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Dear Stuart

### **National Environmental Standard for Plantation Forestry**

1. The New Zealand Law Society (Law Society) welcomes the opportunity to comment on the consultation document *A National Environmental Standard for Plantation Forestry* (NES-PF).
2. The Law Society acknowledges that the draft rules are intended to convey the policy intent of the proposed NES-PF and that it is likely they will be subject to significant change or refinement. The Law Society provides the following comments.

### **Jurisdictional issues**

3. The NES-PF's draft rules are divided into eight activity-specific parts<sup>1</sup> and one general part. Appendix 3 of the consultation document states:<sup>2</sup>

Each table is divided into several sections ... Broadly, these aspects are: ... the local authority responsible for this matter (that is, with jurisdiction).

...

The jurisdiction column indicates whether each individual permitted activity condition is a district or a regional council function.

4. There is otherwise no particular guidance about how local authority responsibility for monitoring, compliance and consenting functions is to be divided or shared. This gives rise to several issues:
  - It is unclear how each of the identified forestry activities (and their constituent permitted activity conditions) relate to sections 9 to 15 of the Resource Management Act 1991 (RMA).

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<sup>1</sup> Relating to: afforestation, earthworks, harvesting, mechanical land preparation, pruning and thinning to waste, forestry quarrying, replanting, and river crossings.

<sup>2</sup> Consultation paper, at page 60.

- It is unclear which local authority (or local authorities) is to be the consent authority where permitted activity conditions are not satisfied, especially where:
    - (a) permitted activity conditions that jointly<sup>3</sup> or severally<sup>4</sup> relate to regional/district functions are not satisfied, or
    - (b) a proposal is classified as fully discretionary and all aspects/effects of the activity can be considered.
  - It is consequently unclear how monitoring and compliance functions are to be allocated between regional and district councils, although it is possible that a degree of pragmatic coordination and agreement is anticipated (e.g. through triennial agreements).
5. In the Law Society's view, the terms of the NES-PF should be framed so that the appropriate consent and enforcement authorities can be clearly identified.
  6. In addition, the current draft rules may result in a need for multiple consents from different consent authorities, depending on which permitted activity conditions are not satisfied. This would be inconsistent with the underlying objectives of the NES-PF of improving certainty of RMA processes and contributing to the cost-effectiveness of the resource management system.<sup>5</sup> While constraints are imposed through the division of functions between regional and territorial authorities under sections 30 and 31 of the RMA, the potential complexity of consenting requirements arising under the NES-PF should be carefully evaluated as the draft rules are refined.

## Use of notes

7. "Notes" are used throughout the NES-PF, to inform interpretation *and* impose substantive controls. Examples of notes that fulfil the latter function are:
  - the rules for afforestation include the statement "Note: consents in Orange Zone to be non-notified";<sup>6</sup>
  - the rules for earthworks include the statement "Note: maintenance and upgrade of existing earthworks is permitted in all zones (including Red Zone), provided the permitted activity conditions are met".<sup>7</sup>
8. This is problematic, as notes in other types of planning instrument are generally regarded as being only for informational purposes. To avoid doubt, notes should not be used to impose substantive controls.

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<sup>3</sup> For example, in relation to the earthworks activity, jurisdiction for the "Notice of commencement" permitted activity condition is ascribed to both district and regional councils: see page 65.

<sup>4</sup> For example, in relation to the afforestation activity, a proposal could fail to satisfy the "Wilding tree risk" permitted activity condition (a district council matter) and the "Setbacks" permitted activity condition for a wetland (a regional council matter): see pages 62 and 63.

<sup>5</sup> At page 8.

<sup>6</sup> At page 64.

<sup>7</sup> At page 65.

9. There is also inconsistent use of terminology in the NES-PF. For example, some notes are identified as “advice notes”<sup>8</sup> whereas others are simply “notes”. A consistent approach should be taken to terminology used in the NES-PF.

### **The relationship between forestry activity-specific rules and general conditions**

10. The “general conditions” commence with the following statement:<sup>9</sup>
- Notwithstanding specific activity rules, all forestry activities are permitted, provided the following conditions are met ...
11. The Law Society understands the intent is for “general conditions” to apply to all forestry activities *in addition to* the relevant activity-specific rules. However, as the statement above is currently worded, the general conditions effectively apply *as an alternative to* the activity-specific rules. If that is not the intention, the statement should be amended.

### **Permitted activity conditions**

12. One of the underlying tenets of the NES-PF is that, where possible, activities should be permitted, provided robust permitted activity conditions are met.<sup>10</sup> Accordingly, the bulk of the draft rules deal with permitted activity conditions. The following comments focus on several aspects of those conditions: scope, certainty, management plans, and permitted baseline implications.

#### **Scope**

13. The draft rules contain several provisions that do not usually appear in permitted activity conditions. These are conditions that provide for third party or consent authority approval (or, in some cases, the exercise of discretion) as a component of a permitted activity condition. For example:
- the first “setback” condition for afforestation states that the minimum horizontal set back distance is 10m, unless approval of the adjoining owner(s) has been obtained;<sup>11</sup>
  - the “notice of commencement” condition for earthworks states that a local authority can waive the notification requirement, or alternatively reduce this notice period at their discretion.<sup>12</sup>
14. There does not appear to be any case law as to whether the ability to specify permitted activity rules/conditions under an NES is broader than that otherwise arising under a regional or district plan. In the absence of relevant case law, the usual common law principles applicable to permitted activity rules and conditions under regional and district plans are also likely to apply to the same sorts of rules when imposed through an NES. The rules will serve the same function and will be subject to the same machinery provisions in the RMA (e.g. as to the significance of an activity being classified as “permitted”). There is also nothing in sections 43 to 44A of the RMA that expressly contradicts this conclusion.

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<sup>8</sup> See for example the “advice note” in relation to replanting at page 82.

<sup>9</sup> At page 83.

<sup>10</sup> See, for example, page 20 of the consultation document.

<sup>11</sup> At page 62 (emphasis added). This is presumably a reference to approval to a smaller setback distance, although this is not explicitly stated.

<sup>12</sup> At page 65 (emphasis added).

15. In the context of regional and district plan rules, permitted activity conditions that purport to reserve discretion to the consent authority are generally regarded as *ultra vires* and invalid. That is a result of the principle that a person should be able to determine on the face of the planning document whether or not an activity is permitted, without the activity classification being subject to discretion on the part of the consent authority.<sup>13</sup>
16. There does not appear to be any case law that examines whether the reservation of a similar degree of discretion to a third party *other than* the consent authority is legitimate. Acknowledging that there is some uncertainty in the absence of relevant case law, the Law Society suggests that:
- Permitted activity conditions that purport to reserve discretion to a consent authority (which will also be the enforcement authority) are consequently likely to be *ultra vires* and invalid.
  - In contrast, permitted activity conditions that refer to approval of, or the exercise of some discretion by, a third party other than the consent authority may be valid, so long as they are sufficiently certain to enable an assessment of whether an activity is permitted or not.
17. In relation to the second point, there would be little benefit (aside perhaps from the ability to impose consent conditions) derived from a situation where:
- an activity requires consent because of, e.g. a breach of a setback control;
  - the adjoining owner affected by the breach consents to the reduced setback and provides a written approval accordingly;
  - the effects of the breach cannot be taken into account because of the written approval; but
  - consent is nevertheless required, even though there are no relevant effects to assess.
18. The permitted activity conditions in the NES-PF that make permitted activity status contingent on adjoining owner approvals are therefore likely to be valid. They are likely to be sufficiently certain, as it will be a clear yes/no evaluation as to whether a written approval<sup>14</sup> exists and how that correspondingly affects the application of permitted activity conditions.
19. However, because of their untested nature the permitted activity conditions, as drafted, may provide an avenue for challenge against decisions made in relation to the NES-PF (e.g. to take no enforcement action in response to a complaint, on the basis that an activity is permitted). This risk of litigation is a matter that should be taken into account when the costs and benefits of permitted activity conditions that refer to third party approvals are considered.

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<sup>13</sup> See *TL & NL Bryant Holdings Limited v Marlborough District Council* [2008] NZRMA 485 (HC), at paragraph 50.

<sup>14</sup> Which must be unqualified, on the basis of the usual case law about approvals.



## **Certainty**

20. The Law Society considers many of the NES-PF's draft rules lack sufficient certainty.
21. The principle that a person should be able to determine on the face of the planning document whether or not an activity is permitted means that provisions within the planning document must be sufficiently certain. Permitted activity rules or conditions that require some form of evaluative judgement are often (although not always) found to offend against that principle and to be invalid. As Judge Sheppard observed in *Friends of Pelorus Estuary Incorporated v Marlborough District Council*:<sup>15</sup>

There are practical disadvantages in adopting conditions requiring evaluation to determine whether or not a proposal is a permitted activity. Rules by which permitted activities are defined in such a way are regrettable, and might be questioned when the instrument is open for submissions and appeals. But they are not as a matter of law automatically invalid simply because they call for evaluation.

22. A more recent discussion of the principle appears in *Rawlings v Pilcher*,<sup>16</sup> where Judge Hassan found that the use of the word “dependent” in the phrase “accommodation for a dependant relative” introduced an impermissible degree of discretionary judgement, as it required a subjective evaluation of dependency. While language that requires a degree of evaluative judgement is possible, this decision (and others like it) indicates that judicial tolerance for it is low.
23. Many of the NES-PF's permitted activity conditions involve elements of subjective evaluation. For example, one of the permitted activity conditions for 'slash and debris management' from the harvesting activity is:<sup>17</sup>

Whenever safe and practicable to do so, remove potentially unstable slash that has the potential to mobilise under flood flows from water bodies, and:

- block or dam stream flow; or
- divert flow into stream banks in a way that is likely to cause erosion; or
- damage downstream infrastructure, property or receiving environments; or
- cause significant adverse effects on aquatic habitat.

Subjective elements within this condition include:

- determining whether it is “safe and practicable” to do something;
  - evaluating the meaning of “potential” and whether it is a threshold that is triggered;
  - determining whether erosion is “likely” to be caused;
  - evaluating whether adverse effects on aquatic habitat will be “significant”.
24. The Law Society submits that these matters involve too much subjective discretion or judgement to properly be the subject of permitted activity conditions. If they are enacted in this form (or something substantially similar), there is a material risk that they will:
- be successfully challenged as being beyond the legitimate scope of permitted activities under the RMA and therefore invalid; or

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<sup>15</sup> EC Christchurch, C04/08, 24 January 2008, at paragraph 101.

<sup>16</sup> [2014] NZEnvC 49 (EC).

<sup>17</sup> At page 72.

- result in conflicting judgements between forestry operators, consent or enforcement authorities, and other interested persons that may lead to enforcement action.

This would be inconsistent with the NES-PF's objectives of improving the certainty of RMA processes and environmental outcomes.

### ***Management plans***

25. The permitted activity conditions variously provide for the preparation of erosion and sediment control plans (ESCPs), harvesting plans (HPs), and quarry management plans (QMPs). These generally need to be provided to local authorities within certain timeframes before activities start, or on request. However, there is no requirement in the NES-PF for local authority approval or certification of the plans. Similarly, there is no express ability for a local authority to compel someone to amend a plan that is deemed to be inadequate, as long as it satisfies the minimum requirements set out in the relevant permitted activity conditions.
26. A requirement for local authority approval or certification would necessitate a consent process, as (for the reasons set out above) such a process could not legally be part of a permitted activity condition. The absence of any approval/certification requirement may encourage a "minimum necessary to achieve compliance" approach. Without the need to persuade a local authority that the content of a plan is adequate, the success of this mechanism is dependent on industry goodwill or engagement in the plan creation processes.
27. If the preparation and submission of management plans is to be retained as a permitted activity condition, then the Law Society questions whether the mandatory content of the plans is described with sufficient certainty.<sup>18</sup> For example, the requirements for a QMP are relatively broadly framed and include matters such as: "heavy rainfall response and contingency measures" and "revegetation requirements". The condition provides for the level of detail provided in the QMP to vary according to the "scale and complexity of the operation". Forestry operators, enforcement authorities, and other interested people (such as nearby property owners) may have different views about the scale and complexity of a particular operation and the level of detail that consequently needs to be provided in a QMP. There will likely be a high degree of uncertainty about whether or not a QMP is sufficiently detailed to satisfy the permitted activity condition. Where a QMP is framed with a low level of detail, there may also be uncertainty about whether physical works constructed as part of an operation comply with the QMP or not.
28. These concerns may be mitigated by the provision of template management plans. However, these are not consistently referred to in the NES-PF. For example, there is no reference to a template in the requirements for an ESCP under the "earthworks" activity,<sup>19</sup> whereas the requirement for an ESCP under the "harvesting" activity does refer to the use of a "prescribed template".<sup>20</sup> Similarly, there is no reference to a template in relation to QMPs. A consistent approach should be taken to the use of prescribed templates across all of the different types of management plan.

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<sup>18</sup> At pages 66, 71 and 78.

<sup>19</sup> At page 62.

<sup>20</sup> At page 69.

### **Permitted baseline implications**

29. The consultation document acknowledges concerns raised during previous consultation rounds on the relationship between permitted activities under the NES-PF and the permitted baseline in the context of other activities.<sup>21</sup> In particular, concern was expressed that overly lenient NES provisions might create a correspondingly broad permitted baseline that could undermine other planning controls.
30. The consultation document responds to that concern with the observation that the permitted activity conditions in the NES-PF confine the scope of permitted activities. There is also a recognition that application of the permitted baseline is discretionary at notification stage (which also applies to the substantive assessment of resource consent applications).
31. The Law Society considers that all of these points are valid. The NES-PF does have the capacity to expand the permitted baseline and decision-makers will need to pay careful attention to the permitted activity conditions and consider the discretionary nature of the permitted baseline.
32. The consequences of an expanded permitted baseline are significant and are the result of a NES that explicitly seeks to make activities permitted where possible. As the permitted baseline will apply nationwide, it is likely to alter the permitted baseline established by existing planning instruments in many regions or districts.
33. In addition, it is unclear whether the apparent breadth of some of the permitted activities created under the NES-PF is intentional. For example, the (apparently) broad scope of the “river crossings” activity is of concern. As currently described, the activity is imperfectly linked to forestry activities.<sup>22</sup> On its face, it applies to river crossings generally and may have a significant impact on riparian areas in a permitted baseline sense. The potential consequences of this on matters of national importance identified in section 6 of the RMA is discussed below.

### **Transitional arrangements and implications for existing resource consents/existing use rights**

34. The consultation document indicates the NES-PF would come into force (if it proceeds) six to twelve months after being publicly notified in the *New Zealand Gazette*.<sup>23</sup> An indicative date of late 2016 is consequently given.
35. This timeframe for local authorities to review and adjust existing planning instruments and processes to accommodate the NES-PF is likely to be challenging. In addition to identifying and deleting plan provisions that are inconsistent with the NES-PF (other than in areas where greater plan stringency is allowed), local authorities will need to evaluate how the remaining plan rules operate and, where necessary, advance plan changes to make any consequential adjustments.

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<sup>21</sup> At page 100.

<sup>22</sup> From page 88.

<sup>23</sup> At page 44.

36. As noted below, the relationship between the NES-PF and forestry activities authorised under existing resource consents or existing use rights also needs to be considered.

#### ***The NES-PF and existing resource consents***

37. Land use consents for forestry activities granted before the NES-PF is notified in the *Gazette* will prevail over the NES-PF.<sup>24</sup> This means that activities may continue to be carried out under existing consents (or may be commenced under an existing consent that has not lapsed), irrespective of the new controls imposed through the NES-PF. It will be a question of fact in each case what components of a forestry activity are covered by an existing consent (e.g. one consent may relate only to afforestation, whereas another may relate to afforestation, harvesting and replanting).
38. To the extent that components of an activity are not the subject of an existing resource consent, compliance with the NES-PF will be required. This may result in some unusual conflicts which will need to be addressed on a case by case basis, and this may lead to inconsistency.

#### ***The NES-PF and existing use rights***

39. Where the NES-PF imposes a consent requirement for an otherwise permitted activity, sections 10 – 10B and 20A(2) of the RMA apply as though the NES-PF were a rule in a plan that has been made operative.<sup>25</sup>
40. Existing use rights will be preserved for forestry activities that satisfy the requirements of those provisions (as relevant). Where there is evidence of the long-term, cyclical afforestation, harvesting, and replanting of forests, the significance of this may be profound.<sup>26</sup> It is also not clear that the extent of these existing use rights has been factored into the cost-benefit analyses that underpin the justification for this legislative intervention.
41. Against this background, the grandfathering of existing river crossings in the draft rules<sup>27</sup> is unclear. It purports to establish a *de facto* existing use right regime for existing river crossings. However, the Law Society submits that right will likely exist *in addition* to rather than *in substitution* for any existing use rights preserved under the RMA. Its effectiveness is consequently doubtful.

#### **Relationship between the proposed NES-PF and matters of national importance identified in section 6 of the RMA**

42. The first stated objective of the NES-PF is to “remove unwarranted variation between councils’ planning controls for plantation forestry”. The second stated objective is to “improve certainty of RMA processes and outcomes for plantation forestry stakeholders **while**

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<sup>24</sup> RMA, section 43B(5).

<sup>25</sup> RMA, section 43B(9).

<sup>26</sup> On the basis of the Court of Appeal's finding in *Rodney District Council v Eyres Eco-Park Limited* [2007] NZCA 13 (CA) that existing use rights must be considered in the context of an activity's usual operational cycle, rather than a 'snapshot' taken when a new rule comes into effect.

<sup>27</sup> At page 88.

**maintaining consistency with the purpose of the RMA”** (emphasis added).<sup>28</sup> Those objectives are not necessarily complementary.

***Outstanding Natural Features and Landscapes, and Significant Natural Areas***

43. There is potential for the proposed NES-PF to significantly alter the interpretation and application of existing regional and district plan provisions relating to matters identified in section 6 of the RMA as being of national importance. This is particularly an issue in respect of outstanding natural features and landscapes (ONFL), and significant indigenous vegetation and significant habitats of indigenous fauna (collectively known as significant natural areas or SNAs), which sections 6(b) and (c) of the RMA require to be recognised and protected as matters of national importance in giving effect to the sustainable management purpose of the Act. The NES-PF provides for forestry related activities such as ground preparation, and plantation forestry planting, which in many districts or regions will be subject to regional or district rules designed to protect ONFL and SNAs. Development of such rules, and the criteria for (or maps) identifying ONFL or SNAs often involve substantive legal process, including appeals to the Environment Court and beyond. Collaborative processes are also utilised extensively, and the outcomes frequently reflect significant community and stakeholder interests.
44. Care is required to ensure that the NES-PF does not have the effect of inadvertently undermining this significant investment by communities, councils and the courts, in developing plan provisions to give effect to the requirements of section 6 to recognise and provide for the protection of SNAs and ONFL. Such an outcome would be inefficient, in terms of the substantial investment made by communities in existing plan provisions, and could lead to litigation.

***Impact of different approaches to the control of permitted activities on ONFL and SNAs***

45. In the context of land use activities, the Law Society is aware that district or city councils often take different approaches to the control of permitted activities. Some councils (such as Queenstown Lakes District Council) follow the presumption inherent in section 9 of the RMA: activities are permitted unless a rule says otherwise. A council that takes this structural approach in its district plan will logically impose specific rules where necessary to protect the matters described in section 6(b) and 6(c) of the RMA. This may or may not be accompanied by mapping or other means of identifying, for example, ONFL or SNAs.
46. Other councils (such as Dunedin City Council) effectively reverse the section 9 presumption by including a catch-all rule that defaults all activities to a particular activity classification (usually discretionary or non-complying) unless specifically provided for as a permitted activity. Councils that take this approach are less likely to have rules that clearly address section 6(b) or 6(c) matters, as those interests are protected by the blanket requirement for resource consent for activities not specifically identified as permitted. The Law Society understands that the provisions of the NES-PF are intended to apply in relation to the forestry related activities identified in the NES-PF, but that councils may impose more stringent requirements in relation

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<sup>28</sup> Consultation document, p8.

to these activities in respect of ONFL or SNA areas that are **identified in their plans** (emphasis added).

47. The Law Society interprets the phrase “identified in plans”, as meaning “mapped”, as mapping will be explicitly required in relation to at least SNAs. However, many councils that take the second approach to the control of permitted activities have not mapped ONFL or SNAs in their plans. As stated above, many councils list criteria in their plans for identifying ONFL or SNAs on a case by case basis, rather than comprehensively surveying all ONFL or SNAs. In addition, some plans adopt a mix of both approaches, mapping some ONFL and/or SNAs in the district/region, but also including criteria for identification of others that may not have been mapped.
48. The NES-PF's requirement for ONFL and SNAs to be identified or mapped before more stringent criteria can be provided is likely to have particularly significant implications for planning instruments that take the second approach. They are likely to lack the degree of focus anticipated by the NES-PF's provisions that describe the ways in which plan rules can be more stringent than the NES-PF. This will likely lead to inconsistencies in how the NES-PF is applied to ONFL and SNAs around the country, contrary to the objective of the NES-PF to remove unwarranted variation.
49. Where councils have not mapped ONFL or SNAs, there may be no ability to apply more stringent criteria to protect ONFL and SNAs from the adverse effects of plantation forestry activities. This will likely lead to conflict between the provisions of the NES-PF, and the requirements of section 6 of the RMA, in respect of the protection of ONFL and SNAs as matters of national importance.
50. In addition, the NES-PF provides that where ONFL or SNAs are mapped, councils *may* impose more stringent requirements. The Law Society understands, therefore, that councils will not be obliged to do so, even if existing rules in district or regional plans currently provide more stringent requirements in respect of protection of ONFL or SNAs, than are proposed under the NES-PF.
51. As noted earlier, many existing ONFL and SNA provisions in plans have been developed through lengthy legal processes. These processes may be collaborative, or they may be contested. In some instances, the Court has found a council's proposed plan provisions to be lacking, and directed councils to make amendments to give better effect to the Act's requirements.
52. The Law Society is concerned that the approach in the proposed NES-PF of leaving the making of more stringent rules in respect of identified ONFL or SNAs at the discretion of a council, may have the effect of enabling councils to avoid existing, settled rules to protect ONFL and SNA.

#### ***Potential conflicts between the NES-PF and other section 6 matters***

53. Section 6(a) of the RMA requires the preservation of (inter alia) wetlands, and their protection from inappropriate development, as a matter of national importance. The proposed NES-PF places emphasis on the National Policy Statement for Freshwater Management (NPS-FM) as a

means of ensuring that implementation of the NES-PF will not adversely affect wetlands. However, at present the NPS-FM is largely silent in respect of wetlands, providing objectives and attributes for rivers and lakes only (although it is understood this omission will be addressed in future).

