Submission

To: **Ministry for Primary Industries**
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By: **Northland Regional Council**

On: **Discussion document - Managing exotic afforestation incentives**

1. Introduction

1.1. Northland Regional Council (NRC) appreciates the opportunity to submit on the proposals to amend the Emissions Trading Scheme (ETS) set out in the consultation document: '*Managing exotic afforestation incentives- A discussion document on proposals to change forestry settings in the New Zealand Emissions Trading Scheme'* (the discussion document). NRC's submission is made in the interest of promoting the sustainable management of Northland's natural and physical resources and the wellbeing of its people and communities.

1.2. We consider Aotearoa NZ needs to keep its options open in the ETS to facilitate effective emissions reduction, promote positive environmental outcomes, and ensure a just and equitable transition to a low carbon economy. We see this as more a question of the purpose and management of the forest in terms of outcomes for people and the environment rather than the species used. Enabling the 'right tree in the right place for the right purpose' is a key element of the recipe needed – the ETS settings have a strong influence in getting the recipe right.

1.3. We therefore oppose the option to remove exotics from the permanent forest category completely – in our view this reduces choices for entry into the ETS to either clear-fell or permanent native forests (neither of which are appropriate or viable in certain circumstances). It could also lead to an increase in clear fell plantation as it would be the only option available for exotic forestry – clear-fell regimes are not always appropriate in some landscapes and continuous cover / permanent forestry may be a better option. We therefore support carefully crafted mechanisms to provide exceptions for a range of circumstances where permanent exotics provide an economic land use option with good environmental outcomes that also enable a just transition to a low carbon economy and assist the government to meet net greenhouse gas emission targets.

1.4. We support greater incentives for indigenous forests. Analysis we have undertaken indicates current financial incentives strongly favour afforestation with exotic species rather than natives. Our estimates also suggest that permanent afforestation in natives is around 70% more expensive than Pinus Radiata (primarily due to the cost

of trees). When carbon credits are claimed under the ETS the incentive becomes even stronger. Using a carbon price of just $35 per tonne and the per hectare carbon stock values in the look-up tables, a permanent Pinus Radiata forest yields a positive net present value over a thirty-year period. Only when the carbon price exceeds $145 per tonne, will planting natives begin to yield a positive net return. We'd support:

- a review of the look-up tables to better reflect actual sequestration rates for native species across NZ and the longevity of native species
- Investigation into the potential to 'advance' NZU's ahead of sequestration for permanent native forests to offset high establishment costs.
- Allow stock change carbon measurement for native forests less than 100ha
- Recognising the positive sequestration impacts of controlling browsing pests in the ETS.

1.5. Our key submission points are summarised below:

- Council agrees there is a case to limit the incentives for creating *unmanaged* permanent exotic forests in the ETS - i.e. exotic forests planted for carbon returns only with no production element (such as timber, fibre or biofuels) or management of fire risk, pests and weeds and that results in a neglected and senescent forest state. We therefore do not support the status quo (Option 1).
- However, council does not support Option 2 (a complete ban on exotic species in the permanent forest category of the ETS). Permanent exotic forests (particularly continuous cover forestry) are a good land use option for parts of Aotearoa NZ less suited to clear-fell plantation forestry and where soil conservation and reduction of sediment in fresh and coastal waters is a priority, or where permanent native forests are not viable (financially or otherwise). The returns from carbon under the ETS provide critical financial incentive to change land use from erodible pasture to permanent forest and we would not want to see this incentive removed for productive exotic species that contribute to the regional economy.
- Option 2 also has the potential to increase incentives for new clear-fell exotic forestry regimes and will reduce permanent / continuous cover forestry. This is largely due to mandatory averaging accounting in the ETS tending to benefit clear-fell forestry but 'under-reward' permanent / continuous cover forests. Clear-fell forestry can come with impacts, and we see a place for permanent exotic forests to be kept as an option where landowners seek improved environmental outcomes while producing revenue from their land under a continuous exotic forest cover, or where terrain and costs render clear-fell and native forests less viable. Option 2 could result in large tracts of erosion prone land being left in a 'policy limbo' with limited viable options for beneficial land use change (i.e. the ETS only 'rewards' clear-fell or permanent native forests).
- Council therefore supports a more nuanced version of Option 3A than that proposed with a range of exceptions for exotics in the permanent forest category of the ETS that will retain incentives for positive environmental, social and economic outcomes (including contribution towards net emissions targets). We consider this option best meets the assessment criteria set out on Page 16 of the discussion document.

