.

The issue has become more urgent because the scale and type of interest in exotic afforestation has changed rapidly since the NZU price rose significantly in 2021.²³

A separate consultation earlier this year sought feedback on managing exotic afforestation incentives through the New Zealand Emissions Trading Scheme (NZ ETS).²⁴

²¹ Based on NZ’s Greenhouse Gas Inventory Report, 1990 - 2020. <https://environment.govt.nz/publications/new-zealands-greenhouse-gas-inventory-1990-2020/>.

²² These projections exclude the impact from newer initiatives outlined in the forestry chapter of the ERP, recent carbon market trends, and consultation on options for the permanent post-1989 forest category in the Emissions Trading Scheme.

²³ The fixed price option was removed in 2021, after which there was a sustained rise in the price of NZUs.

²⁴ <https://www.mpi.govt.nz/consultations/managing-exotic-afforestation-incentives>

Earlier feedback on exotic forests from the 2021 consultation on the Emissions Reduction Plan

Submitters highlighted the need to grow the right tree in the right place, at the right time.

Most submitters supported limits on different types of permanent exotic forest systems (e.g. *Pinus radiata* versus long-lived redwood species), their location or management. Main reasons for wanting limits included the risk of supplanting economically productive arable land and negative impacts associated with increased afforestation of exotics, such as fire risk and increased pests. Other reasons included improved biodiversity and that limits would mitigate impacts on rural communities from large-scale afforestation, which some submitters considered led to negative outcomes for rural livelihoods.

Submitters who opposed limits were concerned it would restrict the country's climate change ambition. They said permanent exotic (carbon) afforestation could help to bridge the gap on any emissions reductions shortfall.

Environmental effects of afforestation

Afforestation has positive and adverse effects on the environment that bring both opportunities and challenges. Table 1 sets out effects of afforestation and forestry on the natural and physical environment. Appendix C provides further information on how those effects may differ between plantation and exotic carbon forestry.

Table 1: Environmental effects of plantation and carbon forests and afforestation

Category of effect	Positive effect	Adverse effect
Biodiversity / ecological	<ul style="list-style-type: none"> Regulating water supply and quality Supports restoration/regeneration Habitat for some indigenous species Shade for aquatic biodiversity Improving soil and air quality Carbon storage 	<ul style="list-style-type: none"> Risk of wilding tree spread²⁵ Habitat for pests, weeds and diseases Reduced habitat for indigenous species at harvest Increased erosion and sedimentation at harvest can reduce water quality and habitat Decline in water yield
Natural hazards	<ul style="list-style-type: none"> Reducing risk of erosion and landslip, particularly on erosion prone land Managing flood flows 	<ul style="list-style-type: none"> Increasing risk of hazards during harvest, particularly under intense rainfall (accelerated erosion, mid-slope failure, mobilisation of forestry slash, debris from windthrow or mortality mobilisation) Increased risk and impact of wildfires
Landscape	<ul style="list-style-type: none"> Mixed forests may support indigenous forest restoration Enhancing the appearance of the landscape 	<ul style="list-style-type: none"> Landscape effects on open rural landscapes (including significant, rural scenic, outstanding natural landscapes, outstanding natural character in the coastal environment). Reverse sensitivity Shading of roads and dwellings

²⁵ Wilding conifers are spreading at an estimated rate of 5% per year, despite control efforts <https://www.doc.govt.nz/nature/pests-and-threats/weeds/common-weeds/wilding-conifers/> These are often the legacy of past government planting to control erosion. The intent of controls for planted forests is to ensure new forests do not exacerbate the wilding problem.

Social, cultural, and economic effects of afforestation

As with environmental effects, the social, cultural and economic effects of plantation and exotic carbon afforestation on local communities can be positive or adverse. Appendix D sets out our understanding of those effects.

The type of afforestation, the way it is managed, and its end use will be critical determinants of its social, cultural and economic effects. Other local factors will play a part, for example:

- the scale of the afforestation relative to other land uses
- which land is afforested, and the opportunity cost (if any) of the displaced activity
- whether post-farmgate or post-harvest processing facilities and support services are gained or lost
- timing effects and the extent to which forestry creates continuity of local supply and demand
- landowner aspirations, particularly Māori
- communities' sense of identity, and whether this is tied to any particular land use.

The characteristics of the community will also play a role. For example, a community with an established or growing forestry and wood processing industry may be well placed to benefit from an increase in plantation forestry, and the jobs and economic activity this generates – from site preparation and planting, through to harvesting and wood processing.

In contrast, a community centred on farming and meat or wool processing may be less able to benefit from afforestation if forest management expertise comes from outside the community and logs are processed elsewhere (within New Zealand or overseas). For such communities the adverse effects of land use change, for example reduced on-farm jobs and farm production, which could also affect the viability of local support services or processors of farm products, may outweigh the benefits of afforestation.

1.4 The current regulatory framework focuses on managing the environmental effects of plantation forests and forestry

The National Environmental Standards for Plantation Forestry 2017

The NES-PF was developed specifically to manage the environmental effects of plantation forests at the point of afforestation, through the forest life cycle and particularly at harvest. It was not intended to, and does not, cover forests that are not harvested, and pre-dates the significant interest in exotic carbon forestry.

The design of the NES-PF has a focus on managing the effects of clearfell harvest, which is the dominant harvest model in Aotearoa New Zealand, because other harvest models eg, low-intensity harvesting, usually have lesser environmental effects.

The policy objectives of the NES-PF are to:

- 'Maintain or improve the environmental outcomes associated with plantation forestry activities nationally; and
- Increase the efficiency and certainty in the management of plantation forestry activities under the RMA'.²⁶

The provisions in the NES-PF are intended to achieve this policy objective through:

- Providing nationally consistent provisions (including specified permitted activity conditions) for the management of plantation forestry activities under the RMA.
- Establishing rules that permit plantation forestry activities where it is efficient and appropriate to do so, and where the activities will not have significant adverse effects on the natural environment.
- Requiring resource consent for activities where the environmental risk is higher and more site-specific oversight is needed, or where permitted activity conditions cannot be complied with.

²⁶ <https://www.mpi.govt.nz/forestry/national-environmental-standards-plantation-forestry/>

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Afforestation for plantation forestry is a permitted activity in areas with lower erosion susceptibility, subject to conditions. Consent is required for afforestation of highly erodible (red zone)²⁷ land, within outstanding natural landscapes and significant natural areas and specified locally sensitive landscapes,²⁸ and where permitted activity conditions cannot be met.

Land use plan rules

Councils are able to make rules on land use that:

- are more stringent than the NES-PF in defined circumstances²⁹, where this is justified. Justification of a more stringent rule includes demonstrating that it is the most appropriate way to achieve the purpose of the RMA. The NES-PF Plan Alignment Guidance³⁰ has more detailed information on where plan rules may be more stringent than the NES-PF, and activities and effects that are not regulated under the NES-PF;
- manage any effects of plantation forests that are not covered by the NES-PF eg, forests that are not for harvest. Some councils have, or are developing, such rules, and one is removing rules.³¹ To date, none have developed rules for managing social, cultural, or economic effects.

We understand that for some councils, capacity constraints, competing priorities for staff with the necessary expertise, and the time, cost and complexity of plan changes hinder the development of plan rules. Developing rules for managing social, cultural and economic effects would be particularly challenging at a local level for these reasons and due to a lack of clear enabling provisions to make these rules.

Regional and district plans continue to manage certain activities and effects related to plantation forestry that are not regulated under the NES-PF eg, pre-afforestation vegetation clearance, protection of cultural and historic heritage, and effects of logging trucks on public roads. In addition, regional and district rules established before the NES-PF came into force remain applicable to afforestation and forestry activities that are not for plantation forestry.

The Resource Management Act 1991

The RMA is New Zealand's principal environmental land use planning legislation. The purpose of the RMA³² is to promote the sustainable management of natural and physical resources in a way that enables people and communities to provide for their social, economic and cultural wellbeing, while sustaining the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations.

People exercising functions and powers under the RMA in relation to managing the use, development, and protection of natural and physical resources are required to take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

National Environmental Standards (NES) can prohibit or allow an activity, and prescribe technical standards and methods or requirements to regulate specific activities. NES can operate as plan rules to provide nationally consistent and clear resource consent requirements and standards for regulated activities. An NES generally prevails over plan rules, except where it expressly states that rules can be more stringent or lenient.

²⁷ Red zone means the land mapped and classified with an erosion susceptibility rating of very high in the erosion susceptibility classification (ESC). <http://www.mpi.govt.nz/growing-and-producing/forestry/overview/national-environmental-standards-for-plantation-forestry/erosion-susceptibility-classification/>

²⁸ Regulation 6 of the NES-PF sets out the circumstances in which councils may make more stringent rules than the NES-PF rules. <https://www.legislation.govt.nz/regulation/public/2017/0174/latest/DLM7373512.html>. These include rules to give effect to the National Policy Statement for Freshwater Management, the New Zealand Coastal Policy Statement, and to protect unique and sensitive environments such as separation point granite soils, geothermal areas and karst geologies.

²⁹ Ibid

³⁰ For NES-PF Plan Alignment Guidance, and other NES-PF guides, see the MPI website <https://www.mpi.govt.nz/forestry/national-environmental-standards-plantation-forestry/nas-pf-guidance/>

³¹ Marlborough District Council began developing rules ahead of the NES-PF coming into force in 2018. These have been updated to include forests for carbon sequestration. Waitaki and Waimakariri District Councils have recently released draft district plans, which define carbon forestry. These rules and proposals are to manage the environmental effects of predominantly permitted activity.

³² Section 5 of the RMA 1991 as amended.

A NES may also prohibit or permit an activity, require resource consent for an activity, or place conditions on an activity. An NES can also state that consent may be granted subject to specified terms and conditions with the standard. The key feature of an NES is that it cannot include objectives and policies to guide discretionary decision-making. An NES applies as soon as it comes into force.

1.5 Policy objectives for managing exotic forestry and afforestation under the resource management system

Our aim is to achieve the Government's long-term vision for Aotearoa New Zealand's forests as set out in the Emissions Reduction Plan:

By 2050, Aotearoa New Zealand has a sustainable and diverse forest estate that provides a renewable resource to support our transition to a low-emissions economy. Forestry will contribute to global efforts to address climate change and emissions reductions beyond 2050, while building sustainable communities, resilient landscapes, and a legacy for future generations to thrive.³³

To support this aim, we want the resource management system settings to:

- ensure the environmental effects of all exotic afforestation and forestry activities are effectively managed in a nationally consistent way; and
- enable councils to control the location and scale of plantation and exotic carbon afforestation in communities, while ensuring national objectives for afforestation are met.

Responses to the 2021 consultation on Aotearoa New Zealand's first Emissions Reduction Plan and NZ ETS have helped to shape our thinking in developing the above objectives.

1.6 Resource management reform

Work is underway to reform the resource management system, by repealing the RMA and replacing it with three Acts:

- Natural and Built Environments Act (**NBA**) – to protect and restore the environment while better enabling development. It would be the primary replacement for the RMA.
- Spatial Planning Act (**SPA**) – to coordinate and integrate decisions made under relevant legislation by requiring the development of long-term regional spatial strategies.
- Climate Adaptation Act (**CAA**) – to address complex issues associated with managed retreat from climate change effects.

A proposed **National Planning Framework (NPF)** under the NBA would set out integrated strategic direction on the management of the environment, and consistent regulation. The NPF would be a single, comprehensive framework that will consolidate national direction. The intent of existing national direction prepared under the RMA will be preserved with updates necessary to ensure alignment with the new Act and reformed resource management system.

Under the proposed new system, national direction included in the NPF would be implemented through Regional Spatial Strategies (long-term spatial plans) made under the proposed Spatial Planning Act, and Natural and Built Environment Plans (property-level rules and direction).

You can find out more about RM reform at <https://environment.govt.nz/what-government-is-doing/key-initiatives/resource-management-system-reform/overview/>.

³³ <https://environment.govt.nz/publications/aotearoa-new-zealands-first-emissions-reduction-plan/forestry/>

2 MĀORI INTERESTS IN FORESTRY

Māori have significant interests in forests and forestry as land and forest owners, workers and business owners. Māori interests in forestry are extremely wide as forests represent a broad range of significance, including providing a home for ancestors and taonga, while also providing opportunities for financial gain, hunting and cultural activities.

In 2018, Māori were estimated to own \$4.3 billion of forestry assets. In 2017, it was estimated Māori make up around 22% of the total forestry and wood-processing workforce (ie, around 8,480 people).³⁴ Around 30 per cent of New Zealand's 1.7 million hectares of plantation forestry is estimated to be on Māori land, and this is expected to grow to 40 per cent as Treaty settlements are completed.³⁵ A significant proportion of New Zealand's privately owned indigenous forest is on Māori-owned land.

Compared to the distribution of LUC classes nationally, a higher proportion of Māori land is less versatile land (ie, LUC 5-7) and a lower proportion is more versatile (ie, LUC 1-4). Around 71,000 hectares of Māori freehold land comprises remote and less versatile land, making it well suited to carbon or long rotation plantation forestry.³⁶ This implies that any regulatory changes concerning the matters in this discussion document could have a disproportionate effect on Māori, given that Māori freehold land and land that has been returned in Treaty settlements includes significant areas of existing forests.

The NES-PF is an instrument under the RMA, and therefore needs to be consistent with Part 2 of the RMA. Part 2 describes the purpose and principles of the Act, and states that people exercising functions under the RMA must:

- recognise and provide for the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga (s 6(e))
- recognise and provide for the protection of protected customary rights (s 6(g))
- have particular regard to kaitiakitanga (s 7(a)), and
- take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi) (s 8).

The NES-PF also needs to be consistent with relevant Treaty Settlement Acts and commitments made in settlement agreements.

Options and proposals under the RMA need to take into account the principles of the Treaty of Waitangi, post-settlement commitments, and Māori interests in forestry, including:

- significant interests in forestry, including indigenous forests
- that Māori freehold land has different characteristics to general title land, and is disproportionately on land considered marginal, steep or erosion-prone
- the strong Māori interest in afforestation
- the wider cultural, social, environmental and economic aspirations of Māori, including the ability of tangata whenua to make decisions about their own land.

³⁴ Forestry and Wood Processing Workforce Action Plan 2020-2024 (mpi.govt.nz)

³⁵ Crown Forestry Rental Trust (Ngāa Kaitiako Reeti Ngāhere). Economics of Alternative Land use on Crown Forest Licensed Land. <https://cfrt.org.nz/wp/wp-content/uploads/2018/05/EconomicsofAlternativeLandUseonCrownForestLicensedLand.pdf>

³⁶ Based on the LUCAS NZ Land Use Map, analysis undertaken by Te Uru Rākau – Forestry New Zealand

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3 PART A: MANAGING THE ENVIRONMENTAL (BIOPHYSICAL) EFFECTS OF EXOTIC CARBON FORESTRY

3.1 Problem statement

A lack of national direction to manage the environmental (biophysical) effects of exotic carbon forests and/or transitional forests, can cause inconsistent forestry management with poor environmental effects, e.g. where:

- exotic carbon forests have the same, or similar, effects to those of plantation forests but are not subject to the same standards
- the purpose and intent of a forest changes over time creating a regulatory gap e.g. when an exotic forest transitions to an indigenous forest
- there is uncertainty about future environmental issues that could arise over decades, as exotic carbon forests transition to indigenous forest and/or are grown to the end of their natural lifespan eg, long term stability.

Q A1 Do you agree with the problem statement set out above? Y/N Are there other things we should consider?

Existing and possible new regulatory controls over environmental effects

Some environmental effects that need to be managed to ensure a carbon forest is sustainable in perpetuity are covered under other legislation. For example, pests and weeds are managed under the Biosecurity Act, and wildfire under the Fire and Emergency New Zealand Act. Where an exotic forest is transitioning to indigenous species over time, there is also a potential crossover with the Forests Act, if any form of harvest is contemplated. The Forests Act sets the requirements for any harvest, milling or export of existing or regenerating indigenous forests on private land.³⁷

Appendix C sets out the environmental effects of exotic forests at a high level. Table 2 sets out the environmental effects of plantation³⁸ and exotic carbon forests with existing regulatory controls. It also assesses what possible new controls should apply to exotic carbon forests. It does not include social, cultural and economic effects, which are covered in Part B of this discussion document.

Table 2: Environmental effects and regulatory controls for plantation and exotic carbon forests.

Environmental effect to manage	Existing regulatory controls		Potential controls to manage the environmental effects of exotic carbon forests
	Plantation forests for harvest	Exotic carbon forests	
Locational effects (afforestation)			
Outstanding natural landscapes and features	Restricted discretionary activity in the NES-PF	District plan rules	Current NES-PF rules should apply to all afforestation
Visual amenity landscapes	Controlled activity if rules in a plan restrict plantation forestry activities within that landscape.	District plan rules	Current NES-PF rules should apply to all afforestation

³⁷ See Part 3A of the Forest Act 1949 <https://www.legislation.govt.nz/act/public/1949/0019/latest/DLM255626.html>

³⁸ The NES-PF does not distinguish between species. It covers any forest that fits the definition, which can include indigenous species. New Zealand has a small number of indigenous plantation forests that grow trees for timber and manage them in a similar way to plantations of exotic species.

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Environmental effect to manage	Existing regulatory controls		Potential controls to manage the environmental effects of exotic carbon forests
	Plantation forests for harvest	Exotic carbon forests	
Vegetation clearance pre-afforestation	Regional or district plan rules	Regional or district plan rules	Current NES-PF rules should apply to all afforestation.
Significant natural areas	Restricted discretionary activity in the NES-PF	District plan rules for SNAs	Current NES-PF rules should apply to all afforestation
Shading of roads and dwellings	Setbacks in the NES-PF; Transport Act	District plan rules; Transport Act	Current NES-PF rules should apply to all afforestation
Risk of wilding tree spread	Permitted activity if low risk in the NES-PF; Restricted Discretionary activity if high risk; Regional pest management plans (RPMPs) apply outside plantation.	District plan rules apply for planting wilding risk species; Regional pest management plans	Current NES-PF rules should apply to all afforestation, though stronger species-specific rules may need to apply. <i>Spread risk may be greater for carbon forests where trees will attain their greatest height, and therefore maximum dispersal potential,³⁹ over longer periods than plantation forests.</i>
Water bodies	Setbacks, water quality standards and management rules in the NES-PF; councils can apply more stringent rules as required	National Policy Statement for Freshwater Management (NPS-FM), Regional Policy Statements and Regional Plans	Current NES-PF rules should apply to all afforestation <i>Trees provide beneficial shading and bank stability for water bodies. Setbacks for harvested forests are intended to enable permanent cover to develop, and to keep machines away from waterways.</i> <i>Carbon forests may not be harvested but given potential for changed circumstances, setbacks from waterbodies must be mandatory.</i>
Risk of mass movement erosion	Restricted discretionary activity on red zone land in the NES-PF	Regional plans	Current NES-PF rules should apply to all afforestation <i>The risk of mass movement erosion is highest on red zone land. Such land generally benefits from permanent forest cover to reduce shallow mass movement erosion risk. Councils should have sufficient discretion to manage all environmental effects of carbon forests, including species, locational effects and potential harvest effects in the event of any harvest activities. Regulation 17(4)(a) of the NES-PF already enables discretion over erosion and sedimentation effects, including effects on ecosystems, fresh water, and the coastal environment.</i> <i>Where permanent exotic cover is a demonstrable erosion risk, councils may require transition to indigenous cover as a condition of consent.</i>

³⁹ 'Dispersal potential rather than risk assessment scores predict the spread rate of non-native pines across New Zealand,' Wyse and Hulme 2021, *Journal of Applied Ecology*

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Environmental effect to manage	Existing regulatory controls		Potential controls to manage the environmental effects of exotic carbon forests
	Plantation forests for harvest	Exotic carbon forests	
Cumulative impacts on surrounding community	Not managed by the NES-PF	Not managed	<p>New regulatory controls could include consideration of potential risks associated with transition of exotic to indigenous forests and exotic forests reaching the end of their natural lifespans. This could include mobilisation of debris from windthrow or mortality.</p> <p><i>Cumulative impacts depend on catchment, district and regional effects, and on how forests are managed over time. For example, forests can provide significant erosion control that benefits downstream communities but may cause increased sediment following harvest if not well managed. Additional forests may have a positive impact where wood-processing industries are nearby or may reduce the demand for essential agricultural services where land use is mainly agricultural.</i></p>
Management effects over the life cycle of the forest			
Risk of wilding tree spread	Requirement in the NES-PF to remove wildings from wetlands and SNAs on the same property. Regional pest management plans apply to all landowners with regionally variable requirements.	Regional pest management plans apply to all landowners with regionally variable requirements.	<p>Current NES-PF rules should apply to all forests covered by the NES-PF</p> <p><i>Exotic carbon forests will require ongoing boundary surveillance under the Biosecurity Act (RPMPs) to enable appropriate management of any spread.</i></p>
Risk of mass movement erosion	Harvest is a controlled activity on red zone land other than class 8e; harvest on class 8e land is a restricted discretionary activity in the NES-PF.	Regional plans	<p>Harvest rules should apply to all forests covered by the NES-PF.</p> <p><i>Harvest increases erosion risk during the window of vulnerability⁴⁰.</i></p>
Water bodies	Setbacks, management rules and water quality standards under the NES-PF; councils can apply more stringent rules under the NPS-FM	NPS-FM and regional water plans	Current NES-PF rules should apply to all forests.
Water yield	National Policy Statement for	National Policy Statement for	Current NES-PF rules should apply to all forests

⁴⁰ The window of vulnerability describes the elevated risk of landslides after a forest has been harvested and before the next crop reaches canopy closure and root site occupancy. The window is about 5-6 years but depends on factors such as stocking density, interval between harvesting and replanting, geology, slope and terrain.

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Environmental effect to manage	Existing regulatory controls		Potential controls to manage the environmental effects of exotic carbon forests
	Plantation forests for harvest	Exotic carbon forests	
	Freshwater Management (NPS-FM), Regional Policy Statements and Regional Plans	Freshwater Management (NPS-FM), Regional Policy Statements and Regional Plans	<i>All forests (exotic and indigenous) have an impact on water yields.</i>
Significant natural areas	Activity rules in setbacks under the NES-PF; more stringent rules in plans	Vegetation clearance rules; rules in plans	Current NES-PF rules should apply to all forests.
Water quality and sedimentation	Water quality standards, and performance requirements for all activities	Plan rules (including to give effect to the NPS-FM)	Current NES-PF rules should apply to all forests, in particular those for earthworks, harvest ⁴¹ or river crossings. <i>Earthworks and harvest are the key risks for water quality..</i>
Indigenous birds	Requirements to protect nests of threatened species; Wildlife Act	Wildlife Act	Current NES-PF rules should apply to all forests <i>Harvesting presents key risks to fauna.</i>
Fish species	Fish Spawning Indicator for presence; sediment standards; fish passage required for river crossings. Freshwater Fisheries Regulations 1983	Regional Plan rules and NES-Freshwater requirements for fish passage. Freshwater Fisheries Regulations 1983	Current NES-PF rules should apply to all forests <i>River crossings and harvest are key risks for aquatic species.</i>
Other indigenous species	Wildlife Act	Wildlife Act	<i>Harvesting presents key risks to fauna.</i>
Forest diseases	Government Industry Agreement between MPI and New Zealand Forest Owners Association (NZFOA); Forestry National Surveillance Plan	General Biosecurity Act provisions	Exotic carbon forests should be subject to the same biosecurity requirements as plantation forests. <i>All forests are subject to disease, though risk is largely species-specific.</i>
Wildfire	Service Level Agreements between FENZ and most large forestry companies for Forest Fire Risk Management Plans; no particular	Unknown	Any new NES-PF rules should apply to all forests covered by the NES-PF. Exotic carbon forests should be subject to the same Service Level Agreements with FENZ as plantation forests, as this is the main planning requirement for wildfire.

⁴¹ The ETS enables harvest as long as 30% canopy cover is maintained. This means that harvest operations may be common in forests planted as permanent forests under the ETS.

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Environmental effect to manage	Existing regulatory controls		Potential controls to manage the environmental effects of exotic carbon forests
	Plantation forests for harvest	Exotic carbon forests	
	requirements of this nature for smaller companies/forests		<p>Exotic carbon forests should be subject to the same Service Level Agreements with FENZ as plantation forests, as this is the main planning requirement for wildfire.</p> <p>Any new NES-PF rules should apply to all forests covered by the NES-PF. Exotic carbon forests should be subject to the same Service Level Agreements with FENZ as plantation forests, as this is the main planning requirement for wildfire. Exotic carbon forests should be subject to the same Service Level Agreements with FENZ as plantation forests, as this is the main planning requirement for wildfire.</p> <p><i>All forests are subject to wildfire risk and damage. Carbon forests may have higher wildfire risk if they are not managed for ladder fuels, debris and access.</i></p>

- Q A2** Have we accurately described the environmental effects of exotic carbon forests (Table 2)? Y/N What other environmental effects (if any) need to be managed that are different to those of plantation forests? Please provide evidence on the impact of these effects.
- Q A3** Do you agree that the environmental effects of exotic carbon forests should be managed through the NES-PF? Y/N Why?
- Q A4** The right-hand column of Table 2 sets out possible new regulatory controls. Please indicate if you disagree with any of these potential controls or feel we have missed anything, and explain or provide evidence.

3.2 Options to regulate exotic carbon forests

Councils are responsible for compliance, monitoring and enforcement of national environmental standards. If exotic carbon forests were regulated, then councils would be required to manage exotic carbon forests in perpetuity. A number of councils could build on the experience of managing their own forests and reserves, but we understand that few councils have experience with compliance.

Central government tools and information would be required to support councils with implementation of regulatory controls for exotic carbon forests, including advice on resource consent conditions and management plans, and expertise in monitoring and compliance.

We have identified three options for regulating exotic carbon forests. For each of these options the term 'exotic carbon forest' (or an alternative term) will need to be defined.

Options 2 and 3 are preferred.

Option 1: Status quo - councils retain power to make objectives, policies and rules to manage exotic carbon forests

Councils are already empowered to make objectives, policies and rules for exotic carbon forests. This is because forests that will not be harvested are not regulated by the NES-PF.

Pros

This provides councils with the greatest flexibility.

PART A: MANAGING THE ENVIRONMENTAL (BIOPHYSICAL) EFFECTS OF EXOTIC CARBON FORESTRY

Maintaining the status quo would allow councils to retain full decision-making power over these forests, and tailor their regulations to their broader community and environmental needs. To remove ambiguity, this could be done through an advice note or an explicit provision in Regulation 5 of the NES-PF, which sets out the application of the regulations.

Cons

We understand that some councils have limited capacity and technical capability in forestry issues, and are likely to need external advice on appropriate forest management eg, the permanent forest category of the NZ ETS allows harvest down to 30 per cent canopy cover.

Depending on how councils define exotic carbon forests and the rules they set, it might not always be clear whether the NES-PF or the council regulatory regime applies. This would add complexity and uncertainty for all parties.

Changes to council plans can be time-consuming and costly, and legal challenges to proposed plan changes increase the risk of delays and higher costs.

To enable councils to make informed decisions about changing RMA plans, we would develop advice and guidance on the environmental benefits and adverse effects of carbon exotic forests, across a range of commonly planted species.

Option 2: Amend the NES-PF to include exotic carbon forests

Option two would amend the NES-PF to apply the existing regulatory controls for plantation forests to exotic carbon forests. Some minor variations may be required. This could be achieved by:

- adding a new definition for exotic carbon forestry or amending the current definition of plantation forestry
- applying general provisions to both plantation and exotic carbon forests, and specific provisions to exotic carbon forests as required
- introducing a new matter of discretion to regulation 17, which would enable councils to consider wind effects on forest stability for all forests greater than 2 hectares on red zone land.

We are interested in feedback on risks of exotic carbon forests that may be different to plantation forests. Table 2 sets out the current effects managed by the NES-PF and how these could apply to exotic carbon forests. Additional effects may need to be managed depending on the forest management model used, eg, mortality mobilisation from light wells in exotic forests transitioning to indigenous forests, and the management of exotic forests to the end of their natural lifespans.

Pros

The environmental effects for all exotic forestry (and indigenous plantation forestry) would be incorporated in one set of regulations, and would use many of the existing regulations, particularly afforestation provisions in Subpart 1 of the NES-PF.

Subject to decisions on changes to regulatory controls in the NES-PF, the assessment of wilding tree spread risk from exotic carbon forests could be considered as part of the Wilding Tree Risk Calculator updates (**Part D** refers).

Although the NES-PF was designed to focus on anticipating and managing a forest at harvest, this means exotic carbon forests in the NES-PF would be required to comply with all afforestation provisions, which have been designed with harvest in mind. However, these provide protections where harvest is part of an exotic carbon forest lifecycle and where related activities are carried out (e.g. pruning and thinning, development of river crossings, and harvest activities (including partial forest harvest under Regulation 63)). The activity-based regulations should carry no burden for exotic carbon forests where they are not undertaken.

Cons

The NES-PF was designed to focus on anticipating and managing a forest at harvest. It did not consider any additional effects of a forest standing over a long period and/or transitioning to a different species. There may be specific effects that should be considered and managed through regulation.

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The regulations do not include requirements for managing a forest, so cannot currently require certain activities in relation to the longevity or composition of the forest e.g. cutting lightwells in the forest to enable regeneration, or requiring assessment of an existing native seed source.

The Climate Change Response Act requires participants in the ETS to comply with the RMA at registration, but compliance with RMA requirements is not monitored as an ongoing condition of NZ ETS registration.

- Q A5** Do you agree with option 2 for managing the environmental effects of exotic carbon forestry (amend the NES-PF to include exotic carbon forests)? Y/N Why?
- Q A6** Do you agree that a National Environmental Standard should manage [choose one]: (a) the environmental effects of exotic carbon forests only? Y/N or (b) environmental effects and forest outcomes, including transitioning from predominantly exotic to predominantly indigenous species? Y/N Why?
- Q A7** Do you agree with the proposal in option 2 (amend the NES-PF to include exotic carbon forests) to add wind effects as a matter of discretion to Regulation 17, to manage potential instability as a result of wind for all forests on red zone land? Y/N What benefits or drawbacks would there be from adding wind effects?
- Q A8** How effective would option 2 (amend the NES-PF to include exotic carbon forests) be in managing the environmental effects of exotic carbon forestry? [select from a range/scale not effective – highly effective] Why?
- Q A9** What implementation support would be needed for option 2 (amend the NES-PF to include exotic carbon forests)?

Option 3 – Amend the NES-PF to require Forest Management Plans for exotic carbon forests

A Forest Management Plan sets out the goals for the forest and how those goals would be achieved eg, composition and location of stock, planting, and forest risk management such as pest control.

The NES-PF requires management plans as a condition of permitted activities for earthworks and quarrying over a certain volume, and for all harvest activities. These plans are attached to specific activities, which are time and effects bound, rather than applying to the whole forest cycle.

Forest management plans that cover the life of the forest rather than specific activities could be required as a condition of resource consent but would be more difficult to justify for activities that are permitted. Permitted activities should avoid becoming subject to the fulfilment of resource-consent type conditions and should not be dependent on the decision of a third party.⁴² A management plan for a forest that extends over decades, and may be subject to regular change may be challenging to implement as a condition of a permitted activity.