54. Unless the relationship between the NES-PF and section 6 matters is clearly and unambiguously defined, there is also a real risk that the implications could go well beyond the forestry sector. If the NES-PF establishes permitted forestry related activities within ONFL, SNAs (whether or not they have been mapped in district or regional plans), wetlands or other areas which are subject to existing rules in plans designed to recognise and provide for section 6 matters of national importance, then it is likely that this will be cited as a permitted baseline against which a range of other, non-forestry related activities, should be assessed. Land clearance, earthworks and even some structures could be argued to be analogous to the effects of plantation forestry related activities. Again, there is the potential for the NES-PF to undermine existing rules, create uncertainty, and lead to litigation. That risk will be heightened where highly valued natural environments may be affected.
55. One possible solution to avoiding the potential conflict between the NES-PF and the requirements of section 6 would be to state expressly within the NES-PF that the provisions of the NES-PF do not have the effect of overriding existing rules in a district or regional plan which are more stringent and which protect areas of significant indigenous vegetation, significant habitats of indigenous fauna, or outstanding natural features or landscapes. From a drafting perspective, section 86B(3) RMA is noted in this respect.
56. This approach would be consistent with the rationale expressed in the consultation document<sup>29</sup> that setting levels for clearance and conversion of valuable indigenous vegetation which has not been specifically classified as “significant” in plans, is most appropriately determined at a local level. This is because values, including habitat values, vary from case to case; and setbacks from significant wetlands, rivers or lakes will be established at council level, because the appropriate distance will depend on the water body in question.

### **Genetically modified tree stock**

57. The NES-PF rules state that afforestation utilising genetically modified tree stock is a permitted activity where that tree stock has gained the appropriate approval for deployment from the Environmental Protection Authority (EPA), and is subject to conditions imposed by the EPA.<sup>30</sup>
58. This submission does not address the merits of genetically modified organisms (GMO) generally or their use in plantation forestry in particular. It is also acknowledged that it is within the Minister of Primary Industry’s remit to take a view that there are benefits to the utilisation of genetically modified tree stock that justifies their use, subject to evaluating whether the proposal is the most appropriate way of achieving sustainable management under section 32 of the RMA.

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<sup>29</sup> At pages 98 and 99.

<sup>30</sup> At page 64.

59. The Law Society's comments focus on the utilisation of the EPA decisions as the "gatekeeper" for regulation under the RMA. This issue is similar to that addressed by the Environment Court in *Federated Farmers of New Zealand v Northland Regional Council* [2015] NZEnvC 89. We appreciate this decision is the subject of an extant appeal, but consider it appropriate to highlight the Environment Court's analysis in relation to the following:
- The Court's analysis of the HSNO and RMA regimes led it to the conclusion that the regimes have different functions. In the case of the Hazardous Substances and New Organisms Act 1996 (HSNOA), the regulatory scope is limited to the introduction and/or release from containment of new organisms to New Zealand (including GMO).<sup>31</sup> By contrast, the RMA is concerned with subsequent decisions about the use and protection of GMOs, along with other resources, to meet the purposes of that Act.<sup>32</sup> It is this latter subject that the EPA is not called upon to address in the exercise of its statutory functions under the HSNOA. The EPA's decision will therefore not necessarily be an appropriate proxy for RMA decision-making.
  - The Court's analysis recognises that RMA decision-making has a wider scope and reach than that under the HSNOA. In particular, the Environment Court recognised that there may be particular communities that have special sensitivity in relation to cultural or economic concerns. Such concerns may point to a different regulatory response to GMO being appropriate for that community.<sup>33</sup> One example of an issue which might fall to be addressed is the potential for GMO pollen drift to have a negative impact on communities that have established an economic base around GMO-free food production. While these matters may not be relevant to the HSNOA statutory regime, there is obvious scope for them to be relevant at a regional or district level under the RMA.
60. The Ministers for Primary Industries and the Environment may well be aware of these issues and have taken them into account in preparing the proposed NES-PF. But a careful analysis of the differences between the HSNO and RMA regimes is not articulated in the consultation draft. Nor is it clear how the conclusion has been reached that there is no warrant for regional or local decisions to be made on the use of GMO tree stock in RMA plans.
61. The Law Society supports the Executive Summary statement that councils should take into account local environmental conditions and community priorities when setting planning rules. However, the NES-PF does not make provision for more stringent rules to be made about the use of GMO tree stock at the regional or district level. Regulating the use of GMO tree stock in plantation forestry is an example where local variation might be desirable.
62. The Law Society makes a final point in relation to restricted discretionary activities under the NES-PF. If the GMO permitted activity condition is not satisfied (because of non-compliance with conditions imposed by the EPA), the use of GMO tree stock then becomes a restricted discretionary activity – but GMO-related issues are not included in the matters over which a consent authority has restricted discretion. There is also no "catch-all" discretionary activity

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<sup>31</sup> See paragraph 45 of *Federated Farmers*.

<sup>32</sup> See paragraph 49 of *Federated Farmers*.

<sup>33</sup> See paragraph 51 *ibid*, and the High Court's decision *Bleakley v Environmental Risk Management Authority* [2001] 3 NZLR 213 at 243.



classification provided for under the “afforestation” activity. As the NES-PF is currently drafted, therefore, the use of GMO tree stock in breach of conditions imposed by the EPA becomes a restricted discretionary activity, but the breach is not a matter that can be considered by the consent authority. (As drafted, the authority’s discretion would be confined to wilding risks, setbacks, and erosion risk). The matters over which discretion is restricted should be expanded, to address this gap.

## **Conclusion**

63. This submission was prepared by the Law Society’s Environmental Law Committee. The committee convenor, Phil Page, can be contacted through the committee secretary, Karen Yates on [REDACTED].

Yours sincerely



Mark Wilton  
**Vice President**



< Local Councils  
play an active role  
in keeping our  
communities  
healthy. >

## **National Environmental Standard for Plantation Forestry**

Local Government New Zealand's submission to the Ministry for  
Primary Industries and the Ministry for the Environment

10 August 2015

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## We are. LGNZ.

LGNZ is the national organisation of local authorities in New Zealand and all 78 councils are members. We represent the national interests of councils and lead best practice in the local government sector. LGNZ provides advocacy and policy services, business support, advice and training to our members to assist them to build successful communities throughout New Zealand. Our purpose is to deliver our sector's Vision: "Local democracy powering community and national success."

This final submission was endorsed under delegated authority by Lawrence Yule, President, Local Government New Zealand and Stephen Woodhead, Chair Regional Sector Group of Local Government New Zealand.

We would like to be engaged as these regulations are developed. We also encourage the regulations to be "road-tested" before they are finalised. We note the Government has agreed that greater use of exposure drafts will help to lift the quality of final legislation. This was in response to the Productivity Commission's recommendation in their recent enquiry into local regulation<sup>1</sup> that the Cabinet Manual should be amended to set a general expectation that exposure drafts will be published and consulted on before introducing into Parliament legislation that creates a new regulatory regime or significantly amends existing regimes.

This will be a complex set of regulations with responsibility shared between regional and territorial government – the first National Environmental Standard (NES) to do so. As such, implementation will be more challenging and it is important that investment is made in the front end of the process, ahead of the Regulations being finalised. This will mean that ambiguities can be addressed and implementation issues identified.

## Introduction

Thank you for this opportunity to submit on the consultation document for a National Environmental Standard for Plantation Forestry (NESPf). This submission has been prepared on behalf of New Zealand's local authorities.

We note with concern the matters that have been highlighted by local authorities – especially the regional councils – about the proposed NES. This is concerning, particularly because the regional sector in particular was reasonably supportive of the concept of an NES for Plantation Forestry. Some have gone so far as to recommend that it not be progressed. This submission, and the submissions of local authorities all show there is a great deal more work to do to if the NES is to be progressed into Regulations.

LGNZ acknowledges the intent of the NESPf: to resolve industry concerns about variation in controls across plans, to reduce compliance costs and uncertainty for industry, to secure improved environmental outcomes and to encourage development of the forestry sector. But achieving better environmental outcomes does not appear to be a driver of the proposed NESPf. However, if it is recast, it could be an important tool to help give effect to the National Policy Statement for Freshwater Management (NPSFM).

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<sup>1</sup> <http://www.productivity.govt.nz/inquiry-content/1510?stage=4>

LGNZ is concerned that the NESPF is not aligned with other national direction – the National Policy Statement for Freshwater Management nor with regional councils' statutory responsibilities to manage the risks of pest species and to fulfil obligations bestowed by section 6 of the RMA. Careful consideration of these matters is required before the NES can be progressed. Regional councils are currently involved in intensive effort to give effect to the NPSFM and this NESPF has the potential to undermine and override this work.

Councils have concerns that there will be significant costs to bear in assessing regulatory compliance with the NES and no viable mechanism to recover the costs of the assessment work to determine activity status. Elevating the permitted activity framework to a controlled activity would provide certainty, consistency and a mechanisms for councils to assess applications and recover associated costs.

Territorial authorities have identified that the NES does not address some aspects of the management of plantation forestry and does not give the opportunity to be more stringent in relation to managing amenity conflicts that arise from harvesting operations and traffic management and wear and tear on council roads.

Analysis of the individual council's submissions will assist central government to determine the actual costs associated with implementation of the NES. We have encouraged councils to consider in their submissions how the proposed regulations will align with the work they are doing to give effect to the NPSFM, and whether the proposed regulations will mean that more or fewer consents will be required when compared with their plan provisions. Many councils advise that the proposed framework will require resource consents where none are currently required and that assessing compliance with permitted activity status will be complex, uncertain and impose costs where none currently exist. The overriding feedback is that the NESPF needs to be more certain.

This submission discusses:

- Alignment with national direction and statutory responsibilities;
- General drafting;
- Who is responsible for what, and what consents are required?;
- The relationship between forestry activity-specific rules and general conditions;
- Risk assessment tools: ESC, FSI, WSRC;
- Permitted activity conditions;
- Transitional arrangements and implications for existing resource consents/existing use rights; and
- Interface with existing and future plan provisions and other regulatory instruments: the stringency/scope issue.

## Alignment with national direction and statutory responsibilities

### Wilding conifer management

Regional councils have statutory responsibilities to manage the risks of pest species via Regional Pest Management Plans (**RPMP**) under the Biosecurity Act 1993. Councils also have a responsibility under the RMA under section 9(3) and caselaw has confirmed this in relation to the spread of wilding conifers. Regional councils are currently developing their own RPMPs and also working collectively to develop nationally consistent rules for wilding conifer management that will be incorporated into RPMPs.

Regional councils have identified that the provisions in the proposed NESPF for managing the risks of wilding conifer spread will undermine the approaches being taken in RPMPs to manage the risk associated with the spread of wilding conifers. Permitted activity status for afforestation in areas classified as low and moderate erosion risk is likely to exacerbate existing management problems for wilding conifers and will create considerable additional costs to manage the spread.

The NZ Wilding Conifer Management Strategy (the **Strategy**) (released in 2014) is the result of extensive work with the biosecurity sector. It establishes an agreed vision for wilding conifer management. The Strategy is led by MPI and it is of concern that the consultation document has not referred to it. The NES will override the provisions of the Strategy and will also potentially undermine the work being done by councils to develop RPMPs. Of concern is that the NES will compromise a regional council's ability to fulfil its statutory obligations for biosecurity.

The NESPF will rely on the Wilding Spread Risk Calculator (**WSRC**) and best practice guidelines to address the risk of wilding spread. The proposal is that Territorial Authorities will administer the WSRC even though biosecurity is a function of regional councils. The WSRC score will be the critical threshold for determining activity status. It is noted that the WSRC is untested and will be potentially inconsistent with the regulatory measures that will be necessary under the Strategy and councils' RPMPs. Where a regional council has identified a species as being particularly invasive, tools are needed to enable more stringent provisions to be developed.

#### Recommendations

- Amend the NESF to include provision for regional councils to make more stringent rules for the management of wilding conifer species that are priority risks in a region/district as identified in Regional Pest Management Plans.
- Amend the Wilding Spread Risk Calculator to align with decisions made to implement the Wilding Conifer Management Strategy and the National Policy Direction for Pest Management.

### National Policy Statement for Freshwater Management

Regional councils are currently giving effect to the National Policy Statement for Freshwater Management (NPSFM). In many cases these rely on collaborative processes, involving the community, iwi and stakeholders. These processes are intensive, expensive, time consuming and well worth the investment as collaboration is regarded as the best way to address water management issues across a catchment. A collaborative process typically agrees priorities and targets for water management across a catchment. Concern has been expressed that the NESPF as it stands will create uncertainty and potentially constrain a regional council's ability to give effect to the NPSFM.

The NESPF allows councils to make more stringent rules to manage the impacts of forestry activities in tightly defined circumstances including:

- to meet the requirements of the National Policy Statement for Freshwater Management (NPSFM) and to meet Freshwater Management Unit (FMU) limits;
- to prevent adverse effects on the significant values of an outstanding water body that have been specified in a Water Conservation Order (WCO) or regional plan;
- to establish appropriate setbacks for outstanding freshwater bodies as defined in the NPSFM and identified in an RPS, regional plan or district plan;
- to manage impacts on the significant values of wetlands as identified under the NPSFM and specified in a regional plan or other relevant document; and
- to manage risks to groundwater systems, specifically only in relation to quarrying activities occurring over a shallow aquifer less than 30m below ground level within a drinking water protection zone identified in a regional plan.

This potentially allows regional councils to establish appropriate measures in relation to the potential impacts of plantation forestry for “outstanding” water bodies. However the provisions by which councils would be allowed to set more stringent rules under the NESPF apply only to specific values, water bodies and locations recognised in plans. All regional and unitary councils are in the midst of giving effect to the NPSFM; this involves setting limits. Identifying Freshwater Management Units and “outstanding water bodies” is part of this work. Councils are at different stages of this process and have until 2025 to give effect to the NPSFM. The proposed NESPF has the potential to cut across the processes underway. Identifying outstanding water bodies is time consuming and expensive and subject to appeal to the Environment Court; an appropriate amount of time is needed to allow councils to do this work or the NESPF will override the NPSFM. Consideration is needed of how to “protect” the limit-setting processes underway; perhaps the simplest way is to provide for transitional arrangements that give the necessary time to complete this work.

More broadly, Regional Policy Statements, regional plans and implementation strategies take a wider, more holistic view across a catchment. The proposed NESPF provisions in relation to the ability to be more stringent, are constrained to narrowly defined areas and sites and, as Environment Canterbury has noted in its submission to the discussion document, *“the wider contexts, ecological connections, and effects on downstream receiving environments may not be able to be given meaningful recognition.”*

Of concern:

- many wetland areas will not rank highly enough to warrant “significant” classification but nevertheless have importance for a range of values;
- the proposal in relation to groundwater (councils can be more stringent in relation to quarrying activities occurring over a shallow aquifer) may not ensure adequate protection for some ground water resources. In some regions groundwater resource sensitivities may need to be evaluated and managed over a very wide area and include many inter-related factors;
- the terminology around “Drinking Water Protection Zones” is unclear and it is unclear how these are to be mapped; and
- it is unclear what controls might be possible to limit the effects of forestry on water quantity in catchments in low-to-moderate rainfall areas.

## Recommendations

- Amend the proposed NESPF to include provision for regional councils and territorial authorities to make more stringent rules for the management of potential adverse environmental effects of plantation forestry on a broad range of regionally and locally determined freshwater management priorities.
- Amend the NES to include an appropriate setback from indigenous biological diversity habitats.
- Amend the terminology and definition intended for around shallow aquifers and Drinking Water Protection Zones so it covers the different terms and approaches used by councils to address water management for human and stock drinking water.

## Other areas where councils may apply more stringent rules

The other areas where a council may apply more stringent rules are:

- Coastal marine area;
- Geothermal and karst protection areas;
- Places and areas of known cultural or heritage value; and
- Significant natural area and outstanding natural features and landscapes

The specific matters that allow more stringent rules to be made in relation for biodiversity are also constrained – to mapped areas of significant indigenous vegetation and significant habitats of indigenous fauna in a plan. The consultation document acknowledges that in some cases there will be valuable indigenous vegetation that is not classified as “significant” in plans but it is unclear how this will be applied. Some regional councils (for example Horizons Regional Council) has taken the approach of managing biodiversity, not through mapping significant habitats but through describing these in words through objectives, policies and rules. This approach was thoroughly tested during the formal RMA planning process and was found to be an acceptable alternative to mapping. The NES in its current form would provide no protection for indigenous biological diversity in the Manawatu-Whanganui region and other regions which have taken a similar approach.

The NESPF needs to work with the approaches that councils have taken in their plans to identify significant natural areas, significant indigenous vegetation, significant habitats of indigenous fauna and outstanding natural features and landscapes.

Section 3.4 of the discussion document (the table) provides for councils to be more stringent in relation to outstanding natural landscapes where these have been mapped (note that Appendix 3 does not mention mapping). The greater stringency is limited to “afforestation”. Other activities permitted under the NESPF, such as earthworks, will have significant impacts on a landscape and councils need to be able to apply more stringent rules.

In our submission to the proposed amendments to the NES for Telecommunication Facilities, we argued that the Regulations should be worded so the bar is lowered from “outstanding” to include other landscapes that have been identified in district and regional plans e.g the Wellington District Plan contains landscape provisions as a Ridgelines and Hilltops” overlay.

Those local authorities that have not identified outstanding natural features and landscapes, but who manage adverse effects, for example through overlays with special rule sets, on other special landscapes will be disadvantaged by the Regulations as proposed. Consistency with the NES for Telecommunications Facilities is encouraged in relation to setting the threshold.



The time and cost to local authorities to identify and map “outstanding natural features and landscapes” will be significant. This is in the absence of consistent criteria for “outstanding” because the message from central government when pressed for this back in 2010 is that “it is too difficult.”

Councils with karst landscapes have made the point that their karst landscapes and contributing allogenic landscapes are not currently mapped. Clarification is needed to also include non-karst catchment areas that can affect karst landscapes (see Tasman District Council’s submission for detail). A council’s ability to be more stringent must extend to contributing non-karst catchment areas.

The current approach of the NESPF will impose significant costs onto councils to undertake this mapping work, and this is subject to an Environment Court process. The section 32 evaluation and the Regulatory Impact Statement should quantify the costs of mapping to local authorities so they can be fully appreciated.

The NES should allow for more descriptive means of identifying Significant Natural Areas, Outstanding Water Bodies and Outstanding Natural Features and Landscapes in plans. In addition, the transitional provisions should provide sufficient time for mapping to take place where councils choose to do this.

#### **Recommendations:**

- Amend the rules to acknowledge that both regional councils and district councils have jurisdiction for indigenous biological diversity
- The NESPF should generally allow for descriptive means to identify Significant Natural Areas, Outstanding Water Bodies and Outstanding Natural Features and Landscapes; for example replace the text “...significant natural areas (SNA)...” in the rules with “...*significant natural area (SNA) or identified in a rule in a regional or district plan...*”
- Amend the proposed NESPF to clarify that regional councils and territorial authorities may make more stringent rules for the management of potential adverse environmental effects of plantation forestry on a broad range of regionally and locally determined management priorities for indigenous biodiversity
- The bar should be set lower than “outstanding” in relation to landscapes
- The NESPF should be consistent with the NES for Telecommunications Facilities in relation to landscapes in relation to setting the threshold for stringency
- Widen the scope of matters of greater stringency (in relation to Significant Natural Areas, Outstanding Water Bodies and Outstanding Natural Features and Landscapes) beyond afforestation
- The transitional provisions need to allow sufficient time to allow mapping/identification of outstanding/special landscapes (including court processes)
- The ability to be more stringent should extend to contributing non-karst catchment areas

## **General drafting**

The draft rules convey the policy intent of the proposed subject matter for an NESPF. Changes to the drafting and language of the rules are therefore anticipated. The language and structure of the current draft rules need to be considered with that in mind.

As the formal regulations used to implement the NESPF are likely to use the current draft as a base, comments on the drafting approach are included.

Our legal advice is that the drafting of the NESPF could be tightened so that there is greater internal consistency in the language used. For example, the rules for afforestation include the statement '*Note: consents in Orange Zone to be non-notified*'. In contrast, the rules for earthworks include the statement '*Consents in Orange Zone must be non-notified*'. The differences between these two provisions are obviously subtle. However, the inconsistencies - and others like them that are scattered throughout the NESPF - can have significant impacts on the interpretation of regulatory instruments. That is particularly the case if the Courts apply the presumption that differences in language are deliberate.

The language is also relatively clumsy in places, or not properly representative of underlying provisions of the Resource Management Act 1991 (RMA). For example, various rules include the following language:

*... discretion must be restricted to the effects that the specific permitted activity condition(s) that could not be met was attempting to avoid.*

This could be recast more simply as:

*... discretion is restricted to effects relating to permitted activity condition(s) that are not met.*

By way of further example, it would also arguably be preferable if the language of the non-notification provisions was more closely related to that of section 43A(7) of the RMA, which refers to activities for which a consent authority is precluded from giving public/limited notification of an application for resource consent.

## Structure of the draft rules

Each set of rules for a specific forestry activity commences with an outline of the underlying objective, scope and risks. Our advice is that these preliminary provisions are not analogous to 'objectives and policies' that can formally be provided for in other planning instruments, but which are not typically features of a NES.

While not specifically provided for in section 43A of the RMA, these preliminary provisions are simply interpretative aids and are unobjectionable from a structural perspective. Care will need to be taken in the final drafting to ensure that the provisions do not conflict with other parts of the regulations used to implement the NESPF (such as broader statements of scope/application).

## Use of 'notes'

Our legal advice is that the use of 'notes' through the NESPF is a concern. These are variously used to inform interpretation and to impose substantive controls. The 'note' about non-notification of afforestation consents in the Orange Zone referred to above is an example of the latter situation. This is problematic, as notes in other types of planning instrument are generally regarded as being for informational purposes only and not of legal effect.

To avoid any doubt, notes should not be used to impose substantive controls.

The use of consistent language is again an issue. For example, some notes are identified as 'advice notes' whereas others are simply 'notes'. A consistent approach should be taken throughout the NESPF.

## Expression of underlying policy rationale

It is unclear whether the comments about underlying policy intent that are included in the draft rules will form part of the formal NESPF as an interpretive aid.

If it is to be retained, that may be valuable for users of the NESPF. However, it would also have the potential to confuse the meaning of provisions that are otherwise clear. Careful evaluation of the content of any underlying policy explanations that are included in the NESPF will be required.