- We strongly support increased incentives for establishment and management of native forests, both in the ETS and through other mechanisms available to government.
- We support a review of the carbon look-up tables with a recommendation these reflect regional growth rates for species more accurately (rather than applying a national average). We also support look-up tables including sequestration rates for specific native and exotic species so landowners can make more informed decisions.
- We support an option for owners of ETS forests under 100 hectares to be able to use the field measurement approach to measuring their stocks of carbon rather than being restricted to look-up tables.
- We also support work to recognise in the ETS the sequestration potential of wetlands and controlling browsing pests. Riparian planting is another activity that could be better recognised in the ETS but is often discounted on width criteria We acknowledge He Waka Eke Noa are looking at methods for on-farm accounting and offsetting for the agricultural sector - we strongly support the development of credible tools for measuring on-farm sequestration rates that maximise the ability of landowners to offset emissions and enable a just transition, whether this is through the He Waka Eke Noa programme or the ETS.
- We understand the government may look to provide greater controls on exotic forestry under the Resource Management Act 1991 (RMA). Council supports enabling more discretion over: wildfire risk, clear-fell forestry on erosion prone land, plantation forestry on high quality soils / production land, in wetlands and riparian setbacks. Another potential area is control over the total area of a catchment under clear-fell harvest. We also consider there needs to be more explicit ability to manage exotic forestry to meet freshwater target attribute states[1] (not just objectives) developed in regional plans to give effect to the National Policy Statement for Freshwater Management 2020 (NPS-FM). Expanding the scope of the National Environmental Standards for Plantation Forestry (NES-PF) appears to be a logical option.

2. Background

2.1. Sediment and its impacts on freshwater and coastal receiving environments is one of Northland's most widespread and challenging water quality issues. A large fraction of this sediment (about 50%) is estimated to come from erodible hill country (about 40% of the region's grazing land is classified as highly erodible). This is a landscape scale 'legacy issue', generations in the making and it therefore needs a landscape scale solution which will also take time to deliver. Council has developed and supported a number of projects to address the problem (several with government funding) including:

- The Kaipara Moana Remediation programme, a $300 million dollar programme to reduce sediment loads to the Kaipara Harbour through farm planning and targeted afforestation
- Afforestation programme / SHaRP – including grant funding for planting new forests on highly erodible land. These forests include areas of indigenous retirement in addition to production forests using indigenous and exotic species suited to continuous cover forestry. Many of the continuous cover exotic forest

[1] Refer Clause 3.11 of the NPS-FM

(composed of high value timber species such as redwoods and eucalyptus) utilise manuka as a nurse crop. Soil conservation generally (e.g. subsidised poplar poles and advice to landowners) and poplar and willow have proven to be the most effective trees to rapidly control erosion, provide animal welfare benefits while maintaining pastoral production. Being fast growing exotic hardwoods, they also sequester carbon rapidly. Allowing these trees to be registered into the ETS while keeping the land in pastoral production provides land use options and considerable incentives for landowners to scale up planting for a range of environmental benefits.

2.2. Council is actively promoting continuous cover forestry through our afforestation programme, targeting highly erodible farmland in the region. Much of this land is not ideal for clear-fell production forestry due to terrain and remoteness. Landowners should be enabled to retain productivity of their land via continuous cover (permanent) forest management using productive exotic species, whereby forest cover is provided in perpetuity via management activities. In our experience many landowners are wanting a forest that produces timber and farm revenue, but that is not clear-felled for environmental reasons. – We also hear native species are often too costly and ETS returns are lower meaning exotics are the most viable option. We recognise that silvicultural practices that maintain the forest canopy and mimic natural successional processes offer improved environmental outcomes compared with rotational (clear-fell) forestry, regardless of whether the trees are exotic or native. Carbon returns through the ETS provide the critical financial incentive to change land use from erodible pasture to permanent forest that supports a range of positive environmental outcomes (soil capital retention, water quality improvement, biodiversity). Averaging accounting (soon to be mandatory for new production forests) does not adequately reward owners of continuous cover forests and only incentivises clear-fell regimes. This could result in a perverse outcome in some areas creating a disincentive for permanent forests. Because exotic plantation forest species offer significantly faster growth and greater economic returns than natives under the ETS, this option will be a critical element for scaling up water quality improvement in many parts of Aotearoa NZ and Northland in particular. To exclude all exotics from the permanent forest category is in our view a step too far and a blunt response to the issue. We expand further below.