Recent public feedback indicates broad agreement⁴³ with the use of Forest Management Plans to ensure exotic carbon forest are managed effectively and forest owners cannot 'plant and walk-away'. In particular:

- Management of biophysical environmental effects and other risks
Including management of fire and pest risks, planning for and managing environmental and health and safety risks in selective harvest.
- Management for forest outcomes
Including achieving the stated goals for the exotic carbon forests, including as they relate to transition to permanent indigenous forests.

⁴² Quality Planning

<https://www.qualityplanning.org.nz/index.php/node/611#:~:text=A%20permitted%20activity%20is%20one,specified%20for%20the%20permitted%20activity>.

⁴³ Pre-consultation feedback on potential changes to the NES-PF and summary of submissions from the consultation on ETS options for the Permanent Forest category.

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Pros

Forest Management Plans could be used to demonstrate how the exotic carbon forest would meet the requirements of the NES-PF, and also to prompt planning for potential future effects eg, how a forest would be managed as it is grown to the end of its natural lifespan or transitioned to indigenous forest.

A Forest Management Plan could provide councils with a mechanism to check compliance with regulation (either the NES-PF or their own rules) by requiring information on:

- actions and milestones to:
 - manage for biodiversity, including how weeds and pests are controlled within the forests enable
 - transition exotic carbon forest to indigenous forest eg, cutting lightwells to enable new trees to grow, timeframes to fully transition, and proximity to indigenous seed sources that can achieve canopy status
- intentions for selective or continuous cover forestry, including proposed silvicultural regime, and
- how wilding conifer spread will be managed on the forest property.

Cons

Forest outcomes may be more effectively managed at a national level rather than under the RMA as:

- an RMA instrument can only manage matters within the scope of the Act, so alignment with other Acts would be required to provide a full Forest Management Plan for all risks and effects that need to be managed eg, pest management and health and safety are managed under separate legislation and cannot in general be incorporated into an RMA instrument.
- some councils are limited in their forestry knowledge and experience, particularly as it relates to transitioning forests, so management plans may not be a meaningful or effective regulatory tool.
- the administrative costs of Forest Management Plans for councils would need to be balanced against any environmental benefits or risk reduction they may deliver.
- most exotic carbon forests will be entered in the ETS and effective mechanisms would be needed to ensure an outcomes-based management plan complied with any ETS requirements.⁴⁴
- like most businesses, foresters must comply with all relevant legislation and a plan that sets out how these things will be managed together can be helpful for integrating a range of requirements, and for audit purposes. All of these matters cannot be dealt with through the NES-PF.

Note – We are aware of the need to ensure that any (future) requirements for the ETS permanent forest category and the requirements of the NES-PF are well aligned, and minimise duplication or overlap for users.

This option includes a number of potential variables and would require additional consultation once specific proposals have been developed. In determining the content and objectives of a Forest Management Plan we would consider how it would interact and align with other legislation and regimes (**Appendix B** refers).

Q A10 Do you agree with option 3 for managing the environmental effects of exotic carbon forestry (amend the NES-PF to require forest management plans for exotic carbon forests)? Y/N Why?

Q A11 Do you agree that forest management plans should manage [choose one] (a) environmental effects only? Y/N or (b) environmental effects and forest outcomes, including transitioning from predominantly exotic to predominantly indigenous specie(s)? Y/N Why?

Q A12 Based on your answer to the previous question, what content should be required in forest management plans?

⁴⁴ Section 187(4)(a) Climate Change response Act 2002 requires that applicants for registration in the ETS comply with the RMA but this does not encompass ongoing management of the forest.

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Q A13 How effective would option 3 (amend the NES-PF to require forest management plans for exotic carbon forests) be in managing the environmental effects of exotic carbon forestry? [select from a range/scale not effective – highly effective] Why?

Q A14 What implementation support would be needed for option 3 (amend the NES-PF to require forest management plans for exotic carbon forests)?

3.3 Preferred option

Our preferred approach is to combine:

- Option 2: Add a new category of 'carbon forest' to the NES-PF, and
- Option 3: Amend the NES-PF to require Forest Management Plans for exotic carbon forests.

PART B: CONTROLLING THE LOCATION OF PLANTATION AND EXOTIC CARBON AFFORESTATION

4 PART B: CONTROLLING THE LOCATION OF PLANTATION AND EXOTIC CARBON AFFORESTATION TO MANAGE SOCIAL, CULTURAL, AND ECONOMIC EFFECTS

4.1 Problem statement

The recent and projected increase in exotic afforestation, especially the emergence of exotic carbon forests on a significant scale, has raised concerns about adverse effects among some communities, primary sector interests, environmental non-governmental organisations (**eNGOs**) and councils. Those concerns span a range of environmental, social, cultural, and economic issues.

These issues have become more urgent. Existing controls in the resource management regulatory system can be used to manage environmental effects of afforestation but they have not been effective for managing its social, cultural, and economic effects.

This means the existing controls under the RMA may not enable councils to manage the social, cultural and economic effects on their communities of changing land use as plantation and exotic carbon afforestation increases.

Q B1 Do you agree with the problem statement set out above? Y/N Are there other things we should consider?

Social, cultural, and economic effects of plantation and exotic carbon afforestation

The potential social, cultural, and economic effects of more, and changing patterns of, plantation and exotic carbon afforestation are complex. The emerging evidence base will continue to inform our understanding (**Appendix D** refers).

The effects of plantation and permanent exotic afforestation are specific to the situation and location. Although afforestation is a real concern for some councils and communities, for others it is an opportunity.

Concerns have focused most strongly on the conversion of whole farms to forestry and on the growth in exotic carbon afforestation for carbon sequestration. Some stakeholders are also concerned about the growth in plantation forestry.⁴⁵

Q B2 Have we accurately described the social, cultural, and economic effects of plantation and exotic carbon afforestation at a community level (**Appendix D** refers)? Y/N What other social, cultural or economic effects should we be aware of? Please provide evidence on the impact of these effects.

Potential regulatory controls that could be used to manage social, cultural, and economic effects

Resource consents

We have heard from some councils and communities that they want to be able to manage the social, cultural, and economic effects of afforestation by controlling the location of new plantation and exotic carbon forests through resource consents.

It is not clear how many councils or communities need a consent process. We have heard that councils would find it difficult to develop and apply rules (and objectives and policies) for social, cultural, and economic effects.

The RMA provides for the management of social, cultural or economic conditions in the definition of 'environment'. In practice, these effects have rarely been considered for rural land use, on an individual consent basis. A consent requirement to manage social, cultural and economic effects would be a significant change to the way land use for afforestation is currently controlled.

⁴⁵ For example, a report co-funded by 17 councils, Local Government New Zealand and Beef + Lamb New Zealand, comments that "The potential to transform significant swathes of sheep, beef and wool producing farmland to production forestry and permanent carbon forestry has associated opportunities and risks." *Managing Forestry Land-Use under the influence of Carbon – The Issues and Options – A Green Paper* (Yule Alexander, February 2022).

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Expected new regulatory controls

The proposed resource management legislative reforms emphasise long-term, integrated land-use planning and environmental outcomes, while reducing reliance on consent-based decisions.

When the proposed Natural and Built Environments Act is enacted there will be a transition period during which existing RMA national direction will be transitioned to the new system. During this period, existing national direction and powers will continue to have effect.

Expected new regulatory controls that could be used to manage social, cultural, and economic effects of afforestation include:

National Planning Framework: The transition of the NES-PF to the proposed new system (the National Planning Framework, NPF) may allow a more integrated approach to managing afforestation and rural land use.

Regional Spatial Strategies: Issues of regional land use, and the best location for different activities, could be identified at a high-level in Regional Spatial Strategies to be developed under the proposed Spatial Planning Act. Plans under the proposed NBA must be consistent with Regional Spatial Strategies, and give more detailed guidance for individual activities.

Q B3 Do you agree that the social, cultural and economic effects of plantation and exotic carbon forests should be managed through the resource management system? Y/N Why?

4.2 Options to control the location of plantation and permanent exotic afforestation

Current situation

For plantation forests, afforestation is regulated by the NES-PF. In most situations it is a permitted activity subject to certain conditions. Afforestation is not a permitted activity in certain areas, such as significant natural areas (SNA) and outstanding natural features and landscapes. Councils have discretion, but no obligation, to allow afforestation in those areas. Councils may also make plan rules that are more stringent than the NES-PF to allow for protection of specified sensitive areas and to give effect to other national direction instruments.

Under the RMA, councils are also able to make plan rules to manage effects or activities outside the scope of the NES-PF. This means that:

- For plantation forests, councils can make rules to manage social, cultural and economic effects that are not managed the NES-PF.
- For exotic carbon forests, which are not managed under the NES-PF, councils can make rules to manage any effect that can be managed under the RMA. This includes the social, cultural and economic effects of exotic carbon forests, as well as their effects on the natural environment.

If the proposals in Part A of this consultation document are implemented and exotic carbon forests are brought within the scope of the NES-PF, councils' discretion to make rules for exotic carbon forests will be limited to matters that are not addressed by the amended NES-PF. They would retain the ability to make rules to manage effects that are outside its scope, including social, cultural and economic effects.

Local control or national direction

We are seeking feedback on two broad approaches that could be used to strengthen councils' ability to control the location of plantation and exotic carbon afforestation, if greater control is needed to manage social, cultural and economic effects. The two approaches are:

- Local control – rules in district or regional plans
- National direction – consent requirement

There is no preferred option. The underlying question is whether decisions on the need for, and details of, a consent process would be more appropriately made at local level, by councils, or through national direction.

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Option 1: Local control – rules in district or regional plans	Option 2: National direction – consent requirement
<p>Progressed by amending the NES-PF alongside amendments resulting from Parts A, C and D of this document, and developing a programme to support councils with implementation.</p>	<p>Progressed by amending the NES-PF (depending on scope, complexity and timing) either alongside amendments resulting from Parts A, C and D (if tightly targeted), or separately at a later date. This could require consultation or targeted engagement.</p>
<p>Amend the NES-PF to:</p> <ul style="list-style-type: none"> • make explicit that councils have the ability to make plan rules and supporting policies and objectives for matters outside the scope of the NES-PF, and • enable councils to make more stringent (or lenient) rules relating to afforestation. <p>There would be no obligation on councils to make such rules (and supporting objectives and policies). Those for whom exotic afforestation is an issue could choose to do so.</p> <p>As is the case at present, plan rules could be developed as a result of council land use planning.</p>	<p>Develop a consenting framework either under the RMA by amending the NES-PF or developing a new NES, or under the proposed new resource management legislation as part of the National Planning Framework (NPF). The consenting framework:</p> <ul style="list-style-type: none"> • could apply nationally or only to some districts • could be time-limited or not • could address a number of variables including land type, forest type, scale of afforestation.

Q B4 What is your preferred option for managing the social, cultural and economic effects of plantation and exotic carbon afforestation? Select from list: Option 1 (a local control approach); Option 2 (a consent requirement through national direction); No preference; I do not support either of these options. Why?

Option 1: Local control – rules in district or regional plans

The NES-PF would be amended to enable councils to make decisions on the location of new forests, by:

- making it more explicit that councils have the ability to make rules for afforestation in relation to effects that are not within the scope of the regulations (application - clause 5), and
- allowing councils, if they choose, to make more stringent or more lenient rules for the NES-PF activity of afforestation, for both plantation and (subject to decisions on the proposals in part A of this consultation) exotic carbon forests (stringency - clause 6).

Councils will be able to introduce new rules, policies and objectives in a district or regional plan to control the location or scale of plantation and exotic carbon afforestation, to reflect local priorities and aspirations. They may choose to differentiate between areas of land, scales of afforestation, forest types and other distinguishing factors they consider important eg, to restrict afforestation in an area it considers should not be used for carbon forestry (eg, highly productive land) due to potential adverse effects on local communities. The new rules could be more stringent than the NES-PF which might permit forestry in this area.

Pros

This approach has the advantage of recognising that not all communities and regions are significantly affected by, or concerned about, exotic afforestation, and that some may only be concerned about some types of forest, on certain types of land. It provides for a more tailored approach than Option 2 and avoids unnecessary administrative and compliance costs.

The ability to develop local plan rules would support regional spatial planning and align with the proposed new resource management system, whether that planning is carried out under the RMA or the proposed NBA. It is consistent with the resource management reform emphasis on planning rather than a consent-by-consent approach to land use change.

Local plan rules developed by councils would send clear signals to the forestry sector and landowners, and support meaningful consent decisions that reflect local circumstances and priorities.

It is likely this approach would prove effective in responding to national objectives for climate change mitigation and forestry.

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A programme of guidance and implementation support would be developed to assist councils with capacity constraints.

Cons

Local control can duplicate effort and lead to inconsistent outcomes between regions. This would undermine one purpose of the NES-PF, which was to make rules for plantation forestry consistent across the country, based on evidence of environmental effects, and would add complexity for the forestry sector and landowners.

There would be less certainty than the NES-PF currently provides about whether a particular site could be afforested. This may increase the cost and risk for foresters and dampen sector and investor interest. It would create particular problems where a forest would cross district boundaries.

There is also the risk of local plan rules discouraging exotic afforestation in areas that could be suitable, hampering the achievement of national forestry objectives. There is no evidence that this is happening, but if a significant number of councils introduce rules this may become a challenge.

It will take time for councils to develop plan rules, and the objectives and policies to implement them. We expect, however, that rules developed by councils will be more enduring and effective than Option 2 as they will be supported by relevant plans.

- Q B5** How effective would option 1 (a local control approach to managing the location of plantation and exotic carbon afforestation) be in managing the social, cultural and economic effects of plantation and exotic carbon afforestation? [select from a range/scale not effective – highly effective] Why?
- Q B6** What impact would option 1 (a local control approach to managing the location of plantation and exotic carbon afforestation) have on the rate and pattern of plantation and exotic carbon afforestation?
- Q B7** What are the benefits of option 1 (a local control approach to managing the location of plantation and exotic carbon afforestation)?
- Q B8** What are the costs or limitations of option 1 (a local control approach to managing the location of plantation and exotic carbon afforestation)?
- Q B9** If option 1 (a local control approach to managing the location of plantation and exotic carbon afforestation) is progressed, would making plan rules to manage the social, cultural and economic effects of plantation and exotic carbon afforestation by controlling its location be a priority for your community or district? Choose from a range Not a priority to high priority Why?
- Q B10** What implementation support would be needed for option 1 (a local control approach to managing the location of plantation and exotic carbon afforestation)?

Option 2: National direction – consent requirement

Councils would use a consent requirement to manage the social, cultural and economic effects of plantation and exotic carbon afforestation. The consent requirement would be developed either under the RMA by amending the NES-PF or developing a new NES, or under the proposed new resource management legislation as part of the National Planning Framework (NPF).

The consent requirement could:

- apply nationally or only to some districts
- be time-limited or not
- address a number of variables including land type, forest type, scale of afforestation.

If progressed, this would be a significant extension to the regulatory controls used by councils.

The impact of the consenting requirement would depend on the scope and detail of its design eg:

- the type of land it would apply to and how to identify and define that land

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- whether the same requirements would apply to all afforestation (eg, would there be different consent pathways for plantation, exotic carbon, and transitional afforestation)
- the scale of the afforestation it would apply to and how this should be defined (eg, by setting a threshold defined in hectares, or as a percentage of the regulated unit such as a farm run as a single operation)
- the activity status and matters of discretion, that define the social, cultural, and economic effects a council may consider
- whether to direct consents to regional or territorial authorities
- whether some activities need mandatory conditions
- whether notification should be mandatory, or should be prevented, in some situations
- whether this approach is needed only in some parts of the country, or limited in another way (an NES rule can be limited by time or place).

Example of a design for a consent requirement

The more the consent requirement is tailored to different situations, the more complex it will be to design and apply. Table 3 sets out possible approaches to design a consent requirement – these are illustrative and not exhaustive.

Table 3: Possible approaches to design a consent requirement

Issue	Possible approach	Discussion
On what types of land would plantation or exotic carbon afforestation need a consent?	Land that requires a consent could be defined in different ways, e.g.: <ul style="list-style-type: none"> ▪ Consents could be required for all afforestation, or ▪ Consents be required only on some land, e.g., highly productive land (HPL) or particular LUC classes. 	An NES can define land that would need a consent in different ways eg, by referring to the existing erosion susceptibility classification (ESC), or other tools (eg, HPL or the Land Use Capability (LUC) classification). Any method must be clear and certain. Provisions would be required for how to consider applications that span more than one type of land.
What scale of plantation or exotic carbon afforestation would need a consent?	Thresholds could relate to the area to be afforested, in absolute terms, or as a percentage of a farm or other regulated unit eg, consent required for: <ul style="list-style-type: none"> ▪ forests over 5 ha, or over 10 ha ▪ afforestation of more than 10% of the area of a farm operated as a single unit. Different thresholds could apply to different land types e.g., consent required for: <ul style="list-style-type: none"> ▪ forests larger than 50, 75 or 100 hectares on LUC 1 to 5 ▪ forests larger than 200ha on other land. 	Thresholds associated with the type of land would enable tighter control of the scale of afforestation on more versatile soils, to manage the availability of this land for future uses, and encourage afforestation in other areas. Higher thresholds would encourage small-scale afforestation while managing large-scale and 'whole farm' conversions to forestry, to encourage the most productive use of land and retain the viability of local farming.
Should a consenting framework distinguish different types of afforestation?	A consent system could distinguish between different forest types eg, when considering a new forest on a particular type of land: <ul style="list-style-type: none"> ▪ a plantation forest may be 'controlled' or subject to a higher area threshold ▪ an exotic carbon forest could be fully discretionary or subject to lower thresholds. Short rotation forests, e.g. for biofuels could be treated differently from those with long rotations.	Distinguishing between forest types would give more direction to councils, and recognise that different forest types have different effects on communities. Provisions to manage a change of intention after consent is granted may be needed, depending on the rules.

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Pros

A national direction approach has the advantage of greater consistency than local control, albeit with some variation and uncertainty in the absence of national policies and objectives to guide consent decisions. It would avoid duplicating effort across councils, since standards would be set nationally.

Depending on the scope and complexity, it could be more quickly put into operation than locally developed rules; although rules would have only limited effect without the supporting policies and objectives.

A NES can provide direction on processing a consent and what matters to consider. It can also prevent consideration of some matters, for example, within a consenting framework as illustrated above, matters of discretion could indicate that a council should consider:

- How the forest will be managed, including the level of production and how the forest will transition from exotic to indigenous species if this is proposed
- Measures to minimise the loss of productive land to exotic carbon forestry
- The effects on the community of any loss of productive land, particularly highly productive land

An NES, or rules in it, can also provide more direction in some circumstances. For example:

- Rules can vary for different parts of the country (eg, tighter thresholds in some parts of the country).
- Rules can be targeted or apply only in some situations.
- An NES can set a standard (e.g., a cumulative effect standard) which would limit the ability of councils to grant consents in some situations.

Cons

A consent based approach to managing land use change does not give councils any real ability to consider the cumulative effects of afforestation. For all except the very largest proposals, it will be difficult to identify the social, cultural and economic effects of individual applications. This approach does not align well with the aim of the resource management reforms to reduce reliance on a consent-by-consent approach to land-use change.

Depending on the design of the consent regime, uncertainty about the ability to obtain a consent may deter investors and farm foresters. This could constrain progress towards national objectives for carbon sequestration and the Industry Transformation Plan for the forestry and wood processing sector.

If the NES consenting provisions apply nationally, all councils will need to develop objectives and policies over time, and to process consents. This will add to their workload even in areas where afforestation may not be a significant issue, and for little benefit, if consents are routinely granted. It will also add compliance costs for foresters.

If option 2 (a consent requirement through national direction, to control the location of plantation and exotic carbon afforestation) is further developed:

Q B11 Are the variables outlined above (type of land, scale of afforestation, type of afforestation ie, plantation, exotic carbon, transitional) the most important ones to consider? Y/N What, if any, others should we consider?

Q B12 Which afforestation proposals should require consent? (Please consider factors such as the type of land, the scale of afforestation, the type of afforestation (plantation, exotic carbon, transitional) and other factors you consider important).

Based on your answers above:

Q B13 How effective would option 2 (a consent requirement through national direction to control the location of plantation and exotic carbon afforestation) be in managing the social, cultural and economic effects of plantation and exotic carbon afforestation? [select from a range/scale not effective – highly effective] Why?

Q B14 What impact would option 2 (a consent requirement through national direction to control the location of plantation and exotic carbon afforestation) have on the rate and pattern of plantation and exotic carbon afforestation? Please explain or provide evidence.

Q B15 What are the benefits of option 2 (a consent requirement through national direction to control the location of plantation and exotic carbon afforestation)?

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- Q B16** What are the costs and limitations of option 2 (a consent requirement through national direction to control the location of plantation and exotic carbon afforestation)?
- Q B17** What are the most important and urgent social, cultural and economic effects of plantation and exotic carbon afforestation that you would like to see managed under the resource management system? Where and at what scale do these effects need to be managed?
- Q B18** Should this be done now under the RMA, or later under the proposed National Planning Framework and NBA plans?
- Q B19** Would standards in an amended NES-PF need the support of national policies and objectives? Y/N Why?
- Q B20** What implementation support would be needed for option 2 (a consent requirement through national direction to control the location of plantation and exotic carbon afforestation)?

PART C: IMPROVING WILDFIRE RISK MANAGEMENT IN ALL FORESTS

5 PART C: IMPROVING WILDFIRE RISK MANAGEMENT IN ALL FORESTS

5.1 Opportunity statement

In Aotearoa New Zealand, there is no uniform regulatory or cross-agency approach to fire management, in the context of land use or natural hazard planning.

There is an opportunity for the NES-PF to have a role in enabling and improving wildfire risk management in all forests within scope of the NES-PF. The focus of this proposal is to reduce the environmental effects that a wildfire in a forest might pose.

This would be a standardised national approach, implemented by each forest owner or manager according to their site and circumstances. The national approach should raise wildfire awareness of all landowners with forests or woodlots and include planning where forests go, how they are established, and ongoing management.

5.2 Context

Why is wildfire an issue for forests?

Forests, while part of the solution to climate change, provide a great fuel source for wildfires. Through climate change, wildfire as a natural hazard is likely to increase across New Zealand based on predicted increases in very high and extreme fire weather danger days. Since 2000, the number of wildfires across all land uses has climbed steadily to a peak in the 2019/20 season.⁴⁶ All forests are at risk– this includes indigenous forests, plantation forests for harvest, permanent exotic forests planted for carbon, and wilding conifer forests.

The likelihood of a fire igniting, and the way the wildfire behaves is influenced by the fire environment – a combination of fuel, weather and topography. The fire environment determines the wildfire’s intensity, how quickly it will spread and the direction of travel. Generally, severe wildfires occur under conditions of low rainfall, high temperatures, low humidity, and strong gusty winds, or a combination of these. Drier conditions leading to increasing fire danger are likely to coincide with drought conditions with the lack of reliable water supplies to support suppression options further adding to the overall risk.

Fires in plantation forests are generally caused by arson, escaped burns, forestry operations, spontaneous combustion, and activities on neighbouring land. In the last five years, the main risk to plantation forests has been wildfires starting on land outside the forests and spreading into them.

How the wildfire risk is considered during establishment and management of a plantation forest will largely determine the options and ability to manage wildfire incidents in the forest.

What are the costs of wildfires?

Environmental effects	Economic and social cost	Government’s environmental outcomes not met
<ul style="list-style-type: none"> • smoke carries particulates that affect air quality and can lead to health issues • release of carbon dioxide contributes further to climate change • some soils affected by wildfire develop water repellence (hydrophobia), reducing moisture retention capacity and breaking down soil structure • the removal of large areas of vegetation can affect soil stability 	<ul style="list-style-type: none"> • loss of the timber crop • loss of carbon credits • damage to forest infrastructure • damage to regional or national infrastructure • rehabilitation and re-establishment costs • loss of employment • loss of cultural values, including hunting and recreation • costs to control wildings 	<ul style="list-style-type: none"> • reducing greenhouse gases, and meeting the target of zero carbon emissions by 2050 • National Environmental Standards for Air Quality (NES-AQ) • better water quality and less sedimentation of fresh and coastal waters.

⁴⁶ Wildfires cover all vegetation fires, including forest fires.

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<ul style="list-style-type: none"> heavy rainfall following wildfires can cause sediment to enter waterways loss of vegetation means a loss of habitat and biodiversity, and cultural and recreational values post-fire wilding irruption from soil seed sources. 	<ul style="list-style-type: none"> disruption to other networks, power, road, air if close to where the fire is occurring. 	
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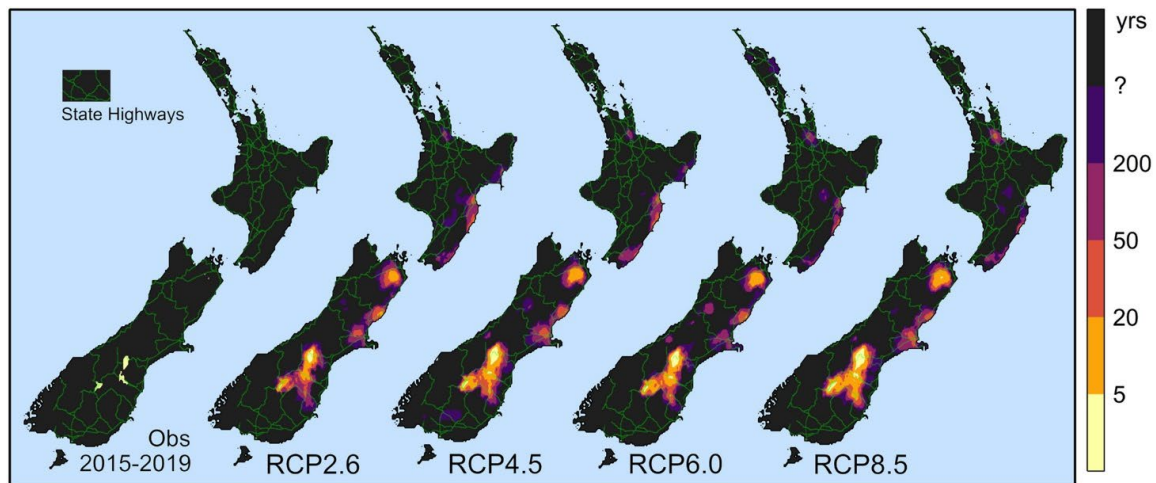
Climate change will increase risk

SCION predicts the wildfire risk will increase with climate change,⁴⁷ with most areas of the country likely to see an increasing number of very high or extreme fire weather danger days per annum. This increase and the expected rates of afforestation will alter the fire environment at a landscape level, in all regions.

A warmer climate could also increase invasive weed species, pests and diseases that affect the health of plantation forests. These could all lead to an increase in dead or stressed trees, adding to the fuel loading and intensity of a wildfire.

The months of October through to April are traditionally 'wildfire season' in New Zealand. With climate change, the season may start earlier and finish later. The 2020-2021 season ran from the end of August to the end of April – nearly eight months. For example, the Pukaki wildfire occurred in August. This threat extends to pasture, crops and vegetation, which can dry out rapidly, and fuel a fast-moving fire.

Figure 4. Return period of very-extreme wildfire weather conditions in the 21st-century⁴⁸.



How is wildfire managed?

For plantation forestry, the 4Rs of fire management are:

- **Risk reduction** – Identify and evaluate the risk of fires, and then reduce the opportunity for them to start or spread. Before establishing a forest, a risk assessment would consider: the species being planted; the weather; topography; values at risk within and neighbouring the forest; suppression and containment options; access to water for firefighting, mitigation measures which can be built into the development and management of the forest.
- **Readiness** – Monitor the fire danger, have and maintain equipment and supplies (eg, water sources, firefighting equipment), access ways and fire breaks, and regularly inspect at-risk areas.

⁴⁷ <https://www.scionresearch.com/about-us/about-scion/corporate-publications/scion-connections/past-issues-list/scion-connections-issue-31,-march-2019>

⁴⁸ Figure 4 was developed by fitting the Australian 2019/2020 style 'Black Summer' FWI mean values. Melia, N., Dean, S., Pearce, H. G., Harrington, L., Frame, D. J., & Strand, T. (2022). *Aotearoa New Zealand's 21st-century wildfire climate*. Earth's Future, <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2022EF002853>.

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- **Response** – Support Fire and Emergency NZ (FENZ) to take fast, safe and thorough action to minimise the impact of wildfire on forest land and the wider environment.
- **Recovery** – Recover, repair or replace damaged firefighting and forest assets, and incorporate lessons learned into planning for any future event. Rehabilitate sites disturbed by the fire and by fire control to minimise the environmental impact. Collaborate with appropriate landowners/authorities/organisations for ongoing recovery.

The 4Rs need to be considered from the perspective of both an individual property and the broader community. In emergencies rural communities rely on local knowledge and social connections, so planning should recognise and provide for community needs and involvement.

FENZ

FENZ was established in 2017, with the statutory responsibility to promote fire safety, including providing guidance on the safe use of fire as a land management tool. FENZ also provides fire prevention, response and suppression services. FENZ has service agreements with many of the larger forestry enterprises. The agreements with forest management organisations (FMOs) formalise working relationships, and provide clarity about availability, training and authorisation of the FMO resources (personnel and fire equipment) that may be available to respond to wildfires.

New Zealand has 14,000 smaller plantations on farms and small properties. As there is no mechanism to know where these are and when they are being established, FENZ cannot easily engage with all these owners. Engagement is usually through local councils and farming/forestry groups, or national wildfire awareness campaigns. FENZ would like to have better information about where forests are, and what plans are in place to address the wildfire risk. This will greatly assist in supporting a range of activities to help manage the risk.

The Plantation Forestry Rural Fire Control Charter, signed in 2017 and again in 2021 between FENZ, NZFOA, NZFFA and Te Uru Rākau – New Zealand Forest Service, commits all signatories to reducing the incidence and consequence of wildfires through risk planning and reduction. The signatories will work together to:

- develop and promote objectives and actions to improve wildfire management for New Zealand, and
- communicate these objectives to their members and personnel, the wider public, and specifically the communities they impact.

In 2018, the NZFOA produced the *Forest Fire Risk Management Guidelines*.⁴⁹ This includes the *Forest Operations Fire Risk Management Codes*, which suggest limits on forestry activities as fire risk increases.

The Department of Conservation (DOC) manages the largest proportion of New Zealand's forests, and the New Zealand Defence Force (NZDF) has large amounts of vegetation on the lands it manages. Although neither agency generally manages plantation forests, both have a number of wilding conifer forests on their lands. Both have traditionally made up a very significant part of the rural wildfire response, and maintain wildfire response plans and service level agreements with FENZ.

Councils NZFOA

Wildfire is a natural hazard, and councils can manage the risk as a matter of national importance under section 6(h) of the RMA. Councils across the country have widely differing approaches. Some require boundary setbacks between dwelling and forest plantings, while others do not recognise wildfire as a natural hazard.

Although boundary setbacks are helpful, they are not enough to minimise all environmental impacts from a wildfire in a forest. For example, setbacks from neighbouring properties will not help limit a wildfire spreading through a plantation forest.