## Definitions/glossary

The Consultation Document contains a glossary, which commences at page 48 (46). 'Forestry/plantation forestry' is a key definition within the glossary. It reads:

*A forest (native or exotic) deliberately established for commercial purposes. Under the proposed National Environmental Standard for Plantation Forestry, this is specifically defined as:*

- (a) *at least 1 hectare of forest cover of forest species that has been planted and has been, or will be, harvested;*
- (b) *including all associated internal infrastructure; but*
- (c) *not including:*
  - (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 metres;*
  - (ii) *forest species in urban areas;*
  - (iii) *nurseries and seed orchards;*
  - (iv) *fruit and nut crops;*
  - (v) *long-term ecological restoration planting of forest species;*
  - (vi) *willows and poplars space planted for soil conservation purposes.*

Local authorities will need the NESPF to be **certain**. For instance, it may be difficult to determine whether a forest has been 'deliberately established for commercial purposes' in some situations. The state of mind or intent of the owner may not always be able to be objectively gauged. In other situations, a landowner may decide to harvest trees that were originally planted for some non-forestry purpose. In terms of an effects based planning regime - can the need for a deliberate commercial purpose be justified?

At a practical level - the meaning of '1 hectare of forest cover' will not be particularly certain or easy to ascertain.

Local authorities have identified concerns about differences between terms in the glossary and definitions in the RMA. In particular, the glossary includes the RMA's definition of 'river', but also has a separate definition of 'perennial river or stream'. The latter term is used throughout many of the NESPF's provisions, although the more general 'river' is also referred to. From a legal perspective, our advice is that departures from the usual RMA definitions can be permissible. Even where they are used in the RMA, the RMA's definitions can be departed from where context otherwise requires. Other enactments (such as NES regulations) and planning instruments (such as regional or district plans) are also free to specify their own independent definitions, without triggering some sort of automatic legal invalidity.

However, while the use of alternative definitions may be legally permissible, they should be carefully considered. There is a clear risk of unintentional conflicts or absurdities. For example, a 'perennial river or stream' is arguably a subset of the broader definition of 'river'. Ephemeral streams have high values at particular times of the year (e.g fish spawning in winter) and should not be excluded from the definition of river.

### Recommendations

- Avoid using notes to impose substantive controls.
- Align the terms in the glossary and definitions with definitions under the RMA.
- Ensure internal consistency in the language used.

## Who is responsible for what, and what consents are required?

The NESPF's draft rules are divided into eight activity-specific parts and one general part. Appendix 3 of the Consultation Document comments:

*Each table is divided into several sections ... Broadly, these aspects are: ...the local authority responsible for this matter (that is, with jurisdiction)...*

The jurisdiction column indicates whether each individual permitted activity condition is a district or a regional council function. There is otherwise no particular guidance as to how local authority responsibility for monitoring, compliance and consenting functions is to be divided or shared.

This gives rise to several issues:

- It is unclear how each of the identified forestry activities - and their constituent permitted activity conditions - relate to sections 9 to 15 of the RMA.
- It is unclear which local authority (or local authorities) is to be the consent authority where permitted activity conditions are not satisfied, especially where:
  - permitted activity conditions that jointly or severally relate to regional/district functions are not satisfied, or
  - a proposal is classified as fully discretionary and all aspects/effects of the activity can be considered.

It is consequently unclear how monitoring and compliance functions are to be allocated between regional and district councils, although it is possible that a degree of pragmatic coordination and agreement is anticipated (eg through triennial agreements).

Some clear commentary at the front-end of the NESPF could address these issues.

Some of the allocations of conditions to 'regional' and 'district' functions are not appropriate in all cases (noting that the majority of functions are allocated to regional councils). For example, within the earthworks activity 'road widening and realignment for safety purposes' is classified as a regional council function. This should be regarded as a matter within the functions of territorial authorities, when regard is had to sections 30 and 31 of the RMA.

The NESPF also assumes that it is district councils that are responsible for controls relating to significant biodiversity and that the approach to protection is to map them as significant natural areas. This is **not** the case for all regions, including the Manawatu-Whanganui Region. The Horizons One Plan takes responsibility for indigenous biological diversity in the Manawatu-Whanganui Region and has objectives, policies and rules to protect areas of significant indigenous vegetation and significant habitats of indigenous fauna.

### Recommendation

- Align the regional/district allocations to section 30/31 functions

## The relationship between forestry activity-specific rules and general conditions

As noted in the Schedule to this advice, a surprising aspect of the 'general conditions' is that they commence with the following statement:

*Notwithstanding specific activity rules, all forestry activities are permitted, provided the following conditions are met ...*

We presume that the 'general conditions' are supposed to apply to all forestry activities in addition to the relevant activity-specific rules. However, as the statement above is currently worded, the general conditions effectively displace - or apply as an alternative to - the activity-specific rules. If that is not the overarching policy intention, then the statement quoted above will need to be amended.

## Risk assessment tools: ESC, FSI, WSRC

Local authorities have queried the reliability and accuracy of the three risk assessment tools discussed in the Consultation Document. The practicality and technical merit of the tools is a matter councils will comment on.

### Undefined land

The Consultation Document indicates that undefined land under the Erosion Susceptibility Classification (ESC) is conservation land and land in urban areas.

While conservation land is therefore generally excluded from classification, at least one local authority has indicated to you that some areas of Crown land (administered by the Department of Conservation) are subject to forestry activities.

There needs to be a clear mechanism for the assessment of currently 'undefined' land under the ESC. The Consultation Document indicates that a 'formal process' will be provided to address that. However, no details currently appear to be available. Given the importance of land's status under the ESC, consideration should be given to the incorporation of the process directly into the NESPF.

### Reliability of ESC and other tools

The Consultation Document notes that the ESC has been updated from previous iterations, with misclassifications corrected. The adjustments made are described in percentage terms in the Consultation Document. The numbers are significant, ranging from 3.6% to 40.8% (presumably this refers to reclassification on an area basis). The scale of reclassification confirms feedback provided during earlier consultation processes that queried the accuracy and reliability of the ESC.

Some local authorities still harbour the concern that if the ESC isn't accurate then poor environmental outcomes will result. This reinforces the need to have a transparent and formally recognised process for the review and adjustment of land status under the ESC. Ideally, any such process should be clear about:

- who can trigger it;
- the circumstances in which that can occur;
- how the costs of the process are to be borne; and
- whether any appeal/objection rights are created.

## Evolution of tools and implications for commenced activities

In light of the matters discussed above, it appears that the ESC may be able to fluctuate. Similarly, the Consultation Document indicates that the Fish Spawning Indicator (**FSI**) is an evolving tool that will be updated from time to time as the underlying science/data develops, with revised versions incorporated into the NESPF.

If that is to occur, then we consider that the NESPF should clarify the implications for activities that have commenced under previous versions of the risk assessment tools. Given the long-run nature of many forestry operations and the potential absence of resource consents (given the permitted activity ethos that underpins the NESPF), this could be a significant source of uncertainty if it is not adequately addressed in the NESPF.

## Relevance of FSI unclear - direct link?

The ESC is a fundamental tool that is used throughout the NEFPF's draft rules. The Wilding Spread Risk Calculator (**WSRC**) is also used in the first permitted activity condition for the afforestation activity.

In contrast, there does not appear to be a specific reference to the FSI in the draft rules.

Fish spawning is addressed as part of the general conditions that apply to all forestry activities. The relevant condition refers to the New Zealand Freshwater Fish Database, which we understand is a component of the data on which the FSI is based. However, neither the condition nor the accompanying explanatory content refer expressly to the FSI or how it is to be used to evaluate compliance. It is unclear whether this is intentional or not. However, our advice is that the standing of the FSI must be questionable in the absence of a clear reference within the NESPF.

### Recommendations

- There needs to be a clear mechanism for the assessment of currently 'undefined' land under the ESC, with the process incorporated directly into the NESPF.
- A transparent and formally recognised process for the review and adjustment of land status under the ESC needs to be incorporated directly into the NESPF.
- The NESPF should clarify the implications for activities that have commenced under previous versions of the risk assessment tools.
- If the , Fish spawning Indicator is to have standing in evaluating the status of an activity then it needs clear reference within the NESPF.

## Permitted activity conditions

One of the underlying tenets of the NESPF is that, where possible, activities should be permitted provided that robust permitted activity conditions are met. There is a lack of clarity and certainty inherent in the permitted activity conditions.

In accordance with that theme, the bulk of the draft rules deal with permitted activity conditions.

Local authorities have made comment that above all, permitted activity conditions must be **certain** and they are concerned that many of the proposed conditions are not.

Scope, certainty, management plans, permitted baseline implications and compliance and monitoring are discussed below.

## Scope

The draft rules contain several provisions that do not usually appear in permitted activity conditions. These are conditions that provide for third party or consent authority approval (or, in some cases, the exercise of discretion) as a component of a permitted activity condition. For example:

- the first 'setback' condition for afforestation states that the minimum horizontal set back distance is 10m, *unless approval of the adjoining owner(s) has been obtained; and*
- the 'notice of commencement' condition for earthworks states that a local authority can waive the notification requirement, *or alternatively reduce this notice period at their discretion.*

In the context of regional and district plan rules, permitted activity conditions that purport to reserve some form of discretion to the consent authority are generally regarded as ultra vires and invalid. That is a result of the principle that a person should be able to determine whether an activity is permitted (or not) on the face of the planning document, without the activity classification being subject to some discretion on the part of the erstwhile consent authority<sup>2</sup>.

That said, our legal advice is that they have not been able to locate any case law that examines whether:

- the reservation of a similar degree of discretion to a third party other than the consent authority is legitimate/illegitimate, or
- whether the ability to specify permitted activity rules/conditions under a NES is broader than that otherwise arising under a regional or district plan.

After considering the issues, and acknowledging that there is some risk in the absence of relevant case law, our legal advice concludes that:

- The usual common law principles applicable to permitted activity rules and conditions under regional and district plans are also likely to apply to the same sorts of rules when imposed through a NES. The rules will serve the same function and will be subject to the same machinery provisions in the RMA (eg as to the significance of an activity being classified as 'permitted'). There is also nothing in sections 43 to 44A of the RMA that expressly contradicts this conclusion.
- Permitted activity conditions that purport to reserve a discretion to a consent authority (which, we note, will also be the enforcement authority) are consequently likely to be ultra vires and invalid.
- In contrast, permitted activity conditions that refer to approval of something, or the exercise of some discretion by, a third party other than the consent authority may be valid, so long as they are sufficiently certain to enable an assessment of whether an activity is permitted or not.

In support of the last of these points, we observe that there would be little benefit – aside perhaps from the ability to impose consent conditions - derived from a situation where:

- an activity requires consent because of, say, a breach of a setback control;
- the adjoining owner affected by the breach consents to the reduced setback and provides a written approval;
- the effects of the breach cannot be taken into account because of the written approval; but
- consent is nevertheless required, even though there are no relevant effects to assess.

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<sup>2</sup> See *TL & NL Bryant Holdings Limited v Marlborough District Council* [2008] NZRMA 485 (HC), at paragraph 50

In summary, our legal on adjoining owner approvals **are likely to be legally legitimate**. It will be a clear yes/no evaluation as to whether a written approval advice considers that the permitted activity conditions in the NESPF that make permitted activity status contingent exists and how that correspondingly affects the application of permitted activity conditions.

Another aspect of the scope of permitted activity conditions commented on is the attribution of permitted activity status to the use of genetically modified tree stock. Our advice finds this approach is interesting, given the Environment Court's recent finding in *Federated Farmers of New Zealand v Northland Regional Council* that there is jurisdiction under the RMA for regional councils to make provision for control of the use of genetically modified organisms (GMOs) through regional policy statements and plans. The NESPF provision appears to have been included on the premise that the Environmental Protection Authority, acting under the Hazardous Substances and New Organisms Act 1996 (HSNO), is best placed to deal with the risks associated with the use of GMO tree stock. That position is called into question by the following quote from the Environment Court's decision:

*The question that needs to be addressed is as to whether the two pieces of legislation provide separate codes, with HSNO being the only code to address GMOs. As against this, it can be asked whether consideration of the control of GMOs can be addressed under the undoubted comprehensive RMA framework for promotion of the sustainable management of natural and physical resources including the avoiding, remedying or mitigating of any adverse effects of activities on the environment, while HSNO plays a more confined role in the overall legislative picture, addressing the more limited issue of the granting of approvals to import, develop, field test, or release, new organisms, somewhat as a more one-off regulatory transaction.*

The Environment Court accepted the latter approach, which characterises HSNO as a more limited regime than the RMA that is focussed on a discrete range of issues. The comment in the NESPF's explanatory material that the HSNO regime is regarded as 'adequate' should be carefully scrutinised in light of the Environment Court's comments.

Our advice also points out that there do not appear to be any relevant matters over which control or discretion is reserved where the permitted activity condition for GMO tree stock is not satisfied. There needs to be a mechanism within the NESPF that addresses the possibility that people may seek to use GMO tree stock outside of the HSNO regime, either by failing to comply with the terms of any HSNO approval or using tree stock that is not the subject of such an approval.

## Certainty

The issue of certainty is referred to above. This is a significant issue in relation to many of the NESPF's draft rules. Another consequence of the principle that a person should be able to determine whether an activity is permitted (or not) on the face of the planning document is that provisions must be sufficiently certain to enable that. Local authorities have identified this as a significant concern.

Our advice is that permitted activity rules or conditions that require some form of evaluative judgement are often (although not always) found to offend against that principle and to be invalid; relevant cases are cited in the legal advice.

While language that requires a degree of evaluative judgement is possible, this decision (and others like it) indicates that judicial tolerance for it is low.

It will be apparent from the comments in the table in the attached Schedule that many of the NESPF's permitted activity conditions involve elements of subjective evaluation. To take an example from the harvesting activity, one of the permitted activity conditions for 'slash and debris management' is.



Whenever safe and practicable to do so, remove potentially unstable slash that has the potential to mobilise under flood flows from water bodies, and:

- block or dam stream flow; or
- divert flow into stream banks in a way that is likely to cause erosion; or
- damage downstream infrastructure, property or receiving environments; or
- cause significant adverse effects on aquatic habitat.

Subjective elements within this condition include:

- determining whether it is 'safe and practicable' to do something;
- evaluating the meaning of 'potential' and whether it is a threshold that is triggered;
- determining whether erosion is 'likely' to be caused; and
- evaluating whether adverse effects on aquatic habitat will be 'significant'.

These matters involve too much subjective discretion to properly be the subject of permitted activity conditions. If Central Government considers it practical to proceed with the draft provisions, this will have a significant bearing on the practicality of assessing compliance with the proposed permitted activity conditions - which will in turn have a significant bearing on the enforceability of the NESPF.

## Management plans

The permitted activity conditions variously provide for the preparation of erosion and sediment control plans (**ESCPs**), harvesting plans (**HPs**), and quarry management plans (**QMPs**).

These generally need to be provided to local authorities within certain timeframes before activities start, or on request.

However, there is no requirement for local authority approval or certification of the plans. Similarly, there is no express ability for a local authority to compel someone to amend a plan that is deemed to be inadequate, so long as it satisfies the minimum requirements set out in the relevant permitted activity conditions.

A requirement for local authority approval or certification would necessitate a consent process, as (for the reasons set out above) such a process could not legally be part of a permitted activity condition.

The absence of any approval/certification mechanism is likely to be problematic and may encourage a 'minimum necessary to achieve compliance' approach. Consideration should be given to controlled activity status to provide a process for approval of these management plans.

## Permitted baseline implications

The Consultation Document acknowledges concerns raised during previous consultation rounds on the relationship between permitted activities under the NESPF and the permitted baseline in the context of other activities. In particular, concern was expressed that overly lenient NES provisions might create a correspondingly broad permitted baseline that could undermine other planning controls.

The response to that concern in the Consultation Document is the observation that the permitted activity conditions in the NESPF confine the scope of permitted activities. There is also a recognition that application of the permitted baseline is discretionary at notification stage (this obviously applies to the substantive assessment of resource consent applications too).

Our legal advice is that all of these points are valid. The NESPF does have the capacity to expand the permitted baseline. Conversely, decision-makers will need to pay careful attention to the permitted activity conditions and consider the discretionary nature of the permitted baseline. Local authorities will carefully consider whether they are comfortable with the overall scope of the permitted activity components of the NESPF. One issue in this regard is the broad scope of the 'river crossings' activity which is imperfectly linked to forestry activities. On its face, it applies to river crossings generally and may have a significant impact on riparian areas in a permitted baseline sense.

## Compliance and monitoring

The Regulatory Impact Statement for the NESPF includes the following comment:

At present councils often fund compliance and monitoring programmes by directly charging for consent monitoring activities; this is provided for by s36(1)(c) of the Resource Management Act. MPI is also aware that a number of councils currently operate permitted activity regimes for forestry activities; some of these councils charge for permitted activity monitoring through s150 of the Local Government Act. However, the legal legitimacy of this is unclear and permitted activity charging is not explicitly provided for through the RMA.

Our advice is that the ability to charge for permitted activity monitoring through section 150 of the Local Government Act 2002 (LGA02) is uncertain, particularly given the express reference to section 150 in section 36(2) of the RMA (which may be interpreted as a sign that there is no ability to rely on section 150 more generally).

The lack of a clear charging power poses some very difficult issues for local authorities when evaluating the compliance and monitoring requirements arising from the NESPF. Other issues that are relevant in that regard include:

- the certainty (or otherwise) of the permitted activity conditions against which compliance will need to be assessed
- the allocation of monitoring and enforcement responsibility between regional councils and territorial authorities

The lack of a clear charging power is another argument to elevate activities proposed as permitted to controlled.

### Recommendations

- Remove subjective discretion from permitted activity conditions.
- Consideration should be given to allocating controlled activity status instead of permitted activity status.

## Transitional arrangements

The Consultation Document indicates that NESPF would come into force (if it proceeds) 6-12 months after being publicly notified in the New Zealand Gazette. An indicative date of late 2016 is consequently given. Local authorities' ability to adjust existing planning instruments and processes before the NESPF comes into force will ultimately depend on their capacity and central government is urged to carefully consider councils' feedback on this point.

Local authorities' rules for forestry activities will survive (or be able to be made) where:

- they are outside the scope of the NESPF. The 'scope' of the NESPF is determined by a combination of:
  - the matters that are expressly identified as within scope and outside of scope; and
  - limitations inherent in various elements of the NESPF, such as the definition of 'forestry/plantation forestry'; or
- the NESPF says that local authorities can apply more stringent rules.

If the NESPF proceeds, local authorities will need to embark on a significant exercise to determine what aspects of their existing planning instruments will be extinguished and, to the extent that some remain, whether and how they need to be reformulated or adapted to operate effectively and sensibly (in terms of their relationship with the balance of the original planning instrument and the NESPF). The scale of this exercise will have a bearing on local authorities' views as to the adequacy of the proposed transitional/implementation period. Detailed guidance in this area should be made available when the NES is gazetted.

The allowance for greater stringency for section 6(c) matters is subject to its own list of exclusions. Many of these are significant, especially when linked to the permitted activity ethos of the NESPF and the consequent implications for permitted baseline status. Issues arising include:

- There is no age restriction or other qualification on the kind of 'pre-existing access way' through a significant natural area on which vegetation can be damaged/destroyed/removed. The exclusion arguably captures old bridle and walking paths etc.
- It may be difficult to craft rules, or alternatively to monitor and enforce rules, around the exclusion that requires an evaluation of whether riparian vegetation will 'readily recover within five years'.

Greater stringency has been discussed earlier in relation to outstanding freshwater bodies.

Clarity is needed regarding any interim provision for councils to address inconsistencies between existing plan provisions and the NESPF and the scheduled reviews of councils' RMA plans. This could create significant confusion until councils' planning cycles work through the various plans that will be affected by the NES. The transitional arrangements should enable a council to identify where changes are necessary and the areas where more stringency is required – to accommodate the new NESPF. Until this work is carried out through a scheduled plan review, the existing plan rules should apply.

### **Recommendations**

- Amend the NESPF to provide for a council's existing rules to apply until a scheduled plan review to align the plan with the NESPF.
- Amend the NESPF to allow a council to identify areas of a plan where greater stringency will apply and provide for a council's existing rules to apply until a scheduled plan review to align the plan with the NESPF.
- Work with local government to provide for adequate transitional arrangements to enable councils to undertake mapping work as necessary to enable more stringent rules to be applied.

### **The NESPF and existing resource consents**

Land use consents for forestry activities granted before the NESPF is notified in the New Zealand Gazette will prevail over the NESPF. This means that activities may continue to be carried out under existing consents (or may be commenced under an existing consent that has not lapsed), irrespective of the new

controls imposed through the NESPF. It will be a question of fact in each case what components of a forestry activity are covered by an existing consent (eg one consent may relate only to afforestation, whereas another may relate to afforestation, harvesting and replanting).

To the extent that components of an activity are not the subject of an existing resource consent, compliance with the NESPF will be required. This may result in some unusual conflicts, which will need to be addressed on a case by case basis.

## The NESPF and existing use rights

Where the NESPF imposes a consent requirement for an otherwise permitted activity, sections 10-10B and 20A(2) apply as though the NESPF were a rule in a plan that has been made operative. In other words, existing use rights will be preserved for forestry activities that satisfy the requirements of those provisions (as relevant). Where there is evidence of the long-term, cyclical afforestation, harvesting, and replanting of forests, the significance of this may be profound. It may also affect the cost-benefit analyses that underpin the justification for legislative intervention.

Our legal advice is that against this background, the apparent attempt to grandfather existing river crossings in the draft rules is surprising. It purports to establish a de facto existing use right regime for existing river crossings. However, that will arguably exist in addition to - rather than in substitution for - any existing use rights preserved under the RMA. Its effectiveness is consequently doubtful.

### Recommendation

- Ensure the “grandfathering” of river crossings sits legally with existing use rights

## Conclusion

The preceding discussion has identified some of the issues associated with the proposed framework of the NES that need to be addressed if it is to proceed into regulations. We urge officials to take the time needed to consider these matters with care. The following Schedule contains more detailed recommendations in relation to the proposed rules.