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3. **The Options**

3.1. Council does not support retaining the status quo (Option 1) as there are risks and minimal benefits associated with a proliferation of ‘unmanaged’ permanent exotic forests established for the sole purpose of carbon returns through the ETS. Issues include: wildings, spread of pests / weeds and increase in wildfire risk – there is also the potential for a management legacy left to future generations if large tracts of exotic forests reach the end of their ‘lifespan’ without any harvest or management. ‘Unmanaged’ exotic forests grown specifically for carbon farming have lower socio-

economic benefits than forests managed for productive uses (such as timber, fibre or biofuel). Given they are comparatively low cost to establish and manage, these 'carbon only' forests could become financially viable on land more suitable for primary production as the price of carbon increases. This could essentially 'lock-in' a land use that constrains productive land use options (including production forestry) as the high value of liabilities will make land use change very costly. We consider the risk of this occurring with permanent native forest is lower, given ETS returns are less and establishment costs are higher (i.e. it is far less likely to displace other productive land uses). However, an obligation to manage permanent exotic forests for production (and environmental benefits) resolves the above issues while also retaining the productive capacity of the land. Primary production is the backbone of Northland's economy and a reduction in productive land could impact negatively on our economy. We acknowledge an 'over-supply' of NZUs from large tracts of unproductive 'carbon forest' will weaken the pressure to reduce emissions and affect Aotearoa's ability to transition to a carbon neutral economy, but we note changing the percentage of free allocations of carbon credits to emitters is a very effective means of managing the price of NZU / carbon. A recent example of this is the impact on the NZU price of the reduced free allocations to Tiwai Point aluminium smelter. Allowing appropriately managed permanent exotic forests as an option in the ETS will still retain the ability to control both demand and supply of NZUs while incentivising environmental and economic benefits - this will best provide for a just and equitable transition to a low carbon society.

3.2. Despite the above we do not support Option 2 either – we see limiting the permanent forest category to indigenous species only as being too blunt. There are a range of positives that can be provided by well managed permanent / continuous cover exotic forestry as a productive land use. These include water quality / soil conservation improvements, diversification of forestry estate to produce high value timbers, fibre or biofuels, sustainable employment and carbon removals. We consider pursuing Option 2 is likely to have an impact on the effectiveness of soil conservation / sediment reduction efforts (some of which the government has invested heavily in such as the Kaipara Moana Remediation programme). For example, highly erodible land tends to be less productive but typically requires the most effort in terms of sediment mitigation – landowners therefore have comparatively lower returns to fund proportionately higher sediment mitigation costs. Highly erodible land can also be less suitable for clear-fell forestry. The ability to earn NZUs from appropriately managed exotic permanent forest is therefore a powerful incentive for good environmental outcomes in these cases (noting planting permanent native forest is more expensive and the carbon income is much lower). Option 2 therefore risks large tracts of erosion prone land being left in a 'policy limbo' with limited viable land use solutions – this is not consistent with a just and equitable transition to a low carbon economy / society.

3.3. We note the government objective for a just transition to a low carbon economy and that the agricultural sector will soon be subject to GHG emissions pricing either through mechanisms developed by He Waka Eke Noa or if necessary, entry into the

ETS. In the event agriculture enters the ETS, the ability to offset agricultural emissions from the agricultural sector using permanent exotic forests in the ETS appears an appropriate option. Limiting the options to clear-fell production forestry or permanent native forestry will not provide a viable solution in many cases.

3.4. The government should be particularly cognisant of impacts of the proposals on options for development and use of Māori land and providing for a just transition to a low carbon economy for Māori. We agree with the statements in the discussion document that the proposals could have significant implications for Māori. As we understand it Option 2 in particular has the potential to negatively impact on Māori development / land management aspirations. In our experience these aspirations often include a desire for land use change, however rural Māori land often has limited opportunity for commercial returns with exotic forestry being one of the few viable in many cases. Māori land it is not always suitable for clear-fell regimes nor does this necessarily align with their land use aspirations. NRC's understanding is that permanent exotic forestry is of interest to Māori in Northland. We strongly recommend the options be explored carefully with Māori prior to any decisions being made.

3.5. We note the modelled impacts of Option 2 on Aotearoa NZ net GHG emissions targets on Page 14 of the discussion document indicates that the removal of exotics from the ETS permanent forest category will have a significant impact on emissions budgets (due to lower removals from forestry – down from 107 to 66 million tonnes in 2035). This could well lead to the government having to buy even more international units from mitigation undertaken in other jurisdictions. It is far more preferrable that this investment be domestic and result in other co-benefits for the environment and society via productive land uses.

3.6. In our view Options 1 (status quo) and 2 perform less well against the assessment criteria than Option 3A. In our view Option 2 does not deliver well against several of the assessment criteria – in particular it provides the least environmental benefit (criteria 6) and performs the worst against providing for sequestration to meet emissions budgets and targets (criteria 1). In our view Option 2 would be a backwards step in terms of addressing three 'wicked' problems facing Aotearoa NZ, namely achieving landscape scale water quality improvements, reducing net climate change emissions and improving biodiversity outcomes. We note Option 2 as currently proposed would not provide any net increase in incentives for indigenous permanent forests.