⁴⁹ <https://nzfoa.org.nz/resources/file-libraries-resources/standards-and-guidelines/670-forest-fire-risk-management-guidelines/file>

PART C: IMPROVING WILDFIRE RISK MANAGEMENT IN ALL FORESTS

Large plantation forestry enterprises

The value of forest assets is such that fire protection has always formed an integral part of forest management. Most medium to large enterprise forest managers see fire protection as an essential part of their responsibilities. For example, having comprehensive risk reduction and readiness plans, training programmes for staff fire crews, fire appliances and equipment.

Smaller forest owners

The level of planning for or managing wildfire, varies depending on the forest owners' background. Good support is available from the New Zealand Farm Forestry Association or Federated Farmers. Most small forest owners are unlikely to have the response infrastructure or fire-fighting crews that larger enterprises can mobilise.

Farm woodlots

Landowners growing small woodlots on farms or lifestyle blocks may have little or no awareness of the wildfire risk. They are also unlikely to have arrangements in place to help mitigate that risk.

What is the regulatory approach to fire?

There is no uniform regulatory or cross-agency approach to fire management, in the context of land use or natural hazard planning.

5.3 Proposal to improve wildfire management

Proposal: Require all forests over 1 hectare to have a wildfire risk management plan

All forests covered by the NES-PF (ie, forests larger than one hectare) will be required to prepare a wildfire risk management plan (WRMP) and attest to its completeness as part of their NES-PF notification or consent process.

This proposal aims to ensure those planting forests consider the wildfire risk, put in place mitigation measures and share information to reduce the impacts on the environment.

The WRMP would address a range of information, such as:

- wildfire environment (vegetation, topography, adjacent land use, and weather) when determining how the plantation forest will be established and managed, with a view to limiting the spread of a wildfire and minimising the area damaged.
- strategies to manage a wildfire, and what tools/features would assist these (eg, proximity to water supplies, access tracks, forestry signage, sharing of geospatial information with emergency services and helicopter landing sites).
- values at risk, and measures to minimise the impacts eg, how to reduce the wider impacts of a wildfire to or from neighbouring properties.
- how to detect a wildfire that starts within or adjacent to the plantation forest.
- how to manage diseases, weed and pest species, to reduce fire risk.⁵⁰ The plan should only need to address matters under the forester's control, for example, how pests and weeds directly affect fire risk, and placing conditions on permitted hunters' behaviour, such as not allowing access without permission.
- after a wildfire, the actions that would minimise the impacts on the environment eg, placing barriers on hill slopes, to slow water flow and prevent sediment from entering streams.

⁵⁰ Forest disease can create higher fuel loads from dead or damaged wood and some weed species (e.g. gorse) are highly flammable; pest species such as deer and pigs attract hunters which increases the potential for people in the forest, with attendant risk of accidental ignition.

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What would this mean for different sizes of forests?

We are proposing that the requirements for a WRMP could vary according to the size of forest. For example:

- A simple version for smaller blocks (eg, 1-10 hectares). The focus would be on raising awareness, encouraging self-identification of risks, understanding where external advice might be required, and encouraging conversations between neighbours.
- A more comprehensive plan for bigger areas (eg, 10-40 ha). The focus would be similar to that for the smaller blocks, but with more focus on actively minimising risk and being prepared for the fire season, as the consequences of loss to the forest and the surrounding area rise.
- Forests over 40 ha would require a more comprehensive plan that includes fire risk reduction, readiness, and initial response actions. Most large forest companies already have these as part of their forest management plans, including through Operational Service Agreements with FENZ.

What are the regulatory requirements for a plan?

We are proposing that a plan must be prepared, with matters to address set out in a schedule of the NES-PF. FENZ and Te Uru Rākau – New Zealand Forest Service would work with NZFOA, NZFFA and other interested parties to develop templates and guidance material for forests.

The intent of requiring a plan is to ensure wildfire is considered in both planning and managing the forest over its life cycle, proportional to the size of the risks. The landowner or manager should consider engaging with other agencies or individuals that may have a part in the plan, including neighbours. A key aspect of the planning is identifying vulnerabilities, resources, access routes and contacts in the area.

Where afforestation is a permitted activity, the person notifying the activity would need to attest that a WRMP has been prepared and is held by the notifier where it can be referred to in the event of a fire. We are not proposing that councils are responsible for the plan, as FENZ has the statutory responsibility for fire management, and few councils have the knowledge or systems to use the plans meaningfully. However, where a WRMP is a requirement of a permitted activity, the council would be able to request a copy of the plan to verify that conditions have been met. Where afforestation requires a resource consent, the council would be able to request a copy of the plan as a matter of discretion if there is a demonstrated benefit to them holding it. We note that resource consents are public documents, so the plan would be available in the public domain.

Where a forest already has a fire plan which covers the required matters there would be no requirement to develop a new plan.

Could farmers include fire management in their farm plans?

Under this proposal, farmers planting forests would need to comply with the requirements in the NES-PF as part of their notification or resource consent. Te Uru Rākau - New Zealand Forest Service and FENZ could work with the integrated farm plan team at MPI to develop a WRMP module that is consistent with farm plan templates.

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How would WRMPs work as a component of a wider forest management plan?

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In Part A of this discussion document, option 3 would require forest management plans for all exotic carbon forests. Managing wildfire would be an important component of such a plan, using similar criteria. Some aspects of managing a carbon forest over the long term may differ from those for a plantation forest for harvest (eg, managing fuel loads as these will not be significantly reduced though harvest). If forest management plans were introduced, we would develop wildfire management content to align with the templates for those plans.

Q C1 Do you agree that wildfire risk management plans (WRMPs) should be included in the NES-PF?
Y/N Why?

PART C: IMPROVING WILDFIRE RISK MANAGEMENT IN ALL FORESTS

- Q C2** Do you agree that the role of councils in monitoring the WRMP should be limited to ensuring that a plan has been developed? Y/N If not, what should the role of councils be?
- Q C3** Do you agree that a five-year review requirement is appropriate for WRMPs? Y/N Why?
- Q C4** Do you agree that a module for a WRMP that is consistent with farm plan templates could be used for farmers with forests to plan for managing wildfire risk? Y/N If no, please provide reasons.
- Q C5** What implementation support would be needed for this proposal?

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6 PART D: ENABLING FORESTERS AND COUNCILS TO BETTER MANAGE THE ENVIRONMENTAL EFFECTS OF FORESTRY

6.1 Opportunity statement

Te Uru Rākau – New Zealand Forest Service and the Ministry for the Environment carried out a review (the review) of the NES-PF in 2019-20, focusing on specific areas set out in the Terms of Reference.⁵¹ A report on the findings was provided to Ministers and is on the Te Uru Rākau – New Zealand Forest Service website⁵².

The review found that, overall, the NES-PF is an effective framework for maintaining or improving the environmental outcomes associated with plantation forestry activities. However, changes in some areas could improve outcomes.

We are consulting on amendments to address some of the key findings in the review, as well as operational amendments identified since the regulations came into force in 2018. These are:

- wilding conifer risk management
- slash management
- initial alignment with NES–Freshwater; and
- operational amendments.

We are also inviting feedback on the support that local authorities need to implement the NES-PF.

It is our expectation that the outcomes of this consultation would apply to all forests covered by the NES-PF and/or a new national direction.

6.2 Wilding conifer risk management

6.2.1 Context

The term 'wilding conifer' refers to a range of exotic conifer tree species that have self-established away from their planted parent tree. An exotic conifer that has been intentionally planted is not a wilding conifer, and not all exotic conifers carry the same risk of spread.

All planted trees carry a risk of spreading into areas where they are not wanted. The risk depends on how far the seed can disperse, and the potential of that seed to establish. The impact of this spread is directly associated with the potential to disrupt the use or conservation values of the land they spread to.

Historical use and experimentation with different exotic tree species have contributed significantly to New Zealand's wilding problem to date. Wilding conifer spread is often a legacy of erosion control planting by central and local government, but new forests and farm shelter belts can also spread. These legacy wilding conifers cover around 1.7 million hectares, with over 70 per cent estimated to be in the South Island.⁵³ If wildings are left uncontrolled, the cost to New Zealand in lost production is estimated at \$4.6 billion over the next 50 years.⁵⁴ As part of Budget 2020, the Government committed \$100 million over four years to tackle wilding conifers,⁵⁵ an extensive expansion of the National Wilding Conifer Control Programme (NWCCP).

⁵¹ For the terms of reference, see <https://www.mpi.govt.nz/dmsdocument/32878-Terms-of-Reference-for-Year-One-Review-of-NES-PF>

⁵² <https://www.mpi.govt.nz/dmsdocument/44914-Report-on-the-Year-One-Review-of-the-National-Environmental-Standards-for-Plantation-Forestry>

⁵³ The right tree in the right place: New Zealand Wilding Conifer Management Strategy 2015-2030.

<https://www.wildingconifers.org.nz/assets/Uploads/2014-new-zealand-wilding-conifer-management-strategy-3.pdf>

⁵⁴ Benefits and Costs of the Wilding Pine Management Programme Phase 2 – December 2018.

<https://www.wildingconifers.org.nz/assets/Uploads/Benefits-and-Costs-of-the-Wilding-Pine-Management-Programme-Phase-2.pdf>

⁵⁵ <https://www.beehive.govt.nz/release/budget-2020-jobs-and-opportunities-primary-sector>

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Exotic conifer species, in particular radiata pine (*Pinus radiata*) and Douglas fir (*Pseudotsuga menziesii*) have high commercial value to New Zealand as plantation forestry species. *P. radiata* in most cases is considered a low spread-risk species, and accounts for around 90 per cent of the plantation forestry estate by area. Douglas fir accounts for 6 per cent but, under certain conditions, carries a much higher wilding risk.⁵⁶

The evidence suggests that planting behaviour has been changing over time. This is most noticeable in the reduced use of higher risk species, particularly Douglas fir (see box). Douglas fir is an otherwise valuable timber source for the plantation forestry sector, but we appear to be seeing increased caution about wilding risk. Further improvements to the calculator should continue to drive these behavioural shifts where required.

Fewer high-risk species are being planted

The planting of Douglas fir, considered a higher risk wilding species in some parts of the country, has significantly reduced since 2012. MPI data shows that Douglas fir seedling sales have reduced by three-quarters since 2012– see graph below.⁵⁷ This is reflected in the total area of Douglas fir plantings also halving over the last five years, compared to previous five-year periods.⁵⁸

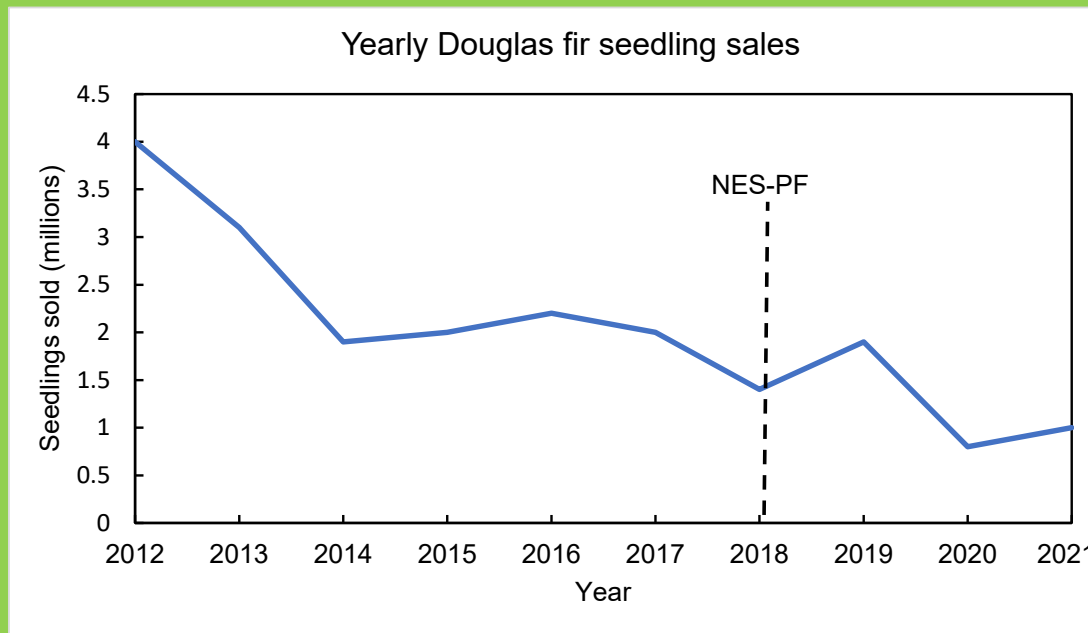


Figure 5: Yearly Douglas fir seedling sales between 2012 and 2021 sourced from MPI's 2021 Nursery Survey. Marked on the graph is the year the NES-PF came into force in 2018. * denotes provisional data for 2021.

The requirement for a resource consent when the calculator threshold of 11 is exceeded may have shifted foresters towards planting lower risk species. Anecdotal information from foresters supports this, but data from the National Monitoring System⁵⁹ records no resource consent applications.

⁵⁶ 'Mitigating worries with wildings', Ledgard 2006, *New Zealand Journal of Forestry*.

⁵⁷ Between 2011 and 2017, an average of 2.9 million Douglas fir seedlings sold per year. This reduced to 1,000,000 (provisional) in 2021. MPI 2021 Nursery Survey: <https://www.mpi.govt.nz/dmsdocument/44971-Provisional-estimates-of-tree-stock-sales-and-forest-planting-in-2021>

⁵⁸ Table 12 and figure 16 of the 2021 National Exotic Forest Description: <https://www.mpi.govt.nz/dmsdocument/43540-2021-NEFD-report>

⁵⁹ The Ministry for the Environment manages the National Monitoring System that collects information from local authorities on their implementation of the RMA, and is current until the end of March 2020. This includes information on all resource consents issued: <https://environment.govt.nz/what-government-is-doing/areas-of-work/rma/national-monitoring-system/>

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It appears replanting behaviour has also shifted. Planting intention surveys show that across almost all regions, foresters are not intending to replant their forests with Douglas fir.⁶⁰

The NES-PF manages wilding risk of new afforestation

The wilding conifer risk for new plantation forests at afforestation is regulated through the NES-PF. The NES-PF does not regulate the management of legacy wilding conifers, and has limited application to wilding conifer control on property under different ownership. The NES-PF recognises that wilding risk varies according to the site and species used, and seeks to manage these risks. It assesses risk through the Wilding Tree Risk Calculator, and it is this assessment that underpins the regulatory controls. If a consent is required, councils have the power to refuse consent or place a wide range of conditions on an afforestation consent.

The review found that preventing wilding spread from plantation forests is complex and requires a systemic approach to be effective. This system extends beyond the RMA, to the Biosecurity Act and the individual approaches of councils and landowners to fulfilling their biosecurity responsibilities to manage trees that have spread. Where wilding risk is low or can be managed effectively, the regulations are appropriate. When wilding risk is higher, or uncertain, changes could improve management and better represent the policy intent.⁶¹ The changes fall into three areas:

- Wilding Tree Risk Calculator.
- applying the calculator; and
- current policy settings.

Wilding Tree Risk Calculator and its application

The Wilding Tree Risk Calculator was developed as a decision support tool to guide better afforestation decisions. The calculator draws on extensive research,⁶² and was last updated in June 2012. It is incorporated by reference in the NES-PF, and its output underpins the regulations and policy.

The Wilding Conifer Technical Advisory Group (TAG)⁶³ has provided Te Uru Rākau – New Zealand Forest Service with scientific and technical advice to update the calculator and address the issues identified in the review. Their advice reflects areas where research has progressed on wilding tree spread and risk assessment. A summary and the full report of the TAG's recommendations is in Appendix E.

Te Uru Rākau – New Zealand Forest Service and Biosecurity New Zealand will work with the TAG to progress these recommendations. Where there is enough information and evidence, these changes will be incorporated into an update of the calculator, to reflect current scientific knowledge and better reflect the risk posed.

The current guidance will be updated. Te Uru Rākau - New Zealand Forest Service will develop a training programme for council consenting staff, and a worksheet template for use by a suitably competent person.⁶⁴

Policy settings

An up-to-date calculator that is applied appropriately can give an accurate assessment of known risk at a point in time. However, as the forest grows, this level of risk may not remain static, either because

⁶⁰ Wood Availability Forecast – New Zealand 2021 to 2060. Chapter 3.3.2: <https://www.mpi.govt.nz/dmsdocument/47671-Wood-Availability-Forecast-New-Zealand-2021-to-2060>

⁶¹ Chapter 4.5.3 Policy Settings in the Year One Review.

⁶² The calculator was developed by Scion (NZ Forest Research Institute Ltd, a Crown Research Institute) using research by Scion and other organisations. The calculator and its guidelines are intended to be updated periodically on the basis of new research.

⁶³ TAG Members: Fiona Thomson (Department of Conservation), Philip Grove (Environment Canterbury), Peter Weir (Ermslaw One), Duane Peltzer, Norm Mason (Manaaki Whenua - Landcare Research), Brian Richardson (Scion/Forest Owners Association), Thomas Paul (Scion), and Rowan Sprague (Wilding Pine Network). Other Contributors: Sarah Wyse (Canterbury University), and Phillip Hulme (Lincoln University).

⁶⁴ As defined in Regulation 11 (2) of the NESPF.

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conditions change (eg, adjacent land use), or because our understanding of risk improves. This means policy settings need to allow for changing circumstances.

Difficulties in addressing changing circumstances

Changes in the use of surrounding land is a significant contributor to changes in the associated wilding risk of a plantation forest, or indeed of a shelter belt of exotic species. Such changes are unpredictable and are not within the control of a plantation forest owner. In New Zealand, land use changes are relatively common. When there is a decrease in grazing pressure, or fire, there is a higher risk of seed from adjacent plantation forests establishing.

Climate change will also affect wilding risk. Changing climatic conditions will alter the favourable growing conditions for exotic conifers in many regions.⁶⁵ Climate change will also affect other land uses, increasing the likelihood that surrounding land uses will change over time for plantation forests in many regions.

When trees do spread, forest owners have no legal right to access neighbouring properties to control wilding spread. They can seek agreements from neighbouring landowners for access. Such arrangements are fairly common, but are liable to change over time. Regional councils can also develop and enforce controls under the Biosecurity Act, but these share the cost of control across all affected landowners and cannot target the source.

Managing wilding conifers under the Biosecurity Act

Under the Biosecurity Act, regional councils have some ability to manage wilding conifers. When regional councils identify them as a pest in a regional pest management plan (RPMP), the RPMP sets out priorities and goals for managing them. Regional councils can use both regulatory and non-regulatory mechanisms to do this.

RPMPs can be used to manage wilding conifers in several ways. First, the species must be specified as a pest, either outright or under described circumstances, eg, when in a wilding state. RPMPs can then:

- Prohibit the propagation or any new establishment of those species when declared outright as a pest species.
- Establish a programme with rules to manage the pests. Regional councils use the following rules:
 - requiring property owners to maintain control of wilding conifers when previous control has been undertaken on that land
 - good neighbour rules: to manage wildings spilling across boundaries (eg, properties) where wildings are managed on the adjoining property, and
 - pest agent rules: to manage conifer individuals or populations that interfere with the management of wilding conifers.

Although RPMPs are not mandatory, all regional councils currently have one. The degree to which wilding conifers are addressed varies across the 16 RPMPs.

6.2.2 Proposals to manage wilding conifer risk

Managing wilding risk from plantation forests is a complex interaction between the science, the policy and the current legislative landscape. The issues from the review reflect this. To reach an effective balance in wilding risk assessment and management, the most appropriate adjustments will be achieved with a combination of actions based around the issues identified. We considered a range of options for managing these issues and developed two that we consider will address the key issues identified in the review.

Our preferred approach is to adopt both of the proposals outlined below.

Proposal 1: Update the Wilding Tree Risk Calculator and guidance, and require the submission of a standardised worksheet assessment to councils at least six months prior to planting

- update the calculator, guidance and template worksheets.

⁶⁵ 'Future climates are predicted to alter the potential distributions of non-native conifer species in New Zealand,' Etherington, Peltzer and Wyse 2022, *New Zealand Journal of Ecology*.

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- require worksheets with supporting information and score to be provided to councils 6 to 8 months prior to afforestation.

The calculator assessment provides the evidence of wilding risk for an afforestation proposal. It provides a point in time assessment, based on the species being planted and how likely seed will spread and establish in the surrounding land. The consistency and quality of the assessment depends on the research it is based on. To address this the TAG recommended that calculator score sheets follow a standard format which provides instructions at each step. Under this proposal the working calculations for the score will need to be submitted to councils alongside the score.

Regulation 10(2) requires that a wilding conifer score be provided to councils along with notice at least 20 and no more than 60 working days before afforestation begins. The Year One Review found that a minimum notification period of 20 working days for wilding conifer scores was too short. It didn't allow councils and foresters enough time to address any potential discrepancies before foresters have committed resources, such as ordering seedlings. This proposal extends the minimum notification period to six months and no later than eight months before afforestation begins.

Te Uru Rākau – New Zealand Forest Service will lead the update of the calculator with expert input. Giving effect to the changes will require the following amendments to the regulations:

- small wording changes to reflect any changes to threshold numbers.
- requiring submission of an assessment based on a worksheet template.
- addition of a worksheet template either within the calculator guidance (which is already incorporated by reference) or as a new schedule.
- changes to the notification times.
- provision for any species no longer covered by the calculator.

Q D1 Do you agree with Proposal 1 for managing wilding risk (update the Wilding Tree Risk Calculator and guidance, and require the submission of a standardised worksheet assessment to councils at least six months prior to planting)? Y/N If not, please explain why.

Q D2 Do you agree that extending the notification period for wilding conifer scores to no sooner than six months and no later than eight months before afforestation begins is an appropriate length of time? Y/N If not, what timeframe would you suggest and why?

Proposal 2: Require all forests to assess wilding tree risk at replanting

- at replanting, all forests are reassessed for wilding risk and all other afforestation requirements.

Under this proposal, the replant regulations will be amended to ensure changes in wilding risk over time are managed through a reassessment before replanting. At present no reassessment is required because when the rules were developed, foresters were held to have existing use rights as long as the activity was of the same scale and intensity. This means all forests at replanting will be assessed and controlled under the same rules as at afforestation.

Regulation 79(6) sets out replanting requirements for eradicating wildings established in SNAs and wetlands. We are proposing minor amendments to ensure this regulation includes the same property limits set out in regulation 11(5). This will remove any implication that the regulation is requiring landowners to enter another landowner's property and carry out wilding eradication. This will not prevent people from making private arrangements to eradicate wilding conifers if this is agreeable to both parties.

Q D3 Do you agree with Proposal 2 for managing wilding risk (require all forests to assess wilding tree risk at replanting)? Y/N If not, please explain why.

Q D4 Do you agree that changes to regulation 79(6) will clarify the intent and avoid confusion over property access rights? Y/N Why?

PART D: ENABLING FORESTERS AND COUNCILS TO BETTER MANAGE THE ENVIRONMENTAL EFFECTS OF FORESTRY**6.3 Slash management****6.3.1 Context**

The NES-PF defines 'slash' as "any tree waste left behind after forestry activities". It is also known as 'woody debris' or 'harvest residues'. Slash is generated during mechanical land preparation, pruning and thinning, road building, and harvest. The bulk of material is generated at harvest. It ranges from small branches and bark to larger ends of trees for which there is no ready market at the time of harvest.

A large amount of forestry slash is removed from forests in some regions, and has a range of uses, such as process heating, and pulp and paper production. Slash is a valuable biomass that could be better used. Harvest residues account for an estimated 15 per cent of the harvested volume from a stand. The amount of residue produced by a particular site depends on factors such as location, terrain, and felling techniques. Harvest residues left on site are greater in regions without markets for short or small-diameter logs and biomass, or in difficult terrain where getting slash to the landing is challenging.

The Government has committed to carrying out research to increase the proportion of harvest residues that can be removed and used as biomass. Action 14.4.2 in the Emissions Reduction Plan is to undertake research to support cost-effective recovery of harvest residues, to supply biomass.⁶⁶ This will be taken forward through the Forestry and Wood Processing Industry Transformation Plan, which was released for public consultation in August 2022.

A certain amount of slash left on site is important for recycling nutrients within the forest. Letting slash decompose naturally on site can reduce the need for fertilisers and other methods to improve productivity. If slash is removed entirely from poorer productivity sites, there could be fewer nutrients for the next generation of trees. This is a growing concern as biomass markets accelerate and build demand for slash.

Where slash is left on site, perhaps because the cost of collecting and removing slash is uneconomic, foresters must ensure it is safely placed and managed, so it does not impose a risk to neighbours and downstream communities.

NES-PF requirements for slash left on site

Safe management of slash is the focus of the slash regulations, which set out requirements for managing slash on the cutover and landings. This is to ensure that it is stable and cannot move during high rainfall weather events, particularly into waterways, where it can block fish passage or cause downstream damage to the waterway, land or infrastructure.

Slash management is not a stand-alone activity. It is an integral part of earthworks and harvesting, and must be planned accordingly. Harvest management plans apply a site-specific, risk-based approach to managing the environmental risks of forest harvest. Because every forestry site is different, on-site judgement plays a significant role in planning. This includes the location of landings, the way trees are felled and extracted, the amount of material brought from the cutover to the landing, the way it is stored or removed, and the ongoing risk-monitoring of slash left on site.

Does the NES-PF appropriately provide for environmental risk from slash?

The Year One Review⁶⁷ considered whether the NES-PF appropriately provides for the environmental risks associated with slash to be avoided, remedied or mitigated. It found the NES-PF slash management requirements are generally appropriate in directing operators to assess, plan for and manage these risks. However, a number of amendments could improve clarity and more clearly direct effort to the most important areas of risk.

Slash management regulations are set out in regulation 69 and in Schedule 3(5). Regulation 69 has clarity issues that are minor, but some of these have caused disputes in the field. It is also missing specific direction on one risk area – slash on the cutover.

⁶⁶ <https://environment.govt.nz/assets/publications/Aotearoa-New-Zealands-first-emissions-reduction-plan.pdf> p 287.

⁶⁷ See section 5.3 for more analysis of slash risks and slash risk management: <https://www.mpi.govt.nz/dmsdocument/44914-Report-on-the-Year-One-Review-of-the-National-Environmental-Standards-for-Plantation-Forestry>

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6.3.2 Proposals to manage slash

Table 4 sets out our proposed amendments to the regulations, to improve clarity and direction for foresters and council compliance staff.

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Table 4: Proposed amendments to NES-PF regulations on slash management

Issue		NES-PF regulation	Findings	Intent/Proposed amendment
D1a	Regulation 66 does not mention slash management.	Regulation 66 sets out the requirement to produce a harvest plan, but does not specifically refer to slash management, though this is required through schedule 3(5).	Including reference to slash management provisions in regulation 66 would emphasise the importance of slash management requirements in the harvest plan and reduce potential for misunderstanding. This will not change regulatory or operational requirements.	Ensure the requirement to include slash management in harvest plans is evident in the main body of the regulations, not just the schedules. This could be added to 66(2)a).
D1b	The term 'stable ground' is ambiguous in the context of regulation 69(1).	Regulation 69(1) says slash from harvesting must be placed on stable ground.	This provision was intended to require that slash generated during log processing at a landing (also known as a skid site) is placed on stable ground, to ensure it does not cause or contribute to slope failure. As currently drafted, this provision could apply to any slash anywhere in the forest. This exposes harvesters to legal risk if they leave any slash of any size on 'unstable' ground in any ESC zone. The term 'stable' is ambiguous in this context, and the science on slope stability shows that under the 'right' circumstances any ground can fail. Clarifying this wording will remove an untenable regulatory situation.	Amend regulation 69(1) to clarify that it applies to log-processing slash that has been produced at or on a landing site. This would include slash stored on benches below the landing - these need to be engineered for stability.
D1c	Regulation 69(2) is limited to slash on the edge of landing sites.	Regulation 69(2) Slash from harvesting that is on the edge of landing sites must be managed to avoid the collapse of slash piles.	It is not clear whether 'edge' refers to slash on the landing, or slash below the landing. All slash should be managed to avoid the collapse of slash piles, so this seems to make a distinction that may be misleading. Wording should be unambiguous, to ensure that operators and compliance officers understand where action is required to manage risk. Piling slash in areas outside the landing site is neither common practice nor safe without engineering works to secure the ground under it.	Amend regulation 69(2) to clarify that it applies to all slash piles on or around landings.
D1d	Schedule 3(5)(c) is ambiguous because it refers to clause 3(3).	Schedule 3(5)(c) [The harvest plan must include] the management practices that will be used to avoid, remedy, or mitigate risks due to forest harvesting on features identified under clause 3(3) and mapped , including the slash management and procedures for—[matters i-iv]	Schedule 3(5) sets out requirements for harvest plans, including managing slash. 5(c) is drafted in such a way that it mixes requirements for protecting identified sites (such as SNAs) mapped under 3(3) (which may be subject to a number of risks), with management of slash in general. A narrow interpretation of this provision may be to the detriment of broader slash management requirements. Safe slash management is sufficiently important that there should be no doubt that it must be managed for all risks identified in the regulations, not only for features that must be protected during the harvesting operation.	Amend Schedule 3(5) to clarify that management of slash for the whole site is required in the management plan, including as required to protect features identified in 3(3).

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Issue	NES-PF regulation	Findings	Intent/Proposed amendment	
D1e	Regulation 69 does not set a management standard for slash on the cutover, to address risks of it causing slope failure or mobilising.	Schedule 3(5)(c)(iv) requires measures to ensure that slash is not mobilised in heavy rain (5% AEP or greater) and contingency measures for such movement. This would include slash on the cutover but it does not specifically mention it. Regulation 69 does not set a requirement for this, so it may not be clear that this must be considered.	Slash is often safely left on the cutover, where it remains while a new crop grows around it. It is an important source of nutrients for the new crop. However, on steep slopes and those susceptible to mid-slope failure in the post-harvest period the weight of large amounts of slash may contribute to slope failure and/or mobilisation into waterways. ⁶⁸ This will not apply to all slash on the cutover, but only to that which would be mobilised in heavy rain.	Amend regulations 66 and 69 to clarify that slash on the cutover must be managed to ensure it is not mobilised in heavy rainfall (5% AEP or greater) and to avoid slope failure.

Q D5 Do you agree with each of the proposed amendments to the NES-PF in relation to slash regulations, set out in Table 4? Y/N If not, please identify any you disagree with by referencing the number in the left-hand column of Table 4 and explain why you disagree.

6.4 How can better information make a difference?

Some slash risks are reasonably within a forest manager’s control, but others are not. These include inherent properties of the site, such as underlying geology, soil, climate, slope steepness and shape. Risks also include variables such as wind velocity or direction, which creates windthrown timber that may move during heavy rain.

Site-specific management practices can, however, reduce risk and improve outcomes. These can range from improvements in normal practice to significant changes. Examples of the former might be using logging equipment that reduces stem breakage, company rules that require slash removal, contractor focus on slash-riskier locations, and less slash build-up at landings. Examples of significant changes could include leaving trees in the riparian margins, replanting in different species, and different approaches to harvest coup size and method.

⁶⁸ Forest Practice Guide 6.2 Managing Cut-over slash on high-risk slopes. https://docs.nzfoa.org.nz/site/assets/files/1510/6-2_harvest-slash_managing-cut-over-slash-on-high-risk-slopes-2-0.pdf

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Is there enough information to apply the regulation effectively?