## Schedule

Comments on specific aspects of draft rules

(nb page references relate to on-line version of consultation document)

Page ref	Content	Comment	Recommendation
<b>Afforestation</b>			
62	Bullet points that define scope of permitted activities	Do all 3 bullet points need to be satisfied? The use of the word 'and' at the end of the second bullet point suggests that they do, but the first 2 bullet points are presumably supposed to be alternatives	Adjust language and punctuation to confirm relationship between bullet points
63	Minimum horizontal setback distances (m)	Unclear whether this distance is affected by topography: ie a two dimensional setback in plan, or a distance measured on a plane that matches the land slope	Adjust language to clarify how minimum horizontal setback distance is calculated, potentially be defining term in glossary  Note: this comment applies to all forestry activity rules that refer to a minimum horizontal setback distance - reference to the issue is not repeated where it applies to other activities below
63	Setback distance from adjoining existing dwelling	Unclear whether 'adjoining existing dwelling' means the boundary of a parcel of land that has a residential dwelling on it, the boundary of a curtilage of a residential dwelling, or just the residential dwelling (ie the building itself)	Adjust language to clarify scope of 'adjoining existing dwelling', potentially be defining term in glossary. Note the reference to a 'notional boundary' in the general conditions for noise (see page 85)
63	Point (ii) of setback distance from adjoining dwelling	Language used does not actually define any setback position. By inference is the point at which shading will impact on an adjoining existing dwelling, but this is not expressly stated	Adjust language to clearly state how shading assessment relates to establishment of setback distance (as alternative to 40m default)



Page ref	Content	Comment	Recommendation
63	Point (ii) of setback distance from adjoining dwelling	Query feasibility/practicality of determining shading situation in a permitted activity compliance and monitoring context	Reconsider this provision
63	Setback distance from adjoining dwelling	A plantation forest may comply with the setback to a dwelling when first established but new dwellings may establish as permitted activities; it is unclear how this is to be enforced	Reconsider this provision
63	Road setbacks	Unclear whether 'paved public road' includes footpath and carriageway, or just carriageway (unformed legal road appears to be excluded)	Adjust language to clarify extent of 'paved public road', potentially by defining term in glossary It is acknowledged that this may be something of a non-issue, as the number of formed footpaths in forestry environments are likely to be limited
63	Setbacks from perennial rivers/streams, wetlands, lakes and outstanding freshwater bodies or surface water bodied subject to WCOs	The NES provides setbacks from perennial waterways, wetlands, lakes coastal marine areas and water bodies subject to water conservation orders. It does not appear to provide for setbacks from other significant indigenous biological diversity habitats. Instead, there is a "General Condition" that allows incidental damage, destruction or removal of indigenous vegetation during forestry activities.	The NES should take a more precautionary approach and provide for an appropriate setback from indigenous biodiversity habitats
63	Setbacks from perennial rivers and streams	Do ephemeral streams also need to be considered in some situations?	Reconsider this provision
63	Setbacks from perennial rivers and streams	Unclear why setback variation to accommodate the requirements of a regional pest management strategy where a river/stream is more than 3m in width does not also apply to a river/stream that is less than 3m in width?	Clarify the reason for the distinction, after which the appropriateness of the distinction can be considered
64	Afforestation using genetically modified treestock	Unclear whether wilding tree risk and setback conditions apply to genetically modified treestock, or whether EPA-imposed conditions will be sole control	Adjust language to clarify how the genetically modified treestock condition relates to the earlier permitted activity conditions for afforestation

Page ref	Content	Comment	Recommendation
		Unclear how a LA will check compliance with this standard if the EPA holds the information	Consider practicality of checking compliance with this condition
64	Matters to which discretion is restricted for Red Zone land	Unclear whether discretion in relation to afforestation on Red Zone land extends to wilding spread risk, setback matters <i>and</i> erosion risk, or whether it is solely limited to erosion risk	Adjust language to clarify how matters to which discretion is restricted apply to Red Zone land  If discretion is not reserved over wilding spread risk and setback on Red Zone land, explain why
64	Consents in Orange Zone to be non-notified	Unclear why notification restriction only applies to Orange Zone land. Should it also be extended to Green/Yellow Zone land, where permitted activity conditions are not satisfied?	Clarify the reason for directing non-notification on Orange Zone land only, after which the appropriateness of that can be considered
	Notice of commencement	A requirement to advise regional and district councils of the intention to plant will provide councils with t record so they can monitor permitted activity conditions if required	Require a notice of commencement for afforestation, in line with the other activity stages
<b>Earthworks</b>			
65	Permitted status of earthworks	No maximum volume or area control is proposed. Regulation through ESCPs and other permitted activity conditions is unlikely to be sufficiently robust.	Activity status needs to be elevated to enable assessment and approval of the ESCP
65	Orange Zone (slope < 25 degrees)	The slope criterion presumably relates to the specific area where earthworks are proposed/carried out, rather than the slope of a parcel of land generally. If this is incorrect, then clarification is likely to be required	Adjust language if necessary to clarify how land slope relates to earthworks
65	Notice of commencement	Do the relevant regional council and district council <i>both</i> need to agree to reduce the notice period, or can one of them make the decision? The condition currently refers to both types of local authority  Local authority discretion to reduce or waive the notice	Adjust language to clarify whether reduction of notice period must be a joint decision between relevant local authorities, whether each local authority can exercise discretion independently, or whether intention is that only one local authority needs to be notified (in which case it will presumably



Page ref	Content	Comment	Recommendation
		period would also usually be incompatible (ie <i>ultra vires</i> ) with a permitted activity condition	have sole jurisdiction over the notice period) If potential issue <i>vires</i> issue is to be avoided, local authority discretion should be removed from permitted activity condition
66	Reference to New Zealand Forest Road Engineering Manual (2012)	This manual is not appropriate material for incorporation by reference. Incorporation is legally legitimate under Schedule 1AA of the RMA	Reconsider this provision
66	Road widening and realignment for safety purposes	Is this appropriately classified as a matter of regional council jurisdiction?	Territorial authorities need jurisdiction here
66	Road widening and realignment for safety purposes, 5th bullet point	Bullet requires the volume of earth moved to be <i>more than</i> 5,000m <sup>3</sup> . This should presumably be <i>less than</i> 5,000m <sup>3</sup>	Adjust language if intention is that limit should be a maximum, rather than a minimum
66	Requirements for ESCPs	<p>Notable features of ESCP regime:</p> <ul style="list-style-type: none"> <li>• ESCP involves assessment and response to 'operational risks to the environment'. Indicative locations of ESCP measures must be provided, but otherwise there does not appear to be any requirement for plans or graphic depictions of the proposed scope of works</li> <li>• No requirements for submission to local authority (unless request made), or certification by local authority</li> <li>• Anticipate that local authorities will have difficulty determining whether 'material amendments' to an ESCP have been made after the event</li> <li>• Potential for diverging views on whether an ESCP matches the scale and complexity of a proposed operation, which introduces uncertainty for both operators and monitoring and enforcement staff</li> </ul>	Provide for earthworks as a controlled activity with approval of ESCP as condition



Page ref	Content	Comment	Recommendation
		<ul style="list-style-type: none"> <li>There is no reference to a prescribed template (contrast, for example, the approach to harvesting plans at page 71)</li> </ul>	
67	Operation: deactivation of temporary tracks	Query feasibility/practicality of monitoring and enforcing this requirement, given local authorities' lack of information about use of temporary tracks/earthworks	Reconsider this provision
67	Operation: land disturbance in ephemeral stream channels must be managed to the extent that no more than minor damming, flooding or erosion occurs	Potential for diverging views on whether obstruction/diversion will result in damming/flooding/erosion that is no more than minor. Degree of uncertainty arguably inappropriate for a permitted activity condition	Reconsider this provision
67	Fill material must contain no more than 5% (by volume) of vegetation and wood (some exceptions)	Query feasibility/practicality of monitoring and enforcing this requirement, given difficulty of determining content of fill and relative volume once filling has occurred	Reconsider this provision
67	Controls on deposit of spoil	<p>Potential for diverging views on whether various controls satisfied or contravened, especially in relation to the first 2 bullet points. Degree of uncertainty arguably inappropriate for a permitted activity condition</p> <p>It is also uncertain what 'outside a production area' means, as there is no corresponding term in the glossary</p>	<p>Reconsider this provision</p> <p>Adjust language if reference to 'production area' is supposed to be to an 'activity area'</p>
68	Sediment and stormwater control measures, stabilisation and containment, design	<p>Potential for diverging views on whether various controls satisfied or contravened: eg requirement to assess whether slumping has been prevented 'as far as possible'</p> <p>Query consequent feasibility/practicality of monitoring and enforcing requirements</p>	<p>Reconsider this provision</p> <p>Adjust language to clarify what requirement for exposed areas of soil to be 'contained within the site' means</p>
69	Consents in Orange Zone must be	Unclear why notification restriction only applies to	Clarify the reason for directing non-notification on Orange Zone land only, after which the appropriateness of that can be

Page ref	Content	Comment	Recommendation
	non-notified	Orange Zone land.  Should it also be extended to Green/Yellow Zone land, where permitted activity conditions are not satisfied?	considered
<b>Harvesting</b>			
70	Low intensity harvesting, 1st bullet point	Query feasibility/practicality of monitoring and enforcing requirement for 75%+ canopy closure in any given hectare of forest land	Reconsider this provision
71	Notice of commencement	Do the relevant regional council and district council <i>both</i> need to agree to reduce the notice period, or can one of them make the decision? The condition currently refers to both types of local authority  Local authority discretion to reduce the notice period would also usually be incompatible (ie <i>ultra vires</i> ) with a permitted activity condition	Adjust language to clarify whether reduction of notice period must be a joint decision between relevant local authorities, whether each local authority can exercise discretion independently, or whether intention is that only one local authority needs to be notified (in which case it will presumably have sole jurisdiction over the notice period)  If potential issue <i>vires</i> issue is to be avoided, local authority discretion should be removed from permitted activity condition
71	Requirements for Harvest Plans	Notable features of Harvest Plan regime: <ul style="list-style-type: none"> <li>• No requirements for approval or certification by local authority (regional council)</li> <li>• Ability to provide Harvest Plan on an annual basis may not correlate with obligation to provide it no more than 60 working days before harvesting operations start</li> <li>• Anticipate that local authorities will have difficulty determining whether 'material amendments' to a Harvest Plan have been made after the event</li> <li>• Potential for diverging views on whether a Harvest Plan matches the scale and complexity of</li> </ul>	Provide for this as a controlled activity with approval of Harvest Plan as condition



Page ref	Content	Comment	Recommendation
		<p>a proposed operation, which introduces uncertainty for both operators and monitoring and enforcement staff</p> <ul style="list-style-type: none"> <li>• An ESCP must be provided (and be prepared in accordance with a prescribed template) for harvesting in the Orange Zone</li> <li>• Query whether slash management planning is required for ephemeral as well as perennial waterbodies</li> </ul>	
71	Ground disturbance outside riparian zones	Opening clause is arguably too uncertain to be a viable permitted activity condition: 'during harvesting operations, avoid, mitigate or remedy actions that accelerate erosion and minimise the discharge of sediment to water bodies'. The subsequent bullet points are more definite, although there are still elements that require subjective appraisal	Remove or reformulate opening clause
72	Riparian disturbance	<p>Requirement to determine whether effects will be 'more than minor' is too subjective to be a viable permitted activity condition (see 3rd paragraph of permitted activity condition)</p> <p>The NES allows for the destruction of vegetation within buffer areas during harvesting and a requirement to monitor these to ensure that aquatic and riparian habitat is not degraded to a</p>	Remove or reformulate reference to degree of effects associated with outcomes referred to in 3rd paragraph
	"Amenity" matters	The NES does not enable the management of hours of operation and traffic management	Enable district plans to be more stringent with respect to hours of operation and traffic management for harvesting
	Financial contributions	Some councils currently levy financial contributions to recoup costs for damage to road infrastructure	Enable councils to (continue to) levy financial contributions for harvesting to recover costs for damage to roads associated with

Page ref	Content	Comment	Recommendation
		associated with harvesting operations	harvesting operations
	Slash and debris management	(Comments as per pruning and thinning to waste activity below, to the extent that the permitted activity conditions are materially similar)	
<b>Mechanical land preparation</b>			
74	Bullet points that define scope of permitted activities	3rd bullet point appears to be an error, as it is inconsistent with the first permitted activity condition and virtually replicates the description of activities that are restricted discretionary (see page 75)	Adjust language to confirm that the 3rd bullet point relates to mechanical land preparation in Orange and Red Zone that does not affect the subsoil
74	Methods of mechanical land preparation	Potential for diverging views on whether various controls satisfied or contravened: eg assessing whether mechanical land preparation parallel to the contour is practical/impractical  Query consequent feasibility/practicality of monitoring and enforcing requirements	Issue for reconsideration
<b>Pruning and thinning to waste</b>			
76	Permitted activity conditions for slash	Permitted activity condition refers to the potential for mobilisation during flood flows, but the severity of flooding is not specified. The 'rationale' section refers to a 10 year return period event. This should be transposed into the permitted activity condition, or alternatively clarified in the glossary	Adjust language to confirm the severity of flooding that need to be considered when mobilisation risk is evaluated
76	Permitted activity conditions for slash	Potential for diverging views on whether various controls satisfied or contravened: eg 'potential' for mobilisation with various impacts, including 'likely' erosion or 'significant adverse effects on aquatic habitat'  Query consequent feasibility/practicality of monitoring and enforcing requirements	Reconsider this provision



Page ref	Content	Comment	Recommendation
76	Permitted activity conditions for slash	The link between the final comment that 'slash should be removed from a water body only if it is safe and practicable to do so' is unclear. For instance, if slash is deposited in a perennial water body with the potential to dam the flow in a flood event, would it nevertheless be permitted if its removal is not considered 'safe and practicable'?	Adjust language to confirm the relationship between the final comment and the balance of the permitted activity condition. Perhaps the final comment would be more suitable as a 'note'
<b>Forestry quarrying</b>			
77	Permitted activity condition for visibility	Volumetric and time (ie 5-year) limits on quarrying are problematic when linked to the 'per activity site' qualification. This is presumably supposed to be a reference to an 'activity area'. The definition of an 'activity area' in the glossary is uncertain and the number of activity areas - and how they relate to quarrying activities as opposed to other forestry activities - is opaque	Consider feasibility/practicality of determining what an activity area is and how volumetric/time limits on quarry are affected. Adjust language to address any uncertainty
78	Fill or spoil	Requirement that 'material must not be transported off the property on public roads' appears to be the only <i>de facto</i> requirement for quarried material to be contained/used within the forestry site from which it is extracted (unless it can be moved to different sites without using public roads)  This condition may not be the most effective way of achieving the underlying objective: ie that quarried material is used for forestry related roads. A control that is more express in that regard may be more effective	Consider whether a specific control is required to ensure that quarried material is used to form roads within or near the forestry site from which it is extracted
78	Water table: quarry depth must not go below the water table of	Query feasibility/practicality of monitoring and enforcing this requirement	Reconsider this provision

Page ref	Content	Comment	Recommendation
	any aquifer		
78	Requirements for Quarry Management Plans (QMPs)	<p>Notable features of QMP regime:</p> <ul style="list-style-type: none"> <li>• No requirements for approval or certification by local authorities</li> <li>• Anticipate that local authorities will have difficulty determining whether 'material amendments' to a QMP have been made after the event</li> <li>• Potential for diverging views on whether a QMP matches the scale and complexity of a proposed operation, which introduces uncertainty for both operators and monitoring and enforcement staff</li> <li>• Indicative locations of erosion and sediment control measures must be provided, but otherwise there does not appear to be any requirement for plans or graphic depictions of the proposed scope of works</li> <li>• No reference to prescribed template for QMPs</li> </ul>	Reconsider this provision
79	Controlled activity description	<p>Description appears to be in error: 1st bullet point indicates that activities that are identified as permitted are also controlled</p> <p>Note the 1st bullet point is linked to the 2nd bullet with an 'or' rather than an 'and'</p>	Adjust language to correctly state scope of controlled activities
<b>Replanting</b>			
(Comments as per afforestation activity, to the extent that the permitted activity conditions are materially similar)			
82	Matters over which control is reserved	Should control also be reserved where the use of genetically modified tree stock is proposed and that	Consider whether matters over which control is reserved should be expanded to relate to use of genetically modified tree



Page ref	Content	Comment	Recommendation
		particular permitted activity condition is not satisfied? While there will be other legislative controls (eg HSNO), a further check through the NESF may also be warranted	stock
82	Matters over which control is reserved	Statement that the 'consent must apply only to the area that could not be planted as a permitted activity' is unusual. Whether it precludes the full consideration of the relevant effects of a controlled activity will require careful evaluation	Reconsider this provision
	General	Replanting needs the same assessment as afforestation (e.g wilding risk)	Apply the same consideration to replanting as to afforestation
	Notice of commencement	A requirement to advise regional and district councils of the intention to replant will provide councils with t record so they can monitor permitted activity conditions if required	Require a notice of commencement for replanting, in line with the other activity stages
River crossings			
88	General conditions: new crossings	<p>'River crossings' are generally permitted, subject to compliance with permitted activity conditions. As the draft rules are framed, there is no express link between river crossing and forestry activities (this extends to the definition of 'river crossing' in the glossary). River crossings are also not inherently linked to land categorised under the ESC, which contrasts with the approach taken to other forestry activities</p> <p>The net effect is a very broad permitted activity provision that may be significantly wider in application and effect than is intended</p> <p>The provisions are less stringent than some regional councils; if the rules are relaxed this will create conflict</p>	<p>Review the River Crossings Rule as it is not currently workable. for example: the controlled activity rule refers to permitted activity conditions 2,3 and 4, however condition 2 is used 10 times in the permitted activity rule. Another example allows construction of a culvert would stop most culverts from being built because of how it is drafted.</p> <p>There are some risks with the current rules relating to River Crossings:</p> <ul style="list-style-type: none"> <li>• Overtopping of a culvert could cause flooding to nearby buildings; the rule only refers to dwellings.</li> <li>• Upstream flooding. Where the crossing point is within 1 km of a residential area where the backup of flow behind the culvert could cause flood problems</li> </ul>

Page ref	Content	Comment	Recommendation
		with other users who face more stringent requirements	<ul style="list-style-type: none"> <li>• In areas where high debris loads are likely eg, significant gravel bed load, flood debris such as trees or logs, culverts may not be an appropriate form of crossing</li> <li>• Land stability in steep hill catchments. The Permitted activity condition only talks about the 6% slope of the river +/- 50 of structure. There are other parts of the NES that map these catchments, these should be carried into this rule.</li> <li>• Wetlands are not protected, therefore the NES enables the draining of wetlands using a culvert.</li> <li>• The rule makes no reference to the existence of Water Conservation Orders. In accordance with 43C of the RMA these may override the rules.</li> </ul> <p>There may be a link to the 'forestry/plantation forestry' definition in the glossary, which refers to 'all associated internal infrastructure'. However, this is not abundantly clear</p>
88	General conditions: existing crossings	The 2nd component of the general conditions relates to existing, lawfully established river crossings. It makes these permitted activities in certain circumstances. It is unclear what consideration has been given to existing resource consents and/or existing use rights, which the permitted activity parallels	Clarify the relationship between this permitted activity and activities authorised under existing resource consents/existing use rights, then re-evaluate provision
88	Notice of commencement	Local authority discretion to waive the notice period would usually be incompatible (ie <i>ultra vires</i> ) with a permitted activity condition	If potential issue <i>vires</i> issue is to be avoided, local authority discretion should be removed from permitted activity condition



Page ref	Content	Comment	Recommendation
		Note language is different to other reduction/waiver provisions for specific forestry activities	
89	Flow calculation options	<p>The flood flow estimation methods specified in points 1 to 3 should be defined in the glossary, so there is certainty as to what they mean</p> <p>There is also an advice note that indicates that an 'online tool' will be provided to assist foresters to conduct relevant calculations: it is unclear how that tool will relate to the different options for calculating flood flows</p>	Insert relevant terms in glossary
89	Fish passage	The final clause 'except where the relevant statutory fisheries manager advises the council otherwise' is unclear. The intent is tolerably clear but the language needs to be adapted to achieve it more precisely, and the use of exclusions (signalled by the word 'except') at the start and end of the clause should be reworked to avoid any potential confusion	Adjust language to clarify meaning
89	Contaminant discharges	<p>Potential for diverging views on whether various controls satisfied or contravened: eg determining whether 'all practicable' steps have been taken</p> <p>Query consequent feasibility/practicality of monitoring and enforcing requirements</p>	Reconsider this provision
92	Controlled activity description	First paragraph of description is very broad and captures permitted activities (ie is, in isolation, incompatible with earlier permitted activity description). However, 1st paragraph is qualified by 2nd paragraph. This relationship could be made clearer to avoid any confusion	Adjust language to make it clearer that both paragraphs of the controlled activity description have to be read together
General conditions			

Page ref	Content	Comment	Recommendation
83	Description of permitted activities	<p>General conditions currently commence with the following statement:</p> <p>'Notwithstanding specific activity rules, all forestry activities are permitted, provided the following conditions are met ...'</p> <p>This suggests that compliance with specific activity rules is not required, if the general conditions are satisfied. However, the presumed intent is that compliance with the general conditions is required <i>in addition</i> - rather than <i>in the alternative</i> - to the activity specific conditions</p>	Consider the intent of the general conditions and adjust the language of the opening statement to correctly reflect the application and significance of the general conditions
83	Storage of fuel	Is the degree of control appropriate? For example, should preventative measures (such a bunding) be referred to in particular circumstances, such as where fuel over an identified volume threshold is being stored?	Reconsider this provision
84	Vegetation clearance and disturbance	<p>Is the permitted clearance of vegetation in significant natural areas appropriate?</p> <p>Query the feasibility/practicality of evaluating whether indigenous vegetation will 'readily recover'</p>	Reconsider this provision
85	Spatial bundling provision	<p>This provision affects the classification of activities that span multiple ESC areas. The current drafting is unclear. In particular:</p> <ul style="list-style-type: none"> <li>• The suggestion is that the higher ESC classification should be ignored if the bullet points are satisfied (it is unclear whether either/both bullet points must be satisfied), but this is not absolutely certain</li> <li>• If either or both bullet points are not satisfied, then it is unclear whether the highest ESC classification is to be applied to all activity areas</li> </ul>	Adjust the language of the provision to make its intention and operation clear

Page ref	Content	Comment	Recommendation
		(this is what the 'bundling' label suggests) or whether two separate classifications should be applied	
86	Fish Spawning	It is unclear how the fish spawning controls relate to the FSI. The link should be made apparent so that the relevance of views formed on the basis of the FSI is clear	Adjust language to clarify how fish spawning controls relate to the FSI
86	Fish spawning	<p>The fish spawning tool does not take into account the climatic variation and the difference in spawning times associated with a species.</p> <p>The tool does not include some regionally important species, nor recognise the fact that some species are migratory and operations could affect part of their lifecycle.</p>	Amend the NESPF to enable councils to apply more stringent rules regarding operations in proximity to the beds of waterways, which could result in greater positive gains for freshwater species through the protection of habitat.
86	Bed disturbance/partial suspension	<p>"Bed disturbance" does not include "partial suspension."</p> <p>Partial suspension activities (where the cut end of a tree/log is held above the ground and dragged) are thus a given, with no controls. For small streams such activity would completely destroy the bed ad margins of that stream.</p>	Partial suspension where streams are involved should be included in the definition of "bed disturbance."
87	Slash traps	This provision refers to 'an assessed risk of slash mobilising and causing adverse effects'. There is no indication as to who is to conduct this assessment, when it must be carried out, or whether any recording/reporting requirements apply	Reconsider this provision



## Mid Dome Wilding Trees Charitable Trust's Southland submission on the "A National Environmental Standard for Plantation Forestry"

Contact details: s 9(2)(a) [redacted]  
s 9(2)(a) [redacted]  
[redacted]

Telephone: s 9(2)(a) [redacted]  
Email: s 9(2)(a) [redacted]

The Mid Dome Wilding Trees Charitable Trust (the Trust) does not wish to speak in support of its submission.