3.7. Council does not support a moratorium (Option 3B) as this just creates uncertainty and may result in poor investment decisions.

4. Our preferred option

4.1. We support the assessment criteria set out on Page 16. In our view the option that best delivers on these criteria is one that keeps the most flexibility in the ETS and maximises co-benefits / best delivers on other government objectives (such as water quality and biodiversity gains and enabling a just transition to a low carbon economy)

but also controls the issue of concern, that being a proliferation of 'unmanaged / unproductive' exotic carbon forests. We therefore support Option 3A with a range of 'exceptions' being available for entry of permanent exotic forests into the ETS with the exceptions being determined by regulations. Our suggested approach would be to allow entry of permanent exotic forests into the ETS where it is for one or more of the following:

i. It is for planting for erosion control on erosion-prone land or to otherwise mitigate the effects of sediment / improve water quality. Erosion prone land could be defined using Land Use Capability classes but should be broader than the NES Plantation Forestry 'red-zone' (which does not accurately identify erosion risk in Northland). It should also allow for planting to address localised gully, landslip or landslide erosion as these deliver a high proportion of sediment.
ii. It is designed to transition from exotic to indigenous forests over time
iii. It is on remote and marginal land (subject to an appropriate definition)
iv. It is established for sustainable production (such as timber, fibre or biofuels).

A 'forest management plan' should be a requirement of entry into the ETS permanent exotic forest category – this would set out the measures to reduce risks of pests, weeds, wilding spread and wildfire and (where relevant) set out the production activities proposed. We recognise this would add complexity and potentially compliance costs but consider it would address a number of the risks the government has identified.

4.2. We do not support a species-based approach to the above, preferring that options remain open for landowners to make decisions on the basis of 'the right tree in the right place for the right purpose', with the onus on the landowner to undertake interventions that ensure the forest is productive and managed for specific environmental outcomes.

4.3. While a new continuous cover / permanent exotic forest may be able to enter the ETS as a 'production forest', the mandatory use of averaging accounting (even for 'extended rotations') effectively penalises this type of forestry, meaning carbon returns under the ETS are lower and clear-fell harvest is incentivised rather than retaining a permanent forest canopy. We recommend the stock change accounting approach be retained for both permanent exotic and native forests as the averaging accounting method does not accurately reflect the management regime required, or carbon stocks held in permanent forests (i.e. there is no clear-fell harvest cycle to 'average out').

4.4. While care will be required to ensure loopholes are managed, we consider the above manages the risks the government is concerned about but retains flexibility in the ETS for a range of appropriate forest types that maximise co-benefits for the environment, the economy and people, and will assist in meeting net emissions targets. It is also likely to go some way towards 'rationing NZ's sequestration

capacity' and placing more emphasis on emissions reduction by limiting the total amount of permanent exotic forestry.

5. Averaging accounting

5.1. A "longer rotation" averaging forest category provides greater flexibility for landowners to extend rotation length for better environmental outcomes. The longer a rotation is, the less impact harvesting will have on sediment runoff and soil capital. However, longer rotations should not be a substitute for a permanent/continuous cover forest, because rotational forestry is fundamentally different than continuous cover forestry. The ETS should distinguish this difference for all forest species, whether exotic or native.

5.2. We also recommend that forests under 100 hectares (of any species) have the option to measure their carbon using stock change accounting rather than be limited to using carbon lookup tables. This on the basis that the look up tables may not accurately reflect their carbon stocks - we suspect that carbon sequestration rates in Northland forests may well be under-estimated by the look up tables. Allowing this option may also have the effect of increasing incentives for native forests especially in Northern parts of NZ (as it is likely the look up tables also underestimate native carbon sequestration in these areas).

6. Better incentives for indigenous permanent forests

6.1. Council supports more effective incentives for indigenous forestry in the ETS. Analysis we have undertaken indicates current financial incentives strongly favour afforestation using exotic species rather than natives. Considering the cost side only (land preparation, tree cost, planting, releasing, fencing, and the opportunity cost of lost livestock production), permanent afforestation in natives is around 70% more expensive than Pinus Radiata. This is primarily due to the cost of trees. When carbon credits are claimed under the ETS the incentive becomes even stronger. Using a carbon price of just $35 per tonne and the per hectare carbon stock values in the look-up tables, a permanent Pinus Radiata forest yields a positive net present value over a thirty-year period. While claiming carbon credits will offset some of the cost of planting natives, the net cost for natives is still higher than the cost of planting Pinus Radiata without claiming credits. Only when the carbon price exceeds $145 per tonne, will planting natives begin to yield a positive net return.