Public information about managing slash on site is not widely available. When the NES-PF was developed, the Ministry for Primary Industries developed a set of forest practice guides with practical information for foresters and councils on managing some of the key risks in the NES-PF. Since 2018 the New Zealand Forest Owners Association (NZFOA) has hosted the guides and undertaken to update them as required.⁶⁹ These are widely used in the forestry sector, but may not be as well known in councils.

The guides set out good forestry practices to address the requirements of the regulations and specific risks. They explain where and when to use them, design criteria, operational controls and maintenance considerations. The New Zealand Forest Road Engineering Manual 2020⁷⁰ has in-depth guidance on matters that also relate to slash management (eg, planning for landings, road and landing construction, and erosion, sediment and slash control structures). Most forestry companies have their own methods to assess slash risk, as part of their business planning, though these are not publicly available.

These materials are very useful for those with forestry training or experience, as a reminder of the risks and hazards to be aware of in managing slash. However, they do not provide the underlying knowledge required in complex situations to assess risk well, or to determine the most appropriate response.

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A common request from council compliance, monitoring and enforcement (CME) officers is for more information about slash management. This includes an understanding of the circumstances in which slash should be removed from waterways to reduce ecological and downstream risks, and when doing so would be unsafe for forestry workers.⁷¹ Managing slash must be done in such a way that foresters do not risk their safety, and forestry companies must comply with this under the Health and Safety at Work Act 2015. Foresters and council officers need to understand how to determine when safety considerations on-site override the environmental considerations in the NES-PF, including the safety of downstream communities.

Te Uru Rākau – New Zealand Forest Service has had some advice on tools for slash risk assessment, but we are seeking greater understanding of the ways in which these could assist council staff and foresters with limited access to advice. This includes consent conditions relating to slash, and on-site assessment requirements.

Q D6 What information about slash risk and slash management do you or your organisation require? What is the best way for you to receive this information?

How should 5 percent annual exceedance probability be interpreted on site?

How should 5 percent annual exceedance probability be interpreted on site?

Regulations 20 and 69 set out requirements to “not deposit” or move slash that would be covered by water during a 5 per cent annual exceedance probability (AEP)⁷² event. The intent is that slash is not left where it could mobilise in a rainfall event with a 1 in 20 annual probability of occurrence. As the climate changes we expect to see more high-impact storms in some parts of New Zealand.

These requirements may be interpreted well on the ground by foresters and enforcement officers with hydrological training or extensive practical experience, or where modelling is available that is widely agreed and understood. However, applying them to a specific site requires a degree of judgement or familiarity with the site that may not be available. This could cause uncertainty about which areas to clear, and create disputes when high rainfall causes damage.

⁶⁹ <https://docs.nzfoa.org.nz/forest-practice-guides/>

⁷⁰ <https://www.nzfoa.org.nz/resources/file-libraries-resources/transport-and-roading/843-nz-forest-road-engineering-manual-2020/file>

⁷¹ Regulation 69(4) sets out conditions under which slash should be removed from waterways and includes the words ‘unless to do so would be unsafe’. This wording has led to disputes over interpretation.

⁷² Annual exceedance probability refers to the probability of a flood occurring in any year, expressed as a percentage. A 5% AEP event has a 5% chance of occurring in any one year and is also known as a 1 in 20 year flood. Some councils use average recurrence intervals (ARI) as a measure of the number of years predicted to pass before an event of a given magnitude occurs. For example, a 20-year ARI would on average happen every 20 years.

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Te Uru Rākau – New Zealand Forest Service is seeking further views and information on measures that are, or can be used on site, to the mutual satisfaction of foresters and CME staff.

Q D7 What tools or information do you use to assess operational requirements for the 5 per cent annual exceedance probability (AEP) requirement?

6.5 Initial alignment with NES-Freshwater

6.5.1 Context

The NES-PF came into force in 2018 to regulate plantation forestry and associated activities under the RMA. The NES-Freshwater⁷³ came into force in 2020, to regulate activities in or around freshwater. The National Policy Statement for Freshwater Management (NPS-FM) was amended in the same year, applying to freshwater management and receiving environments.

Although the two national environmental standards were created for different purposes, some alignment is required to ensure freshwater rules apply equally where circumstances are very similar. The NES-PF also needs to give effect to the NPS-FM. The resource management system is currently being reformed and the exact nature of the national planning framework under the new system is yet to be finalised. However, looking ahead to a new, integrated national direction system we are taking this opportunity to consult on aligning provisions in the NES-PF that are similar to those in the NES-Freshwater. At this stage, the alignment is limited to straightforward changes that require little additional information and will avoid significant redrafting of the NES-PF. We wish to avoid additional administrative burdens for councils and foresters where environmental benefit is minor (for example, needing to redraft internal guidance and processes).

Alignment still needs to be considered in other areas, such as culverts, sediment, wetlands and further definitions. These are being considered for later alignment through the national planning framework, and will require consultation.

6.5.2 Proposals to initially align the NES-PF with the NES-Freshwater

Table 5 shows the alignment proposals.

⁷³ Resource Management (National Environmental Standards for Freshwater) Regulations 2020: <https://www.legislation.govt.nz/regulation/public/2020/0174/latest/LMS364099.html#LMS364306>

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Table 5: Proposals to initially align the NES-PF with the NES-Freshwater

Issue	NES-PF description	Findings	Intent/Proposed amendment	
FISH PASSAGE				
D2a	Fish passage on river crossings	Regulation 40(1) has provisions relating to where fish passage may be restricted: <i>River crossings must provide for the upstream and downstream passage of fish in rivers, except where the relevant statutory fisheries manager advises the relevant regional council in writing that to provide for the passage of fish would have an adverse effect on the fish population upstream of the river crossing.</i>	The NPS-FM requires councils to change their plans to identify which species of fish need to be protected, and which waterways must not allow fish passage, to prevent undesirable species from accessing higher reaches of the waterway. The NES-PF can be readily aligned with this requirement so that fish passage is only required on new and existing river crossings where councils have not restricted fish passage.	Add sentence to regulation 40(1) to state: <i>...river crossing, or where the regional council has determined that fish passage must be restricted</i>
D2b	Culvert depth	Regulation 46(1)(f) specifies that: <i>at installation, the culvert invert must be located so that at least 20% of the culvert's diameter is below the riverbed level</i>	The NES-F has a different culvert invert in regulation 70(2)(e): <i>The culvert must be open-bottomed or its invert must be placed so that at least 25% of the culvert's diameter is below the level of the bed.</i> The NES-PF could adopt the NES-F culvert invert of 25%, though feedback should be sought on any problems with this approach	Amend regulation 46(1)(f) to state that: <i>at installation, the culvert invert must be located so that at least 25% of the Culvert's diameter is below the riverbed level</i>
DEFINITION OF SEDIMENT CONTROL MEASURES				
D3a	Sediment control measures	'Sediment control measures' are defined as: <i>structures or measures to slow or stop water with sediment in it, so that the sediment will drop out of suspension before the water from the site reaches a water body.</i>	The definitions for sediment control measures differ between the NES-PF and NES-F. We have not identified any issue with aligning the NES-PF to the NES-F definition of sediment control measures. Aligning will aid consistency in national direction over the longer term.	Amend the definition of sediment control measures in the NES-PF to be the same as the NES-F: <i>sediment control measures means measures or structures that do 1 or more of the following:</i> <i>(a) stop sediment from being washed away from its source:</i> <i>(b) slow or stop water with sediment in it so that the sediment drops out of suspension before the water reaches a water body:</i>

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Issue		NES-PF description	Findings	Intent/Proposed amendment
				<i>(c) divert the flow of water so that it does not become contaminated with sediment.</i>
WETLANDS – MACHINERY AND VEHICLES				
D4a	Vehicle use in/around wetlands	<p>The NES-PF states through regulation 68(4) that:</p> <p><i>(4) Harvesting machinery must not be operated, except where subclause (5) applies,—</i></p> <p><i>(a) within 5 m of—</i></p> <p><i>(ii) a wetland larger than 0.25 ha</i></p> <p>And regulation 68(5) that:</p> <p><i>(5) Harvesting machinery may be operated in the setbacks required by subclause (4) only if—</i></p> <p><i>(a) any disturbance to the water body from the machinery is minimised; and</i></p> <p><i>(b) the harvest machinery is being operated—</i></p> <p><i>(i) at water body crossing points; or</i></p> <p><i>(ii) where slash removal is necessary; or</i></p> <p><i>(iii) where essential for directional felling in a chosen direction or extraction of trees from within the setbacks in subclause (4).</i></p>	<p>The NES-F sets general conditions for the use of vehicles, machinery, equipment and materials in regulation 55(12).</p> <p>The NES-PF does not permit vehicles to operate in wetlands or the setbacks from wetlands. There are two exceptions:</p> <ul style="list-style-type: none"> regulation 11(5) requires the eradication of wilding conifers every 5 years if they establish in wetlands, which may involve minor use of machinery; regulation 68(5)(b)(iii) allows machinery to operate in the setback from the wetland for specific purposes. <p>While the regulations restrict most activity with vehicles in wetlands, given the value of wetlands it seems prudent to ensure that any use of machinery is managed in line with the requirements of the NES-F, where applicable.</p> <p>We note that regulation 55(12)(d) includes reference to refuelling near a wetland. Regulation 104 of the NES-PF sets requirements for refuelling near water that are more restrictive than the NES-F.</p>	<p>Amend the NES-PF to include text similar to the NES-F:</p> <p><i>The general conditions on the use of vehicles, machinery, equipment, and materials around wetlands are as follows:</i></p> <p><i>(a) machinery, vehicles, and equipment used for the activity must be cleaned before entering any natural wetland (to avoid introducing pests, unwanted organisms, or exotic plants); and</i></p> <p><i>(b) machinery that is used for the activity must sit outside a natural wetland, unless it is necessary for the machinery to enter the natural wetland to achieve the purpose of the activity; and</i></p> <p><i>(c) if machinery or vehicles enter any natural wetland, they must be modified or supported to prevent them from damaging the natural wetland (for example, by widening the tracks of track-driven vehicles or using platforms for machinery to sit on); and</i></p> <p><i>(d) the mixing of construction materials, and the refuelling and maintenance of vehicles, machinery, and equipment, must be done outside a 10 m setback from any natural wetland.</i></p>

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Q D8 Do you agree with each of the proposed changes to align the NES-PF with the NES-Freshwater, set out in Table 5? Y/N If not, please identify any you disagree with by referencing the number in the left-hand column of Table 5 and explain why you disagree.

Q D9 Do you anticipate any unintended consequences from this proposal to align parts of the NES-PF with the NES-Freshwater?

Update on Fish Spawning Indicator

The Fish Spawning Indicator (FSI) places species into two groups (A and B), and restricts activities in rivers and wetlands based on whether the FSI indicates a species is present. The FSI was intended to be updated regularly, as our data on fish distribution and spawning timings change over time. These updates have been infrequent to date.

Our understanding of fish populations and presence has changed since the FSI was established. This means we expect to make a more thorough update. We anticipate:

- Reviewing the species in Group A and Group B. New fish species have been discovered or described since the FSI was gazetted, and the New Zealand Threat Classification for Freshwater Fish is due for review in 2022. We do not intend to make changes to the groups unless a species is newly described or its threat status or qualifiers change.
- Updating predicted fish distribution where there is no observed data from the New Zealand Freshwater Fish database. The original modelling used a 50 per cent likelihood of presence as the threshold for inclusion in the FSI. Distribution modelling has improved over the last five years, and methods have changed. If we are unable to replicate the modelling in a similar way for a future update, we will calibrate any fish presence modelling in the FSI to show a fish as 'present' for the purpose of the NES-PF, if modelling indicates that it is *more likely to be present than not*. This ensures that modelled distributions provide roughly the same degree of protection, even if the modelling method changes.

The agencies administering the NES-PF will continue to update the FSI where needed, to protect threatened or at risk species.

6.6 Alignment with new national direction

Several new national directions that have been consulted on have some overlap with the NES-PF. These may come into force during this consultation period, or between when this consultation closes and any amendments are made to the NES-PF.

These include:

- National Policy Statement for Highly Productive Land
- National Policy Statement for Indigenous Biodiversity, which recently went through an exposure draft process
- potential sets of amendments to several NES, including changes to the NES-Freshwater and the NES-Drinking Water, both of which already have a relationship to the NES-PF.

The NES-PF already provides for these matters in some form eg, provisions for significant natural areas would relate to the NPS-IB, as consulted on.

We will consider how to align the NES-PF with these national directions when the NES-PF moves into the National Planning Framework, unless there are particular matters that need to be addressed sooner.

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6.7 Operational and technical issues

We have identified a number of operational and technical issues with the regulations since they came into force. These relate to technical forestry practice or specific wording of the regulations, which does not give effect to the intent of the regulations. These have been brought to our attention by a range of users, but this is the first time we have been able to consult publicly.

Your feedback

Based on what we have heard and on our analysis, we have proposed amendments that would give effect to our findings. We seek your feedback on these proposals including further input in the form of evidence of the problem (or lack of one), improved proposals, or reasons why we should not pursue the proposal.

We are also taking the opportunity to hear feedback on any other operational or technical issue that we have not addressed that you consider require attention, amendment or greater guidance from the Government. These suggestions may require further public consultation, though amendments with only a minor effect, or that correct errors or make similar technical alterations, may be made at the discretion of the Minister for the Environment.⁷⁴

We are also taking the opportunity to hear feedback on any other operational or technical issue that we have not addressed that you consider require attention, amendment or greater guidance from the Government. These suggestions may require further public consultation, though amendments with only a minor effect, or that correct errors or make similar technical alterations, may be made at the discretion of the Minister for the Environment.⁷⁵

⁷⁴ Section 44(3) of the Resource Management Act.

⁷⁵ Section 44(3) of the Resource Management Act.

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Table 6: Proposals to address operational and technical issues

Issue	Description	Finding	Proposed amendments to NES-PF	
RIVER CROSSINGS				
D5a	<p>Ford – the definition and intent of this term is not clear in the regulations</p>	<p>A ford is a type of river crossing managed under the NES-PF. A river crossing is defined in the NES-PF as <i>inter alia</i> “a structure that is required for the operation of a plantation forest and provides for vehicles or machinery to cross over a water body”. However, the definition of a ford does not include the word ‘structure’:</p> <p>ford “means a hard surface on the bed of a river (that is permanently or frequently overtopped by water) that allows the crossing of a river by machinery or vehicles.”</p> <p>Structure takes the definition in the RMA: “structure means any building, equipment, device, or other facility made by people and which is fixed to land; and includes any raft.”</p> <p>NES-PF Guidance says a ford can be a graded river bed or naturally rocky bed, however this is at odds with the definition of a structure.</p>	<p>There has been some confusion about whether fords include natural crossings in rivers that have a hard natural surface, or whether it must include a manmade structure such as a concrete pad.</p> <p>The intent of the regulations is that a ford is classed as a river crossing, which is a manmade structure.</p> <p>Amendments should be made to clarify this, though there is no intent to take a more permissive approach to the construction or use of fords.</p>	<p>Clarify that the definition of a ‘ford’ includes the word structure.</p> <p>Consequent changes to the NES-PF Guidance will be required.</p>
D5b	<p>Fords – Uncertainty about interaction between construction regulations and discharge regulations</p>	<p>It is not clear how the NES-PF provisions on fords interact:</p> <p>Regulation 37 sets the permitted activity conditions for constructing, using, maintaining or removing a river crossing as long as a range of other conditions are complied with. Regulation 46(4) sets those conditions for fords and regulation 46(4)(b) sets the conditions for use.⁷⁶ Resource consent is required if that provision cannot be satisfied.</p>	<p>Regulation 46(4)(b) sets out the conditions for use of a ‘ford river crossing’, while regulation 97(6)(a) is to address the effects of crossing a ‘wettered riverbed’. Regulation 97(6)(a) is a small exemption to enable single crossings of forestry equipment or vehicles such as silviculture crews in and out of a forest. This exemption would seem to imply that any other crossing of the wetted riverbed is not covered by this regulation.</p>	<p>Amend the regulations to clarify that vehicles fording a wetted riverbed by up to 20 axle movements per day is a permitted activity, and that this refers to the action of ‘fording’ the (natural) wetted riverbed.</p>

⁷⁶ 46(4)(b) use of the ford must not cause a conspicuous change in colour or visual clarity beyond a 100 m mixing zone downstream of the ford for more than 30 consecutive minutes after use of the ford.

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		Regulation 97 provides discharge conditions across a range of activities. Regulation 97(6)(a) says that vehicles using a ford to cross the wetted riverbed at a rate of up to 20 axle movements per day is not to be regarded as a disturbance of the bed or vegetation in the bed of a perennial river. This use of the term 'ford', in a way that seems to contradict regulation 46(4)(b), has caused some uncertainty over interpretation.	It is not the intention of the NES-PF to permit multiple crossings of a wetted riverbed by many forestry vehicles. Crossings of more than 20 axle movements per day would be up to regional councils to manage.	
D5c	The use of existing fords is permitted under regulation 37(1)(d), but they are explicitly excluded from the definition of existing river crossings in the interpretation.	Existing river crossing is defined in the regulations, but exempt fords and temporary river crossings from the definition. Regulation 37(3) allows the use of existing river crossings, and regulation 37(1)(d) permits the construction, use, maintenance or removal of fords. The intent of regulation 37(3) was to ensure that existing crossings were not unnecessarily removed when the NES-PF came into force. There was no intent to constrain the use of existing fords during development of the regulations.	Existing fords should be included in the category of existing crossings. No case has been made for their removal and removing them could cause greater environmental effects than they currently generate. The exemption of fords from the definition of existing river crossings has caused uncertainty for users of the regulations. Intent should be clarified. The use of fords still requires that environmental effects be managed through regulations 39-42.	Amend the definition of ' <i>existing river crossing</i> ' in regulation 3 to remove the exclusion of fords.
D5d	Temporary structures for river crossings	The NES-PF permits the use of temporary river crossings for up to 2 months. Engineered structures that can be placed in rivers and removed (for example, Naseby, Slipstream ⁷⁷ and Blaze-It crossings) are used in some regions as an alternative to a permanent river crossing, particularly as a replacement for a permanent ford. This is a built structure that allows fish passage and can be placed in the river for an extended period (e.g. to carry laden logging trucks) and removed when no longer required for regular use. These crossings could be classed as a temporary river crossing, and permitted, but generally their use will be required for longer than 2 months which	A temporary engineered structure will sometimes be the best environmental option for forestry vehicles crossing rivers. At least one regional council has permitted this type of river crossing. Wider views on including this type of crossing in the regulations are required, particularly from river engineers and ecologists. Matters that must be considered include appropriate placement, term of use, maintenance conditions, fish passage, and consent status.	Amend the river crossing regulations to enable the use of an engineered structure for crossing a river that may be placed in the bed of a river for up to 2 years; AND Seek feedback on the conditions under which this activity may be permitted, and the conditions under which resource consent is required; AND <i>Provide submitters on this provision with the opportunity to review any changes to the regulations as a result of consultation.</i>

⁷⁷ A slipstream crossing can be seen at <https://www.nzfoa.org.nz/news/forestry-news/1546-040716foanews-2>

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		is the permitted activity limit for temporary river crossings.		
D5e	Dual culverts are not covered by the river crossing regulations	<p>Regulation 46 sets out the permitted activity conditions specific to various classes of river crossings. It includes single culverts and battery culverts. Installation of two adjacent culverts is not covered. In some cases it may be desirable to install a double culvert, for example, 2 x 1200mm culverts.</p> <p>Although a single culvert may be 3.5m above the river at its highest point, a battery culvert must not exceed 800mm above the river. This means there is no permitted activity rule for larger double culverts, where they don't meet the battery culvert height limit of 800mm.</p>	<p>Single and battery culvert river crossings allow the river to pass under the bridge. The regulations include requirements for ensuring they provide adequate capacity under flood conditions. The regulations have not anticipated the use of double culverts that may be larger than 800mm (a battery culvert may use one 1200mm culvert but not two).</p> <p>Information should be sought on the practical need for including double culverts, along with advice from regional councils about a permitted activity threshold.</p>	<p>Seek feedback on the practical need for permitting double culverts; the permitted activity conditions that should apply to their installation; and the appropriate threshold for resource consent;</p> <p>AND</p> <p><i>Provide submitters on this provision with the opportunity to review any changes to the regulations as a result of consultation.</i></p>
D5f	Flood flow estimation methods incorporated by reference need to be updated so they represent the principal estimation methods recognised by foresters and councils.	<p>Regulation 45 requires flood flow estimations to be calculated for river crossings so they are built to withstand flood conditions. This means knowing the expected flood flow (design peak discharge) and the capacity for the crossing to pass the designed flood flow.</p> <p>The NES-PF specifies the methods for calculating flood flows, and incorporates these by reference in Schedule 2 of the regulations. Specifying the methods ensures that calculations use well-accepted, tested methods to ensure river crossings are safe in-situ and in relation to the downstream environment and communities.</p> <p>When the NES-PF was gazetted in 2017 several flood flow estimation methods were in use, and were incorporated. Since then, improved methods have been published.</p>	<p>Te Uru Rākau – New Zealand Forest Service has received feedback from users of the regulations and NIWA that <i>Henderson and Collins 2018</i> is the latest publicly available national level flood study which is an advancement over <i>McKerchar and Pearson (1989)</i> and <i>Technical Memorandum 61 (TM61)</i></p> <p>https://niwa.co.nz/sites/niwa.co.nz/files/2018177C_H-Flood-Frequency-Final-Report-Part2-NIWA.pdf</p> <p>This allows the user to obtain an estimate for a range of flood flows of most rivers and streams in New Zealand. It uses its own digital terrain model that supports their river environment classification (REC, version 1).</p>	<p>Amend Schedule 2 by removing items 3 and 4 and inserting Henderson R; Collins D; Doyle M; Watson J (2018): <i>Regional Flood Estimation Tool for New Zealand Part 2</i>.</p> <p>Add the most recent URL link to this tool at time of drafting.</p>
D5g	Culvert diameter specifications for flow rate may	Clauses 31(4) and 46(1)(c) define required culvert size by internal diameter. This has reportedly restricted product choice as culverts that would allow the required flow do not meet the	Regulation 46 has a mix of technical and performance-based measures; regulation 31 is only a technical standard. The technical measure sets culvert diameter as the permitted activity	Amend regulation 31(4)(b) to include 375mm internal diameter and 400mm outside diameter culverts;

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	restrict product choice.	<p>specifications, due to the wording of the regulations. It has been suggested that the specifications be changed from a minimum inner diameter to a minimum flow rate, as the diameter of a culvert pipe indicates its ability to carry flow.</p> <p>Regulation 31(4)(a) specifies a 325mm internal diameter, but culverts of this size are not commonly available. This could make this specification redundant and confusing.</p> <p>Regulation 46(1)(c) is unclear as it does not specify whether the diameter is internal or external.</p>	<p>threshold. A manufacturer or supplier's culvert either meets or does not meet the diameter.</p> <p>Given the complications of measuring flow rates, and the fact the calculations must be done on a case-by-case basis, this is deemed too complicated for a permitted activity standard, though it could be used to meet a consent condition.</p> <p>Engineering advice is that changes to the regulations could accommodate external diameters that would deliver the same flow but allow greater product choice.</p>	<p>AND</p> <p>Amend regulation 46(1)(c) to include both a 450mm internal diameter or a 500mm outside diameter culvert;</p> <p>AND</p> <p>Seek feedback on whether regulation 31(4)(a) should be amended to provide any clearer direction, given the common availability of culvert products.</p>
TREATY SETTLEMENT AREAS				
D6a	The matters of discretion relating to outstanding water bodies do not allow for consideration of Treaty settlement areas	An outstanding natural water body under the NES-PF may include Treaty settlement areas, but the NES-PF does not allow discretion for them. Matters of discretion for a consent for doing something within or adjacent to an outstanding natural water body in the NES-PF do not allow a council discretion to consider the settlement legislation and values, but they must still apply Part 2 of the RMA.	Where resource consent is required in relation to an outstanding freshwater body, and Treaty Settlement legislation includes rights over outstanding natural water bodies, the NES-PF should enable councils to give effect to those rights.	Amend regulations relating to outstanding freshwater bodies to ensure they give effect to Treaty settlement areas.
NOTICE PERIODS				
<p>Notice periods may be inefficient and in some cases insufficiently calibrated for risk</p> <p>Permitted activity conditions in the NES-PF require foresters to give notice to regional councils and territorial authorities of the intended start dates of certain plantation forestry activities. The intent is to make councils aware of key forestry work in their area, and enable them to undertake risk-based compliance monitoring where appropriate. Five permitted activities require notice periods, setting out the location of the activity and the start and finish dates. There are also specific information requirements.</p> <p>In some cases notice is proving more complex than intended, increasing the costs for both foresters and councils, without noticeably improving environmental outcomes. We have identified 5 potential amendments. The proposed change to afforestation notifications in regulations 10 and 11(4) is set out in the section on wilding conifer control.</p>				
D7a	Notice periods are the same in low- and high-risk zones	Many environmental controls in the regulations are based on erosion risk, as defined by the erosion susceptibility classification. Greater controls are required in high-risk zones. However, notice periods are the same for all zones. This means	Foresters and councils have told us that notifications can be a heavy compliance burden. Some foresters have hired new staff to keep up with the administrative requirements of the NES-PF, and some councils find it difficult (or impossible) to respond to notifications in a	Notice times should focus effort where councils need to be aware of forestry work, with time to check plans and initiate monitoring if necessary. We seek your feedback on where notice periods should remain or change.

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		<p>councils will receive a large number of notifications for low-risk activities, and foresters must provide these and juggle work around the need to harvest.</p> <p>This has placed a new (and in some cases onerous) burden on foresters and councils to provide and process documentation, and wait to begin jobs that pose very little risk to the environment. In particular, activities in green and yellow ESC zones are generally low risk.</p>	<p>meaningful way. This is more likely with district councils, who have few responsibilities under the regulations, and principally need to ensure setbacks are correct through afforestation notifications.</p> <p>A number of forestry companies have expressed concern about delays in moving crews while they wait out a notice period, sometimes losing jobs or standing down crews. This is a significant expense, with crew costs being upwards of \$10,000 per day.</p> <p>More relevant notice periods, with requirements that better reflect risk, will improve the process for councils and forest companies.</p>	<p>1. Areas where particular risks should be managed, and notice periods should remain as they are.</p> <ul style="list-style-type: none"> • Earthworks, quarrying and harvesting in red and orange zones. • River crossings during fish spawning periods. • Activities beside SNAs. • Activities upstream of sensitive receiving fresh or coastal waters. <p>2. The area where risks are low and notice periods could be reduced or waived:</p> <ul style="list-style-type: none"> • Earthworks, quarrying and harvesting in green and yellow zones. <p><i>Provide submitters on this provision with the opportunity to review any changes to the regulations as a result of consultation.</i></p>
D7b	Notice periods for earthworks regulation 25 – emergency situations	<p>Regulation 25 requires notification between 20 and 60 working days before earthworks begin. There is a minimum notice period of 2 days to enable salvage operations. A salvage operation is defined as the urgent extraction of trees that have been damaged by fire or wind throw. This recognises the need for rapid salvage after fire or storms to a) ensure safety and b) salvage value in a natural disaster.</p>	<p>The provision for emergency works may not be sufficient for the types of emergencies that may occur. Regulation 64(b) enables a shorter notice period (2 days) where harvesting relates to salvage. However, notice provisions have caused issues during two recent events:</p> <ul style="list-style-type: none"> • During the Pigeon Valley fire in 2019, crews needed to relocate harvesting rapidly out of unsafe areas, but had to wait for the notice period (no less than 20 working days); • In early 2020, COVID-19 disrupted log exports, and foresters needed flexibility to move crews, to harvest forests that could fill other markets (for example, local sawmills). This was sometimes held up due to notification requirements. Some crews had to be stood down despite the efforts of companies to keep people working. 	<p>Amend regulations 25(2) and 64(2) to enable councils to waive the minimum 20-day notice period when unforeseen circumstances, such as fire, and economic disruption that triggers force majeure, require foresters to start an operation sooner than 20 working days after notice. This amendment would not include waiving the requirements to meet all permitted activity conditions for that activity. It would not require councils to waive the full notice period.</p>

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D7c	Notice periods – joint notifications for contemporaneous activities	<p>The regulations require notifications for earthworks, harvesting and river crossings. In many cases these will be planned as part of a harvest. Council practice varies - some councils allow joint notifications but others require separate notifications.</p> <p>It would be more efficient for foresters and more useful for councils to receive a single notification setting out the activities.</p>	<p>The number of notifications received by councils can be very high, and councils have limited ability to respond. The purpose of harvest notifications is to ensure that councils are aware of harvest activities and can monitor these if required. This is generally achieved by understanding and responding to the harvest work as a whole.</p>	<p>Amend the regulations to clarify that where more than one activity is being notified at the same time for the same forest, a joint notification is allowed.</p>
D7d	Notice periods regulation 64(2)(c)– the frequency of requirements if activity is undertaken continuously	<p>Regulation 64(2)(c) allows forestry companies to notify a council annually of its harvest work if this is an 'ongoing harvesting operation'. This applies to large forests with long-term operations.</p> <p>Practice varies - some councils accept annual notifications while others require individual notifications for any harvest area that is not contiguous in the same forest.</p>	<p>The regulations do not specify what constitutes a harvest area, so it is not clear which regulations councils are relying on if they will not accept annual notifications.</p> <p>Schedule 3(2) requires that harvest plans include a map showing the harvest area boundary, so this should define the area. Schedule 3(5) says the plan must include the timing, duration, intensity and any proposed staging of the harvest. Providing individual notifications for particular areas within the mapped area, where timing is already provided, can be an unnecessary administrative burden for foresters.</p> <p>Where a harvest is ongoing and risk factors have not changed, a pro forma notification does not add value to a council's operations.</p>	<p>We seek your feedback on where notification periods should remain or change. In particular:</p> <ul style="list-style-type: none"> • Whether councils are accepting harvest plans covering large areas which may include areas which are not contiguous. • If councils will not accept annual plans, which environmental risks they need to manage with more regular notification (and the regulation they are relying on to require that). • What practical solutions exist to manage differing expectations on harvest notification. <p><i>Provide submitters on this provision with the opportunity to review any changes to the regulations as a result of consultation.</i></p>
TRAFFIC MANAGEMENT				
D8a	A traffic management condition for the activity of forestry quarrying has been confusing.	<p>Regulation 57 sets requirements for forestry quarry vehicles carrying quarry materials on public roads. The permitted activities were intended to allow for transport of material between related forestry operations that might cross district roads. However, it is the only regulation in the NES-PF that controls vehicle movements on public roads. It is not clear why this one aspect of road use by forestry vehicles is regulated and raises equity issues for</p>	<p>Regulation 57 carves out a small part of forestry vehicle use on public roads. Reports are that it is unclear what can be reasonably expected in consent conditions if one cannot comply with regulation 57(c). causes uncertainty.. The effects of using public roads for forest quarrying are the same as for commercial quarrying. Consent conditions should not unduly disadvantage forestry quarrying. Removing this provision will</p>	<p>Amend regulation 57 by removing it.</p>