If others make a similar submission, the Trust would be prepared to consider a joint case with them.

The Mid Dome Wilding Trees Charitable Trust wishes to make a submission on the proposed national environmental standards for Plantation Forestry.

Primarily it wishes to strongly support the submission made by Environment Southland and in particular the relief sought in relation to managing the risks posed by wilding conifers in the region.

These are:

### **Relief sought**

Environment Southland seeks the proposed NES-PF be amended to:

- (a) grant Councils the ability to set more stringent rules regarding wilding conifers in areas where there is vulnerable land at risk from unwanted wilding spread;
- (b) the Wilding Spread Risk Calculator is not relied on and only used as a guide;
- (c) make a wilding risk a consideration during replanting; and
- (d) require and enable Regional Councils to implement a set nationally consistent externality rules in Regional Pest Management Plans to make forestry owners effectively liable for impact of wilding conifers on neighbouring land owners.

### ***Background and Rationale***

The Mid Dome Wilding Trees Charitable Trust was formed in August 2006 to eliminate the risk posed seed sources which have created a major wilding conifer spread issue at Mid Dome in northern Southland.

Since then as a community-based Trust it has raised funding and in partnership with Land Information New Zealand, the Department of Conservation and Environment Southland it has undertaken a long term work programme to control wilding conifer spread. This has been implemented over the 68,000 ha project area and significant progress has been made. The Trust spends between \$400,000 - \$800,000 per annum on ground and aerial control methods. The Trust has a strategic target to eliminate high risk conifer seed sources by 2024 after which any responsibility for residual management will rest with the respective landowners/occupiers.

As a result the Trust is acutely aware of the adverse impacts of unwanted conifer spread on economic, biodiversity, social and cultural values on the vulnerable hill and high country areas of Southland. It is also very conversant with exponential rates of spread and growth of wilding conifer infestations and the exponential increase in management costs over time.

The current wilding conifer problems at Mid Dome arose historically from flawed decision-making over five decades ago. While the planting by Government of 250 ha of *Pinus contorta* on high altitude areas of Mid Dome between 1950s- 1980s was considered a useful tool to manage soil erosion at the time the decision led to severe unintended consequences. The wilding conifer spread caused has now become a major cost to the local community, the region and the Government. It is estimated that a further \$10M and another 10 years of hard effort will be required to eliminate wilding tree problem there.

The Trust is also aware that there is potential for similar and even larger wilding risk problems from some recent large scale plantings, particularly of Douglas fir, in Northern Southland. Some of these plantings are covered by resource consents under the Southland District Plan and as such risks of unwanted spread can be managed by the conditions applied.

If the current District Plan rules for plantation forestry are removed or even relaxed the Trust believes there a high risk that a new set of Mid Dome scale problems will be initiated. Further to this without any or minimal controls their impact will not recognised for 15-20 years after which time it will become extremely difficult to manage the adverse impacts proactively.

The Trust thanks the Ministry of Primary Industries for the opportunity to make a submission on the National Environmental Standards for Plantation Forestry and asked that the issues raised by it are considered fully and fairly.



---

Ali Timms

**Chairman**  
**Mid Dome Wilding Trees Charitable Trust**

6 August 2015

## Submission on Proposed National Environmental Standard for Plantation Forestry

*Section 44(2)(b)(i) of the Resource Management Act 1991*

**To:** Stuart Millar

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Ministry for Primary Industries  
PO Box 2526  
Wellington 6140

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**Submitter:** New Zealand Defence Force  
**Contact Person:** Rob Owen, Environmental Manager

**Address for Service:**



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### 1. Preliminary Matters

- 1.1 This is a submission on the Proposed National Environmental Standard for Plantation Forestry (Proposed NES-PF).
- 1.2 This submission primarily relates to afforestation provisions in the Proposed NES-PF (Appendix 3 to the Consultation Document) and the potential impacts from the spread of wilding trees onto land owned or administered by the NZDF throughout New Zealand.

### 2. NZDF Submission

#### Background

- a. NZDF supports in principle the Proposed NES-PF, which seeks to provide greater certainty around the management of plantation forestry activities and associated environmental effects.

- b. Specifically, NZDF acknowledges the New Zealand Government's desire to create a nationally consistent approach with respect to the resource management process, identification, and assessment of environmental risks and outcomes associated with plantation forestry. However, the desire for a nationally consistent approach still needs to remain responsive to local environmental, social and cultural conditions.
- c. NZDF has military interests throughout New Zealand. Defence facilities are key strategic infrastructure of national and regional importance, playing a significant role in both military training and civil and/or national defence operations, and are essential to enabling NZDF to fulfil its obligations under the Defence Act. They also play an important role in supporting search and rescue operations and infrastructure support capabilities.
- d. A number of NZDF's defence facilities are located adjacent to, or in proximity to areas of plantation forestry. These include:
  - Tekapo Military Training Camp and associated Military Training Area;
  - Waiouru Military Training Camp and associated Military Training Area;
  - Kauri Point Armament Depot;
  - Whangaparoa Military Training Camp and associated Military Training Area; and
  - Ardmore Military Training Camp and associated Military Training Area.

### **Submission Point 1**

#### **Plan Provision: Afforestation**

NZDF **supports** this provision **in part**

#### **Relief sought:**

- a. Due to the difficulty in evaluating the longer term risk associated with the spread of wilding conifers from forestry activities based on the use of the 'Wilding Spread Risk Calculator' (referred to in the draft Afforestation rule), the NZDF seeks to amend the draft Afforestation rule in its current form.
- b. NZDF seeks that the draft afforestation rule is amended so that the planting of conifer species prone to spreading (such as European Larch) is not provided for as a permitted activity unless the risk mitigation for the life of the tree crop can be guaranteed. Should the forest owner not be able to guarantee risk mitigation with respect to the spread of wilding trees over the life of the tree crop, the planting of spread prone conifer species should not be a permitted activity under the Proposed NES-PF.

#### **Reasons:**

- a. A key aspect of plantation forestry activities that has the potential to impact on land owned or administered by NZDF is the unintended spread of wilding conifers. The unintended spread of wilding conifers has the potential to cause the following issues for the NZDF:
  - Loss of NZDF training areas as a result of conversion to boreal type forest.
  - Increased risk of wider scale and/or more intense wild fires, which are expensive to control.
  - Large on-going financial commitment required by NZDF to continuously control wilding conifer infestations on NZDF land.

- b. The Proposed NES-PF acknowledges the risks associated with afforestation, in particular the unintended spread of plantation species into areas not intended for forest production. Draft afforestation rules are set out in Appendix 3 to the Consultation Document for the Proposed NES-PF, which specify whether afforestation is permitted or requires a resource consent. In order to determine the risk of wilding spread from afforestation activities and hence whether afforestation is a permitted activity under the Proposed NES-PF, the draft Afforestation rule relies on the cumulative score derived from the 'Wilding Spread Risk Calculator'.
- c. The 'Wilding Spread Risk Calculator' is useful for providing an instantaneous evaluation of risk. However, it is less useful for evaluating risk of conifer spread over longer time periods, such as the 30-50 year lifecycle of a forestry operation. This is because two of the five determinants used to identify the final risk score for an activity (being land use and vegetation type downwind of the proposed planting area) are unpredictable over longer time periods common in the lifecycle of a forestry operation. These factors are particularly unpredictable if the downwind areas from a forest are not under the control of the forest owner.
- d. For example, a forest planted with conifer species prone to spreading (such as European Larch) would be a permitted activity under the Proposed NES-PF subject to compliance with the permitted activity conditions. However, if the conditions on which the permitted activity status was determined change through the life cycle of the forest, this could increase the risk of wilding conifers becoming a seed source for downwind areas. Furthermore, the risk could increase to such an extent that the activity would not be permitted under the Proposed NES-PF. Should downwind land uses, such as intensively grazed pasture or plantation forest (which offer maximum mitigation for wilding conifer establishment), change in the future (i.e. the forest is harvested and not replanted or an intensively grazed downwind area is converted to less intensive grazing, or is grazed by animals that do not eat pine seedlings), the risk of wilding conifers establishing in areas of pasture and becoming a seed source for downwind areas will increase.

## **Submission Point 2**

### **Plan provision: Afforestation**

NZDF **supports** this provision **in part**.

### **Relief sought:**

- a. NZDF is concerned that in the event that afforestation activities occur adjacent to NZDF owned land as a permitted activity under the Proposed NES-PF, NZDF will have limited, or no, opportunity to discuss potential risk mitigation approaches with forest owners.
- b. NZDF seeks as an outcome of the Proposed NES-PF, the opportunity to discuss potential afforestation activities adjacent to NZDF land with the forest manager or owner. This could be achieved through an additional permitted activity condition in the draft Afforestation rule.

### **Reasons:**

- a. The establishment of production forestry activities on land adjacent to NZDF land has the potential to result in adverse effects on NZDF's operations and security requirements. Potential effects could include:
  - Loss of access to NZDF land where access ways extend through production forest.



- Restriction on aerial access to NZDF land due to the presence of large trees restricting angles of entry and exit to landing sites for aircraft.
- Restriction on NZDF training opportunities due to elevated levels of fire risk attributable to adjoining forests.
- Restrictions on land management activities, such as the application of herbicides to control pest plants on boundaries.
- Damage to boundary fences and/or signage due to non-harvest related falling trees.
- Trees providing cover for persons trespassing on to NZDF administered areas creating security threats.
- Trees obstructing boundary sight lines.

#### **Other Relevant Matters**

- a. NZDF acknowledges that the Proposed NES-PF has been drafted to align with, and support, the policy framework of the National Policy Statement for Freshwater Management (NPS-FM).
- b. While water quantity issues are outside the scope of the Proposed NES-PF and addressed by other legislation, NZDF does maintain concerns with respect to water quantity and quality issues associated with production forestry operations and potential impacts on NZDF's activities. Impacts could include less water being available for training opportunities, such as river crossings, water reticulation or fire suppression techniques. In addition, water quality effects from production forestry associated with sedimentation of waterbodies could affect the health and wellbeing of defence personnel using waterbodies for training activities.
- c. NZDF wishes to indicate their interest in the development of any future water quality or quantity rules as they may relate to the Proposed NES-PF.

pp.



Date: 11 August 2015

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New Zealand Defence Force

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Sent by e-mail to [nes-pfconsultation@mpi.govt.nz](mailto:nes-pfconsultation@mpi.govt.nz)

From:

NZ Farm Forestry Association



Submission Topic:

**National Environment Standard for Plantation Forestry**

**Statement**

**The New Zealand Farm Forestry Association (NZFFA) supports the implementation of an NES-PF, but proposes some suggested changes to the Draft Standard.**

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## **0. The NZFFA and Small Scale Forest Growers – Background and General Discussion**

The NZFFA represents a varied membership of approximately 1,500 fully financial members who have a wide variety of primary vocations other than forestry, including farming, many urban based vocations and professions. Investment foresters who live in a location completely separate from their forest investment also comprise a significant and growing proportion of our membership. It is this latter group who on a national basis may well number in excess of 14,000 persons and whom at times are best described as “unaffiliated forest growers” (UFG) and whom NZFFA is called upon to represent on occasions such as this, that may well be most affected by the proposed NES-PF.

Primarily this group has little or at worst no contact with their forest estate other than a yearly rates demand from a local authority or at best a statement from their administrator if they are part of a group investment scheme. Much of their estate was planted in the mid-1990’s on ex-farm sites that were not part of the previous Forest Service estate and so have no long term history of forest management.

It is worth noting that many of the “traditional” State forests managed by the then Forest Service were on sites where soil, or lack of it and the underlying geology and parent rock type, were unsuited to pastoral farming due to nutrient deficiencies, poor moisture availability, severe climate, extremely porous soils, podsolised pakahi soils and for other reasons that made those lands unsuitable to pastoral farming.

Collectively this meant that many of these State forests were sited on the pumice lands of the central plateau, the coastal sand dunes of the West Coast of the North Island, the greywacke and gravel soils of the Eastern South Island, the imperfectly drained soils of the West Coast, the highly weathered gum lands of the Far North, and some of the higher altitude upland areas associated with the central ranges of both the North and South Islands. These sites as well as being too poor for farming also exhibited many erosion issues that were exacerbated by farming practices such as frequent burning, cultivation and intensive grazing and so forest regimes were designed to mitigate these issues taking into account the environmental constraints of the sites.

During the mid-1990’s planting boom, the decision to plant was primarily driven by a spike in commodity wood prices worldwide. The decision on site selection was largely driven on the price of the available land, and as this demand for planting sites coincided with a financially depressed sheep and beef sector, the bulk of the planting took place on ex-farm sites. By virtue of its development history, sheep and beef farming tended to be on rolling down-lands and steep-land soils that were inherently, but not always, less fertile than flatlands. These sites also tended to be sited on silts, clays and loess which were often derived and more often than not, situated on geologically young, steep sedimentary hill country in the North Island and rolling down-land sites in the South Island.

It is this shifting of focus of planting from traditional forest lands and soil types to a “new landscape” by a large number of investor foresters with little or no experience in either forest management or primary production of any kind that presents the greatest risk to successful environmental outcomes, and it will be up the NES-PF to provide the working rule-set for this new forest estate. The success or failure in environmental terms of successive forest rotations on these sites will depend partly on the personnel employed in the wider industry, but also the rule set and activities that are proposed. If insufficient account is taken of the issues involved with plantation forestry and its inevitable harvest, especially on the thin young soils of the sedimentary steep-land sites that were planted some 20 years ago, then we contend that the NES-PF will have failed in its role in providing guiding principles and guidelines for this particular group of forest owners.

When combined with the “non-durable” nature of the dominant forest species (*Pinus radiata*) in this first rotation estate, there is a considerable risk of poor environmental outcomes in the post-harvest

“window of vulnerability”. Sedimentary and loess soils on steep sites are very susceptible to slip and debris flow erosion under pastoral farming, but the network of fine roots in the surface of the soil provided by grass and low scrubby vegetation does give some protection.

After a standard forestry rotation of 30 years, none of this reinforcement will be available, and coupled with the extremely fast degradation of pine roots, these steepland sites are left even more susceptible to mass erosion in the period following harvest from even moderate climatic events than they were previously under a pastoral regime. It is for this reason that we ask for some modification of the rule sets of the “orange and red zones” with respect to Afforestation, Earthworks, Harvesting Mechanical Land Preparation, and Replanting so that land managers in local government can help guide the harvest of the current crop and re-establishment of more appropriate species for sites where the current species site mix is mis-matched.

In terms of the general content of the NES-PF, we support the approach of consistency on a nationwide basis. It is most important that this “whole of industry approach” becomes well embedded in the operating procedures at all levels of the industry, and especially with those industry participants that are involved in servicing the part of the sector that includes farm foresters, investors and any other forest owners that do not on a regular basis deal with the real day to day issues of forest management and the implications of their decisions in their forests.

We would argue that the NES-PF should be setting an operational bottom line to both protect the environment and to protect what we would describe as “amateur foresters” from themselves, as unfortunately New Zealand’s regulatory authorities, politicians and even the general public will not differentiate between a professional forester who has significant resources available and an amateur forester with absolutely none. If a damaging event occurs it will be the whole forest industry that suffers reputation damage and the whole environment that becomes degraded. In asking for these changes we acknowledge that our approach may be described by some as overly conservative, but we would submit that the long term value to the industry as a whole justifies the small up-front cost.

The changes that the Association proposes are as follows:

**1. Afforestation**

- 1.1 Orange zone < 25 deg slope** change to **controlled** from current permitted status and utilise the current restricted discretionary rule-set;
- 1.2 Orange zone > 25 deg slope** change to **restricted-discretionary** from current permitted. Retain RD rule-set the same

**Discussion**

Afforestation of ex-farm sites in steep erodible sedimentary land forms of the lower and eastern North Island presents the forest sectors largest opportunity for growth of the total forest estate area in the future. This may or may not be led by central or local government initiatives.

The situation faced by foresters in the Gisborne – East Cape region is even more difficult when it comes to erosion susceptibility, due to the unstructured and shattered nature of much of the landscape. In this landscape, land with little or no slope is subject to massive movement. We submit that the selection of an appropriate species or mix of species is key to achieving sustainable long term outcomes both financially and environmentally. Currently radiata pine is performing very poorly in the post-harvest window of vulnerability due to its inability to coppice from the stump, and it's inherent non-durable nature with respect to root decay. Currently alternatives to radiata pine are being researched in a joint initiative between the forest industry and central government agencies.

**2. Planting Setbacks**

We submit that the **planting setback for perennial streams of less than 1 metre in width be changed to a minimum 1 metre setback**, from the proposed minimum 5 metre setback.

**Discussion**

NZFFA feel that this rule is unduly onerous in situations where a forest estate or woodlot has a number of very small, but permanently flowing water bodies. If the intention is not to capture all ephemeral water bodies then some mention should be made of this and an appropriate entry be made in the table on P61.

If all water bodies no matter how small are to be captured and the 5m rule is retained, then large tracts of any current and future forest estate will be rendered unproductive. Given that shading will occur over these small water bodies we fail to see the benefit of the proposed 5m setback rule.

**3. Earthworks**

- 3.1 Orange Zone < 25 deg slope**, move to **controlled** from current permitted status and utilise the current RD rule-set.

**Discussion**

This will provide some consistent approach across all the rule sets for “orange land” due to the erosion risk associated with this land class, in conjunction with our other proposed changes.

**4. Harvesting**

- 4.1 Orange Zone < 25 deg slope**, move to **controlled** from current permitted status and utilise the current RD rule-set.

**Discussion**

This will provide a consistent approach across all the rule sets for “orange land” due to the erosion risk associated with this land class, in conjunction with our other proposed changes.

- 4.2 Orange Zone > 25 deg slope and Red Zone** move to **Restricted Discretionary** from current permitted and controlled status, and utilise the RD rule-set.

**Discussion**

This is to bring a higher level of control, if need be on the most erodible parts of our landscape. It is these land units that produce the debris flows under the current regime, and so there must be some ability by Regional government to place limits when needed around the harvest operations of these sites to achieve a better environmental outcome.

- 4.3 Red Zone 8e moves to discretionary** from RD and utilise the RD rule-set.

**Discussion**

This is the worst of the worst in terms of landform and thus warrants this level of control in our opinion.

**5. Mechanical Land Preparation**

- 5.1 Orange Zone < 25 deg slope**, move to **controlled** and utilise the current permitted activity “methods” in table on p72.

**Discussion**

This will provide some consistent approach across all the rule sets for “orange land” due to the erosion risk associated with this land class, in conjunction with our other proposed changes.

- 5.2 Orange Zone >25 deg and all Red Zone**, move to **Discretionary**, and utilise the current Restricted Discretionary rule-set on p73.

**Discussion**

This is to bring a higher level of control, if necessary on the most erodible parts of our landscape. It is these land units that produce the debris flows under the current regime and are at most risk of other erosion forms after soil disturbance. There must be some ability by the appropriate Jurisdictional authority to limit where possible the mechanical land preparation operations to achieve a better environmental outcome.

**6. Pruning and Thinning to Waste**

The requirement for a minimum thin to waste stocking density of 250sph may not fit some special purpose species regimes on some sites, for example eucalypt and cypress species managed for large diameter pruned sawlog regimes at 100sph. This stocking rate, although appropriate for radiata pine on most sites, should not be used as a general yardstick for all other species.

NZFFA suggest that minimum stocking rates below 250sph are granted permitted status. If there is a species specific reason not to do so then a “controlled status” could exist, but only for relevant species and geology.

**7. Re-Planting**

**7.1 Orange Zone < 25 deg slope, move to controlled, and utilise current “controlled rule-set” p80.**

**Discussion**

This will provide some consistent approach across all the rule sets for “orange land” due to the erosion risk associated with this land class, in conjunction with our other proposed changes.

**7.2 Orange Zone > 25 deg slope and all Red Zone move to controlled, and utilise the current “controlled rule-set” p80.**

**Discussion**

NZFFA have moved to a position of Controlled as opposed to Restricted Discretionary for Red Zone sites because this will not infringe on the “current use rights” position of the resource management act where the forest is permitted to be replanted.

We believe, however, that on many sites planted on steep, skeletal sedimentary geologies and other geologies with similar erosion characteristics and on the mass movement soils of the Gisborne-East Cape region, that some measure of control is required over the choice of species, siting and stocking rate that is replanted.

This is in contrast to the proposed NES-PF but we believe it is appropriate for sites that do not fit the site conditions that much of the old multi-rotation forest estate exists under. It will be especially relevant for the forests planted onto ex-farm sites in the 1990’s that are approaching their first harvest and first window of vulnerability to soil erosion in the post-harvest and re-establishment phase of the next rotation. It is also consistent with the “afforestation” rule set, without infringing on the current use right of the current crop which we contend is fair.

Currently debris flow and accelerated erosion in the post-harvest window of vulnerability even in the established old multi-rotation forest estate presents the greatest risk environmentally and politically to the forest industry. Unless there is some leverage sanctioned by the NES-PF rule set and relevant jurisdictional authorities the status quo may never change, which politically may well be an untenable position for the forest industry to choose to be in.



## **8. General Conditions**

### **8.1 Local government Jurisdiction**

NZFFA suggest that for the jurisdiction responsibilities of the general rules, for operational simplicity that either one of the “district” or “regional” local government agencies be responsible. In many cases it will be simpler for one consenting authority to achieve the required level of compliance administration than two. This may well be achieved by having a mechanism built into the NES-PF for either a regional or local or a unitary authority to cover all roles in the jurisdictional space.

NZFFA do not believe a National Environment Standard is the right place for rules limiting a local authorities jurisdiction to make decisions around permission for deployment of genetically modified tree stock.

### **8.2 Review period**

NZFFA ask that the review period for the terms and conditions of the NES-PF be set **no longer than 5 years from the date of commencement**. We would also ask that an independent body be set up to review relevant science and technology relating to the forest industry and any data gathered on the effectiveness or otherwise of the NES-PF and that it be given the power to introduce the results of that review for inclusion in the NES-PF as such reviews take place.

### **8.3 Erosion susceptibility classes and mapping**

NZFFA ask that the mapping of the ESC be significantly improved. The current scale or polygon size, while useful for providing “broad scale” mapping where little landscape variation exists, lacks sufficient resolution in areas of widely varying topography, soils and slope class. We recognise that remapping comes at a cost, but that the technology available for this work is improving rapidly, and so too will the economics of the work improve.

**NZFFA submit that remapping should be part of the review process**, especially that of the orange and red zones.

As an example, the ESC scale is at 1:50,000 in the NES-PF, whereas the scale of mapping undertaken by Horizons regional council (HRC) for farm erosion plans can be as fine as 1:2,000.

If there is continued reliance on the 1:50,000 scale mapping and polygons without reference to any other dataset then land parcels of all erosion classes will inevitably be lumped together, which may result in an overly conservative rule set or at the other extreme, grossly permissive rules.