6.2. We recognise the integrity / credibility of the ETS as a carbon accounting and pricing tool must be maintained but consider the accuracy of the sequestration rates in look-up tables for both native and exotic species could be improved. We therefore strongly support a review of the tables. We would like to see sequestration rates for specific species included and the different sequestration rates across NZ better recognised (rather than a national average being used for native). For example, Totara, Kahikatea, Puriri and Kauri have potential in Northland but are likely to be currently 'under-rewarded' by ETS look up tables. The longer sequestration period of native forests could also be better recognised – as could the fact they tend to be truly

permanent / self-sustaining compared with 'unmanaged' exotic forests. This should be recognised in ETS and other government policy settings given the broad cultural and environmental co-benefits.

6.3. As noted above, we support forests under 100 hectares be able to measure their carbon stocks rather than be limited to using the lookup tables that may not accurately reflect their carbon stocks – especially for native in Northern NZ.

6.4. One option that could be investigated is a form of 'advancing' carbon credits for permanent native forests – e.g. averaging NZUs over the life of the forest. Currently landowners establishing permanent native forests face most of the (quite significant) costs up front but are unlikely to receive significant ETS rewards for some time given the slower growth / sequestration rates of native species. We understand this to be a barrier to entry of native into the ETS. We recommend analysis into the potential for ETS rewards / NZUs to be paid ahead of sequestration for permanent native forests so that they are incentivised with initial higher returns so upfront costs are less daunting.

6.5. We consider there is potential for sequestration by wetlands to be recognised in the ETS. We recognise this to be in effect soil sequestration, but do not see it as completely beyond the scope of the ETS. Rewarding sequestration within wetlands in the ETS would also align well with other government objectives including enhancing biodiversity, improving water quality and no net loss of wetlands.[2] We recognise quantifying sequestration in wetlands could be problematic be we consider it is worth investigation.

6.6. We understand He Waka Eke Noa Partnership has a workstream focussed on designing a simple and cost-effective mechanism that incentivises on-farm carbon sequestration from sources that do not currently qualify under the ETS (such as many riparian plantings). This would ideally enable riparian plantings to act as offsets against on-farm emissions regardless of whether the planting qualifies for the ETS or not. This approach is supported – we note as a 'backstop' position, agricultural emissions will enter the NZ ETS if an effective, workable alternative is not put forward by the Partnership. We'd suggest that if this 'backstop' position is needed either that a) the ETS revenue from agricultural emissions be invested back into the agricultural sector to support further emissions reductions (including paying for sequestration not eligible for the NZ ETS such as riparian plantings) or b) the ETS be amended to better recognise such on-farm offsetting measures (farm plans could be used to account for on-farm emissions and offsets in this instance).

6.7. The added sequestration as a result control of browsing pests in native forests is another area we consider could be investigated. Research[3] by Forest and Bird

[2] National Policy Statement for Freshwater 2020 – Policy 6 and Clause 3.22

[3] https://www.forestandbird.org.nz/sites/default/files/2021-06/Protecting%20our%20natural%20ecosystems%27%20carbon%20sinks%20-%20Forest%20%26%20Bird%20report.pdf

estimates that the equivalent of nearly 15% of New Zealand's 2018 net GHG emissions per year (8.4 million tonnes of CO_2) could be locked into native ecosystem carbon sinks if we controlled feral browsing animals to the lowest possible levels. Again, quantifying sequestration benefits is likely problematic but should be investigated given the alignment with government biodiversity objectives.

Conclusion

We thank the government for the opportunity to comment on the proposal. In closing, landowners require an equitable ETS scheme that incentivises planting of sustainable, permanent, continuous cover production forests, forests that produce returns from both carbon and timber. In our view many areas in Aotearoa NZ currently used for agriculture would be more suited to permanent / continuous cover production forest than pasture or clear-fell rotation based production forestry given terrain and potential water quality impacts. The proposal to exclude all exotics from permanent forest category in the ETS is too blunt, especially as the settings proposed leave no real alternative but clear-fell forestry or permanent native forests – neither of which will be viable / suitable in all cases. We prefer retaining flexibility in the ETS settings so that there are viable land use solutions for a range of circumstances that maximise co-benefits but also assist in meeting net GHG emissions targets.

Signed on behalf of Northland Regional Council

Malcolm Nicolson (Chief Executive Officer)

Dated: 14 April 2022