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		forestry, compared to other commercial enterprises using public roads.	clarify that district councils control district road use equitably for all users.	
INDIGENOUS VEGETATION AND SNAs				
D9a	Meaning of stringency for SNAs is changed by the NPS-IB.	Regulation 6(2)(b) enables councils to make more stringent rules than the NES-PF, if the rule provides for the protection of significant natural areas (SNAs). When the NES-PF was gazetted, SNAs were identified by district councils under section 6(c) of the RMA according to locally determined criteria. The NPS-IB is introducing new criteria for significance and has specific policies for plantation forestry.	Keeping the current stringency provision for SNAs in the NES-PF means that councils can make more stringent rules than the NES-PF, potentially including any productive forest identified under the NPS-IB. The NPS-IB sets a specific management process where productive forest has been identified as an SNA. This could result in competing or doubled-up management requirements through both the NES-PF and the NPS-IB. This would be confusing and potentially burdensome for councils and foresters.	Amend regulation 6(2)(b) so it applies only to SNAs outside the productive area of the forest. Consequential amendments may be required to other parts of the regulations. <i>*Note that this amendment is subject to the NPS-IB coming into effect.</i>
D9b	Definition of indigenous vegetation may be unclear.	The NPS-IB will introduce a different definition of indigenous vegetation from the NES-PF. It is not clear whether the term 'predominantly' in the NES-PF definition refers to composition, cover or something else. Therefore it may not be sufficiently enforceable. Draft NPS-IB: indigenous vegetation means vascular and non-vascular plants that, in relation to a particular area, are native to the ecological district in which that area is located. NES-PF: indigenous vegetation means vegetation that predominantly occurs naturally in New Zealand or that arrived without human assistance. The NES-PF definition was taken from the definition of 'indigenous' in the Forests Act 1949.	Adopting the NPS-IB definition would increase consistency between national direction instruments, and clarify what type of vegetation is indigenous, without considering composition or cover. For plantation forestry this may place greater reliance on rules to clarify how to manage composition and cover. Forestry occurs at a landscape scale and vegetation assemblages are generally the appropriate scale of vegetation to consider, not the individual plants in the NPS-IB definition. The definition or rules should reflect this. Requiring identification of vegetation based on its district-level indigeneity would require a high level of ecological knowledge which may not be common. However, it does add to the intent of wider protection for significant indigenous vegetation, which is closely linked to its natural range.	Consult on amending the definition of 'indigenous vegetation' in the NES-PF to duplicate that in the NPS-IB: Indigenous vegetation means vascular and non-vascular plants that, in relation to a particular area, are native to the ecological district in which that area is located. We seek your feedback on any practical and operational issues this would raise for councils and foresters, including the specific references to 'plants' or 'ecological districts'. <i>*Note that this amendment is subject to the NPS-IB coming into effect ahead of amendments to the NES-PF.</i>

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D9c	Definition of vegetation clearance may be unclear.	<p>In the NES-PF Vegetation clearance (a) means the disturbance, cutting, burning, clearing, damaging, destruction or removal of vegetation that is not a plantation forest tree; but (b) does not include any activity undertaken in relation to a plantation forest tree.</p> <p>Doubt has been raised about the wording of part (b) which may be read as enabling any vegetation clearance as long as it is associated with any activity involving plantation trees, which could potentially cover most activities in a plantation forest.</p>	<p>The need for clause (b) is not clear and provides a potentially wide exemption. Regulations 93-94 set out specific regulations for managing indigenous vegetation within the plantation forestry property; regulation 95 does this for non-indigenous vegetation clearance. The definition of vegetation clearance should not enable vegetation clearance that is otherwise precluded by the regulations. Equally, plantation trees should be harvestable, and this will require some vegetation clearance.</p>	<p>We seek your feedback on the need for part (b) of the definition of vegetation clearance, and any negative consequences of amending or removing it.</p> <p><i>Provide submitters on this provision with the opportunity to review any changes to the regulations as a result of consultation.</i></p>
D9d	Definition of incidental damage (in relation to indigenous vegetation) may be unclear.	<p>Regulation 93 sets out the permitted activity thresholds for clearing indigenous vegetation within and adjacent to the productive part of the forest.⁷⁸ The definition of clearance includes damage.</p> <p>Regulation 93(5) sets out three mutually exclusive elements of what is considered ‘incidental damage’. Damage to adjacent vegetation can be unavoidable when felling trees in some situations. The intention is to specify a permitted level of damage. Regulation 93(5)(a) and (b) provide an ecosystem approach and a specific tree/stand measure respectively; regulation 93(5)(c) relates to SNAs.</p> <p><i>In this regulation, incidental damage means—</i></p> <p><i>(a) damage where the ecosystem will recover to a state where, within 36 months of the damage occurring, it will be predominantly of the composition previously found at that location; or</i></p> <p><i>(c) if it occurs in a significant natural area, damage that—</i></p> <p><i>(i) does not significantly affect the values of that significant natural area; and</i></p>	<p>Often areas of indigenous vegetation within or adjacent to plantation forests, including SNAs, have grown up after the forest or (as is often the case) are indigenous forest remnants that have been deliberately left at afforestation. Even with due care there will be instances where felling trees damages adjacent vegetation.</p> <p>Setting limits signals a need to exercise care and plan felling so it causes minimal damage.</p> <p>While there is a degree of subjectivity in regulation 93(5)(a) and (c), this is almost unavoidable in practical terms. The intent is to limit damage to indigenous vegetation, but ecosystems are complex, living systems and setting precise measures is very difficult. The alternative, requiring resource consent for incidental damage to native vegetation may be disproportional to the effect.</p> <p>Additional information should be sought on how foresters are complying with this regulation and any issues foresters or councils are having in applying it as a permitted activity.</p>	<p>We seek your feedback on whether the wording of regulations 93(5)(a) and (c) are causing issues for users, and the nature of those issues.</p> <p>We also seek your views on ways in which the definition of incidental damage could be less subjective while still achieving the intent of allowing minor damage to indigenous vegetation under limited circumstances .</p> <p><i>Provide submitters on this provision with the opportunity to review any changes to the regulations as a result of consultation</i></p>

⁷⁸ https://www.legislation.govt.nz/regulation/public/2017/0174/latest/DLM7372178.html?search=sw_096be8ed818902bf_drinking_25_se&p=1

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		<p>(ii) allows the ecosystem to recover as specified in paragraph (a).</p> <p>Subclauses (a) and (c) have a degree of subjectivity, and it has been noted that this definition requires a degree of judgement not appropriate for a permitted activity.</p>		
EROSION SUSCEPTIBILITY CLASSIFICATION⁷⁹				
D10a	<p>The process for remapping an ESC polygon is disproportionate to the risk it seeks to manage</p>	<p>The ESC is a national tool mapped at a 1:50,000 scale. This means it may over- or under-risk erosion susceptibility at a forest/farm scale. a process was developed for remapping ESC polygons where a party disagreed with the ESC.⁸⁰ The process is time consuming and expensive for all parties and requires national level changes to the ESC to be gazetted.</p>	<p>Te Uru Rākau has received only one request for changes to the ESC, and that was not taken forward. We are aware of:</p> <ul style="list-style-type: none"> • companies getting resource consent for land that is not red zone when mapped at a 1:10,000 scale, to avoid the time and expense of changing the ESC. ▪ councils agreeing that resource consent is not required once land is remapped by a suitably qualified mapper. ▪ councils and other interested parties disagreeing with ESC zoning in specific instances, and seeking broader changes to the ESC (though any party may apply for remapping). <p>Enabling discretion to waive, or require, resource consent when land has been remapped by a suitably qualified mapper will maintain the intent of the ESC to indicate erosion risk while removing a burdensome process.</p>	<p>Amend the regulations to clarify that a council may waive resource consent, or require it if satisfied that remapping by a suitably qualified person indicates that at a 1:10,000 scale the land in question fits within a different erosion susceptibility zone to that recorded in the ESC.</p>

⁷⁹ See Appendix F for more analysis relating to the Erosion Susceptibility Classification.

⁸⁰ <https://www.mpi.govt.nz/dmsdocument/28542-Process-to-update-the-NES-PF-ESC-on-a-case-by-case-basis>

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SEDIMENT MANAGEMENT				
D11a	Some councils require separate discharge permits for activities the NES-PF permits.	Regulation 97(1) permits discharges associated with permitted forestry activities if all other activity conditions are complied with. The rest of the regulation sets specific restrictions on discharges. Foresters report that some councils accept activities in line with this requirement, while others require separate discharge permits. Under regulation 6(1)(a) councils may require this if they have a rule in their plan that is more stringent than the activity rules, or if they develop such a rule using the appropriate process and justify it through a section 32 evaluation report.	Regulation 97(1) permits discharges as long as other requirements are met. Councils should not be requiring separate discharge consents unless they can justify this through a more stringent rule. This does not appear to be a lack of clarity in the regulations, except insofar as regulation 97 is near the end of the regulations, and may not be apparent to users if they are not aware of it.	Amend the regulations to clarify that regulation 97(1) applies to permitted activity regulations for each activity, AND Te Uru Rākau – New Zealand Forest Service and Ministry for the Environment to develop clear guidance on applying discharge permits to permitted activities.
D11b	2-stage regulations to manage sediment.	The term 'reasonable mixing' occurs as part of five 2-stage regulations which set requirements for sediment. The intent of the regulations is to ensure that sedimentation of waterways does not cause downstream effects that are more than minor. These effects are described in regulations 26, 56(1), 65, 74(6) and 90. They require that 'after reasonable mixing', sediment does not cause specific downstream effects. ⁸¹ That is, they set out the effects that must be avoided, while allowing sediment to enter waterways. Feedback is that sometimes these regulations are read as meaning all sediment must be kept out of waterways. Regulation 31 also has two stages. It seeks to avoid the effects set out in regulation 31(1)(a and b). It can be misread to mean <i>all</i> soil and sediment must be stabilised or contained.	Guidance can clarify these 2-stage regulations, but users will still need to exercise judgement over their actions to reduce sediment (as required through other regulations), to avoid these effects. However, minor changes to clarify the intent of the regulations could ensure users do not think the regulations are defining 'reasonable mixing' or requiring 'all sediment to be stabilised or contained'.	Amend regulations 26, 31(1)(a and b), 56(1), 65, 74(6) and 90 as required to ensure their intent is clear.

⁸¹ 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. These effects are the same as those covered in section 70(1)(d, f and g) of the RMA. Effects 70(1)(c) and 70(1)(e) are not caused by sediment, so do not appear in these regulations.

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HEALTH & SAFETY				
D12a	The Health and Safety exemption for slash removal is unclear in regulations 20(2), 69(4) and Schedule 3(5)(c)(3)	<p>The regulations have a range of exemptions for removing slash where 'to do so would be unsafe'. This has led to some questions over what constitutes 'unsafe'.</p> <p>'Unsafe' is a subjective term, and operators are continually required to make judgement calls on site, and sometimes under pressing conditions. Worker safety is a crucial factor in decision-making so clarity is essential. The forestry sector has put considerable emphasis on worker safety in recent years, and in some instances environmental outcomes may be compromised by health and safety requirements.</p>	<p>Although greater clarity about the words "unless to do so would be unsafe" is desirable, in our view this cannot be achieved through a regulatory framework that applies to many different sites and forestry operations.</p> <p>The Health & Safety at Work Act requires the taking of reasonably practicable steps to eliminate risk or, if it can't be eliminated, to minimise it. The Forestry Industry Safety Council was established in response to the Independent Forestry Safety Review and delivers a wide programme of safety training and resources to the sector.</p>	No amendments are proposed, but we seek your feedback on additional information or resources that could help foresters and councils make decisions balancing environmental outcomes with worker safety when managing slash.
CHARGING TO MONITOR PERMITTED ACTIVITIES				
D13a	The regulations about charging for monitoring permitted activities could clarify that there is no ability to charge for receiving notifications	<p>The Year One review found that some councils thought the power to charge for permitted activities did not cover all associated costs, while foresters had a range of concerns about charging practices in some councils, including failure to apply a risk-based approach in some cases.</p> <p>Guidance on regulation 106 states:</p> <p>It is the on-site monitoring of earthworks, river crossings, forestry quarrying and harvesting that should be the focus of regulation 106. Monitoring the permitted activities in regulation 106 will not cover the time spent before the activity began, such as:</p> <ul style="list-style-type: none"> • Reviewing management plans to determine whether they are complete or to better understand the activity (although reviewing may inform a more 	<p>The intent of the charging regulations⁸² is to enable councils to charge for monitoring activities after a risk-based approach has been applied. Given the low risk of many forestry activities in lower-risk ESC zones, and the limited compliance resources of councils, it was not the intention that all forestry activities would be monitored (particularly those not monitored prior to the NES-PF coming into force).</p> <p>Proposed amendments to the NES-Freshwater (regulation 75 of the exposure draft) clarify what local authorities may and may not charge for monitoring. A similar clarification could apply to forestry activities.</p> <p>Some councils are concerned that they do not have the resources to monitor forestry activities</p>	<p>Amend the regulations to include a similar clarification to charging as proposed in the amendments to the NES-Freshwater:</p> <p><i>For example, "a local authority must not charge to receive or review notification of intended permitted activity work (including earthworks, quarrying and harvest management plans)."</i></p>

⁸² See chapter 3 <https://www.mpi.govt.nz/dmsdocument/28092-Resource-Management-National-Environmental-Standards-for-Plantation-Forestry-Regulations-2017-consenting-and-compliance-guide>

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	<p>focused and efficient site visit –see section 5.3 above), and</p> <ul style="list-style-type: none"> • Determining the activity status of a plantation forestry activity (ie, checking documentation against NES-PF requirements and conditions). 	<p>appropriately, if they cannot charge to triage notifications. This complex issue bears continued scrutiny, but at present there is no evidence base to demonstrate that additional charging would improve environmental outcomes.</p>	
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Q D10 Do you agree with each of the proposed changes to the NES-PF to address operational and technical issues, set out in Table 6? Y/N If not, please identify any you disagree with by the number in the left-hand column of Table 6 and explain why you disagree.

In some cases we have not proposed an amendment but are seeking further information, as follows:

Q D11 Temporary structures for river crossings (row D5d of Table 6): Do you agree that this type of river crossing could be permitted under certain conditions? Y/N What conditions should be applied to the crossing as a permitted activity?⁸³

Q D12 Dual culverts (row D5e of Table 6): Is there a need to include double culverts in the regulations? Y/N If so, what permitted activity conditions should apply to these river crossings?

Q D13 Culvert diameters (row D5g of Table 6): Is a 325mm minimum internal diameter specification for stormwater culverts for forestry roads or forestry tracks in green, yellow and orange zones with a land slope of less than 25 degrees an appropriate minimum? (Think about the availability of culverts of this size and the products you commonly use or require). Y/N If not, please explain why.

Q D14 Notice periods (row D7a of Table 6): Do you agree that notice periods could be reduced or waived for earthworks, quarrying and harvesting in green and yellow zones? Y/N Please explain your answer with evidence to support your position. If you think notice periods could be reduced what would you suggest is an appropriate notice period?

Q D15 Notice periods (row D7d of Table 6): Where you have experience of annual notice periods (either positive or negative) please provide your views on whether annual notifications are working well or whether changes to the regulations are required. If you consider changes are required, please indicate what environmental risks will be better managed through change.

Q D16 Indigenous vegetation (row D9b of Table 6): If the definition of indigenous vegetation is changed to that used in the National Policy Statement for Indigenous Vegetation do you foresee any practical or operation issues for plantation forestry and enforcement of the regulations? Y/N Why?

Q D17 Vegetation clearance (row D9c of Table 6): Do you think there will be any negative consequences of amending the definition of vegetation clearance in the NES-PF to clarify that part (b) of the definition does not authorize any vegetation clearance but that a forest crop should generally be harvestable within the constraints of the regulations? Y/N Please provide evidence to support your views.

⁸³ Where an activity is permitted it must meet specified conditions. Where it cannot meet those conditions, it will require resource consent. That consent status will be determined based on the evidence of potential effects for the particular activity.

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Q D18 Incidental damage (row D9d of Table 6): Please provide any evidence you have that the definition of incidental damage is causing issues for users and the nature of those issues. Do you have suggestions for how the definition could be less subjective while still achieving the intent of allowing minor damage to indigenous vegetation under limited circumstances?

Q D19 Health and safety (row D12a of Table 6): What additional information or resources could help foresters and councils make decisions that balance environmental outcomes with worker safety when managing slash?

6.8 Capacity and capability of local authorities to implement the NES-PF

The NES-PF regulations are administered by the Ministry of Primary Industries, but implementation is the responsibility of councils. Councils are also responsible for the compliance, monitoring and enforcement (CME) of the regulations. The extent to which each council can undertake CME is influenced by multiple factors, such as staff availability and capability, the cost of CME, the time to undertake forestry CME, and knowledge of plantation forestry.

One finding of the Year One Review was that some councils lacked capacity and experience in plantation forestry. These skills are not easily gained or available, and many councils experience high turnover rates in CME staff.

Te Uru Rākau - New Zealand Forest Service has sought advice on options to improve this through information and training. The advice was informed by discussions with council and forestry staff. Some councils noted that they were having issues finding suitably qualified staff. Some were also having difficulty keeping qualified staff, given the lower remuneration for council roles compared to other options for staff with forestry CME skills. Some councils said they could only undertake CME as a cost recovery function, so would focus on enforcement, as that was what they could afford. This has led to more comprehensive compliance assessments on forestry by some councils than before the NES-PF came into force, as costs can be recovered under the NES-PF.

Foresters noted that some councils met with them regularly in working groups, aiding understanding of the issues and a greater knowledge base. Some raised concern over compliance being undertaken by staff whose primary background was not forestry, and over different interpretations of the regulations by councils with different skillsets, especially for enforcement or processing consents. Some foresters also noticed a variation in judgement by staff based on skills and experience, and in councils' interpretation of the regulations.

On 1 July 2020, the Ministry for the Environment released the report of the independent Resource Management Review Panel, 'New Directions for Resource Management in New Zealand'. It included a chapter on CME, and made some similar points to those about the NES-PF. It noted that councils' CME effectiveness is limited by: a lack of economy of scale to properly resource CME functions; biases and conflicts of interest (actual and perceived); and competing functions, which means CME has lower priority.⁸⁴ The report also stated that a long history of weak oversight and guidance from central government exacerbates the problem. It noted that capability and capacity can be limited, given a slow uptake of CME training, difficulty recruiting and retaining staff, and a lack of qualifications and training.

The Year One review noted that assistance with guidance and implementation for councils could improve the quality and consistency of rules in the long term, including better integration across national direction. The feedback from councils and the forestry sector was that they needed support to ensure the NES-PF is well understood and can be consistently and effectively implemented.

Te Uru Rākau – New Zealand Forest Service would like to improve its information and training to support councils in their role as compliance, monitoring and enforcement bodies.

Questions for councils and foresters

Q D20 What sources of information or training do you currently use to inform your decisions for forestry?

⁸⁴ [New Directions for Resource Management in New Zealand, June 2020, Chapter 13 Compliance, monitoring and enforcement, paragraph 32, pg 397](#)

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Q D21 What areas of forestry practice required by the NES-PF do you need more information about or training in?

Q D22 What are the best forms of delivery for that information or training? This may include a range of delivery methods or forums.

NEXT STEPS – HAVE YOUR SAY

The Government welcomes your feedback on this discussion document. To ensure your point of view is clearly understood, you should explain your rationale and provide supporting evidence where appropriate.

Process to develop national direction

The proposals in this discussion document seek to amend the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017. These regulations are national direction under the Resource Management Act 1991.

The Minister for the Environment must undertake several statutory, procedural steps prior to recommending the making or amending of national direction. This includes choosing a public process for developing the instrument,⁸⁵ and preparing and publishing an evaluation report that examines the extent to which the objectives of its proposals are the most appropriate way of achieving the purposes of the RMA.⁸⁶ The Minister has chosen an officials-led process of public consultation.

Timeframes

We are accepting submissions until **5:00 pm on 18 November 2022**.

After the consultation ends, we will continue to work with iwi/Māori and stakeholders to gather further information if required to refine preferred options. An evaluation report, as required under section 32 of the RMA, will be prepared.

Ministers intend to present finalised proposals to Cabinet in 2023 for a policy decision. Parliamentary Counsel Office would then draft the regulations for final Cabinet consideration and, if approved, gazettal.

How to make a submission

To help you complete your submission, we encourage you to use the editable form available on MPI's website.

Email your submission to mpi.forestry@mpi.govt.nz as a:

- PDF, or
- Microsoft Word document (2003 or later version).

Please include:

- the title of the consultation document – "National direction for plantation and exotic carbon afforestation"
- your name and title
- your organisation's name (if you are submitting on behalf of an organisation, and whether your submission represents the whole organisation or a section of it)
- your contact details (such as phone number, address, and email).

We prefer that you don't post your submission, as it may not reach us in a timely manner. However, if you need to, submissions can also be sent to: Submission – National Direction for Exotic Afforestation, Forestry & Bioeconomy Policy Team, Ministry for Primary Industries, PO Box 2526, Wellington 6140.

⁸⁵ Section 46A of the RMA refers.

⁸⁶ Section 44(1)(b) of the RMA refers; section 32 sets out the specific requirements and processes for this evaluation.

NEXT STEPS, QUESTIONS AND APPENDICES

More information

Please send any queries to mpi.forestry@mpi.govt.nz.

Publishing and releasing submissions

A summary of submissions will be prepared and published on the Ministry for Primary Industries' website, mpi.govt.nz.

All or part of any written comments, including names of submitters, may be published on the Ministry for Primary Industries' website, mpi.govt.nz, including as part of the summary of submissions. Unless you clearly specify otherwise in your submission, the Ministry will consider that you have consented to publication of both your submission and your name.

Contents of submissions may also be released to the public under the Official Information Act 1982 (OIA) if requested. In your submission, please clearly indicate if you wish any part to be withheld from release and the reason(s) for withholding the information. We will consider these factors when responding to OIA requests for copies of, and information on, submissions to this document.

The Privacy Act 2020 applies certain principles regarding the collection, use and disclosure of information about individuals by various agencies, including the Ministry for Primary Industries. It governs access by individuals to information about themselves held by agencies.

Any personal information you supply to the Ministry in the course of making a submission will be used by the Ministry only in relation to the matters covered by this document. Please clearly indicate in your submission if you do not wish your name to be included in the summary of submissions that the Ministry will publish.

You have the right to request access to or to correct any personal information you supply to the Ministry. If you have any questions about the publishing and releasing of submissions, or if you would like to access or correct any personal information you have supplied, please email mpi.forestry@mpi.govt.nz.

QUESTIONS FOR YOUR FEEDBACK

The questions below are a guide for your feedback. Please answer those that are most important to you; there is no need to answer them all.

Part A Managing the environmental (biophysical) effects of exotic carbon forestry

- Q A1** Do you agree with the problem statement set out above? Y/N Are there other things we should consider?
- Q A2** Have we accurately described the environmental effects of exotic carbon forests (Table 2)? Y/N What other environmental effects (if any) need to be managed that are different to those of plantation forests? Please provide evidence on the impact of these effects.
- Q A3** Do you agree that the environmental effects of exotic carbon forests should be managed through the NES-PF? Y/N Why?
- Q A4** The right-hand column of Table 2 sets out possible new regulatory controls. Please indicate if you disagree with any of these potential controls or feel we have missed anything, and explain or provide evidence.
- Q A5** Do you agree with option 2 for managing the environmental effects of exotic carbon forestry (amend the NES-PF to include exotic carbon forests)? Y/N Why?
- Q A6** Do you agree that a National Environmental Standard should manage [choose one]: (a) the environmental effects of exotic carbon forests only? Y/N or (b) environmental effects and forest outcomes, including transitioning from predominantly exotic to predominantly indigenous species? Y/N Why?
- Q A7** Do you agree with the proposal in option 2 (amend the NES-PF to include exotic carbon forests) to add wind effects as a matter of discretion to Regulation 17, to manage potential instability as a result of wind for all forests on red zone land? Y/N What benefits or drawbacks would there be from adding wind effects?
- Q A8** How effective would option 2 (amend the NES-PF to include exotic carbon forests) be in managing the environmental effects of exotic carbon forestry? [select from a range/scale not effective – highly effective] Why?
- Q A9** What implementation support would be needed for option 2 (amend the NES-PF to include exotic carbon forests)?
- Q A10** Do you agree with option 3 for managing the environmental effects of exotic carbon forestry (amend the NES-PF to require forest management plans for exotic carbon forests)? Y/N Why?
- Q A11** Do you agree that forest management plans should manage [choose one] (a) environmental effects only? Y/N or (b) environmental effects and forest outcomes, including transitioning from predominantly exotic to predominantly indigenous specie(s)? Y/N Why?
- Q A12** Based on your answer to the previous question, what content should be required in forest management plans?
- Q A13** How effective would option 3 (amend the NES-PF to require forest management plans for exotic carbon forests) be in managing the environmental effects of exotic carbon forestry? [select from a range/scale not effective – highly effective] Why?
- Q A14** What implementation support would be needed for option 3 (amend the NES-PF to require forest management plans for exotic carbon forests)?

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Part B Controlling the location of plantation and exotic afforestation to manage social, cultural and economic effects

- Q B1** Do you agree with the problem statement set out above? Y/N Are there other things we should consider?
- Q B2** Have we accurately described the social, cultural, and economic effects of plantation and exotic carbon afforestation at a community level (Appendix D refers)? Y/N What other social, cultural or economic effects should we be aware of? Please provide evidence on the impact of these effects.
- Q B3** Do you agree that the social, cultural and economic effects of plantation and exotic carbon forests should be managed through the resource management system? Y/N Why?
- Q B4** What is your preferred option for managing the social, cultural and economic effects of plantation and exotic carbon afforestation? Select from list: Option 1 (a local control approach); Option 2 (a consent requirement through national direction); No preference; I do not support either of these options. Why?
- Q B5** How effective would option 1 (a local control approach to managing the location of plantation and exotic carbon afforestation) be in managing the social, cultural and economic effects of plantation and exotic carbon afforestation? [select from a range/scale not effective – highly effective] Why?
- Q B6** What impact would option 1 (a local control approach to managing the location of plantation and exotic carbon afforestation) have on the rate and pattern of plantation and exotic carbon afforestation?
- Q B7** What are the benefits of option 1 (a local control approach to managing the location of plantation and exotic carbon afforestation)?
- Q B8** What are the costs or limitations of option 1 (a local control approach to managing the location of plantation and exotic carbon afforestation)?
- Q B9** If option 1 (a local control approach to managing the location of plantation and exotic carbon afforestation) is progressed, would making plan rules to manage the social, cultural and economic effects of plantation and exotic carbon afforestation by controlling its location be a priority for your community or district? Choose from a range Not a priority to high priority Why?
- Q B10** What implementation support would be needed for option 1 (a local control approach to managing the location of plantation and exotic carbon afforestation)?

If option 2 (a consent requirement through national direction, to control the location of plantation and exotic carbon afforestation) is further developed:

- Q B11** Are the variables outlined above (type of land, scale of afforestation, type of afforestation ie, plantation, exotic carbon, transitional) the most important ones to consider? Y/N What, if any, others should we consider?
- Q B12** Which afforestation proposals should require consent? (Please consider factors such as the type of land, the scale of afforestation, the type of afforestation (plantation, exotic carbon, transitional) and other factors you consider important).

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Based on your answers above:

- Q B13** How effective would option 2 (a consent requirement through national direction to control the location of plantation and exotic carbon afforestation) be in managing the social, cultural and economic effects of plantation and exotic carbon afforestation? [select from a range/scale not effective – highly effective] Why?
- Q B14** What impact would option 2 (a consent requirement through national direction to control the location of plantation and exotic carbon afforestation) have on the rate and pattern of plantation and exotic carbon afforestation? Please explain or provide evidence.
- Q B15** What are the benefits of option 2 (a consent requirement through national direction to control the location of plantation and exotic carbon afforestation)?
- Q B16** What are the costs and limitations of option 2 (a consent requirement through national direction to control the location of plantation and exotic carbon afforestation)?
- Q B17** What are the most important and urgent social, cultural and economic effects of plantation and exotic carbon afforestation that you would like to see managed under the resource management system? Where and at what scale do these effects need to be managed?
- Q B18** Should this be done now under the RMA, or later under the proposed National Planning Framework and NBA plans?
- Q B19** Would standards in an amended NES-PF need the support of national policies and objectives? Y/N Why?
- Q B20** What implementation support would be needed for option 2 (a consent requirement through national direction to control the location of plantation and exotic carbon afforestation)?

Part C Improving wildfire risk management in all forests

- Q C1** Do you agree that wildfire risk management plans (WRMPs) should be included in the NES-PF? Y/N Why?
- Q C2** Do you agree that the role of councils in monitoring the WRMP should be limited to ensuring that a plan has been developed? Y/N If not, what should the role of councils be?
- Q C3** Do you agree that a five-year review requirement is appropriate for WRMPs? Y/N Why?
- Q C4** Do you agree that a module for a WRMP that is consistent with farm plan templates could be used for farmers with forests to plan for managing wildfire risk? Y/N If no, please provide reasons.
- Q C5** What implementation support would be needed for this proposal?

Part D Enabling foresters and councils to better manage the environmental effects of forestry

Wilding conifer risk management

- Q D1** Do you agree with Proposal 1 for managing wilding risk (update the Wilding Tree Risk Calculator and guidance, and require the submission of a standardised worksheet

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assessment to councils at least six months prior to planting)? Y/N If not, please explain why.

- Q D2** Do you agree that extending the notification period for wilding conifer scores to no sooner than six months and no later than eight months before afforestation begins is an appropriate length of time? Y/N If not, what timeframe would you suggest and why?
- Q D3** Do you agree with Proposal 2 for managing wilding risk (require all forests to assess wilding tree risk at replanting)? Y/N If not, please explain why.
- Q D4** Do you agree that changes to regulation 79(6) will clarify the intent and avoid confusion over property access rights? Y/N Why?

Slash management

- Q D5** Do you agree with each of the proposed amendments to the NES-PF in relation to slash regulations, set out in Table 4? Y/N If not, please identify any you disagree with by referencing the number in the left-hand column of Table 4 and explain why you disagree.
- Q D6** What information about slash risk and slash management do you or your organisation require? What is the best way for you to receive this information?
- Q D7** What tools or information do you use to assess operational requirements for the 5 per cent annual exceedance probability (AEP) requirement?

Initial alignment with NES-Freshwater

- Q D8** Do you agree with each of the proposed changes to align the NES-PF with the NES-Freshwater, set out in Table 5? Y/N If not, please identify any you disagree with by referencing the number in the left-hand column of Table 5 and explain why you disagree.
- Q D9** Do you anticipate any unintended consequences from this proposal to align parts of the NES-PF with the NES-Freshwater?

Operational and technical issues

- Q D10** Do you agree with each of the proposed changes to the NES-PF to address operational and technical issues, set out in Table 6? Y/N If not, please identify any you disagree with by the number in the left-hand column of Table 6 and explain why you disagree.

In some cases we have not proposed an amendment but are seeking further information, as follows:

- Q D11 Temporary structures for river crossings (row D5d of Table 6):** Do you agree that this type of river crossing could be permitted under certain conditions? Y/N What conditions should be applied to the crossing as a permitted activity?⁸⁷
- Q D12 Dual culverts (row D5e of Table 6):** Is there a need to include double culverts in the regulations? Y/N If so, what permitted activity conditions should apply to these river crossings?
- Q D13 Culvert diameters (row D5g of Table 6):** Is a 325mm minimum internal diameter specification for stormwater culverts for forestry roads or forestry tracks in green, yellow and orange zones with a land slope of less than 25 degrees an appropriate minimum?