Given that NZFFA represents small scale forest growers, some of whom have “boutique” woodlots as small as 1ha in size or less, we contend that this may be the minimum threshold for a plantation forest polygon size for remapping to achieve. If this is deemed too small for feasibility then we would recommend that the minimum size of the “plantation forestry” definition be lifted to match the mapping unit polygon size that is chosen. Such alignment would aid small growers, especially when consent conditions are being negotiated with the relevant jurisdictional authority.

If neither of these options seems feasible we submit that a process for re-mapping must be built into the NES-PF framework clearly laying out responsibilities and how any cost recovery mechanisms will be levied and to whom.

If MPI erroneously classifies a parcel of land as red but the owner gets it correctly reclassified as orange, NZFFA contend that it should be MPI who pay for such corrections.



#### **8.4      Roading and River Crossings**

NZFFA submit that a section on roading or at least a reference to the FOA NZ Forest road engineering manual be made in the NES document. This manual does provide the “code of practice” or “rule set” for road construction in the forest industry. Currently the only reference to roading related matters in the NES-PF is the section relating to River Crossings, and this may well cause some confusion, especially in relation to the appropriate sizing of culverts.

For example, in the NES-PF (p85 under the heading “single culverts” for stream crossings), the minimum culvert diameter is 450mm. However, in the NZ Forest Engineering manual the minimum diameter for “cross-culverts” on roadways is set at 325mm. If it is intended for the NES-PF to have jurisdiction over roading related matters and the NZ Road Engineering manual is the “go to” document, then it should be made abundantly clear by providing a section on roading with a reference to the Road Engineering Manual.

#### **8.5      Templates**

We submit that provision of generic planning templates is absolutely essential for the effective functioning of an NES-PF with respect to woodlot and small forest owners. There will be a level at which the employment of a forest consultant is uneconomic with small volume harvests. A simple generic template is required whereby owners of woodlots and small forest blocks can submit the majority of the information required to the relevant planning authority.

# **Submission on National Environmental Standard for Plantation Forestry**

## **From Middle Districts Farm Forestry Association**

Submission to [NES-PFConsultation@mpi.govt.nz](mailto:NES-PFConsultation@mpi.govt.nz)

Contact person at MDFFA Denis Hocking, s 9(2)(a) or s 9(2)(a)

This is an extremely brief submission restricted to a few points that strike us as questionable:

1. To ensure the NES works effectively it will be necessary to have Regional Councils playing a more active and visible advisory role in land use generally and forestry in particular. A model for this already exists with the Horizons Sustainable Land Use Initiative (SLUI). Land owners will need to be aware of issues surrounding trees and plantations. A nationally co-ordinated programme here would be advantageous.
2. The standards required of forestry activities through the NES will be higher than the standards required of farming and this may work as a disincentive for forestry in highly erodible land that needs tree cover. This means a balancing advocacy role is needed.
3. Note that some issues, e.g. fish spawning rules, may have little relevance with a small plantation in a steep gully amongst hill country with all the surrounding land and water ways being in pastoral land with no protection of waterways.
4. Note that in farm forestry operations some operations such as earthworks and tracking may be done as part of, or ascribed to, the farming operation.
5. Has thought been given to the overlap of poplar plantings on pastoral land and forests, and whether standards are compatible? And even more so if unstable slopes are considered too harsh and dry for poplars and other species such as eucalypts are used for a soil stabilisation/grazing role.
6. To ensure better information flows and outcome we would suggest that provision be made for “accredited or approved operators” including earth works, harvesting and perhaps afforestation. These people would be expected to understand the systems and have close liaison with local authorities. Trying to work through land owners who may never have encountered such issues before is likely to be much slower and more problematic.
7. It may be that the easiest option where forestry is a minor issue in otherwise pastoral land, that small plantations be specifically excluded from the NES. The minimum area for the NES might be around 5 hectares
8. There are many areas where research is ongoing or is urgently needed, to improve forestry performance, e.g. the recent problems with debris flows in various places. It is important that the National Environmental Standard be regularly reviewed to incorporate new knowledge. Perhaps reviews at five yearly intervals would be appropriate.

We hope that thought can be given to these points.

Denis Hocking (for Middle Districts Farm Forestry Assn.)

Stuart Miller  
Spatial, Forestry and Land Management  
Ministry for Primary Industries  
PO Box 2526  
WELLINGTON 6140

By email to [NES-PFConsultation@mpi.govt.nz](mailto:NES-PFConsultation@mpi.govt.nz)

Contact details for this submission are:

Submitter: Wellington Branch, NZ Farm Forestry Association  
Submitted by: Eric Cairns (Secretary)  
Contact address: s 9(2)(a)

Email: s 9(2)(a)

Ph s 9(2)(a)

Dear Sir

### **Submission on the National Environmental Standards for Plantation Forestry Consultation Document**

The Wellington Branch of NZ Farm Forestry Association has about 100 members with direct interests or ownership in small scale forestry, mostly in the Wellington provincial region. Our parent body NZFFA, in addition to paid up members, indirectly represents a much larger group of small scale foresters who have no formal affiliations to forestry based organisations. The submission is on behalf of the Wellington Branch of NZFFA

#### **Submission points**

- 1) **Our branch supports the proposed approach**, i.e. the introduction of national standards for plantation forestry. The current proliferation of rules, and also the restrictions put in place by some councils have been, and are currently a disincentive to investment in forestry.
- 2) **Stable Platform:** For the last decade, small scale forestry has been marginally profitable, and stumpage returns are quite variable. Due to the long cycle times between woodlot establishment and harvesting, and tax liabilities for those who buy or sell immature stands, it is not an easy industry to exit from, but on the other hand, after harvest, tree growers might be unwilling to reinvest in forestry if the perceived returns are too low or risks too high. Policy changes and compliance

costs, let alone future markets, are not easy to forecast 30 years ahead. Stable and equitable government policies on forestry are essential if the investment in private forestry is to be upheld.

- a. Our submission is that the implementation of an NES-PF will form part of the desired stable platform.

- 3) **Compliance Costs:** We are concerned about the uneven playing field that is emerging, tighter regulations and higher compliance costs for forestry activities, but far fewer regulations or compliance costs for comparable activities (and alternative land uses) such as pastoral farming.
- 4) **Charges for monitoring activities:** It is unfortunate that forest owners complying with permitted activities may still be required to pay council charges for monitoring permitted activities. We suspect that other comparable farming activities do not have to pay for permitted activities to be monitored.
  - a. We submit that if an activity is permitted, then councils should not be charging landowners for monitoring activities.
- 5) **Encourage Long Term Environmental Benefits and Mitigate Climate Change:** Forestry provides huge environmental benefits to the public good. This is also acknowledged in the MPI discussion paper on Permanent Forest Sinks Initiative. Because of the high cost of surrendering carbon units, most land that was forested before 1990 are effectively locked into forestry as a land use and are effectively permanent forests, albeit that many of them will be clear felled from time to time. Benefits of forestry include high quality habitat, sequestration of carbon, production of construction materials and biofuel from renewable resource, protection of soils and minimising sediment runoff, reduced nitrate leakage into sensitive aquifers or waterways. The most likely alternative economic land use for what is currently forestry land is pastoral grazing, which provides far fewer environmental benefits than forestry, has far greater losses of soil through pugging and slips and has no or even negative benefits with respect to climate change (methane emissions from livestock). To help meet our longer term climate change obligations, we need to encourage more land under forest cover, rather than provide disincentives to plant trees.
  - a. Our submission is to prevent further tightening up of the NES\_PF rules, and to reduce regulation and compliance costs where possible.
- 6) **River Crossings:** The requirements for river crossings are a one size fits all approach that will be more difficult for small scale operatives to meet (than larger operatives).
  - a. River crossings terms:
    - i. The terms *River* and *Perennial River or Stream* are essentially the same. Both terms are used in the NES-PF. Rules may vary according to whether the river is more or less than 3m wide. Both

definitions are inclusive of hill-side seepages and very small headwaters, which have essentially no or minimal catchment area and are unlikely to be habitat for fish (They also don't flood)

1. We submit that for the purpose of NES-PF, that seepages and streams with average flows of less than 10 L per minute are excluded from the definition of river or Perennial River or Stream

b. Roads:

- ii. A similar confusion in terms exists for "*road*" or *forestry road*. The glossary refers to RMA section 2 for road, which is clearly a formed public road. Forestry roads, mostly on private land, could be permanent or temporary and would include farm tracks suited to tracked machines, light vehicle or 4wd.

1. We submit that NES clarify the use of terminology relating to road and tracking.

c. Culverts:

- iii. The minimum culvert diameter size, applying for all classes of forestry road and all classes of river crossing is set at 450 mm which will cost over \$600 just for the pipe. For a road or track along a valley edge, it would not be uncommon to cross hill side seepages every 20-50 metres. The requirement for such large culverts is excessively expensive for small water flows.
- iv. Alternatives to culverts are drift decks or fords, neither of which specify diameters nor flow capacity.
- v. The reason for not allowing smaller culverts to deal with small flows is not obvious, and could lead to widespread disregard of the rule
  1. We submit that the reasons for setting minimum culvert sizes at 450mm be clarified, and if it is intended that drift decks or fords be used instead for very small streams or seepages, that this be clarified. We are very much in favour of allowing culverts down to 80mm diameter where appropriate and not having to allow for fish passage if the presence of fish is highly unlikely.

## 7) Planting Setbacks and Definitions of Rivers and Streams

- a. Planting Setbacks from rivers and streams: Some greater clarification of the terms River or Perennial Stream or River is desirable, especially as regards planting setbacks. A 5 m setback from a seepage or damp gully is surely not required. An earlier version of the NES allowed for 1 m planting setbacks for streams less than 1m wide.
  - i. We submit that in regard to planting and harvesting, that a stream width of less than 1 m requires no planting setback (Comment; some minimum size is required. Many small water flows of less than 1m width are not mapped).

- 8) **ESCP:** The requirement for ESCP for all types of earthworks is quite onerous. Road maintenance such as clearing water tables, grading or metalling an already formed road appears to come under the definition of earthworks.
- a. We submit that for routine maintenance of a forestry road or track, where the basic shape and width is maintained, that no ESCP is required (the same rules that apply to farm tracks or roads in non-forest areas should also apply to plantation forestry).
- 9) **NES-PF Scope:** The NES seems to generalise by assuming that all plantation forests are pinus radiata or douglas fir, and on a large industrial scale. The NES also has to fit with PFSI forests. In fact there are many smaller forests down to the lowest size limit of 1 ha, many with alternative species and different planting regimes (e.g. Hardwoods, or mixed species forests managed under CCF regimes). The NES rules have to be appropriate and able to be fairly applied to these forests, both in scale and recognition of different requirements for different species and planting regimes.
- 10) **Elaborate on Minimum Area:** If a property or land owner has multiple areas each less than 1ha, (other than “shelter belts less than 30m wide”) are they still exempt from the NES-PF?
- a. We submit that NES should clarify or elaborate on exempted areas for afforestation under NES-PF, and ensure that it’s rules are fit for use in PFSI forests.
- 11) **Significant Natural Areas:** The approach to mapping significant indigenous vegetation varies markedly between different regional councils depending on their philosophy. A good example is the mapping of such areas within the Horowhenua and the Kapiti district. In the former case almost no private hill country land is identified as having significant indigenous vegetation (syn. Significant Natural Areas) whereas in the latter case >90% of hill country have been allocated this designation. Given that councils have rather open ended ability to be more stringent in such areas, the effect of the NES-PF is undermined, as in the Kapiti District, many plantation forests are either adjacent to, or directly included in the designated SNAs or similar designated areas. The NES specifically excludes damage or destruction of native vegetation that has grown up within a stand or along a pre-existing access track within an SNA. We support this exclusion.

Our submission: Given the apparent ease of councils to declare private land to be SNA or similar designation, our submission is to make the NES-PF more prescriptive as to the ability of councils to apply different rules in significant natural areas or similarly designated areas.

12) **Templates:** While it is stated that templates will be provided for Harvest Plans, Erosion and Sediment Control Plans, Quarry Plans, etc, we believe that this area is critical for the success of the NES-PF. For small forest owners, it is often uneconomical, to employ consultants for administrative processes. So to comply with the NES-PF and achieve a good outcome - both, for the environment and the forest owner - compliance needs to be as simple as possible. We request that not just templates, but also worked examples of such plans for both a small woodlot of say 5 ha, and a medium sized forest of 50ha.

- a. Our submission is for provision of both templates and worked examples for all required documents for small and medium sized forests.

**13) Earthworks (Page 65):**

Setbacks for Earthworks near water bodies are specified, and need to be applied, “except where topographical constraints leave no alternative”. **We suggest inserting the word “reasonable” before “alternative”.** This is because there is always an alternative, but if e.g. a river is constrained by a steep hill side, then the alternative could be to move a 1000 m<sup>3</sup> of rock and soil to achieve the required setback, and that would not be reasonable.

Our submission is to change the wording of the NES-PF as described.

**14) Spoil (Page 65)**

Spoil must not be deposited “where it can deliver sediment into a surface water body”. In a 1 in 100 year rainfall event, it is unavoidable for some sediment from spoil to find its way into a water body. For that reason, **we suggest to insert the word “readily” before “deliver”**

Our submission is to change the wording of the NES-PF as described.

**15) Ground Disturbance outside riparian zones – top of Page 70**

There is a requirement for all temporary tracking to “be stabilised with water controls or other means...” It is not clear what falls under the term “temporary tracking” If this included e.g. a rough bulldozed track which is being used to pull logs out along a spur, then it is impossible to meet this requirement. Any water controls would be immediately destroyed by the pulling of trees along this track.

Our submission is to remove this requirement. Alternatively, the requirement could be changed by inserting “**Within 12 months of the completion of harvesting**” at the beginning of the statement.

**16) Quarrying – Page 75**

Quarrying is often undertaken on a small scale, and due to this scale, any environmental impacts are minor. Having to create a quarry management plan and

notifying council, just to extract a few truckloads of material is neither efficient nor is the administrative effort justified with regard to the potential risk.

Our submission is that the requirement for council notification and for a Quarry Management Plan only apply where more than 100m<sup>3</sup> of material are being extracted

**17) Ford – specific conditions – Page 89:**

It is stated that no ford is to be located in a river listed as habitat for threatened species or sports fish spawning in any regional plan. This should only apply for new fords. If foresters are expected to replace such fords with other means of river crossings, the costs would be astronomical. Need to clarify the potential use of such fords in relation to the timing of fish spawning (e.g. no logging trucks between certain months)

Our submission is to

- a) replace the words “no ford” with “no new ford”

**18) Page 64, road widening**

The text should read the volume moved is **less** than 5 000 m<sup>3</sup> per activity area, (rather than more)

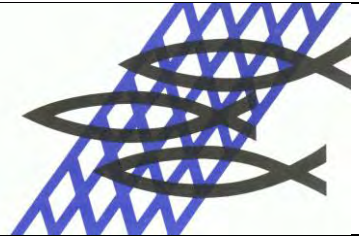
- 20. **Page 69 Harvesting.** We endorse that low intensity harvesting is permitted in all zones. However, a requirement to submit a Notice of intent to harvest at least 20 days and **no more than 60 days** before it begins could be restrictive. Under CCF or low intensity harvesting, multiple harvests are likely occur from the same stand over many years. It is not clear whether multiple harvest plans for the same stand of trees would have to be submitted, and what costs might be involved.
- 21. **Minimum area or volume of harvest to be exempt:** The PFSI discussion document discusses harvesting options of up to 20% of the basal area over time periods that would allow complete recovery of such areas. Page 68 allows for Low intensity harvesting being permitted in all zones if 75% of canopy per hectare is maintained. Harvesting less than 25% of basal area per hectare will have little environmental impact, being not dissimilar to production thinning or thinning to waste. PFSI also allows for harvesting isolated trees for personal use and for this not be counted as part of the allowable cut. There is a case to not have to submit a harvest plan where small amounts are being harvested.
  - i. We submit that there should be some minimum area or volume of low intensity harvesting that is exempt from the need to notify councils or submit a harvest plan (PFSI allows 50 m<sup>3</sup> (for private use) over a 10 year period)
- 22. **Page 74 thinning.** The requirement to leave at least 250 sph after thinning is not practical for some species or regimes. Whilst this might be suitable for standard douglas fir or radiata pine framing timber regimes, it does not fit



with agroforestry, eucalypts and some other hardwood regimes, where final stocking rates may be less than 100 sph. Thinning to lower stock numbers (even to 25 sph for agroforestry) should be allowed, if stems are not removed for commercial gain. Note that other requirements for stocking rates in carbon forests may apply

23. **Page 88, placement** (of crossing) 1b. upstream should perhaps read downstream

**NZ FEDERATION OF COMMERCIAL  
FISHERMEN (INC)**



NES-PF Consultation  
Attention: Stuart Miller  
Spatial, Forestry and Land Management  
Ministry for Primary Industries  
PO Box 2526  
Wellington 6140  
Email: NES-PFConsultation@mpi.govt.nz

12 August 2015

**Comment  
on the  
National Environmental Standard – Production Forestry**

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1. The Federation of Commercial Fishermen (NZFCF) is the national body that represents the interests of fishers and owner-operators in the commercial fishing industry at national, region and local association levels.
2. We support the combined submission from the Paua Industry Council, Specialty & Emerging Fisheries and NZ Rock Lobster Industry Council, and individual submissions from Fisheries Inshore New Zealand and Southern Inshore Fisheries Management Company Limited.
3. NZFCF are concerned, as other seafood sector submitters are, on the lack of consultation with the seafood sector and recognition that the National Environment Standard-Production Forestry (the Standard) will impact on the terrestrial and marine environments.
4. We request the cessation of any further decision-making and development of the Standard until NZFCF and other commercial seafood sector representatives have been fully consulted and chance to express our views to the MPI, MfE and Stakeholder working group. We are an affected body and should be consulted on further consultation on primary industry issues.

Contact: Doug Saunders-Loder (President)

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s 9(2)(a)

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Phone: s 9(2)(a)

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**From:** s 9(2)(a)  
**Sent:** Monday, 10 August 2015 7:57 p.m.  
**To:** NES PF Consultation  
**Subject:** Proposed Forestry Environmental Standard

The NZ Federation of Freshwater Anglers has only just been made aware of this proposal. We would question the consultation process (our executive has been notified only one day prior to the closing date for submissions) but, be that as it may, the NZFFA is eager to contribute to this discussion.

Therefore we submit the following comment and will forward more detailed submissions in due course:

Comment:

The NZ Federation of Freshwater Anglers is very concerned at the environmental impact of exotic forestry practices and the degradation of streams and rivers due to siltation and debris from large scale forestry. It is vitally important that controls be quite stringent. Past practices and standards have left a lot to be desired. American and European forestry practices protect the environment (eg. banning clear-felling in sensitive areas, such as steep valley terrain) while, at the same time, allowing desirable economic activity. Why are the proposals being promulgated for NZ not informed by best international practice?

How can we continue to promote a “clean, green image” when our daily practices lead to ever-increasing environmental and biodiversity damage? The millions of dollars which tourist anglers bring to our country depend on those anglers finding quality angling in quality freshwater habitats, yet those very habitats are being destroyed on a daily basis. The new forestry proposals will only accentuate this degradation as they will lead to loss of trout spawning streams (in the same small, steep-sided valleys in which many exotic forests have been planted) and the ecosystems upon which trout depend.

Barrie Clark  
Secretary  
NZ Federation of Freshwater Anglers



Established 1968  
**New Zealand Freshwater Sciences Society**

11 August 2015

Ministry for Primary Industries  
Spatial, Forestry and Land Management  
PO Box 2526  
Wellington 6140

[NESConsultation@mpi.govt.nz](mailto:NESConsultation@mpi.govt.nz)

Dear Minister Smith and Associate Minister Goodhew,

## **FEEDBACK ON THE PROPOSED NATIONAL ENVIRONMENTAL STANDARD FOR PLANTATION FORESTRY**

### **Introduction**

1. The New Zealand Freshwater Sciences Society (“NZFSS”) was established in 1968 as the New Zealand Limnological Society. It is a constituent body of the Royal Society of New Zealand and has some 430 members. The Society’s membership spans the breadth of academics and researchers to resource managers in the field of freshwater. NZFSS is the key professional society for practitioners in freshwater science and management in New Zealand. The Society aims to “establish effective liaison between all persons interested in any aspect of fresh or brackish water research in New Zealand, and to encourage and promote these interests”.
2. The NZFSS welcomes the opportunity to comment on the proposed National Environmental Standard for Plantation Forestry (“NES”), which outlines changes to how plantation forestry activities are managed under the Resource Management Act 1991 (“RMA” or “the Act”).
3. The NZFSS is concerned about the widespread decline in aquatic biodiversity and water quality in New Zealand<sup>1</sup>. A large proportion of the Society’s membership is directly involved in resource management as experts at the local government, Environment Court and central government levels and a number of members are accredited as independent hearings commissioners through the ‘Making Good Decisions’ programme. These members have a

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<sup>1</sup> <http://freshwater.science.org.nz/index.php/news/media-statement-nzfss-key-closing-messages/>

wealth of science and resource management expertise to contribute to freshwater management processes such as the NES.

4. The Society understands that the basis for the proposed NES is to address “unwarranted variation” between approaches taken by Councils in their planning, so as to provide a nationally consistent approach to resource planning as it relates to plantation forestry, which at the same time is responsive to local environments.
5. We further understand that the NES (as provided for under sections 43–44A of the RMA) would establish a technical standard for forestry activities and set out when an activity is permitted and when consent is required. An NES would override rules for plantation forestry in planning documents, except in relation to matters where local authorities are allowed to be more stringent than the NES.
6. The NZFSS have provided feedback on the following matters:
  - a. Objectives of the NES
  - b. Principles underpinning the NES
  - c. Local Council burden to monitor permitted activities
  - d. Fish spawning and native fish provisions throughout the NES
  - e. Sediment effects on aquatic ecosystems
  - f. General comments on the proposed NES
  - g. Proposed rules and permitted activity controls
  - h. Other controls
  - i. General conditions
  - j. Errors

### **Objectives of the NES**

7. Section 2.3 outlines the objectives of the proposed NES as aiming to:
  - a. remove unwarranted variation between Councils’ planning controls for plantation forestry;
  - b. improve certainty of RMA processes and outcomes for plantation forestry stakeholders, while maintaining consistency with the purpose of the RMA;
  - c. improve certainty about environmental outcomes from plantation forestry activities for forestry stakeholders, including communities, nationally;
  - d. contribute to the cost-effectiveness of the resource management system by providing appropriate and fit-for-purpose planning rules to manage the effects of plantation forestry.

8. The Society **conditionally supports** the objectives of the proposed NES only if an additional objective is included to ensure “cumulative adverse effects of production forestry activities on water and aquatic ecosystems are avoided, remedied or mitigated” or similar wording and intent. This will ensure that the anticipated environment outcomes of the NES are included within the framework of objectives that can be monitored and will need to be measured and reported on by MPI as the lead agency for implementation. An improvement focussed objective, rather than one which seeks to improve “certainty” of outcome will better achieve the purpose of sustainable management in the Act.