⁸⁷ Where an activity is permitted it must meet specified conditions. Where it cannot meet those conditions, it will require resource consent. That consent status will be determined based on the evidence of potential effects for the particular activity.

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(Think about the availability of culverts of this size and the products you commonly use or require). Y/N If not, please explain why.

- Q D14 Notice periods (row D7a of Table 6):** Do you agree that notice periods could be reduced or waived for earthworks, quarrying and harvesting in green and yellow zones? Y/N Please explain your answer with evidence to support your position. If you think notice periods could be reduced what would you suggest is an appropriate notice period?
- Q D15 Notice periods (row D7d of Table 6):** Where you have experience of annual notice periods (either positive or negative) please provide your views on whether annual notifications are working well or whether changes to the regulations are required. If you consider changes are required, please indicate what environmental risks will be better managed through change.
- Q D16 Indigenous vegetation (row D9b of Table 6):** If the definition of indigenous vegetation is changed to that used in the National Policy Statement for Indigenous Vegetation do you foresee any practical or operation issues for plantation forestry and enforcement of the regulations? Y/N Why?
- Q D17 Vegetation clearance (row D9c of Table 6):** Do you think there will be any negative consequences of amending the definition of vegetation clearance in the NES-PF to clarify that part (b) of the definition does not authorize any vegetation clearance but that a forest crop should generally be harvestable within the constraints of the regulations? Y/N Please provide evidence to support your views.
- Q D18 Incidental damage (row D9d of Table 6):** Please provide any evidence you have that the definition of incidental damage is causing issues for users and the nature of those issues. Do you have suggestions for how the definition could be less subjective while still achieving the intent of allowing minor damage to indigenous vegetation under limited circumstances?
- Q D19 Health and safety (row D12a of Table 6):** What additional information or resources could help foresters and councils make decisions that balance environmental outcomes with worker safety when managing slash?

Capacity and capability of local authorities to implement the NES-PF

Questions for councils and foresters

- Q D20** What sources of information or training do you currently use to inform your decisions for forestry?
- Q D21** What areas of forestry practice required by the NES-PF do you need more information about or training in?
- Q D22** What are the best forms of delivery for that information or training? This may include a range of delivery methods or forums.

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APPENDIX A: SUMMARY OF CURRENT AND PROPOSED CHANGES TO THE REGULATORY FRAMEWORK

Title Short description	Relevance for forestry
Current regulation	
<p>Fire and Emergency New Zealand Act 2017 provides the framework for fire risk and response</p>	<ul style="list-style-type: none"> • FENZ has Operational Service Agreements with most of the larger forestry enterprises. • FENZ is a party to the Plantation Forestry Rural Fire Control Charter.
<p>Biosecurity Act 1993 enables pest management, largely through regional council pest management plans; through surveillance plans, manages the risk of pests and novel diseases establishing.</p>	<ul style="list-style-type: none"> • Regional councils to develop and take action on regional pest management plans for their area,⁸⁸ including the risk of wilding tree spread. Enables partial management of wildings, pests and disease originating from planted forests. • Under a Government Industry Agreement, the Government and the forestry sector share the costs of surveillance, readiness, and managing future biosecurity threats that affect forestry.
<p>Wild Animal Control Act 1978 is the primary framework for regulation of ungulate and some other species, including farming and hunting; operates in tandem with the Biosecurity Act</p>	<ul style="list-style-type: none"> • Enables management or control of deer, chamois & tahr, and feral goats and pigs
<p>Forests Act 1949 sets the requirements for any harvest, milling or export of existing or regenerating indigenous forests on private land.</p>	<ul style="list-style-type: none"> • Regulates the harvesting, milling and exporting of indigenous timber and gives landowners limited options for timber

⁸⁸ S12b-14 of the Biosecurity Act 1993.

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	<p>income from indigenous forests.</p> <ul style="list-style-type: none"> • Outlines provisions and procedures for the sustainable management of indigenous forests under approved Sustainable Forest Management Plans and Permits.⁸⁹
<p>The Climate Change Response Act puts in place a legal framework to enable New Zealand to meet its international climate change obligations. It sets up the New Zealand Emissions Trading Scheme (NZ ETS) and regulations are made under the Act to manage different sectors.</p>	<ul style="list-style-type: none"> • The Climate Change (Forestry Sector) Regulations 2008 set out rules to manage requirements for forest land under the NZ ETS.⁹⁰ • The NZ ETS requires the forestry sector to report their annual greenhouse gas emissions to the Government. • Forests sequestering carbon can earn NZ Units if eligible for the NZ ETS.
<p>The Local Government Act 2002 enables (only) regional councils to make bylaws for forestry⁹¹.</p> <p>Regional, district and unitary responsibilities will likely be altered through the Government's review of local government.⁹²</p>	<ul style="list-style-type: none"> • Bylaw-making powers are limited to the forests that the regional council owns or controls.
<p>Freshwater Fisheries Regulations 1983 provide the general framework for freshwater fisheries management</p>	<ul style="list-style-type: none"> • Includes requirements for fish passage and a process for granting exemptions. NES-F standards are consistent with the FWFRs
<p>The national policy statement for freshwater management (NPS-FM) directs regional councils on managing freshwater under the RMA.</p> <p>More information:</p>	<ul style="list-style-type: none"> • The NES-PF sets controls for managing the effects of forestry on freshwater, but regional councils may make more stringent rules.

⁸⁹ Part IIIA of the Forests Act 1949 (as amended).

⁹⁰ https://www.legislation.govt.nz/regulation/public/2008/0355/latest/DLM1633759.html?search=ts_regulation%40deemedreg_climate+change_resel_25_a&p=1

⁹¹ S. 149(1)a of the Local Government Act 2002.

⁹² <https://www.dia.govt.nz/Future-for-Local-Government-Review>

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<p>https://environment.govt.nz/acts-and-regulations/national-policy-statements/national-policy-statement-freshwater-management/ https://environment.govt.nz/acts-and-regulations/national-policy-statement-freshwater-management/</p>	<ul style="list-style-type: none"> • Improve degraded water bodies and maintain or improve all others, using bottom lines defined in the NPS-FM. • Avoid any further loss or degradation of wetlands and streams, map existing wetlands and encourage restoration. • Identify and work towards target outcomes for fish abundance, diversity and passage, and address in-stream barriers to fish passage over time.
<p>The National environmental standards for freshwater (NES-F) regulates activities that pose risks to the health of freshwater and freshwater ecosystems.</p> <p>More information:</p> <p>https://environment.govt.nz/acts-and-regulations/regulations/national-environmental-standards-for-freshwater/ https://environment.govt.nz/acts-and-regulations/regulations/national-environmental-standards-for-freshwater/</p>	<ul style="list-style-type: none"> • The NES-PF sets controls for managing the effects of forestry on freshwater, and prevails over the NES-Freshwater.⁹³ <p>The NES-Freshwater standards are designed to:</p> <ul style="list-style-type: none"> • protect inland and coastal wetlands • protect urban and rural streams from in-filling, and • ensure connectivity of fish habitat (fish passage).
<p>The New Zealand Coastal Policy Statement provides direction for resource management policy and planning in the coastal environment.</p> <p>More information:</p> <p>https://environment.govt.nz/acts-and-regulations/national-policy-statements/new-zealand-coastal-policy-statement/ https://environment.govt.nz/acts-and-regulations/national-policy-statements/new-zealand-coastal-policy-statement/</p>	<ul style="list-style-type: none"> • Provides direction for afforestation and forestry-related activities in the coastal environment, including coastal waterways and wetlands. The coastal environment is defined in regional coastal plans and is generally the land between the coastal marine area and the dominant ridgeline to landward

⁹³ Regulation 7 <https://www.legislation.govt.nz/regulation/public/2020/0174/latest/LMS364212.html>

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					<ul style="list-style-type: none"> • The NES-PF sets controls for managing the effects of forestry on coastal marine areas. Regional councils may make more stringent rules to give effect to policies/objectives relating to: indigenous biological diversity; preserving natural character, natural features and natural landscapes; and sediment in the NZ-CPS. • The NZ-CPS directs councils in their day-to-day management of the coastal environment.
Proposed regulation					
<p>New Zealand Emissions Trading Scheme (NZ ETS)</p> <p>In March and April 2022, the Government consulted on: Managing exotic afforestation incentives by changing the forestry settings in the NZ ETS. The key proposals included:</p> <ul style="list-style-type: none"> - excluding exotic forests from the permanent post-1989 category in the NZ ETS - whether to adjust how carbon accounting applies to forests on remote and marginal land - opportunities to improve incentives for indigenous afforestation. <p>For more information on the NZ ETS proposals and consultation, see the full discussion document: www.mpi.govt.nz/consultations/managing-exotic-afforestation-incentives/</p>	<p>Incentives for afforestation are a key driver for the rate and type of afforestation.</p> <p>Feedback received during that consultation has also informed our analysis for this discussion document.</p>	<p>Incentives for afforestation are a key driver for the rate and type of afforestation.</p> <p>Feedback received during that consultation has also informed our analysis for this discussion document.</p>	<p>Incentives for afforestation are a key driver for the rate and type of afforestation.</p> <p>Feedback received during that consultation has also informed our analysis for this discussion document.</p>	<p>Incentives for afforestation are a key driver for the rate and type of afforestation.</p> <p>Feedback received during that consultation has also informed our analysis for this discussion document.</p>	
<p>Overseas Investment Act Forestry Review: Removing Forestry Conversions from the Special Forestry Test</p> <p>In May 2022 the Government tabled legislation to remove farm to forestry conversions from the Overseas Investment Act special forestry test; this specifies that forestry conversions instead go through the Benefit to New Zealand Test.</p>					<p>This change will ensure that, through the overseas investment screening regime, forestry conversions demonstrate benefits to New Zealand by aligning the assessment of forestry conversions with the approach taken under the Act for most other land-based investments.</p>

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	<p>The Benefit to New Zealand test is more complex than the special forestry test. It requires in-depth consideration of the additional benefits of the investment across seven factors⁹⁴. It involves greater discretion for decision-makers and would apply only to investments that are conversions from another land use (eg, farming) into forestry.</p>
<p>The proposed National Policy Statement for Highly Productive Land (NPS-HPL) will seek to maintain the availability of highly productive land for future primary production.</p> <p>More information: https://environment.govt.nz/acts-and-regulations/national-policy-statements/proposed-nps-highly-productive-land/ https://environment.govt.nz/acts-and-regulations/national-policy-statements/proposed-nps-highly-productive-land/</p>	<p>The objective of this NPS is to protect highly productive land for agriculture, pastoral, horticultural, or forestry activities that rely on the soil resource, both for now and for future generations.</p>
<p>The National Policy Statement for Indigenous Biodiversity (NPS-IB) will seek to clarify minimum standards to maintain biodiversity and raise the value and profile of indigenous biodiversity in decision- making.</p> <p>More information: https://environment.govt.nz/acts-and-regulations/national-policy-statements/proposed-nps-indigenous-biodiversity/ https://environment.govt.nz/acts-and-regulations/national-policy-statements/proposed-nps-indigenous-biodiversity/</p>	<ul style="list-style-type: none"> • Includes a definition for SNAs and a timeframe for councils to locate, describe and map SNAs • Makes special provision for management of areas within plantation forest that meet SNA criteria

⁹⁴ <https://www.lin.govt.nz/overseas-investment/discover/overseas-investment-tests/benefit-new-zealand-test#:~:text=The%20benefit%20to%20New%20Zealand%20test%20is%20applied%20to%20transactions,assessing%20applications%20against%207%20factors.>

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APPENDIX B: EXISTING REQUIREMENTS FOR FOREST MANAGEMENT PLANS

Climate Change Response Act 2002	Applicants to the ETS need to comply with the requirements of the RMA but this but this does not encompass ongoing management of the forest. A decision over any further links between the CCRA and the RMA would be required if forest management plans under the RMA were to provide a regulatory function under the CCRA.
Forests Act 1949	Applications for a sustainable management permit under this Act are commented on by the Director-General of Conservation and, in the case of Māori land, the Chief Executive of the Ministry of Māori Development (Te Puni Kōkiri) prior to their approval. Clarity is required over any overlap where forests are transitioning to predominantly indigenous species and limited harvest is envisaged.
Biosecurity Act 1993	Controls pests and diseases for forest, pests from forests (including wilding tree spread to neighbouring properties), and wider ecosystem health (as distinct from the weeds and pests controlled for biodiversity purposes under the RMA).
Fire and Emergency New Zealand Act 2017	Controls fire preparedness and response (as distinct from the control of wildfire for RMA purposes as set out in Part C of this discussion document).
Industry standards, eg, Forest Stewardship Council (FSC), Programme for the Endorsement of Forest Certification (PEFC)	Already require management plans.

APPENDIX C: ENVIRONMENTAL EFFECTS OF EXOTIC FORESTRY AND AFFORESTATION

Category of effect	Type of effect from plantation and exotic carbon forestry	Difference between plantation and exotic carbon forestry
Biodiversity/ ecological	<p>Adverse:</p> <ul style="list-style-type: none"> Wilding tree spread risk Habitat for mammalian pests and weeds Potential for tree diseases, which can spread into surrounding forests <p>Positive:</p> <ul style="list-style-type: none"> Regulates water supply and quality Supports restoration/regeneration, especially by including indigenous planting (eg, mixed forests) Both plantation and exotic carbon forests can provide good habitat for some indigenous species, particularly as part of a corridor effect Shade for aquatic biodiversity Improving air quality 	<p>Positive and adverse effects can arise from both practices. The nature and extent of outcomes often depends on forestry management.</p>
Natural hazards	<p>Adverse:</p> <ul style="list-style-type: none"> Higher risk of hazards during harvest and in the post-harvest window, particularly under intense rainfall (accelerated erosion, mid-slope failure, mobilisation of forestry slash) Increased impact of wildfires <p>Positive:</p> <ul style="list-style-type: none"> Reduced risk of erosion and landslip, particularly on erosion-prone land Management of flood flows 	<p>Risk of wildfire depends on management regime and fire surveillance. The risk is often less for plantation forests, where pruning reduces fuel load, surveillance is regular and fire plans exist.</p> <p>Adverse effects of forest harvest on erosion, flood risk, mobilisation of forest slash.</p> <p>Carbon forestry has greater positive effects on erosion-prone land, as long as species and density promote stability.</p>
Landscape	<p>Adverse:</p> <ul style="list-style-type: none"> Landscape effects of exotic carbon afforestation on open rural landscapes (including significant, rural scenic, outstanding natural landscapes, outstanding natural character in the coastal environment). 	<p>Permanence of the land use can increase the extent of the landscape effect, both positive and negative. Harvesting/clearfells of plantation forestry increase adverse landscape effects.</p>

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Category of effect	Type of effect from plantation and exotic carbon forestry	Difference between plantation and exotic carbon forestry
	<ul style="list-style-type: none"> • Reverse sensitivity Positive: • Low landscape impact within gullies and on erosion-prone hill slopes • Mixed forests can support indigenous forest restoration • Enhances the appearance of the landscape 	

APPENDIX D: SOCIAL, CULTURAL AND ECONOMIC EFFECTS OF PLANTATION AND EXOTIC AFFORESTATION

This summary considers three broad types of forestry: plantation forestry intended for harvest; exotic carbon forestry not intended for harvest; and a transitional model under which exotic species are replaced by indigenous species over time. Within each category, forest management regimes and practices will influence social, economic and cultural effects on local communities. Plantation forestry may also benefit communities through post-harvest activity if this is done locally. Other factors include the social and economic profile of the community, and how the afforestation would contribute to the community, by comparison with the status quo.

	Social and cultural effects		
	Plantation	Exotic carbon forestry	Transitional exotic to indigenous
Rural population	Strongly linked to effects on local employment opportunities (below) ie, whether an increase in forestry jobs outweighs any job losses from a reduction in other activities. Population gain or loss may have indirect effects on social infrastructure and facilities (eg, support networks, schools, healthcare, sports).	Strongly linked to effects on local employment opportunities (below). Likely overall loss of jobs, flowing through to population loss. Population loss may have adverse indirect effects on social infrastructure and facilities (eg, support networks, schools, healthcare, sports).	Strongly linked to effects on local employment opportunities (below) and hence dependent on management regime and age of forest. Population gain or loss may have indirect effects on social infrastructure and facilities (eg, support networks, schools, healthcare, sports).
Rural infrastructure	Positive or negative effect on rating base if population and businesses are gained or lost. In some areas, road damage and increased safety risk from logging trucks at harvest time.	Adverse effect of depopulation on rating base if people move outside the district.	Positive or negative effect on rating base if population and businesses are gained or lost.
Cultural wellbeing	Afforestation may be a threat to the wellbeing of wāhi tapu sites. Cultural values such as spirituality and kaitiakitanga can be regionally specific, and similar activities may affect groups differently. Increased afforestation: <ul style="list-style-type: none"> provides greater access to these areas for collecting traditional materials 	As for plantation forestry re effects on wāhi tapu sites. Cultural values such as spirituality and kaitiakitanga can be regionally specific, and similar activities may affect groups differently. May strengthen iwi and hapū connections to their land. Without financial resources being established through employment or incentives, any cultural wellbeing could be oppressed or lost as	Cultural values such as spirituality and kaitiakitanga can be regionally specific, and similar activities may affect groups differently. Positive effect on Māori forest owners given the extensive mātauranga about indigenous forests. Opportunity to exercise kaitiakitanga relationships with taonga species. Increased afforestation:

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	Social and cultural effects		
	Plantation	Exotic carbon forestry	Transitional exotic to indigenous
	<ul style="list-style-type: none"> multiple avenues for traditional cultural activities. can provide greater access for recreation. may strengthen iwi and hapū connections to their land. 	people are needed to keep cultures vibrant and developing, and to protect sites of significance.	<ul style="list-style-type: none"> provides greater access to these areas for collection of traditional materials provides multiple avenues for traditional cultural activities can provide greater access for recreation may strengthen iwi and hapū connections to their land.
Health and wellbeing	<p>Mental health and wellbeing impacts if afforestation is experienced as rapid change beyond individuals' control.⁹⁵</p> <p>Effects on community sense of identity if tied to a pattern of land use or activities. Rapid or widespread change may be challenging for individuals and communities.</p> <p>Māori communities may suffer more negative impacts on health and economic wellbeing where there are inequities.</p>		

⁹⁵ The Impacts of Afforestation on Rural Communities: A case study in the Tararua District of New Zealand (Heather Collins and Angela McFetridge, prepared for Tararua District Council, 2021) recognised positive and negative impacts of afforestation. It reported that some participants considered change was happening *to* them rather than *with* them, and described a loss of community and connection with place and people, among other impacts.

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	Economic effects		
	Plantation	Exotic carbon forestry	Transitional exotic to indigenous
Contribution to local and regional economies	<p>Income per hectare may be higher than from farming over the productive life of the forest.⁹⁶ ⁹⁷</p> <p>At community level, income and expenditure may be variable and irregular, depending on the mix of ages, silvicultural regime and rotation length of local forests.⁹⁸</p> <p>Continuous cover forestry models may provide more stable employment once harvest starts.</p> <p>Income and expenditure likely to be more regular if post-harvest processing plants or support services are established or expanded locally.</p> <p>Multiple rotations enable perpetual (albeit intermittent) income stream.</p> <p>May provide wider opportunities to diversify the local economy, for example tourism and recreational (eg, hunting, mountain biking).</p>	<p>Higher returns from carbon than from farming, for the period of eligibility for carbon credits, currently 50 years. Nil income beyond that unless felled.</p> <p>Little expenditure within the local community – eg, planting, pest control.</p> <p>Opportunities for economic investment by Māori as Whenua Māori (Māori land including freehold and customary land) is disproportionately on land considered marginal, steep or erosion prone.</p> <p>Different corporate structures and ownership models where afforestation involves the sale of former farmland.</p>	<p>Dependent on management regime and age of forest. Carbon income for the period of eligibility for carbon credits, currently 50 years. Nil carbon income beyond that; potential for other income streams depending on management regime, owners' objectives and other factors.</p> <p>Opportunities to diversify the local economy eg, supply of seedlings. In some cases, potential for selected harvesting of indigenous species (50-60 year minimum rotation), wood processing or tourism/recreation.</p> <p>Different corporate structures and ownership models where afforestation involves the sale of former farmland.</p>

⁹⁶ Economic Impact of Forestry in New Zealand (PwC for Te Uru Rākau – New Zealand Forest Service, May 2020) concluded that across the value chain production forestry generates significantly more value-add per hectare than sheep and beef farming (\$4.6m per 1000 hectares compared with \$1.7m). The report comments that its figures are national averages for the whole supply chain, and do not reflect the impacts from any particular 1000 hectares.

⁹⁷ Social and economic impacts of large-scale afforestation on rural communities in the Wairoa District (BakerAg, 2019, prepared for Beef + Lamb New Zealand) estimates Net Present Value (NPV) over 60 years as \$4225 for sheep and beef farming, \$659 for a plantation forest not receiving carbon income, \$8410 for a plantation forest receiving carbon credits under the ETS, and \$9386 for carbon farming with no harvesting. The analysis assumed a carbon price of \$25/t.

⁹⁸ For example, economic, social and cultural impacts of large-scale afforestation on rural communities in the Wairoa District (BakerAg, 2019, prepared for Beef + Lamb New Zealand) estimated direct local expenditure from harvest (plantation) forestry at \$107,283 per 1000 hectares per year for the first 29 years, increasing exponentially to \$4,290,482 per 1000 hectares in year 30 (harvest).

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	Economic effects		
	Plantation	Exotic carbon forestry	Transitional exotic to indigenous
	<p>Different corporate structures and ownership models where afforestation involves the sale of former farmland.^{99 100}</p> <p>May provide more opportunities for Māori who have significant economic investment in the broader primary industries and large amounts of land that is likely suitable for some form of forestry.</p>		
Employment opportunities ^{101 102} and local services	<p>Depending on scale of land use change and local economic activity prior to afforestation, a reduction in:</p> <ul style="list-style-type: none"> • stable on-farm employment • contract work (e.g. shearing, fencing); or - farm support services (eg, vets, farm consultants, agricultural contractors), or 	<p>As for plantation forestry re impact on farming-related jobs and services.</p> <p>Very few forestry employment opportunities beyond planting.¹⁰⁴</p>	<p>As for plantation forestry re impact on farming-related jobs and services.</p> <p>Forestry employment opportunities dependent on management regime and age of forest. Actively managed forests may offer more employment than some pastoral uses on low versatility land.</p> <p>New employment opportunities may be irregular or seasonal.</p>

⁹⁹ Compendium of New Zealand Farm Facts 2021 45th edition (Beef + Lamb New Zealand) reports that approximately 92% of sheep and beef farms are owner-operated.

¹⁰⁰ At 1 April 2021 most of New Zealand's forests are relatively small. Te Uru Rākau – New Zealand Forest Service estimates there are more than 10,000 owners with forests smaller than 40 hectares, most of them farm foresters. Between 40 hectares and 9,999 hectares there is a mix of ownership structures, and of foresters and farm foresters. New Zealand's largest forests are owned by 29 entities comprising large corporate foresters, iwi, and some family ownership structures. Collectively this group owns 1,027,787 hectares of forests above 10,000 hectares. Source: <https://www.mpi.govt.nz/dmsdocument/49111-2021-NEFD-tables>

¹⁰¹ Economic, and social and cultural impacts of large-scale afforestation on rural communities in the Wairoa District (BakerAg, 2019) estimates of local jobs per annum per 1000 hectares were: 7.4 for sheep and beef farming, 5.1 for plantation forestry averaged across an assumed 30 year rotation, but unevenly distributed with an average of 2.2 jobs per annum for the first 29 years and up to 89 jobs in the harvest year. The report estimates 0.6 local jobs per annum per 1000 hectares for carbon farming with no harvesting.

¹⁰² Economic Impact of Forestry in New Zealand (PwC for Te Uru Rākau – New Zealand Forest Service, May 2020) modelled employment impacts at a national level and concluded 7 FTE jobs are generated directly by the sheep and beef value chain, per 1,000 hectares, and 11 by the forestry value chain.

¹⁰⁴ Economic Impact of Forestry in New Zealand (PwC for Te Uru Rākau – New Zealand Forest Service, May 2020) modelled employment impacts at a national level and concluded almost no employment impacts are generated from permanent carbon forestry, by comparison to sheep and beef and plantation forestry.

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	Economic effects		
	Plantation	Exotic carbon forestry	Transitional exotic to indigenous
	<p>increased distance and cost to access these services</p> <ul style="list-style-type: none"> • processing (meat, wool, co-products). <p>Over time, growth in:</p> <ul style="list-style-type: none"> • forestry work (e.g. planting, pruning, harvesting), including for Māori who make up about 40% of the sector workforce¹⁰³ • support services (e.g. seedling supply, trucking) • timber and biofuel processing • forest and operations management (managerial, specialist and technical roles). <p>Dependent on:</p> <ul style="list-style-type: none"> • location of management and processing functions, and whether forestry workers live locally • access to training and education • the end product (e.g. logs for export vs finished timber and other products) • time lag between reduction in farming activity and growth in forestry opportunities – greatest demand for 		<p>Existing skillsets and work preferences may not translate easily to new opportunities.</p>

¹⁰³ Te Ōhanga Māori 2018: The Māori Economy 2018 (Reserve Bank, BERL, 2018: [Te Ōhanga Māori 2018.pdf \(berl.co.nz\)](http://berl.co.nz))

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	Economic effects		
	Plantation	Exotic carbon forestry	Transitional exotic to indigenous
	<p>forest-related labour is at (or after) harvesting.</p> <p>New employment opportunities may be irregular or seasonal.</p> <p>Existing skill sets and work preferences may not translate easily to new opportunities.</p>		
Forestry production	<p>Increase in wood products, biofuels and carbon sequestration, in perpetuity if each harvest is followed by replanting.</p>	<p>Increase in carbon sequestration, dependent on the life of the forest.</p>	<p>Increase in carbon sequestration, in perpetuity assuming a carbon (naturally regenerating) indigenous forest is established.</p> <p>Potential increase in wood products over the long term, depending on management regime, for example selective harvesting of indigenous trees.</p>
Farm production	<p>Reduction in farmland.¹⁰⁵ Depending on the quality of the land and its previous productivity, potential for a reduction in meat, wool and co-products with flow-on effects across the value chain.¹⁰⁶ The impact may extend beyond the local area due to the movement of livestock within the wider food production system (eg, lambs bred on hard hill and high country sent off for finishing on easier land). Potential for a disproportionate effect on products best suited to hill and high country, for example fine wool.</p>		

¹⁰⁵ Analysis commissioned by Beef + Lamb New Zealand of rural property sales between 1 January 2021 and 30 June 2021 estimated whole farm sales purchased for exotic forestry totalled an estimated 11,585 hectares. 80.7% of the whole farms sold into forestry were in clear pasture; 72.6% was in LUC 6, 18.1% in LUC 7 and 0.2% in LUC 8. (Independent validation of land-use change from pastoral farming to large-scale forestry, Orme & Associates, November 2021).

¹⁰⁶ "B + LNZ estimate that transitioning productive land to exotic forestry over the last three years has resulted in a reduction of up to 700,000 stock units (or 700,000 sheep), with downstream implications for processing companies and supplying services." (Independent research highlights need for limits on forestry offsetting for fossil fuel emitters, Beef + Lamb New Zealand, 4 August 2021.)

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	Economic effects		
	Plantation	Exotic carbon forestry	Transitional exotic to indigenous
	<p>An exception is the integration of forestry within a farm, particularly on the less versatile land. This may bring an increase in farm production on the more versatile land. This would be consistent with the Climate Change Commission’s demonstration path for its recommended emissions budgets, under which sheep and beef stock units would reduce while production per animal increases.¹⁰⁷</p> <p>Diversification through the continued integration of forestry on farms may spread risk and provide environmental benefits such as erosion control, better management of water flows, and the ability to offset the farm’s greenhouse gas emissions.</p>		
Opportunity for future land use change	<p>Afforestation is a long-term change in land use, with periodic (but infrequent) opportunities for future changes, after each harvest.</p> <p>For plantation forests registered under the NZ ETS there is a strong incentive to replant.</p> <p>Future conversion to pastoral or other uses remains an option but may be difficult or costly – eg, due to acidification, residual stumps and slash.</p> <p>If afforestation has resulted in loss of farm support services over time, conversion back to farming may be difficult or costly.</p>	<p>Very long-term change in land use.</p> <p>Future land use beyond the natural life of the trees uncertain.</p> <p>Risk of abandonment once carbon revenue is exhausted.</p>	<p>Permanent change in land use.</p> <p>This is important for Māori who require significant financial resourcing to achieve aspirations of native afforestation, clean waterways etc.</p>

¹⁰⁷ Nationally, sheep and beef animal numbers are projected to fall by around 8% from 2019 levels by 2030, under the Current Policy Reference case in the Climate Change Commission’s advice to the Government. The projected increase is due to continued retirement of farmland and land-use change to forestry. The Commission’s demonstration path sees deeper reductions in sheep and beef animal numbers of an additional 5 percentage points below 2019 by 2030, with only a small additional drop in meat production of around 1 percentage point, on the assumption that farmers will make significant productivity gains at the same time as reducing livestock numbers. This includes the impact of new native forests established on sheep and beef farms, which is assumed to have a small effect on production. ‘Ināia tonu nei: a low emissions future for Aotearoa’ (He Pou a Rangi Climate Change Commission, 2021).

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There is also some evidence that the increasing demand for forestry land is placing upwards pressure on rural land prices.¹⁰⁸ ¹⁰⁹ This is not an effect of afforestation itself but rather of the changing economics of different land uses. We consider that, over time, different types of forestry are likely to have different impacts on the value of rural land, as follows:

- Land used for plantation forestry is expected to maintain its value through multiple rotations.
- Land used for exotic carbon forestry is likely to reduce in value over time. The value may become very low as the forest approaches the end of its eligibility for carbon income and beyond.
- The long-term impact on land prices of a transition from exotic to permanent indigenous forest is uncertain.

¹⁰⁸ For example, a green paper prepared by Yule Alexander comments that a significant percentage of sheep and beef farm sales in 2021 on the East Coast of the North Island have gone to forestry use, significantly lifting prices and farm equity. The report comments that there are both benefits and downsides to the higher land value. 'Managing Forestry Land-Use under the influence of Carbon – The Issues and Options – A Green Paper' (Yule Alexander, February 2022).

¹⁰⁹ Analysis commissioned by Beef + Lamb New Zealand of rural property sales between 1 January 2021 and 30 June 2021 comments: "With projected returns on forestry investments increasing due to the addition of carbon revenues, 'forestry' is now able and prepared to pay more for the land than 'traditional farming', and as forestry buyers have arrived on the scene, some landowners have chosen to take the opportunity to benefit, with the time being right to move on to the next farm or next stage in life ... The evidence would, on the surface, suggest that the price of carbon has certainly had an increased effect on not only the land values, but also the type of land that is able to be traded..." ('Independent validation of land-use change from pastoral farming to large-scale forestry', Orme & Associates, November 2021).

APPENDIX E: WILDING CONIFER TECHNICAL ADVISORY GROUP RECOMMENDATIONS FOR THE WILDING TREE RISK CALCULATOR

In summary the TAG recommends the following changes to the calculator and its use:

- To improve accuracy, and therefore certainty, in the calculator's scoring, update the assessment structure and the criteria to establish a risk score by:
 - removing existing criteria that are inherently unreliable or are correlated with other existing criteria
 - assessing and recording the level of uncertainty about each criterion, to give a level of confidence
 - aligning the consent threshold with the new scoring, to maintain the same regulatory requirement levels.
- Attune the calculator to *Pinus radiata* and Douglas fir, the predominant plantation species, as these put the greatest proportional pressure on potential wilding spread. Other commercial species will remain in the calculator.
- Calculator score sheets should follow a worksheet template that requires the assessment workings to be submitted to councils alongside the scores. This will increase consistency in assessment quality and transparency for councils.
- Further work is required on novel, potential and existing commercial species to incorporate into the calculator.
- Changes to the calculator and its guidance should be reviewed in five years to assess how they are being applied.
- To ensure the science underpinning the calculator is up to date, the calculator should be reviewed at least every five years.

Expert advice

The report on the Year One Review of the NES-PF revealed some issues with the calculator. In response, Te Uru Rākau – New Zealand Forest Service has sought expert advice on potential improvements, based on scientific evidence, to help with the review consultation process.

The advice below was compiled through online workshops and is endorsed by TAG experts, and the Winning Against Wildings and Viva La Resistance research programmes. This group are not experts in policy, and have been engaged to provide technical advice on improving the calculator.

Recommended improvements to calculating wilding tree risk

1. Rebuild the calculator's criteria to target the three factors that are most important for spread risk: propagule pressure, dispersal potential, and likelihood of establishment. Each is composed of a number of criteria, and each criterion will be given a risk score based on available scientific evidence.
 - a. **Propagule pressure** – the predicted number of seeds produced and released from the mature plantation over its productive lifetime. Proposed criteria may include:
 - i. Species seed production volume – species vary widely in their time to maturity and seed production.
 - ii. Species seed release potential – some species are more or less likely to release seeds in specific environmental conditions.

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- iii. Climate at the site (eg, high country/lowland) – seed production changes predictably with climate and site productivity.
 - iv. Spatial configuration of plantation (eg, edge to centre ratio of area) – the greater the exposed edge compared to centre, the more cones are exposed and released into the environment unhindered.
- b. **Dispersal potential** – how far the seeds travel into the surrounding environment under average wind conditions during the seed release period. Proposed criteria may include:
- i. Seed terminal velocity (ie, how quickly seeds fall in still air) – seeds from different species travel different distances.
 - ii. Site exposure to winds – plantations on steeper slopes/ridge tops are more exposed to strong winds or turbulence, which will disperse seeds further.
 - iii. Predicted dispersal kernel (ie, distances over which seeds fall from a source) around the proposed plantation under normal climatic conditions, where up to 95 per cent of seeds are likely to fall.
- c. **Likelihood of establishment** – what proportion of the dispersed seeds go on to germinate and grow into wilding populations. Proposed criteria may include:
- i. The species involved – different species have different survival rates, and larger seeds have higher survival rates.
 - ii. Shade tolerance – some species can establish in shady conditions, while others need to be exposed to sunlight.
 - iii. Frost tolerance – some species are more prone to frost fatality than other species.
 - iv. Land cover class of surrounding land (land cover database) – different types of vegetative cover can either support or suppress seedling germination. Data is available for *P. radiata* establishment associated with these classes.
2. Assign each criteria score an associated uncertainty score. This will reflect the confidence in the accuracy of the criteria score. It will allow the calculator to be more refined in its assessment than the current system, which deals only in absolute scores.
 3. Remove the palatability criteria – current data shows that browsing has little impact on species establishment, and that there is high uncertainty about this variable over the lifetime of a plantation. Current scores centre on browsing by sheep, but over the lifetime of the forest the rates of surrounding browsing can change. If surrounding stocking rates are reduced or removed, even for a short period, seedlings can quickly establish.
 4. Remove the land use criteria. This is because there is too much uncertainty inherent in assessing this criterion, since land use can change significantly over the lifetime of a plantation. This aspect of risk assessment is also linked to species' palatability and vegetative cover – both are more effectively measured by land cover class of the surrounding land.
 5. Given that *P. radiata* and Douglas fir make up 96% by area of the current plantation estate, attune the calculator to these two conifer species based on evidence, and assess and reflect the spread risk of new species in the calculator as required.

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6. Collect further data to underpin criteria scores for the *Pinus radiata x attenuata* hybrid. Although *P. radiata* and Douglas fir make up 96 per cent of current plantations, further work is needed to address new commercial species, such as the *P. radiata x attenuata* hybrid, to include them in the calculator. It is currently assumed that this hybrid shares similar spread risk scores to *P. radiata*, but this has not been confirmed. This is important for ensuring suitable species are being planted in suitable places.
7. Remove *Pinus contorta*, which has been designated an unwanted organism under the Biosecurity Act. This species is no longer allowed to be planted.

Recommended improvements to applying the wilding tree risk

8. Regularly view any improvements to the calculator. We suggest every five years. The calculator and the accompanying guidance should be regularly maintained and updated to ensure the most current knowledge of wilding tree risk is being used.
9. To ensure calculator improvements are easily measurable within the five-year period, we recommend that Te Uru Rākau – New Zealand Forest Service set up a formal review process that collects and reviews wilding tree risk assessments submitted to councils.
10. Design an electronic worksheet template for submitting wilding tree risk assessments. This will help with consistency in applications and approach, and will also be helpful for training and auditing purposes.
11. Revisit the threshold score to reflect any changes in the calculator's criteria. Further development of the criteria, and alignment with policy decisions, will be necessary to settle on the appropriate risk threshold.
12. Change the name of the calculator to the Wilding Tree Risk Assessment Tool. Using 'calculator' indicates precision, whereas there will always be some uncertainty in this type of assessment.
13. We recommend that a borderline score close to the threshold limit in the calculator triggers the applicant to undergo a peer review (by a suitably qualified person registered with an institution or professional association, with a code of ethics and discipline committee). For example, with the current calculator 12 is the trigger for consenting under NES-PF regulation 11(3), so a score of 11/20 will be peer-reviewed.

Recommended improvements outside the calculator's scope

14. The surest way to stop wilding tree risk is to remove seeds from the equation. This can be achieved by planting sterile trees. Gene editing has already produced sterile Douglas fir trees in a controlled trial. This type of development presents an opportunity to significantly reduce the risk of wilding trees spreading from plantations. However, legislative and societal barriers exist to planting them in New Zealand. It is recommended that the Government investigate how to remove these barriers.
15. 'Ground truth' the improved calculator or risk assessment tool, to provide the evidence to understand how changes to the calculator affect wilding spread. This may require a large study but is important to understand the effectiveness of the criteria, and the overall score in managing risk. This study could be done using existing planted forests that are of coning age, and retrospectively applying a new risk assessment. This would be correlated with the seen wilding spread and the forest owner's control of spread.

APPENDIX F: ADDITIONAL INFORMATION ON THE EROSION SUSCEPTIBILITY CLASSIFICATION

The Erosion Susceptibility Classification (ESC) is a spatial tool that provides a meta-layer derived from the NZ Land Resource Inventory (NZLRI),¹¹⁰ developed in the 1970-80s. It groups the NZLRI's Land Use Capability (LUC) units according to their erosion risk under a short rotation plantation forestry regime. It maps land at a 1:50,000 scale, because underlying NZLRI data is not more specific than this at a national scale.

About three-quarters of any off-site sediment risk from forest operations is due to mass movement issues (depending on site characteristics, particularly rock type).¹¹¹ Measures that avoid exacerbating these risks are important to build into forest operations.

The ESC was developed as a drafting gate for resource consent. Land with very high risk of mass movement erosion (red zone) requires resource consent for most forestry activities, including afforestation. The intent of the NES-PF is that on highly erosion-prone land, new forests should not be planted if harvest will create a legacy issue for the land and downstream communities. The local council should assess the appropriateness of afforestation, with wide matters of discretion and the ability to refuse consent.

Scale

When the ESC was developed it was understood that a tool that maps land at a 1:50,000 scale would not provide enough erosion risk information at a forestry planning level. To address this, the NES-PF requires that forestry earthworks and harvest plans include mapping at a 1:10,000 scale, so that on-site planning reflects the site-specific erosion risk (see Schedule 3(2)(a)).

Forestry quarrying requires mapping to 1:1,000 – 1:5,000 for planning (see Schedule 4(2)(a)). Feedback since the NES-PF came into force indicates that this requirement is not understood by all users of the NES-PF. Te Uru Rākau – New Zealand Forest Service has issued guidance on this¹¹² but we are also proposing minor changes to clarify the requirement (see proposal D10a in Part D).

Accuracy of a national tool

The review noted that some regions have questioned the accuracy of the ESC at a finer scale. Since the ESC was conceived of and developed, we have seen advances in the tools and the science that can be applied on a site specific, and sometimes a catchment basis. Efforts to understand erosion susceptibility and predict sediment pathways have increased since sediment attributes were developed in the NPS-FM. Regional councils are working through how they will meet these targets.

For example, coupling the LUC information that underpins the ESC with LiDAR¹¹³ imagery gives a harvest planner a very good idea of where the site risks are and how the site will behave, once any forest infrastructure is added. Many forestry companies use LiDAR in this way, and a number of councils are developing regional LiDAR, often in partnership with Land Information New Zealand.¹¹⁴

However, national LiDAR is not yet available, and it does not change the lithology that underpins the ESC. A range of sediment-prediction models and tools are also being

¹¹⁰ <https://iris.scinfo.org.nz/layer/48076-nzlr-land-use-capability/>

¹¹¹ Sediment sources and delivery following plantation harvesting in a weathered volcanic terrain, Coromandel Peninsula, North Island, New Zealand. Marden et al (2006). <https://www.publish.csiro.au/sr/SR05092>

¹¹² <https://www.mpi.govt.nz/dmsdocument/32323-ESC-and-operational-planning-guidance>

¹¹³ LiDAR (Light Detection and Ranging) is a method for determining variable distances by targeting an object or a surface with a laser and measuring the time for the reflected light to return to the receiver. It is commonly used to make high-resolution maps.

¹¹⁴ <https://www.lin.govt.nz/data/lin-data/elevation-data>

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developed, particularly at a local scale, but considerable work is required to determine whether they are interoperable with the ESC.

Upgrading the ESC to incorporate finer-grained information and new tools is not straightforward, but remains an option to consider as science and information improve. Whether this would change the actions required to manage erosion and sediment for plantation forestry, given that site-specific planning is already required, is another matter.

Accuracy at a site-specific level

In addition to requiring 1:10,000 planning for earthworks and harvesting activities and 1:1,000 – 1:5,000 planning for forestry quarrying, a process was developed for remapping ESC polygons where a party disagreed with the ESC.¹¹⁵ The process requires a party to:

- notify Te Uru Rākau – New Zealand Forest Service of their intention to request changes to the ESC
- instruct a suitably competent mapper to document the basis for reclassifying the land in question (ie, remap)
- get the remapping approved through quality assurance with Manaaki Whenua Landcare Research.
- Te Uru Rākau – New Zealand Forest Service must action any changes by having the ESC tool amended and, because the ESC is incorporated by reference in the NES-PF, notify the changes in the Gazette.

This is an expensive and time-consuming process for all parties, and no changes have been made in the four years since the NES-PF came into force. Te Uru Rākau – New Zealand Forest Service has received only one request for changes to the ESC, but is aware of instances of:

- forestry companies seeking resource consent for land that is not red zone when mapped at a 1:10,000 scale, to avoid the time and expense of seeking a change to the ESC
- councils agreeing, once land is remapped by a suitably qualified mapper, that resource consent is not required
- councils and other interested parties disagreeing with ESC zoning in specific instances, and seeking broader changes to the ESC (though any party may apply for remapping).

Suitably qualified mappers

There is a need to update the process for identifying suitably qualified mappers. A list of mappers identified through a formal process, updated in 2019, is available.¹¹⁶ That list has not been updated, though Te Uru Rākau – New Zealand Forest Service has had enquiries from interested mappers.

Options are being considered, but as mappers would fall within the scope of 'forestry adviser' under the Forests (Regulation of Log Traders and Forestry Advisers) Regulations 2022, any new process will be developed in line with the new regulations.

¹¹⁵ <https://www.mpi.govt.nz/dmsdocument/28542-Process-to-update-the-NES-PF-ESC-on-a-case-by-case-basis>

¹¹⁶ Ibid

GLOSSARY

Afforestation	Afforestation is defined in the NES-PF as: (a) planting and growing plantation forestry trees on land where there is no plantation forestry and where plantation forestry harvesting has not occurred within the last 5 years; but (b) does not include vegetation clearance from the land before planting.
Climate Adaptation Act	Proposed legislation as part of the Government's Resource Management Reform programme that will seek to address complex issues associated with managed retreat from climate change effects.
Carbon forest/forestry	Has a similar meaning to plantation forest as defined in the NES-PF, except that it is forest that will not be harvested below a certain level of canopy cover. This type of forest is sometimes referred to as 'permanent forest'.
Environment	This document uses the RMA definition of environment which includes— <ol style="list-style-type: none"> a) ecosystems and their constituent parts, including people and communities; and b) all natural and physical resources; and c) amenity values; and d) the social, economic, aesthetic, and cultural conditions which affect the matters stated in paragraphs (a) to (c) or which are affected by those matters
Exotic	Non-indigenous species of trees
Forest species	A tree species capable of reaching at least 5 m in height at maturity where it is located
Harvesting	Means: <ol style="list-style-type: none"> a) felling trees, extracting trees, thinning tree stems and extraction for sale or use (production thinning), processing trees into logs, or loading logs onto trucks for delivery to processing plants; but b) does not include— <ol style="list-style-type: none"> (i) milling activities or processing of timber; or (ii) clearance of vegetation that is not plantation forest trees
Indigenous	Species of flora or fauna, means a species that occurs naturally in New Zealand or arrived in New Zealand without human assistance
Land Use Capability (LUC)	Land Use Capability Classification is a system in use in New Zealand since the 1950s to try and achieve sustainable land development and management on farms. The system classifies all of New Zealand's rural land into one of eight classes, based on its physical characteristics and attributes.
National Environmental Standards (NES)	Provide central government the ability to prescribe technical standards, methods or requirements that apply immediately to regulated parties. Councils must enforce the standards to the extent of their powers.
National Policy Statement (NPS)	Direct councils on how to undertake their planning functions in relation to matters of national significance that are relevant to achieving the purpose of the RMA (for example, by setting objectives and policies that councils must implement in their policy documents and plans).

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Plantation forest or plantation forestry	As defined in the NES-PF, it means a forest deliberately established for commercial purposes, being— (a) at least 1 ha of continuous forest cover of forest species that has been planted and has or will be harvested or replanted; and (b) includes all associated forestry infrastructure; but (c) does not include— (i) a shelter belt of forest species, where the tree crown cover has, or is likely to have, an average width of less than 30 m; or (ii) forest species in urban areas; or (iii) nurseries and seed orchards; or (iv) trees grown for fruit or nuts; or (v) long-term ecological restoration planting of forest species; or (vi) willows and poplars space planted for soil conservation purposes
Pruning and thinning to waste	Pruning plantation forest trees and thinning to waste involving the selective felling of plantation forest trees within a stand where the felled trees remain on site
Transitional forest	A particular type of exotic carbon forest which is intended to be transitioned from predominantly exotic to predominantly indigenous species over time, while maintaining a minimum canopy cover.

Acronyms

ERP	Aotearoa New Zealand’s First emissions reduction plan
FTE	Full-time equivalent
LUC	Land Use Capability Classification
LUM	Land Use Map
NBA	The proposed Natural and Built Environments Act
NES	National Environmental Standards
NES-PF	National Environmental Statement for Plantation Forestry
NPS	National Policy Statement
NPS-FM	National Policy Statement for Freshwater Management
NPS-HPL	National Policy Statement for Highly Productive Land
NZ ETS	New Zealand Emissions Trading Scheme
NZU	The domestic unit created for New Zealand's ETS. One NZU corresponds to one metric tonne of carbon dioxide-equivalent emissions.
RMA	Resource Management Act 1991
SFM	Sustainable Forest Management
WRMP	Wildfire Risk Management Plan

18 November 2022
Document: 3116160

Ministry for Primary Industries
PO Box 2526
Wellington 6140
New Zealand
Attention: Forestry and Bioeconomy policy

Via email: mpi.forestry@mpi.govt.nz

Submission on Proposed amendments to the National Environmental Standards for Plantation Forestry

Introduction

1. The Taranaki Regional Council (the Council) thanks the Ministry for Primary Industries (MPI) for the opportunity to provide feedback on the *National direction for plantation and exotic carbon afforestation* (the Discussion Document).
2. The Council wish to firstly note that the submission closing date has not aligned with the Council meeting schedules, therefore this submission has not been formally endorsed by the Policy and Planning Committee. The Committee meets on 22 November and changes, if any, to the submission will be immediately provided to MPI at this time.
3. The Council makes this submission in recognition of:
 - its functions and responsibilities under the *Resource Management Act 1991* (RMA), *Biosecurity Act 1993* and under the *Local Government Act 2002*;
 - its responsibilities and costs to be incurred by the Council to give effect to the NES-PF; and
 - its regional advocacy responsibilities whereby it represents the Taranaki region on matters of regional significance or concern.
4. The Council has also been guided by its Mission Statement across all of its various functions, roles and responsibilities, in making this submission, which reads as follows:

“To work for a thriving and prosperous Taranaki by:

 - *Promoting the sustainable use, development and protection of our natural and physical resources.*
 - *Safeguarding Taranaki’s people and resources from natural and other hazards.*

- *Promoting and providing for significant services, amenities and infrastructure.*
 - *Representing Taranaki's interests and contributions regionally, nationally and internationally."*
5. The Council also notes MPIs aim to achieve the Governments long-term vision for Aotearoa New Zealand's forests as set out in the Emissions Reduction Plan.

General comments

6. The Council agrees it is timely for MPI to be reviewing the NES-PF, especially due to the recent promulgation of the essential freshwater package and the growing interest in carbon afforestation.
7. The Council wish to acknowledge the intent of MPIs Discussion Document and the outcomes sought under the current NES-PF. The Council is generally supportive of the efforts made by MPI to adapt to the changing statutory and environmental landscape. Notwithstanding that, the Council has significant concerns regarding the implementation of the proposed changes and the adequacy of the Governments leadership, support and resourcing required to successfully implement any proposed change.
8. The Council is very concerned about the lack of direction within the Discussion Document. The objectives of the Discussion Document remain unclear in setting out what it is to achieve and the desired outcomes from the proposals. The Discussion Document leaves many important questions unanswered and fails to detail the implications of its proposals to councils, foresters, consent applicants and communities.

Resourcing

9. One of the major concerns that this document brings forth is resourcing requirements for effective implementation. This is key for the Council in forming an appropriate response to the Discussion Document. The Discussion Document proposes significant additional work for councils, however the Discussion Document provides no detail as to how this additional work will be resourced. It also provides no proposal for councils to be provided the ability to charge for the additional time and resources required for successful implementation. Without additional resourcing and the ability to charge, the Council cannot fully support some of the major proposals of the Discussion Document – notably Part A Forest Management Plans and Part C Wildfire Management Plans. Without an ability to charge directly for these increased responsibilities, the cost will fall to the general rate payer, who should not be responsible for footing the bill for the benefit of individuals or industries.
10. Proposed amendments to the NES-PF will be difficult and costly for councils, especially in the wider context of new and proposed legislation that will need to be implemented over the coming two years. Notably, the essential freshwater package is currently demanding significant resources in terms of time, money and professional expertise. The Council is concerned about the additional implementation costs that

could be imposed by Central Government in order to implement another policy document during a time where there is a shortage of technical expertise and resourcing in the resource management sector.

11. The Council is currently reviewing its air, freshwater and soil plan as well as its regional policy statement, this will give effect to new and proposed legislation (e.g *Essential Freshwater Package, National Policy Statement for Indigenous Biodiversity, National Policy Statement for Highly Productive Land, National Policy Statement for Urban Development, National Planning Standards*). As MPI will be aware this process is time consuming and resource heavy occupying much of our council departments resourcing both currently and over the coming two years. The Discussion Document potentially adds to an already overwhelming workload. The Council is supportive of Central Government being more proactive in recognising this issue by providing appropriate resourcing, support and recognition in its proposal.

Roles and responsibilities

12. The Council recommends that MPI provide clearly defined roles and responsibilities within its proposals. The Discussion Document often refers to councils collectively without actually detailing which council (ie district councils or regional councils or both) will be responsible for implementing what aspects of the Discussion Document and fails to recognise the different roles, functions and responsibilities of regional and district councils. This creates unnecessary complexity and difficulty in understanding the extent to which the proposals will impact on the Councils work, resourcing and technical expertise.

Timeframes

13. An indication of timeframe expectations (particularly Part A and Part B) will enable councils to determine whether these proposals are appropriate considering the broader implementation matters of current work programmes, operational changes required and additional considerations. Without this it is difficult to provide support or otherwise. The Council encourage MPI to further engage with the regional sector on expectations around timeframes.
14. The Council is also disappointed in the lack of insight in how the NES-PF Discussion Document would or could align with future legislation. The *Natural and Built Environments Act, National Planning Framework* and *Spatial Planning Act* will have significant implication across the Councils functions. From a planning perspective it is difficult to understand why MPI would not wait to seek input on its proposal once the broader legislative changes have landed. The Council believe that Central Government is working towards a more streamlined and efficient resource management system and therefore believe that releasing the Discussion Document now is ill-timed. Further policy direction in this space needs to consider the legislative reforms more fully to avoid misalignment and to make the most of opportunities that may present through working closely with MfE and the regional sector.

15. Considering the broader national legislative landscape, the Council will require more meaningful support to offset some of the costs to the regional sector when implementing any of the proposals of the Discussion Document.

Data requirements

16. The Council are concerned by the requirements to work with datasets that are created at a national level but implemented at a property scale. This has recently occurred with the release of the *National Policy Statement for Highly productive land* and the use of the Land Use Capability which is at a 1:63,000 scale. The Erosion Susceptibility Classification (ESC) tool used in plantation forestry is 1:50,000 scale. The Council has experienced challenges with the inaccuracy of the erosion susceptibility classification layer. In some instances whole land parcels have been mapped incorrectly. This potentially leaves significant costs and uncertainty for industry who have to contract their own land evaluation and it also lengthens the consenting process. The Council recommend that MPI improve these datasets so as to support the correct implementation of the NES-PF.
17. Further detail on Part A, Part B, Part C and Part D are provided in the following sections of the submission.

Part A: Managing the environmental (biophysical) effects of exotic carbon forestry

18. The Council understand that afforestation rates are increasing in Aotearoa New Zealand as successive governments have encouraged planting of new forests to support economic and environmental outcomes. This trend is likely to continue with New Zealand's active transition to a low-emissions economy through the Government's first Emissions Reduction Plan. The Council also recognise that as it currently stands there is a lack of national direction regarding the management of environmental effects of exotic carbon forests which results in actual and potential adverse environmental impacts.
19. The Council agrees that it is necessary to manage carbon afforestation to improve environmental outcomes and to ensure its sustainability over time. The Council are supportive of the initiative MPI have taken to recognise this issue and receive feedback on potential management approaches.
20. Notwithstanding the general support for the intent of this proposal the Council provides the following comments on Part A of the Discussion Document – 3.2 Options to regulate exotic carbon forests.

Environmental effects and regulatory controls for plantation and exotic carbon forests.

21. The Council support the NES-PF rules applying to exotic carbon afforestation in relation to risk of mass movement erosion (Table 2, p.21). However, consideration needs to be given to the fact that different species have different erosion contribution potentials (e.g. D.Fir is much deeper rooted and better at supporting stability than

radiata). This approach will be more reliable and more appropriately able to ensure that the objective and outcomes of the national direction can be achieved.

Option one

22. The Council oppose Option 1: Status quo as this will impose a significant increase in workload and resourcing costs to councils as well as result in national inconsistency. The Council believe that the environment effects of carbon forests be managed the same as plantation forests, through the NES-PF, to support national consistent rules that increase efficiency and certainty.
23. There is significant costs, time, technical expertise and legal requirements when undertaking a plan change and it will likely be a number of years before such changes would be made operative. In the interim this would allow for potential adverse effects to the environment from carbon afforestation to continue.
24. As per paragraph 10 of this submission the Council note that all regional councils across the country are currently working towards a 2024 deadline to give effect to new freshwater national direction.
25. As MPI will be aware, this is a significant resourcing strain which is being felt across the entire sector. Therefore, Option 1 would exacerbate an already strained system and the existing capacity issues faced within council departments, the result of this would be poor environmental outcomes which would not achieve the outcomes of the NPS-PF.
26. Option 1 is not a suitable option to appropriately manage the effects of carbon afforestation.

Option two

27. The Council is provisionally supportive of Option 2, as incorporating carbon forestry into the NES-PF would provide national consistency and a streamlined process that councils can swiftly implement.
28. The Council agrees that although the effects of carbon afforestation is similar to plantation forestry there will be specific environmental effects caused by carbon afforestation which warrant its own specific definition and provisions. In particular managing afforestation in relation to setbacks from rivers, wetlands and streams is supported by the Council. This is especially significant due to the longevity of carbon forests and its dependence on water over the lifecycle of the forest. In this regard, controls for exotic carbon forests need to be stricter and more environmentally considerate than for plantation forestry.
29. The Council has first-hand experience of managing situations where planting has historically occurred too close to wetlands and waterways. In some instances it is only our land management officers who have come across this situation and had to remove pine trees. Further, regulating carbon forests for such effects would go some way to creating much needed alignment between the directions in the NES-PF and the NPS-

FM which charges all New Zealanders with a responsibility to protect the health of freshwater through governance, stewardship, care and respect. The Council therefore recommends that carbon forests require greater setbacks from waterways.

30. The Council supports MPI taking a strong leadership role by including national direction for carbon forestry, however the Council believes MPI need to provide a gateway for localised needs and varying regional landscapes/characteristics within the NES-PF. The Council support MPI introducing more stringent provisions as appropriate within their own planning instruments. This approach could also be achieved spatially and potentially as part of the future regional spatial strategies. This will be discussed further in Part B of this submission.

Option three

31. In principle the Council supports Option 3 and believe forest management plans would be an effective tool to manage carbon afforestation. The Council is very supportive of ensuring trees are planted in the right place recognising that it is at this stage major environmental, social and cultural risks can be avoided. Forest management plans could provide an appropriate avenue for councils to check planting and setbacks are being adhered to and ensure issues with overplanting are avoided.
32. Notwithstanding this support, Option 3 is only viable if the Council are provided with the ability to charge applicants for the time required to review, implement and monitor the Forest Management Plans. Specifically Council are concerned with the following impacts on resourcing:
 - As MPI have recognised exotic afforestation is projected to increase over the coming years, therefore Council could expect to receive a significant increase in the number of Forest Management Plans lodged. This added role will incur significant costs to the Council which, without charging rights will fall to ratepayers to address despite being an inappropriate use of ratepayer funds.
 - The Council is particularly concerned with monitoring and enforcement of Forest Management Plans for exotic carbon forests. The challenge specifically is how these plans are to be enforced over the life of the carbon forest considering that as an ongoing activity, there will undoubtedly be ongoing costs. Monitoring and enforceability are crucial to measuring the success, or otherwise, of Forest Management Plans.
33. If MPI adopt Option 3 the Council recommends that Central Government provide a structured template which applicants could use to complete the Forest Management Plan. The Council encourage MPI to work with the regional sector and industry to develop templates that provide all the necessary guidance and information included as part of the plan. This approach would avoid the time consuming and inefficient task of reviewing and returning incomplete and/or poorly detailed Forest Management Plans.

Summary recommendation:

- a) Oppose Option 1
- b) Supports a new option which would see Option 2 be amended to provide national direction through NES-PF regulations, whilst allowing for regionally specific issues and values to be considered, particularly when aligning with requirements from the NPS-FM.
- c) Seeks that Option 3 is only considered appropriate if Councils are provided with ability to charge time for Forest Management Plans; and MPI provides;
 - a. a template document for applicants when completing Forest Management Plans; and
 - b. ongoing support and guidance through best practice guidelines that details monitoring and enforceability requirements over the life of a carbon forest.

Part B: Controlling the location of plantation and exotic carbon afforestation to manage social, cultural, and economic effects

34. The Council recognise that although increased afforestation aligns with the Governments first Emission Reduction Plan (environmental outcomes focused) the effects of land use change can have significant impacts for communities. Existing controls in the NES-PF are not currently equipped to manage the social, cultural and economic impacts of forestry – especially for rural land use activities.
35. The Council support MPI in ensuring that social, cultural and economic effects of forestry are considered for forestry activities. The effects of plantation forestry and carbon forests are specific to the situation and location. Because of this the Council agree that the management of social, cultural and economic effects are best managed through controlling the location of new plantation and exotic carbon forests.
36. The Council is supportive of Option 1: Local control, enabling councils to work with foresters, community groups and tangata whenua to spatially recognise areas that are sensitive to social, cultural and economic effects. The support is subject to appropriate timeframes acknowledging the significant policy work load of regional councils at this time, and if possible aligning with the introduction of *Regional Spatial Strategies*.
37. We recognise the significant variability that social, cultural and economic effects have across Aotearoa New Zealand and the Council believe that the management of these effects at a national one size fits all approach would be difficult to apply. The variability in landscape across Aotearoa New Zealand and the social and cultural relationships will differ not only between regions but within the region. We also recognise the nine iwi groups within the Taranaki regional boundaries who may each have varying approaches to managing the cultural effects of forestry.
38. Whilst assessing that the effects should be managed at a local level, the Council supports MPI providing some leadership in identifying a baseline for their expectations regarding social, economic and cultural effects that would support a consistent approach. However, leaving the space for regional and district councils to

create planning provisions that are stricter than the NES-PF. These baseline provisions would proactively respond to the current problem and fill the gap which exists within the NES-PF until councils are in the position to form a locally specific approach. This will also recognise the capacity constraints of some councils who may not be able to undertake a plan change for some time or those regions which have less pressure from forestry.

Summary recommendation:

- d) Supports Option 1 by providing councils the ability to develop a local approach to managing the social, cultural and economic effects of forestry; and
 - a. MPI providing a baseline as a minimum expectation for councils when assessing the social, cultural and economic effects.

Part C: Improving wildfire risk management in all forests

- 39. The Council agree that the NES-PF should have a role in improving wildfire risk management in forests. The Council also recognise the impacts climate change is having, and is projected to have, in increasing wildfire risk within plantation forests as well as the devastating environmental, social and cultural effects wildfires can cause.
- 40. The Council is supportive of creating a more streamlined regulatory approach to managing wildfires within forests and believe that wildfire risk management plans are an appropriate response to the issue. Requiring a plan will ensure wildfire risk management is considered at both the afforestation stage and during the life cycle of the plantation forest, which is particularly significant for carbon forests.
- 41. However, the Councils support is subject to regional councils not being responsible for attesting to the completeness of the wildfire risk management plan. The Council does not have the technical expertise to be able to fulfil this role. FENZ currently have the statutory responsibility for fire management and are best placed to work with foresters in completing, reviewing and monitoring a wildfire risk management plan over the lifecycle of the forest.
- 42. The Council recommends that the wildfire risk management plan be completed and approved by FENZ prior to the permitted notice or consent application being received by the Council.
- 43. The Council also suggests that the proposed approach is expanded beyond purely looking at forest blocks and be drafted in terms of associated land holdings or associated blocks. This will ensure that a situation such that is common in Taranaki where an applicant plants a number of different areas on a large hill country farm in small blocks is only required to submit one plan.