## **Principles underpinning the proposed NES<sup>2</sup>**

### **A generally permitted activity regime**

9. Section 43A (3) of the RMA means that the NES cannot allow as permitted any activity that has significant adverse effects on the environment unless a resource consent is issued. The meaning of effect in section 3 of the RMA applies here and includes cumulative adverse effects within the definition.
10. Permitted activity discharges to water (or to land where they may reach water) for example discharges of sediment, are governed by s70 of the RMA (1991). Section 70 (1g) requires Regional Councils to be satisfied that the discharge will not result in significant adverse effects on aquatic life. The generally permissive nature of the proposed NES means that any discharges need to meet this threshold test to a satisfactory level if they are to remain permitted activities. As written, the rules in the NES do not meet this threshold.
11. It appears that the focus of applying permitted activity status has taken precedence over the other principles. In particular, restrictions on matters where Councils are able to apply more stringent rules, along with restrictive conditions on matters that Councils are able to consider in the situations where consents are required. The way these are worded within the NES requires clarification, the current wording, appears to impede the ability of Councils to be responsive to local environments.

### **The assumption that the level of control should be related to effect “at the location of the activity”**

12. Controlling activities for their effects only at the location of the activity does not meet the RMA meaning of “effect”, specifically section 3 (d) which relates to cumulative adverse effects. Often these are the type of effects that Councils are trying to control or avoid as a result of forestry activities, particularly in relation to cumulative sediment discharge, native fish community health and erosion effects on a whole-of-catchment basis, including effects extending into Coastal Environment. Regulatory control based only on effects ‘at the site’ does not meet the RMA meaning of effect and will not enable effective catchment management of cumulative effects resulting from production forestry activities.

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<sup>2</sup> Page 8 of the NES discussion document

## Understanding of the risk of adverse effects nation-wide

13. The Society **supports** the principle of evidence-based scientific understanding of effects. With respect to this point the Society directs the Ministers to consider the effects of sedimentation and other adverse effects related to forestry activities on **resident and migrating** native fish populations, not just during spawning but prior to spawning and throughout the life-cycle of all relevant species.

## Nationally consistent yet responsive to local environments

14. The Society **supports** a nationally consistent approach that is also responsive to local environments. A number of changes are required to enable this responsiveness at the local level. Currently the NES appears to hamper Councils in setting more stringent rules (or utilising already operative rules in plans for these purposes) by requiring a Schedule 1 Plan Change process. Clarification of the role of operative rules for significant habitats and fauna in relation to setting more stringent rules under the NES is needed. Will a Plan Change be necessary to reinstate rules for this purpose?
15. The NES allows for more stringent rules to be applied in order to meet catchment-wide water quality effects that are linked to the objectives of the NPS-FM. However, to apply these more stringent rules Councils will need to undertake a Schedule 1 plan change process with the associated risks and costs of re-litigating ground that has already been covered by existing resource management issues or in relation to future implementation of the NPS-FM. There are currently no attributes associated with sediment or native fish in the National Objectives Framework of the NPS-FM so the linkage and impetus for setting more stringent rules remains uncertain, i.e. it remains uncertain whether the NOF will fill any gaps left by the NES.
16. Restricting Councils in this way implies that all possible situations and outcomes have been considered in drafting the NES. This is unlikely, given that our scientific understanding is constantly changing, alongside rapid technological changes and changes in practice within the forestry industry. Furthermore, climate change is likely to produce large changes in local environmental conditions (e.g. through sea-level rise, changes to rainfall rates and the probability of wind-throw events) over the timescale of forestry crop rotations. In light of these points, we consider there ought to be greater discretion for Councils to adapt the rules to changing local conditions and information in an effective and efficient manner.
17. The Society considers that a more reasonable approach would be to specify consistent 'bottom line' standards and conditions at a national level that are directly related to the effects and allow Councils greater scope to adapt these to take account of local conditions, community interests and desires and changing conditions over time.



### Local Council burden to monitor permitted activities

18. In order to ensure permitted activities do not cause significant adverse effects on the environment they must be monitored and enforced<sup>3</sup>. Shifting activities to a permitted status wholesale will require a large monitoring burden to fall to local authorities that may have been met by foresters under former plan rules. Costs and capacity for Councils to undertake this monitoring burden must be accounted for. Factored into cost considerations is the potential loss of capacity and resources from other monitoring areas in order to ensure the NES is adequately monitored and enforced.
19. The forest industry should assist in funding and capacity for monitoring and continued research on effects, including the ongoing effects arising from the implementation of the NES this will allow the costs to fall with those who gain the most benefit from the regulation.
20. The Society **requests** the Ministers provide a mechanism for Councils to recover costs from forestry owners for monitoring and auditing associated with forestry activities within their regions.

### Fish spawning and native fish provisions throughout the NES

21. Nationally, 78% of native freshwater fish have an assigned conservation threat status. This is an increase from the last reported threat classification for native fish in 2009 where 67% were identified as threatened or at risk<sup>4</sup> and the 2005 classification which described 53% as threatened or at risk<sup>5</sup>. Increases in the proportion of threatened or at risk species has resulted from a combination of changes in taxonomic resolution for some species, changes in threat classification method between the 2007 and 2010 classifications, and wide-spread continued national decline in native fish populations. The majority of threatened taxa classified as threatened or at risk in 2009 and 2013 belong to the *Galaxias* genus and all species from the *Neochanna* (mudfish) genus are ranked as threatened or at risk. Many of these species are not identified as having significant conservation status in the NES.
22. We query why only 21 of the 41 species assessed in the NIWA report are included in the NES. We also note that the NIWA report does not include a range of recognised but not formally described fish species, so the NES currently considers a small subset of all fish species and many threatened species are omitted.
23. The peak spawning periods listed in the table in the draft rules on page 84 are inconsistent with those stipulated in the NIWA technical report<sup>6</sup> on which they were supposedly based. For

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<sup>3</sup> This is the key drawback of a permitted regime - compliance, monitoring and enforcement are uncertain.

<sup>4</sup> Allibone R, David B, Hitchmough R, Jellyman D, Ling N, Ravenscroft P, Waters J, 2010. Conservation status of New Zealand freshwater fish, 2009. *New Zealand Journal of Marine and Freshwater Research* 44:4, 271-287.

<sup>5</sup> Hitchmough R, Bull L, Cromarty P, (comps) 2007: New Zealand Threat Classification System lists—2005. Department of Conservation, Wellington. 194 p.

<sup>6</sup> Smith J 2014. Freshwater Fish Spawning and Migration Periods. MPI Technical Paper No. 2015/7. Prepared for Ministry for Primary Industries (November 2014). NIWA Client Report No. HAM2014-101. 84p.

example, rainbow trout peak spawning period is shown as 1 April to 31 May c.f. 1 June to 31 August in the NIWA report, the same period (1 September to 31 October) is specified for all non-migratory galaxiids listed as well as for redfin bully, whereas the NIWA report lists no peak period for any of these species. Spawning range varies between species from 1 June to 31 September for bignose galaxias to 1 August to 31 December for lowland longjaw galaxias.

The precise nature of the periods listed in the spawning table implies that they are based on highly precise scientific knowledge. However, the NIWA report clearly states that “the calendars are intended as a general guide and are no substitute for in-depth studies of specific sites”. Furthermore, this report recognises that there is likely to be regional variation in spawning associated with environmental conditions and that there is little or unreliable information available for some species.

24. As the spawning information only draws on a few relevant studies, important information is lacking. The NES does not recognise regional variation in spawning timings even when the NIWA report notes this as an issue. It is well known that spawning timing differs with latitude and altitude. Furthermore, for migratory species that regularly landlock (e.g., kōaro) spawning timing in lake populations can differ substantially from the marine migratory populations. This is especially important when considering forestry activity in the central North Island and catchments upstream of lakes in the South Island.
25. For instance Gollum galaxias, Central Otago roundhead and Taieri flathead are all known to start spawning in August. However, Taieri flatheads in high altitude streams (some of which are subject plantation forestry activities) do not begin to spawn until November. The Society **requests** that the NES is amended to include spawning timings that are extended to encompass the full duration of spawning season nationally or rules that reflect the spawning activity in local streams.
26. Shortjaw kōkopu is not included in the table in the draft rules, despite having a higher threat classification and predicted ‘combined forestry effects ranking’ than several species that have been included. Īnanga is omitted for the rules and this species forms the mainstay of the whitebait fishery. Recent concern of the decline of this species reflects a decline in riparian spawning habitat quality.
27. In the interests of consistency, given their threat status, Tarndale bully, lamprey and Northland mudfish should arguably also be included in the table, notwithstanding their relatively low predicted ‘combined forestry effects ranking’, given that Stokell’s smelt is included in the table.
28. As previously noted the spawning periods also only cater for periods of spawning activity and not for the egg development periods which is especially important for the salmonid species where egg development can take several months.
29. It appears as though the Fish Spawning Indicator has not considered fish migration. Fish species have varied responses to turbidity with some avoiding turbid rivers when migrating upstream (see cited references in paragraph 21 above).
30. We have also found that the predictive model makes incorrect predictions of the fish present at sites. The model was constructed without knowledge of fish passage barriers so does not recognise impediments to upstream passage such as dams and waterfalls. It also uses the

River Ecosystem Classification (REC) reaches as its base unit and ignores survey data from adjacent reaches. In our review of the predictions we found numerous examples of brown trout being predicted as present when they are absent and many threatened galaxiid populations not predicted as present when they are. Also, the GIS tool for the NES does not map all streams. There appeared to be areas where no streams were made by the GIS tool. Therefore, the predictive modelling in its current state does not provide a high degree of reliability. Survey data on critically threatened species appears to have been omitted both from the NZFFD data used and the predictive modelling. This means the current data and model used for the GIS associated with the NES does not identify significant habitats for native fish whether this is adult or spawning habitat.

31. Given these limitations in the fish distributions and spawning assessment we would like the distributional data reviewed and updated to ensure that threatened taxa are accurately represented in the NES or that Regional Councils that have more accurate fisheries data can set local rules that reflect the actual fish species present.
32. Furthermore, the General Conditions of the NES do not provide adequately for protection of resident fish, particularly non-migratory galaxiids with high conservation threat status (e.g. the following galaxiids, Eldon's, dusky, Gollum, Clutha flathead, Teviot flathead, Taieri flathead, lowland longjaw, upland longjaw, bignose, southern flathead, northern flathead, Canterbury, dwarf and round head galaxias). These fish spend all of their lives in rivers or streams, and adverse impacts from forestry related activities present a significant risk to juveniles, adults, their habitat, and lifecycle (beyond the spawning season). This also applies to migratory species, such as three kōkopu species and kōaro that migrate to sea for a short period as juveniles, but spend most of their lives in rivers and streams. Protection should be extended to their adult habitat (and the habitat of their invertebrate food sources, i.e. rivers and streams) outside of spawning seasons.
33. A number of the galaxiids, including the three kōkopu species, kōaro, īnanga, dusky and Eldon's galaxias, spawn in the riparian margin that they access during flood events or high tides. The vegetation cover is critical for these spawning areas as it provides shade, leaf litter and root mats that maintain a humid environment that prevents egg desiccation. Damage to the riparian vegetation outside the spawning season can remove shade, root mats and leaf litter. This vegetation can take months or years to recover from such damage and therefore spawning is compromised for extended periods. This issue applies to streams of all sizes as the species listed above utilise streams as small as 0.3 m wide so protection of the riparian vegetation is required year round for small and large stream occupied by these species.
34. The Society **requests** that effects on spawning within riparian margins are clearly acknowledged within the NES. For example: "If not carefully managed, some forestry activities can affect the spawning habitats of freshwater fish in freshwater and riparian zones. As a number of native fish including whitebait species and threatened species spawn amongst vegetation on the riparian margin".
35. The rules limit the vehicle crossing to 20 axle movements per day. The appropriateness of this will depend on the sensitivity of the receiving environment and the nature of the crossing. We do not know if the 20 axle movements a day is sufficient to protect vulnerable habitat. We also

note the NES does not limit the number of crossing points. Therefore, it is possible to construct an unlimited number of crossings on streams.

36. Hauling partially suspended logs across small streams < 3 m is likely to do significant damage to the stream. Small streams are less able to flush sediment that accumulates on their beds as a result of stream bank damage and the propose log hauling rule is expected to cause significant damage to small streams.
37. We recognise that protection of small streams < 3 m wide may appear problematic for foresters as it may limit the available planting area and harvesting options. However, many of the small stream specialists are rare and therefore not found in many streams. For instance, Eldon's and dusky galaxias occupy less than 30 streams each and are restricted to just a small area of Otago. Therefore, while protection will inconvenience some forestry activities this will be limited in its geographic range.
38. The NES should allow Councils to identify sites of significance for fish in their regions (including small and intermittent streams) and to apply more stringent regulations in relation to activities in the beds and riparian margins of rivers and streams to protect both fish habitat and their lifecycles, beyond just the peak spawning period.
39. We **request** that the table in the draft conditions be updated to ensure consistency with scientific advice cited and additional data on fish spawning that is available, add all threatened taxa<sup>7</sup> and allow Councils to identify regionally specific fish species, sensitive spawning periods and locations based on local knowledge and information. Extend the spawning periods covered to take account of uncertainty in the science and regional variation.

### **Sediment effects on aquatic ecosystems**

40. Sedimentation associated with forestry activities can have very significant impacts on freshwater quality and ecosystem health. Suspended sediment directly smothers the feeding and gill structures of invertebrates and gills of fish and is known to reduce fish diversity<sup>8</sup> and cause avoidance behaviour in a number of native fish species, including juvenile banded

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<sup>7</sup> Bowie, S., Pham, L., Dunn, N., Allibone, R. M., Crow, S. K. (eds). (2014). Freshwater fish taxonomic workshop: Focussing on New Zealand non-migratory galaxiid issues: Department of Conservation.

<sup>8</sup> Richardson J, Jowett IG 2002. Effects of sediment on fish communities in East Cape streams, North Island, New Zealand. New Zealand Journal of Marine and Freshwater Research 36: 431–442.

kōkopu<sup>9</sup>. Suspended sediment also reduces the ability of fish to feed<sup>10</sup> and disrupts the natural primary productivity base of the food chain in both freshwater and estuarine ecosystems<sup>11</sup>.

41. Deposited sediment directly affects aquatic life by increasing invertebrate drift out of affected habitat<sup>12</sup>; reduces interstitial spaces, spawning habitat and refugia for aquatic invertebrates and fish<sup>13</sup>; enables the establishment of aquatic weeds, alters bed habitat and can create anoxic conditions. In severe cases estuarine sedimentation contributes to anoxia and mortality of estuarine fauna<sup>14</sup>.
42. The effects of forestry on stream environments are well-documented in New Zealand<sup>15</sup> and identify vegetation clearance and roading and tracking as the greatest generators of sediment during forest establishment. Roding, log landings and mass movement from harvested slopes are the key contributors once harvest has commenced. Between establishment and harvest, roading and tracking continue to contribute surface eroded sediment. Effects on water clarity generally last from harvest until re-establishment of groundcover.

### **General comments on the content of the proposed NES document**

44. Section 1.1 Central government regulation of activities with potential for extensive adverse effects must be developed and presented in an objective, evidence-based and unbiased manner. The wording of section 1 of the document is biased towards the forestry industry and may not be perceived as objective regulation.

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<sup>9</sup> Rowe D, Hicks M, Richardson J 2000. Reduced abundance of banded kokopu (*Galaxias fasciatus*) and other native fish in turbid rivers of the North Island of New Zealand. *New Zealand Journal of Marine and Freshwater Research* 34: 547-558.

Richardson J, Rowe DK, Smith JP 2001. Effects of turbidity on the migration of juvenile banded kokopu (*Galaxias fasciatus*) in a natural stream. *New Zealand Journal of Marine and Freshwater Research* 35: 191-196.

<sup>10</sup> Rowe DK, Dean TL 1998. Effects of turbidity on the feeding ability of the juvenile migrant stage of six New Zealand freshwater fish species. *New Zealand Journal of Marine and Freshwater Research* 32: 21-29.

<sup>11</sup> Rafaelli DG, Raven JA, Poole LJ 1998. Ecological impact of green macroalgal blooms. *Oceanography Marine Biology Annual Review* 36:97-125.

<sup>12</sup> Suren AM, Jowett IG 2001. Effects of deposited sediment on invertebrate drift: an experimental study. *New Zealand Journal of Marine and Freshwater Research* 35: 725-737.

<sup>13</sup> Clapcott JE, Young RG, Harding JS, Matthaei CD, Quinn JM, Death RG 2011. Sediment Assessment Methods: Protocols and guidelines for assessing the effects of deposited fine sediment on in-stream values. Cawthron Institute, Nelson, New Zealand.

<sup>14</sup> Robertson BM, Stevens LM 2007. New River Estuary 2007 Broad Scale Habitat Mapping and Sedimentation Rate. Report prepared by Wriggle Coastal Management for Environment Southland. 34p.

Robertson BM, Stevens LM 2011. New River Estuary 2010/11 Synoptic Survey of Waihopai Arm Sediments. Report prepared by Wriggle Coastal Management for Environment Southland.

<sup>15</sup> Fahey B, Duncan, M, Quinn J 2004. Impacts of Forestry. In: Harding J, Mosely P, Pearson C, Sorrell B (Eds) *Freshwaters of New Zealand*. NZ Hydrological Society and NZ Limnological Society. Caxton Press, Christchurch, New Zealand.

Harding J, Quinn J, Hickey C 2000. Effects of mining and production forestry. In: Collier KJ and Winterbourn MJ (Eds) *New Zealand Stream Invertebrates Ecology and Implications for Management*. NZ Limnological Society, Caxton Press, Christchurch, New Zealand.

45. Section 2.2 The statement: “Generally, adverse environmental effects are well managed as a result of good practice within the industry and existing plan rules.” Is unsubstantiated. Adverse effects of Forestry activities are well known in many areas of New Zealand. There is no evidential basis for the assumption that existing plan rules of good practice are achieving better management of effects.
46. Section 2 lacks an acknowledgement of downstream impacts of forestry and long term impacts on soil structure and fertility. These issues should be acknowledged and included.
47. Table 2: The effects of Afforestation on water yield can be significant. New Zealand has large areas of land that are susceptible to droughts and given that the predicted effects of climate change will exacerbate these effects in many regions, we suggest that serious thought be given to rules around afforestation and maximum tree densities in dry areas. Regional and District Councils probably need some national guidance on this matter and the NES could usefully provide that.
48. Section 3.1 Developing draft rules the Society **supports** the following statement: “The proposed rules and the threshold at which consent is required should be based on up-to date science”. However, we note that it is important to recognise that the information on spawning, migration and fish presence (recorded and/or predicted) is based on existing information, and in several cases the NIWA technical report states that expert opinion was applied, given the limited information available, although considerable expert knowledge was still not included. There needs to be a clear mechanism for advances in available science and information to update the provisions and rules in the NES as it comes to hand (for example: updated information on species distribution, spawning habitat and timing, conservation status).
49. This also applies to the conservation threat status of native fish, which is updated periodically. There needs to be provision for these updates to be incorporated into the NES as they become available (the same point also applies for bird nesting times on the preceding page of the draft rules).
50. Section 3.4 and Table 4 defines where Councils will be able to apply rules more stringent than the NES. The Society **supports** provisions to be more stringent in the Coastal Marine Area, geothermal and karst areas, places of known cultural or heritage values, significant natural areas and outstanding natural features and landscapes, shallow aquifers and where required to meet the objectives of the NPS-FM. However, given the tenuous linkages between the rules of the NES and the NPS-FM, we feel that other receiving waters should be included with the provision made for the Coastal Marine Area. For example, the protection of water quality and quantity flowing into lakes, wetlands and rivers may also require more stringent rules for forestry activities than those provided in the NES.
51. The Society would **support** the inclusion in Table 4 of provisions for Councils to have more stringent rules in relation to a range of freshwater receiving waters (not just the Coastal Marine Area).
52. Table 4: Include another “matter” which allows Councils to use more stringent rules when it is deemed that the rules of the NES are not stringent enough to protect the environment in a particular region. For example, the Erosion Susceptibility Classification (“ECS”), fish spawning

and wilding provisions in the NES have been developed as national tools, but they may not be accurate enough in some regions. Therefore, Councils should be allowed to implement more stringent rules if it is deemed that the NES rules don't adequately protect environmental values in a particular region. This is particularly relevant for Councils that have already identified waterbody values through regional planning processes.

53. The society **does not support** the use of the term “Areas of *mapped* significant indigenous vegetation, significant habitats or indigenous fauna...”. It is problematic to require that all areas are “mapped”, particularly in relation to significant habitats for native fish. A more useful term would be “identified” rather than “mapped”, which would allow for Councils to identify criteria for significance in plans without necessarily mapping all sites. Many Councils have not undertaken the exercise of mapping of fish habitat. Mapping of fish habitat is also problematic because the distribution, diversity and abundance of native fish communities is heavily influenced by factors such as distance from the sea, altitude, presence of barriers to migration, and the mobile nature of many native fish. Difficulties are exacerbated by incomplete or non-existent information on the state of aquatic habitats regionally and nationally.
54. In many cases, the recorded presence of fish species is the only or best indicator for whether a site, reach, wetland or lake is a significant habitat. The main disadvantages to using a species-based approach to determine significance are: not all waterways can be sampled and areas of high significance may be missed; sampling is biased towards accessible sites and sites that are more likely to contain native fish; presence of fish during surveys may be affected by season or life-cycle stage; fish that are sampled may be ‘on the move’ between critical or significant habitats; and the presence of fish does not necessarily indicate health of the population or recruitment success over time due to source and sink effects or Allee population effects<sup>16</sup>.
55. A predictive modelling approach has been used in conjunction with NZ Freshwater Fish Database records, however the model is only used to assess risks to spawning of a limited number of species and is of limited value in identifying significant habitats of native fish. Currently we are aware that many fish survey results are not submitted to the NZFFD so restricting the NES to using this data is omitting a large pool of data.
56. Additionally, requiring Councils that have identified significant habitats for native fish to apply more stringent rules through a plan change Schedule 1 process (where these rules may already exist within the plan) will allow re-litigation of methods, at significant costs and resources for all parties, to address protection of significant habitats that are already in plans as part of meeting Councils obligations to recognise and provide for section 6(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna. Where these methods already exists in plans and where it is possible within the constraints of section 33 of the Act and the criteria of the NES are met, more stringent rules should remain operative and not require an additional Schedule 1 process via plan change.

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<sup>16</sup> Allee effects are broadly defined as a decline in individual fitness at low population size or density that can result in critical thresholds below which populations crash to extinction.