Summary recommendation:

- e) Support the establishment of wildfire risk management plans;
- f) Oppose regional councils role in attesting to the completeness of the wildfire risk

- management plans;
- g) Oppose the inability of councils to charge for the time spent reviewing the wildfire risk management plans;
 - h) Seek that FENZ are responsible for completing, reviewing and monitoring the wildfire risk management plans with the applicant over the lifecycle of the forest.

Part D: Enabling foresters and councils to better manage the environmental effects of forestry

Wilding conifer risk management

- 44. Taranaki is fortunate in that wilding conifers have not presented a significant issue within our region. However, the Council are still wary of the future issues wilding conifer could pose and are aware of the increasing rate of wilding conifers across Aotearoa. This issue is only set to increase with climate change being a significant contributor.
- 45. Despite it being a relatively minimal issue for Taranaki, the Council support *Proposal 1: MPI updating the Wilding Tree Risk Calculator, guidance and template worksheets.*
- 46. The Council support *Proposal 2: requiring all forests to assess wilding tree risk at replanting.* At replanting there should be a reassessment for wilding conifer risk and other afforestation requirements. This support is subject to Councils having the ability to charge for the time spent to review and monitor all the related information and scoresheets.

Summary recommendation:

- i) Support updating the wilding conifer calculator, guidance and template worksheets
- j) Qualified support for proposal 2, subject to councils having the ability to charge for their time.

Slash management

- 47. The Council is supportive of MPI improving slash management provisions in the NES-PF. The Council agree to all amendments identified in Table 4 and support the development of additional guidance produced by MPI to encourage improved slash management practices. MPI should work with the regional sector in developing this guidance.
- 48. The Council provides the following comments to specific components of Table 4:
 - D1b: Council request consideration be given to recasting the rule with a focus on the stability of the slash itself as one way of addressing the ambiguity of what is meant by 'land stability'.

Summary recommendation:

- k) Support the amendments of Table 4 and the development of additional guidance by MPI.

Initial alignment with the NES-F

49. The Council believe the Discussion Document has made a poor attempt at aligning the NES-PF with the *National Environmental Standards for Freshwater 2020* (NES-F) and that significant work remains to ensure alignment between their national directions.
50. The essential freshwater package is a significant Government environmental policy focus, with the intention of improving freshwater outcomes nationally. Not aligning the NES-PF regulations with the stricter NES-F regulations creates confusion and frustration for councils in managing environmental outcomes and providing consistent advice to resource users. Allowing forestry to operate within wetlands contradicts efforts of the essential freshwater package to protect remaining wetlands.
51. The Council seek MPI work to better align the NES-PF with the NES-F as a priority. However, as a minimum the Council seeks alignment in the NES-PF with:
- All setback distances for earthworks and vegetation clearance near wetlands for any new afforestation. This recognises that improper planting may cause wetlands to reduce in size or change their state. The Council recommends that as a minimum planting setback should be at least the estimated maximum tree height.
 - The Council sees no reason as to why there should be different requirements for fish passage between the NES-F and the NES-PF. The regulations under the NES-F are more conducive to achieving the outcomes of the NPS-FM which is prioritising fish passage. This includes the same permitted and discretionary activities for instream structures as the NES-F. The Council seeks full alignment across all structures as opposed to the minor changes of D2a and D2b.
52. The Council wish to highlight that the fish spawning indicator overlooks a number of fish spawning species for example inanga, blue gill bully, common bully and lamprey. Lamprey are a nationally vulnerable species that regularly spawn in areas where forestry activities are undertaken (e.g Matau Stream in Taranaki). The Council notes that this contradicts the NPS-FM objectives and we therefore recommend MPI work to better align the NES-PF and the objective of the NPS-FM.

Summary recommendation:

- l) Seeks MPI work to better align the NES-PF with the NES-F; and
- m) Seeks the NES-PF better align with the objectives of the NPS-FM.

Operational amendments

53. The following comments are specific to operational and technical issues set out in Table 6 of the Discussion Document:

- D5b: the Council supports the proposal, however question who will be responsible to monitor whether vehicles fording a wetted riverbed is at 20 axle movements a day. The Council also question how will this be monitored?
- D6A: the Council supports the proposal to amend the NES-PF regulations relating to outstanding freshwater bodies to ensure they give effect to Treaty settlement areas.
- D7a: Council is opposed to any reduction in notification times. Even low risk green zone ESC sites should be given the appropriate mapping checks (rivers, wetlands, archaeological sites etc) and be visited for ground truthing. This will assist to ensure there are no environmental concerns and contractors are aware of their obligations for that site and activities.
- D9a: the Council support improved clarity and alignment between the *National Policy Statement for Indigenous Biodiversity* (NPS-IB) and NES-PF. The Council doesn't support the proposal of D9a and would like to see regulation 6(2)(b) remain to enable councils to make more stringent rules anywhere where an SNA is located within a productive forest.
- D9b: The NPS-IB exposure draft definition for indigenous vegetation is recommended to be applied to the NES-PF '*means vascular and non-vascular plants that, in relation to a particular area, are native to the ecological district in which that area is located*'. This definition is appropriate in that it will exclude areas of planted or naturalised species that are not native to the area – e.g karo or pohutukawa in South Taranaki. Having the same definition in the NES-PF and NPS-IB will also provide consistency and alignment across national direction.
- D9c: Council support removing part (b) from the definition of vegetation clearance. At this stage Council can not foresee any consequences of this change, but welcome the opportunity for further input.
- D11a: the Council support the proposed amendment.
- D11b: the Council support the proposed amendments. Consideration should be given to providing a definition of reasonable mixing. A better measure of silt and sediment discharge into rivers should also be provided, rather than the '*Any conspicuous change in colour or visual clarity*' rule. Taranaki rivers turn brown when there is rainfall and therefore there is no way of using this rule when there is a rain event. One option could be a measurement of the difference in a water sample taken upstream of the forestry site and a sample downstream.

54. The Council has provided additional feedback in line with Part D of the document as well as additional operational and technical advice in Appendix 1 of this submission. This advice has been formulated by the Councils freshwater scientists.

Conclusion

55. The Council again thanks MPI for the opportunity to comment on the discussion document.
56. The Council believes that more work and clarity is required before the Council can respond to some of the key proposals made within the Discussion Document in further detail. Estimated time frames for implementation, roles and responsibilities

and resource availability is crucial detail which are missing that make it difficult for the Council to assess the implications the proposed amendments in the Discussion Document.

57. The Council seek further consultation with Government as the Discussion Document is progressed into clear policy directions and regulation. There is the potential for significant resourcing and financial implication to councils and community. Further work is required to provide alignment with existing legislation, particularly the essential freshwater package, as well as working in with proposed legislation such as the Spatial Planning Act and NPS-IB.
58. The Council looks forward to continuing to work with MPI and the government to successfully amend and implement the NES-PF.

Yours faithfully,
S J Ruru
Chief Executive

per: A D McLay
Director - Resource Management

Appendix 1

Issue	NES-PF regulation	The Councils response
Fish spawning	97(3) Permitted activity conditions: fish spawning	<p>The Council recommends that a definition for ‘disturbance’ is needed. The Council questions whether disturbance includes the removal of substrate from the waterway? And whether a digger is permitted to remove all of the habitat under this rule? The Council recommends that any clarification ensure that a precautionary approach is applied and the removal of habitat in waterways be aligned with directions in the NES-F and NPS-FM.</p> <p>The Council is also concerned that there is no limit on the extent of disturbance which can occur (area disturbed) and for how long this disturbance can take place. The Council recommends that limits on disturbance extent and length are included adopting a precautionary approach noting the permitted activity status.</p>
Fish spawning	97(4) Permitted activity conditions: fish spawning	<p>The Council considers there should be a third option where the Council can create its own resources for fish spawning. The NES-PF could have reference to any fish spawning schedule in the relevant regional plan. This acknowledges that regions may have differing spawning times as well as locally specific knowledge of the extent of spawning habitats. The Council also note that the current fish spawning indicator ignores a number of fish species such as inanga, blue gill bully, common bully, cran’s bully and lamprey. The Council recommends that a third option be provided so that Councils can create their own resources in regional plans for fish spawning and that the indicator be reviewed for completeness.</p>
Perennial river		<p>The Council questions how long it take for a flowing stream to be considered intermittent – leaving this open ended creates significant uncertainty and can lead to damage of actual intermittent waterways. The Council recommends that the NES-PF include the direction, with appropriate qualifiers that should a stream be flowing a set time following rainfall (e.g. 24 to 48 hours), that it be considered an intermittent stream and not an ephemeral stream There also needs to be a level of work done by MPI to identify if a stream is intermittent or not at an appropriate time of the year. Noting that a lot of forestry work takes place in summer where some streams don’t flow for months at a time.</p>

<p>Non-Fish species reliant on water bodies</p>		<p>The Council recommend that there is greater consideration for non-fish species reliant on water bodies in the NES-PF. The Council recommends that the NES-PF align with DOC's updated classification for New Zealand birds (refer Conservation status of birds in Aotearoa New Zealand, 2021) and ensure the list is regularly reviewed and updated (possibly every five years to align with the current Threat Classification review cycle) to ensure it remains accurate and protects the necessary species.</p>
<p>Significant adverse effects for permitted activities</p>	<p>e.g 26 Permitted activity condition: sediment</p>	<p>The Council recommends that the NES-PF provide a definition and/or guidance on 'significant adverse effect'. A number of permitted activities note that work can be undertaken as long as there are no significant adverse effects, yet there is no requirement or direction for how to monitor or report this. To maintain a permitted status, there needs to be more directive methodology to ensure that the forestry company is monitoring this situation.</p> <p>The Council further recommend that permitted activities should require reporting on this aspect by a suitably qualified freshwater ecologist to ensure what they are doing is actually permitted.</p>
<p>River crossing</p>	<p>42 Permitted activity condition: maintenance</p>	<p>The Council recommend regulation 42 of the NES-PF be amended to recognise that maintenance shall only include the minimum disturbance of the immediate bed and banks needed to maintain the structure.</p>
<p>Fish passage</p>	<p>40 Permitted activity condition: passage of fish</p>	<p>The Council recommend regulation 40 be amended to read as follows:</p> <p>(1) <i>River crossings must provide for the upstream and downstream passage of fish and their life stages in rivers, except where the relevant statutory fisheries manager advises the relevant regional council in writing that to provide for the passage of fish would have an adverse effect on the fish population upstream of the river crossing or where the regional council has determined that fish passage must be restricted</i></p> <p>(2) <i>River crossings must provide for fish passage by maintaining river bed material throughout in any structure that would be in place of the river bed at all times.</i></p> <p>This amendment will ensure fish passage is maintained across life stages, ie both juveniles and adults should be able to pass through a structure where appropriate. It will also ensure that the river materials are distributed the length of the structure and throughout the life of the structure.</p>
<p>Fish passage</p>	<p>40 Permitted activity condition: passage of fish</p>	<p>The Council recommends that fords and battery culverts be discontinued, and as a minimum the NES-PF should introduce a selection process where the appropriate structure is used and fords and/or battery culverts only provided for as a last resort. Battery culverts are particularly</p>

		<p>inappropriate structures due to the difficulty to maintain the culvert, its potential to obstruct fish passage and the associated adverse effects on biodiversity values. An example of a hierarchy for structure preferences could be as follows:</p> <ul style="list-style-type: none"> a. Bridge b. Open bottomed culvert c. NES-F culvert d. Drift deck (open bottomed) e. Ford f. Battery culvert <p>It is also recommended that options for ford and battery culverts only be allowed following certification from councils and these structures are only permitted for a certain time period (ie two years).</p>
<p>Temporary river crossing</p>	<p>3 Interpretation</p>	<p>The Council recommends that temporary structures be discontinued or should be required to meet the same criteria as set out in the NES-F. The Council also note that two months of fish passage restriction at any particular time of the year could have significant adverse effect on fish populations. Therefore temporary structures provisions should be just as comprehensive for fish passage as it is for permanent structures.</p> <p>The Council opposes extending temporary structures to 6 months as it is a significant risk to fish passage and the extended time duration needs to be balanced with the requirement for appropriate data.</p> <p>It is also recommended that culvert designs are fully in line with the NES-F permitted standards.</p>
<p>Drift deck</p>	<p>3 Interpretation</p>	<p>The Council recommends that the definition of drift deck be amended to ensure that it does not have an open bottom to the bed of a stream, otherwise it could just be a battery culvert. If this amendment is made the definition should replace the need for fords and battery culvert (should the drift deck be necessary beyond the NES-F permitted culvert or bridge regulations).Fords and battery culverts design specifications go against the fundamental design principals of the fish passage guidelines and are known to result in partial or full barriers to fish passage as well as promote erosion. A drift deck with an open bottom (similar to what is allowed in the NES-F as an open bottomed permitted culvert) is essentially a small scale bridge (with the segments acting as pillars) which are much more likely to provide for ongoing fish passage by maintaining rock throughout the structure and also maintaining an appropriate gradient.</p>



Date 22 November 2022

Subject: **Submission on Agricultural Emissions Pricing Consultation Document**

Approved by: A D McLay, Director - Resource Management
S J Ruru, Chief Executive

Document: 3122890

Purpose

1. The purpose of this memorandum is to give Members a summary of the contents of the above submission and to seek approval of the submission

Executive summary

2. The He Waka Eke Noa – Primary Sector Climate Action Partnership (the Partnership) between the agricultural sector, Maori, Ministry for the Environment (MfE) and Ministry for Primary Industries (MPI) was established in 2020. The Partnership’s primary objective was designing a farm level action plan to reduce agricultural emissions.
3. The Partnership delivered its recommendations to government in May 2022. At the same time, government sought advice from the Climate Change Commission (the Commission) on measures that could be developed to reduce agricultural emissions.
4. The Agricultural Emissions Pricing Consultation Document represents government’s assessment of both the Partnership’s Proposal and the further advice from the Commission. It seeks to get feedback on the proposals to enable implementation of an agricultural emissions pricing scheme by 2025.
5. Officers have reviewed the Consultation Document and, while they support the objective of encouraging reduced agricultural sector emissions, they are concerned with some of the measures proposed. They are also concerned that opportunities are being missed to recognise the impact of key regionally focused efforts such as riparian planting and pest management.

Recommendations

That the Taranaki Regional Council:

- a) receives this report titled *Submission on Agricultural Emissions Pricing Consultation Document*

- b) approves the Submission on Agricultural Emissions Pricing Consultation Document
- c) determines that this decision be recognised as not significant in terms of section 76 of the *Local Government Act 2002*
- d) determines that it has complied with the decision-making provisions of the *Local Government Act 2002* to the extent necessary in relation to this decision; and in accordance with section 79 of the Act, determines that it does not require further information, further assessment of options or further analysis of costs and benefits, or advantages and disadvantages prior to making a decision on this matter.

Background

- 6. The Partnership was established in 2020, with the primary objective of designing a farm level action plan to reduce agricultural emissions. The Partnership's members are the agriculture sector, Māori, MfE and MPI.
- 7. On 31 May 2022, the Partnership delivered its final report to government, recommending a farm-level, split-gas levy pricing system is implemented as an alternative to the NZ ETS.
- 8. The Partnership's farm-level levy system proposed that farmers and growers:
 - 8.1. report on and pay for their emissions annually
 - 8.2. pay one levy price for their short-lived greenhouse gas emissions (methane from livestock)
 - 8.3. pay a separate levy price for long-lived greenhouse gas emissions (nitrous oxide from livestock and synthetic fertiliser and carbon dioxide from urea)
 - 8.4. receive an incentive payment for the uptake of approved actions that reduce emissions, such as use of technology like a methane inhibitor
 - 8.5. receive a payment or credit for on-farm sequestration, including vegetation that is not eligible for registration in the NZ ETS.
- 9. The Government evaluated the Partnership's proposal and sought advice from the Commission on alternative approaches that could achieve a similar emissions reduction outcome.
- 10. The Pricing Agricultural Emissions Consultation Document (the Document or the Proposal) contains the government's assessment of the Partnership's proposal and the Commission's advice. It describes the path that the government intends to take and seeks input on that position.
- 11. Some of the key elements of the Proposal are:
 - 11.1. Setting the threshold for levy payers as GST registered businesses that have over 50 dairy cattle or 550 sheep, beef or deer or apply over 40 tonnes of nitrogen fertiliser over the year. Various "minor emissions producing farming operations", such as goats, pigs and poultry, would initially be exempted from the scheme
 - 11.2. Describing a price setting process for methane emissions, that will be developed by a government expert group and signed off by Ministers. One of the consultation questions was how regularly this pricing should be reviewed
 - 11.3. Including reporting requirements for nitrogen fertiliser use – including organic fertilisers (cf. the National Environment Standard for Freshwater, which only requires reporting on synthetic nitrogen fertiliser)

- 11.4. Agreeing with the Partnership's proposal to recycle the net levy monies (once establishment and annual operating costs for the pricing regime are removed) into incentive payments that can be used to help the agricultural sector develop ways to reduce emissions
- 11.5. Recognising that the 2025 deadline for implementation is tight, hence proposing an interim processor based levy until such time as the farm-based levy system can become fully operational. The processor levy would be levied on dairy processors and meat processors for sheep, beef and deer only
- 11.6. Indicating that there is a potential for greater recognition of on-farm carbon sequestration from things like riparian planting and KNE/QEII Trust land. However, this element is seen as too difficult to implement by the 2025 deadline, but will be developed over the longer term.
12. The government is seeking feedback on the Proposal, prior to commencing the development of the implementation programme for the 2025 target date.
13. As that feedback was due on 18 November, Officers have lodged the submission, but will amend it as required following the Council's consideration.

Discussion

14. Overall, while there are few who would argue with the concept that those who contribute to an environmental effect should also contribute to mitigating or reversing it, officers have a number of concerns with the Proposal.
15. In part those concerns can be tied to the fact that, despite the multi-stakeholder participation in the Partnership and the development of the Partnership Proposal, the Proposal departs in some way from a large number of its recommendations. Government seems to be more heavily influenced by the Commission's advice – and by their desire to meet the 2025 deadline and subsequent 2030 interim emissions reduction target.
16. More specifically, points that officers raised in the Submission on the Proposal include:
 - 16.1. A concern that meeting the 2025 implementation target is negatively impacting the quality of the proposal and, via the elements that are being postponed for "stage 2", will create administrative and compliance headaches for the sector
 - 16.2. A lack of recognition of other programmes and their requirements. Most obvious amongst these is the fact that the proposed nitrogen reporting requirements add to, rather than make use of, the existing N-Cap requirements. The proposal also imposes a price on dairy effluent spread to land, which could negatively impact measures in this space
 - 16.3. Focusing on price as the key driver of change, when our experience in working with the sector is that often information, expertise and the ability to assess alternatives are often greater barriers
 - 16.4. While the proposed recognition of sequestration is good, there are significant gaps in things like the limitation on stream size, recognition of woody biomass only (cf. all riparian plantings) and the proposed 2008 cut off for recognised planting
 - 16.5. Suggesting an increase in scope to include credit for pest species destruction, in recognition of the impact that browsing on bush by these species has on carbon sequestration capacities on farm

- 16.6. Questioning New Zealand's targets and the apparent desire to be a leader in this space and how to balance, the need for all countries to contribute to the solution, against the country's very small proportion of global emissions.
- 16.7. Concern that the assessment of the impacts on rural communities continues the weakness seen in the Commission's Draft Advice in 2021. The suggestion of employment alternatives in these communities is unrealistic for many. Officers strongly recommended that MfE and MPI actually visited and engaged with the rural communities before any implementation commenced.
17. Next steps in the process are for MfE and MPI to consider the feedback received, before reporting back to their respective Ministers in early 2023.

Financial considerations—LTP/Annual Plan

18. This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

19. This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002*, the *Resource Management Act 1991* and the *Local Government Official Information and Meetings Act 1987*.

Iwi considerations

20. This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Community considerations

21. This memorandum and the associated recommendations have considered the views of the community, interested and affected parties and those views have been recognised in the preparation of this memorandum.

Legal considerations

22. This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Appendices/Attachments

Document 3118698: Submission on Agricultural Emissions Pricing Consultation Document



12 November 2022
Document: 3118698

Ministry for the Environment
P O Box 10362
Wellington 6134

Attention: Agricultural Emissions Pricing

Dear Sir/Madam

Submission on Agricultural Emissions Pricing Consultation Document

Taranaki Regional Council ("TRC") thanks Ministry for the Environment and Ministry for Primary Industries ("MFE" and/or "MPI") for the opportunity to comment on the Agricultural Emissions Pricing Consultation Document ("the Document" and "the Proposal").

TRC recognises the significance of global warming and the importance of New Zealand playing its part in the global response to climate issues.

In that regard, TRC is firmly of the view that, just as various sectors of the economy and society have contributed to the levels of greenhouse gases in the atmosphere, those same sectors should be a part of the solution and should bear their share of the costs (be they economic or otherwise) of abatement responses.

On that basis, TRC supports policies and programmes that encourage and lead to reductions in all greenhouse gas emissions across the agricultural sector.

TRC does however wish to make a number of comments on the Proposal, in areas where we feel that alternative approaches could better serve climate goals, the agricultural sector and New Zealand as a whole.

Concerns that the government is rushing implementation

The Document makes numerous references to a 2025 target implementation date for agricultural emissions pricing. Often, those references accompany discussions on elements that, while acknowledged as being positive and contributing to a stronger system, are to be deferred because of the time pressures of getting a system in place.

TRC is disappointed that this appears to be another example of the government targeting timeliness over quality and comprehensiveness in its policy and regulatory programmes.

We firmly believe that, as there are already moves within the agricultural sector to reduce emissions, the risk associated with taking the extra time to make a good system is outweighed by the benefits. A less time bound approach also avoids creating administrative challenges across the system when those subsequent changes are made and, importantly, provides a level of certainty to the sector and those who rely on it from day one.

An apparent lack of coordination with other government programmes

TRC is concerned that the proposed measures for NO_x do not recognise the requirements of the Essential Freshwater package, especially around nitrogen fertiliser application.

A case in point is the proposed nitrogen reporting system in the Document that almost duplicates the N-Cap requirements, but that is also different enough to impose a new regulatory burden on the sector. It is especially ironic when the data requirements in Table 1 (p 29) suggest requiring fertiliser purchase receipts, while both MfE and MPI are suggesting removing that requirement from the NES-F system.

The mention of farm plans as a possible alignment opportunity reads more as a cursory mention than a true consideration of how the two regimes could work together.

A further concern is that including organic nitrogen sources in the on-farm accounting for fertiliser application could have significant unintended consequences for dairy effluent management. Currently, the fact that organic nitrogen fertilisers are outside of NES-F is helping in the push to get all farms diverting their effluent discharges to land and installing/operating effective treatment systems. TRC is concerned that, if farmers effluent diversion efforts are not recognised under the emissions regime, that may well limit their engagement with these types of programmes.

TRC submits that, for an already highly stressed sector with significant regulatory administrative burdens from central government, this lack of recognition is potentially harmful. A more comprehensive and more considered review of programmes and opportunities for alignment, as would be enabled if the 2025 deadline was reviewed, should be undertaken.

Price signals alone are unlikely to stimulate the structural change that the sector needs

The Proposal recognises the limitations of price signals alone as a means of driving change by its intention to recycle levies into incentives.

TRC's experience in working with the agricultural sector in Taranaki is that there is a distinct willingness to make the changes needed to future proof the industry, but that limitations in knowledge, resources, capacity and, in some instances, options are all significant barriers to that change. The situation is worse where the change required is the sort of systemic, structural level change that is needed to enable New Zealand's agricultural sector to both meet carbon neutrality and continue to be a viable and significant part of the country's economy.

As examples, TRC has worked with Venture Taranaki, Taranaki Federated Farmers and Taranaki Catchment Communities (a local independent farmers' group) to develop an agricultural energy efficiency programme in Taranaki. Recent trials of on-farm energy audits showed that farmers were willing to invest in energy efficiency (and carbon reduction) opportunities once the opportunities and benefits were presented to them.

TRC has also received anecdotal information of a farmer who had steadily increased his nitrogen fertiliser application, in the belief that the extra grass growth he was seeing was leading to increased milk yield. When presented with data showing that the yield increase was less than the fertiliser increase that contributed to it, he actively engaged with the farm advisor to find ways to bring his fertiliser down to an optimal level.

This demonstrated willingness to act – once information is provided – should be used to help the agricultural sector make the structural level changes to higher (highest?) value add products and high-efficiency farming practices. Doing so can facilitate the changes needed while minimising adverse social and economic effects in agriculturally intensive regions.

TRC therefore submits that the proposed incentive measures should be strengthened and should be supplemented by support for locally developed/led emissions reduction programmes. We would also recommend that, the best way to support achieving carbon zero goals is to build on the work that the sector is already doing by starting these incentives and support programmes now (funded out of general budget).

Support for the proposal to increase recognition of sequestration – but more is needed and sooner

TRC notes the discussion in section 3.5 of the report on recognising on-farm sequestration from riparian plantings in calculating total emission profiles.

While TRC supports the concept and encourages the government to look at this opportunity, we would encourage the following changes to the Proposal:

- To recognise all plantings back to 1990, not just to 2008.
TRC believes that the reason given for applying the 2008 cut off (namely quality of maps and other records) is not sound. We have operated a riparian planting scheme since the 1990's and have good records of all plantings back to the start date of that programme. TRC strongly believes that the farmers who supported the riparian schemes from early on deserve recognition for their innovation and willingness to pioneer the programme.
- There should be no limit on the stream size in recognising riparian plantings.
The emissions impact is from the planting, not the water body – so whether the planting is on the banks of the (large) Waitara River or its smallest tributary is irrelevant from a sequestration standpoint.
- Sequestration from all forms of biomass should be calculated and credited.
In Taranaki's programme, approximately half of the allowed species could be considered "woody biomass" and the other half are general plants. All contribute to sequestration, albeit at different rates. Species selection is based on physical and climatic characteristics of the area to be planted, so only recognising woody biomass

(as opposed to a discounted sequestration rate for other plants) would be penalising farmers who are contributing to the best extent that they are able on their land.

TRC would also note that taking a net emissions approach that recognises on-farm sequestration more broadly, can lead to benefits beyond just the carbon capture. Encouraging sequestration planting often means encouraging retirement of pasture land, which may lead to further reductions in gross emissions if farmers elect to consequently reduce stock holding and fertiliser application.

Include pest species destruction as a credit available to farmers

TRC submits that farmers should be able to claim a carbon credit against the pricing included in this proposal upon proof of destruction of ungulates and possums.

New Zealand has a significant animal pest problem, resulting in significant economic and environmental issues. Those issues include, but are not limited to, the spread of Tb, loss of stock-feed, habitat degradation and soil loss/freshwater contamination. By browsing indigenous bush, those pest species are also negatively impacting the sequestration capacity of that bush. As increasing indigenous planting is included in both the Climate Change Commission Draft Advice and the Proposal as a policy response, consideration should be given as to how to maximise the sequestration capacity.

As well as destroying vegetation, these pest species are sources of greenhouse gas emissions in their own right. There is no difference between a farmed deer (included in the pricing regime) and a pest deer, for example. As the emissions generated per animal must be able to be calculated (at least for deer), destruction of pest species could feasibly be calculated as a carbon credit for farmers.

Giving credits for pest species destroyed could create a significant incentive to control pest numbers. It has the potential to create an industry in itself, which could generate significant economic, social, and environmental benefits – especially for rural communities who have little or no other alternative employment options if farming activities are impacted as the modelling predicts (see comments below).

New Zealand forging a lone path

While New Zealand has a responsibility to manage its impacts on the environment, it must also be remembered that, on a global scale, our emissions are 0.17% of the global total.

TRC therefore believes that it is crucially important that our policy responses are consistent with accepted global positions and that we don't inadvertently "over-target" impacts where the total impact will be negligible.

In this regard, TRC would point to the Global Dairy Platform's ("GDP") recent work that found that reducing methane emission from cattle by 0.3% p.a., or a total of 9% over 28 years, would see the global dairy sector achieve net zero warming impact by 2050.

Recognising the “averaging” inherent in global modelling, TRC would still note that the level identified in that report is approximately 20% of New Zealand’s upper target for methane reduction – and is greater than our 2030 interim target. We would therefore urge a re-opening of discussions on targets and a reassessment of the overall methane reduction targets being used in light of evidence such as the GDP report.

The Proposal’s consideration of the impacts on rural communities is weak

Section 4.4 of the Document quite rightly recognises that the Proposal will have negative impacts on the rural communities that serve the agricultural sector.

Beyond this starting point, however, the Proposal shows a lack of understanding of the reality that faces rural communities now, let alone if, as modelled, emissions pricing significantly impacts parts of the agricultural sector.

To suggest that small rural communities have a widespread ability to “diversify the job market” or to retrain residents into tourism jobs is farcical and somewhat disingenuous on the authors’ part. (The impact is heightened by the assessment that beef and sheep farming will see the greatest stock and production reductions – as both of these operations tend to be in more remote areas with smaller community centres than is the case for dairy.)

It is also disappointing to see that the government has clearly not engaged with rural communities any more since similarly unrealistic comments appeared in the Climate Change Commission’s Draft Advice early last year.

TRC therefore repeats the comments made in that submission that, as a “necessary action” in developing any programme for government to actually get out and engage with rural communities across the country. It is crucial that their concerns are heard – and that they, rather than an urban based analyst, are the ones who determine what are the viable alternatives to farming in their communities.

Conclusions

Operating in a region where approximately 60% of greenhouse gas emissions are agriculturally sourced, TRC is very aware of the need for the sector to take steps to address its emissions profile. However, as agriculture in the region also has twice the national average contribution to GDP and twice the employment numbers, we are mindful of the need to do so in a way that balances environmental, economic and social well-being.

TRC is concerned that, in a number of key areas, the Proposal does not achieve that balance. Our submission has therefore been offered very much on the basis of encouraging MfE and MPI to review the Proposal to address those issues – and, in so doing, to strengthen positive outcomes in all three of those well-being areas. In particular, we would encourage government to pause and to loosen the tight timeline that seems to be driving implementation in favour of building a stronger system with widespread buy-in.

TRC looks forward to working with MfE and MPI as the agricultural emissions management programme is developed. As we do so, we would offer to provide on-going feedback and regular contributions at every opportunity throughout the process.

Yours faithfully

S J Ruru
Chief Executive

AGENDA AUTHORISATION

Agenda for the Policy and Planning Committee meeting held on Tuesday 22 November 2022.

Confirmed:



17 Nov, 2022 8:27:46 AM GMT+13

A D McLay

Director Resource Management

Approved:



16 Nov, 2022 8:17:53 PM GMT+13

S J Ruru

Chief Executive