57. Provision to allow Councils to apply more stringent rules in the CMA should be flexible enough to be able to be applied to Inanga spawning habitat, on margins of estuaries and coastal streams without requiring a Schedule 1 plan change process.
59. Section 3.5 Applying the rules. Three environmental risk assessment tools are proposed for us in determining the level of risk and therefore whether an activity is permitted or not. They cover erosion susceptibility, wildling spread and fish spawning and migration. The Society advises that the environmental effects of production forestry are more wide-reaching than this, for example water yield and nutrient cycling. The Society **does not support** the exclusion of water yield from the scope of the NES. As well as impacts on water supply, hydrological alteration due to afforestation also has the potential to impact on mudfish habitat (as discussed in the NIWA technical report). It also has the potential to impact instream habitat for fish and their invertebrate food supplies.
60. Section 3.5.2 Fish spawning calculator. It is unclear why only 21 of the 41 species assessed in the NIWA report are included in the NES and why migration and resident fish were excluded from consideration. The society requests these issues are addressed throughout the document. Additionally, while it is useful to focus management on sensitive periods, the knowledge of spawning timing and migration is limited for many species. The Society prefers an evidence-based approach along multiple lines of science and research, which could usefully include a habitat susceptibility assessment as well.

### **Accuracy of the Erosion Susceptibility Classification system**

61. The Erosion Susceptibility Classification (ESC) system is critical to interpretation of the NES conditions. The ESC is used as the key reference to define the activity status of most forestry activities, notwithstanding the fact that all listed activities are permitted with conditions, aside from four activities<sup>17</sup> in very high ESC zones and one activity (earthworks) in high ESC zones where the slope is greater than 25°.
62. Deriving an accurate classification of erosion susceptibility over the majority of such a geologically and geographically diverse country as New Zealand is undoubtedly a difficult task. Unfortunately, (but not surprisingly) the ESC is not perfect, and local scale 'ground-truthing' should be allowed for within the NES.
63. For example, in the Maitai catchment in Nelson, one tributary (Sharlands Creek, which is sourced from a catchment predominately under plantation forestry) has been repeatedly identified in scientific and monitoring reports as being a major source of sediment inputs to the lower river<sup>18</sup>. A recent report to Nelson City Council<sup>19</sup> stated that of the exotic forestry in the Maitai catchment "*over 68% is on argillite or greywacke hill country and nearly 32% on ancient volcanics. The ancient volcanics are generally located in the lower reaches of the Maitai (i.e.*

<sup>17</sup> Afforestation, earthworks, quarrying, and harvesting.

<sup>18</sup> e.g., Hicks M, Hoyle J 2015. Maitai River Gravel Management Study. Prepared for Nelson City Council NIWA Client Report No. CHC2015-053, 63p; Allen C, Holmes R, Shearer K 2013. The Impact of the Maitai Dam on River Health Relative to Other Catchment Pressures: A Review. Prepared for Nelson City Council. Cawthron Report No. 2371. 30 p. plus appendices. ; Crowe A, Hayes J, Stark J, Strickland R, Hewitt T, Kemp C 2004. The Current State of the Maitai River: a Review of Existing Information. Prepared for Nelson City Council. Cawthron Report No. 857. 146p. plus appendices.

<sup>19</sup> LandVision Ltd. And Moore & Associates. 2014. Review of forestry, Nelson City Council. Draft report prepared for NCC. 24p.

*around Sharlands Hill and up the western side of Sharlands Creek) and observations show that it produces a lot more clay or finer material compared with soils developed on argillite or greywacke”.*

64. However, the difference in erosion susceptibility within this catchment is not reflected in the ESC, which classifies the vast majority of the Maitai catchment in the yellow/moderate ESC zone. The Society **requests** Councils are allowed the flexibility to apply more stringent rules in relation to local conditions.
65. The Society are also concerned that the ESC is a tool developed specifically for pasture, not forestry. We don't believe that the erosion risks represented by “pasture” reflects accurately the risks represented by “forestry”. The erosion risks of these two activities are quite different in terms of their nature, timing and intensity. To make the rules of the NES more robust, we would like the ESC to be recalibrated to specifically assess the risk of erosion due to forestry activities. We also believe it needs to account for regional differences in climate, geology, soils and the type of forestry undertaken.
66. The ESC, as used in the NES, was “updated”, to make it less conservative, by ignoring sub-dominant erosion risks in Land Use Capability Classes (“LUCs”) where more than one erosion risk was identified. This means the ESC is overly permissive, by ignoring potential significant erosion risks within some LUCs. This opens up significant potential for substantial environmental effects to occur because small areas of erosion can create large environmental impacts. We feel strongly that the original conservative approach of the ESC was more appropriate for environmental protection and we would **support** the NES if the **original ESC approach** were used.
67. Figure 1: The threshold of 25° under the orange classification seems high and has not been justified. Clear-felling on land this steep should not be permitted in order to conserve soil and reduce erosion. As an example to assist policy makers in understanding how steep a 25° slope is, Baldwin Street, New Zealand's steepest street, has a slope of 19°.
68. Section 7.3 details the timeframes for implementation. This section states that Councils will be responsible for gathering data for MPI so that an assessment of effectiveness can be made against the objectives of the NES. Monitoring against objectives requires consideration of performance measures and monitoring programmes prior to setting objectives and implementing the NES. MPI should be considering what environmental performance measures can be monitored at the national level to validate assumptions that the NES will result in more certain and positive environmental outcomes.
69. The Society advises MPI that there are two areas important to monitoring effectiveness to deliver outcomes in the freshwater environment: 1) native fish, and 2) sedimentation. Consideration for monitoring environmental outcomes in relation to these measures must be undertaken prior to implementation so that relevant data can be collected over time.
70. The definition of a perennial river or stream within the glossary is not broad enough: “A stream that maintains water in its channel throughout the year or maintains a series of discrete pools that provide habitats for the continuation of the aquatic ecosystem”. This definition ignores the hydrological structure associated with stream channels. Flows are often hyporheic during dry

periods (flowing through the zone beneath the bed of the stream but above the groundwater). Aquatic life utilises this hyporheic zone for refuge and as part of reproductive phases. Access to these environments in an un-impacted state is critically important for aquatic biodiversity. During dry periods even perennial streams will only flow through the hyporheous and may be mis-classified as intermittent or ephemeral.

### **Effects on wetlands**

71. The Society concerned that the NES provisions relating to wetlands fall well short of achieving the clear national requirement of protection:
72. Setbacks are only required from wetlands larger than 0.25 hectares. The RMA definition of wetlands includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions. There is no minimum size. Small wetlands can have very high ecological values and there is no basis for allowing them to be degraded or destroyed by forestry activities.
73. The setback from wetlands is only 5m. This is completely inadequate to protect wetland habitat, particularly when combined with the permitted status of riparian disturbance. The Scion report states that there is limited scientific information on the performance of a 5m riparian buffer in mitigating the effects of forestry activities on riparian areas and stream environments, and discusses the inadequacy of buffers of <10 metres in resisting adventive pioneering species.
74. Non-compliance with wetland setbacks should be a non-complying activity.
75. Permanent crossings may be installed in wetlands of less than 0.25 hectares as a permitted activity. The rationale is to prevent permanent crossings being installed on large wetlands, so as to protect the significant values of these wetlands. The reasoning behind only protecting the values of large wetlands is not clear. Permanent crossings will have very significant impacts on the hydrology and ecology of small wetlands.
76. Temporary crossings also have the potential to damage wetlands, and should only be allowed where the operator has demonstrated that they will not harm the wetland's values.
77. Activities that alter a wetland's hydrology (for example by altering water flows or the water table) are permitted by implication, and Councils are not able to be more stringent in order to protect wetlands from such activities.

### **Riparian vegetation**

78. Riparian vegetation also deserves special protection because of its contribution to natural character of water bodies. Protection of natural character of rivers and their margins, like wetland protection, is a matter of national importance.

## **Proposed rules and permitted activity controls**

### **Tiered approach to activity status to reflect gradient of risks**

79. The activity status for listed forestry activities does not vary much between erosion susceptibility classes. Given the level of variation in draft permitted conditions between ESC classes, it would have arguably been more appropriate to simply specify two classes (e.g. high and low erosion susceptibility). Given the four levels of erosion risk in the existing ESC a tiered approach to activity status reflecting the gradient of increasing risk of adverse environmental effects would be more defensible. A more reasonable approach might be to apply permitted activity status in the green (low ESC) zone and in the yellow (moderate ESC) zone where slopes are less than 25°, controlled status in the yellow (moderate ESC) zone greater than 25° and orange (high ESC) zone less than 25°, and discretionary status in the higher ESC zones.
80. In addition, it seems incongruous that under the existing draft rules that in Orange (high ESC) zones where slopes are greater than 25° earthworks is a restricted discretionary activity, whereas forest quarrying is permitted.
81. Notwithstanding the issue of accuracy with the ESC zones discussed above, the draft conditions should be redrafted to provide a tiered system of activity status that more closely reflects differences in the ESC and associated environmental risks (e.g. permitted activity status in the green (low ESC) zone and in the yellow (moderate ESC) zone where slopes are less than 25°, controlled status in the yellow (moderate ESC) zone greater than 25° and orange (high ESC) zone less than 25°, and discretionary status in the higher ESC zones).

### **Harvest Plans, Quarry Management Plans, and Erosion and Sediment Control Plans**

82. Harvest Plans, Quarry Management Plans, and Erosion and Sediment Control Plans are required to be prepared for harvesting, quarrying and earthworks, respectively. The requirements of these plans is broadly described yet it is unclear whether the plans will adequately capture the effects and provide robust mechanisms to avoid, remedy or mitigate adverse effects on the environment, as required by section 5 (2)(c) in the purpose of the Act.
83. The role of Councils is restricted to being advised when activities will begin and having the plans made available to them, on request. There is no provision for Councils (or any other body) to certify plans as adequate.
84. A related point is that the NES draft rules will result in reactive, rather than preventative, environmental protection. Where activities are permitted they are able to proceed without Council approval. Consequently, most activities will be able to proceed as permitted activities, until they are shown to breach a condition (through monitoring). By this time substantial environmental damage may have already been done. Forestry activities such as earthworks, quarrying and harvesting are irreversible and are often large in scale and happen very quickly. Remediation of environmental damage can be very costly and time consuming (as demonstrated by the nutrient enrichment problems in the Rotorua lakes, associated with land-use practices, which have proved very costly to tax-payers and the environment).

85. Commensurate with this concern is the lack of scale threshold for forest quarrying, which allows for forest quarries of any scale and size to operate as permitted activities under quarry management plans. Quarrying operations for other purposes/industries are not allowed to operate as permitted activities in most parts of the country.
86. The Society requests the provision in added to ensure that the content of management plans is clear and linked to avoidance, remedy or mitigation of effects. Plans should be made available to Councils by default, unless waived. Provision should also be made for Council to certify whether the plans meet requirements and to require amendments to ensure they are adequate **before** the activities are permitted to proceed.

## Bed disturbance exclusions

87. Even during the 'peak spawning periods' listed, bed disturbance in the form of vehicle crossings and log hauling (in streams <3m wide) are still permitted. Given that the NES is supposedly science based<sup>20</sup>, is there any evidence to suggest that these activities present any less risk of adverse impacts than other instream works, or is their exclusion simply a matter of expedience/convenience?
88. With the allowance of vehicle crossings and log hauling through streams less than 3 m wide the NES fails to recognise that a number of nationally critical and nationally endangered and nationally vulnerable fish species reside predominately in small streams < 3 m wide and these species require protection. Two of these threatened species, dusky galaxias, Eldon's galaxias have suffered a number of extinction events due to forest harvesting activities that have impacted on small streams. Other small stream species such as Taieri flathead have also suffered significant declines due to harvest activities. It is essential the NES recognise that small stream provide important habitat for a range of native fish including many threatened taxa and if the objective is to protect significance habitat these small stream require protection.
89. The Society requests a deletion of the exclusions under clause 2 of the fish spawning general conditions (page 84 of the hardcopy consultation document), unless clear scientific evidence is presented to support these exclusions.

## Other controls

90. The Society **supports** applying setback distances from rivers, lakes, wetlands and the CMA for Afforestation, Earthworks, Mechanical Land Preparation and Replanting and the 20m setback in relation to forest quarrying. The Society also **supports** the inclusion of terrestrial and aquatic biodiversity and ecological effects (including effects on water quality) as matters of discretion for these activities when they occur within setbacks or in land classes where the activity is not automatically permitted. It would be useful to align the language better across the matters of discretion and permitted activity conditions so that clear guidance can be provided on what types of effects fit these criteria once the NES is operative.
91. The Society **does not support** Harvesting activities having no setback distances from rivers, lakes, wetlands and the CMA. The Society considers the Harvest Management Plan and permitted activity controls are insufficient to manage the potential adverse effects of harvest on the aquatic environment.
92. Riparian setback zones are of greatest importance during and following harvest, to maintain stream shading and sediment interception in particular, to support healthy freshwater ecosystems. Increased river water temperatures, that occur when riparian margins are removed as part of the harvest, can have long term negative effects on freshwater invertebrate communities and fish spawning, which is well documented in NZ. No felling into or across these

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<sup>20</sup> One of the four principles underlying the NES draft rules is that "Understanding the risk of adverse effects on the environment around the country should be informed by up-to-date science."

zones should be permitted as of right, they should be controlled activities subject to case specific consent conditions and monitoring.

93. Stabilisation and containment following earthworks activities should be required to occur much sooner than the 12 month permitted activity condition. Stabilisation and containment of areas potentially contributing sediment to waterways is critical to reduce the ongoing environmental effects following earthworks.
94. The document is inconsistent around whether tracking is included as earthworks or not – this requires clarification throughout the document.
95. Pruning and thinning to waste risks are defined as: “Pruning and thinning-to-waste typically have **minor** environmental effects limited to issues with where the pruned or thinned material is deposited...” Effects on aquatic life from pruning and thinning to waste can be significant (and certainly more than minor) if prunings and thinned trees are allowed to fall into water courses and depending on the scale and severity. The Society **does not support** the use of the term “minor” within the definition of the risks and requests it is removed from this section.
96. The permitted activity condition requiring debris not to be deposited in perennial water bodies should apply to **ALL** waterbodies. The Society **does not support** the permitted activity status only applying to perennial water bodies for the reasons stated above. Additionally, the term “practicable” should be removed from the note regarding removal of slash to read “Slash should be removed from a water body only if it is safe and ~~practicable~~ to do so.”
97. Setback distance for replanting should relate to **ALL** water bodies not just perennial water bodies, to avoid future effects on the aquatic ecology of intermittent streams.
98. An intermittent stream is hydrologically connected to downstream perennial channels, but may not have standing pools above ground. Above-ground flow may cease at times of the year when rainfall is low. Intermittent streams have a defined streambed, often covered with a hard substrate (eg. gravels, cobbles or bedrock) under natural conditions, regardless of the channel width. Many of these intermittent streams would be identified on a topomap or REC as first order streams, and thus should be identifiable by foresters prior to a site visit to confirm.
99. Intermittent streams are the beginnings of the catchment. Water quality impacts to intermittent streams (such as sediment discharge) contribute significantly to increasing cumulative water quality issues downstream in perennial rivers. Intermittent streams are also extremely important ecological habitats for aquatic life and play an important role in maintaining aquatic and terrestrial biodiversity. Macroinvertebrates and native fish take refuge in intermittent streams when conditions are unsuitable downstream and for some species (including national vulnerable taxa like lamprey and shortjaw kōkopu) the riparian vegetation alongside headwater intermittent and perennial streams are important spawning habitats during autumnal freshes. It is important that destructive forestry activities are set back from intermittent streams.

## General conditions

100. The relationship between the general conditions and other controls requires clarification. General conditions should apply “in addition to” general controls.
101. Standard provisions require bunds and other mitigation measures for refuelling and storage of fuels and other chemical on forestry sites should be included as permitted conditions. Rather than *minimising* the risk of fuels entering waterbodies, the more appropriate term would be to *avoid* fuels entering water.
102. The Society **does not support** the permitted activity provisions relating to vegetation clearance and disturbance. In our view these conditions are entirely unacceptable and should be rewritten to ensure erosion and sedimentation of waterbodies, effects on riparian vegetation and adverse effects on indigenous biodiversity (terrestrial and aquatic) are avoided. Additionally, vegetation clearance is not just a District jurisdictional matter but is a core Regional function as well. The table should acknowledge this appropriately.
103. The Society **does not support** the provision relating to spatial bundling. Spatial bundling should relate to the most erosion-prone ESC class, not the least as significant sedimentation effects on water quality can occur from even small areas of highly erosion prone land.
104. The Society **does not support** the limited provisions relating to bed disturbance of permanently flowing streams or rivers as a permitted activity. The conditions are ill-informed and lack sufficient science foundation or evidential basis. There are far more native fish species of significant conservation value than the species listed in the table. All New Zealand’s native fish fauna are susceptible to sediment to a greater or lesser degree and this susceptibility is not just related to spawning times. Resident fish and juvenile recruitment are also adversely affected by sediment and the extent of effects downstream depends on the scale and severity of the sedimentation events, but in most cases will likely exceed more than 1km of river length.
105. The Society **does not support** the exclusions 2a and b of fording or partially suspended hauling as bed disturbance activities. These activities clearly disturb the bed and the width of the river is not a relevant threshold for how significant the effects generated by these activities are.
106. The Society **does not support** the exclusion at 3 applying to bed disturbance activities when a fish survey within the last 12 months has not found species listed at 1c. Many taxa in New Zealand’s native fish fauna are highly mobile, due to their diadromous (migratory) life-histories.
107. The Society **does not support** slash traps that are not constructed or maintained in a fish passable manner. The provision for slash traps must include a condition relating to fish passage.
108. Matters of control for general conditions should include specific reference to aquatic ecology, in addition to the conditions already listed. The Society requests this matter is included.



109. The Society **supports** the exclusion of permitted activity status for fords in waterways identified as habitat for threatened indigenous fish or for fish spawning (indigenous or native fish) and the matters of control related to the effects of river crossings on aquatic ecosystems including fisheries and indigenous biodiversity.
110. The ability to be more stringent in relation to outstanding water bodies needs to be clarified. Will the application of more stringent rules require further Councils to undertake Plan Change processes? Water Conservation Orders (“WCOs”) should also be added into this table, WCOs are mentioned within the text of the document (Table 4) in relation to more stringent rules for outstanding water bodies but has been omitted from the rules section of the document. The Society requests that WCO be added into this table if it is to be used as the definition of the rules in the operative NES. Reference is also needed to the NPS Freshwater.
111. Allowance for more stringent rules in relation to forestry activities on land associated with shallow aquifers should apply to all forestry activities, particularly afforestation and replanting, rather than just forest quarrying. This is inconsistent with the provisions to be more stringent listed in Table 4 within the document.

## Errors

112. There are several other apparent typos, which if left uncorrected would make the intent of the rules ambiguous or confusing. For example, page 64 of the hardcopy consultation document states: “Permitted activity conditions for earthworks for road widening and realignment for safety purposes includes a condition that “the volume moved is more than 5000 m<sup>3</sup> per activity area”, presumably this should be “is not more than...”?
113. Additionally, page 72 of the hardcopy consultation document states: ““Mechanical land preparation is permitted: ...in Orange and Red zones where the slope is greater than 25 degrees but the technique used affects the subsoil” presumably this should read “but the technique used does **not** affect the subsoil”, since on the following page mechanical land preparation is listed as Restricted discretionary for these same zones and slope conditions where “the technique used affects the subsoil”.
114. Page 75 of the hardcopy consultation document states: “Quarrying is permitted in all zones except Red Zone where the ESC identifies land as having the potential for severe or very severe earthflow or slump erosion, provided the permitted activity conditions are met”. Whereas the next page states that quarrying is a controlled activity in these same zones, or where any of the permitted activity conditions (except property setbacks) cannot be met. It is not clear whether permitted or controlled activity status is intended to apply here.

## **Conclusion**

115. The NZFSS does not support the NES in its current form and request that our comments within the submission are included in the operative document. The Society are happy to provide support and advice to MPI in implementing our suggested changes in a constructive manner through the Executive Committee.

A handwritten signature in black ink, appearing to read 'M. Schallenberg', with a long horizontal stroke underneath.

Dr Marc Schallenberg

**President**

**For the New Zealand Freshwater Sciences Soc. (Inc.)**

A solid grey rectangular box, likely a placeholder for a stamp or additional text.

Submission to:

NES-PF Consultation  
Attn: Stuart Miller  
Spatial, Forestry and Land Management  
Ministry for Primary Industries  
PO Box 2526  
Wellington 6140

email: NES-PFConsultation@mpi.govt.nz

## **A National Environmental Standard for Plantation Forestry Consultation Document; June 2015: Submission**

Contact details for this submission are:

Submitter: New Zealand Institute of Forestry - Te Pūtahi Ngāherehere o Aotearoa  
Incorporated

Address: [Redacted]  
[Redacted]  
[Redacted]

Submitted by: James Treadwell - President NZIF

Contact: James Treadwell  
NZIF President  
[Redacted]  
[Redacted]

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## Introductory comments

1. Thank you for the opportunity to submit on the National Environmental Standard for Plantation Forestry
2. If required the New Zealand Institute of Forestry wishes to be heard in support of its submission.

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## About the Submitter

3. The New Zealand Institute of Forestry (NZIF) was founded in 1927 and has 850 members who are the individual professionals in forestry in New Zealand. Its object is to advance the profession of forestry in New Zealand and to be an independent advocate for forestry.
4. NZIF is committed to serving the practice of forestry and the wider community through education, accountability and its code of ethics and performance standards. It fulfils a quality assurance role, setting the benchmark for professionalism and the quality of advice and practice by which members and others in the profession are measured.
5. NZIF members are concerned with the professional management of all forests, plantation and natural, conservation, protection and commercial. They can be found in forestry companies, consulting businesses, research institutes, educational facilities, government departments and providers of specialist services. The members' qualifications and areas of expertise reflect the diversity of disciplines involved in managing a modern forest resource from traditional forestry degrees through science, economics, law, micro- biology, hydrology, engineering and resource management. The NZIF operates the scheme that controls the registration and conduct of forestry professionals, including consultants who provide forestry advice to the public.

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## General Comments

6. NZIF supports the development and adoption of the Proposed NES for forestry. Plantation forestry offers significant economic, environmental and social benefits to New Zealand. Facilitating forestry by standardising the regulatory requirements is therefore of significant benefit to the country as well as consistent with the principle applied by the authors in preparing this NES, "where appropriate, activities should be "permitted" (that is, not need a consent), provided conditions are met."
7. NZIF acknowledge the efforts and expertise of all those involved in the preparation of this proposed standard and support those parts of the standard not commented on more specifically below.

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## Submission

### Afforestation versus Replanting

7. “Afforestation” is associated with significant environmental and economic benefits, as evidenced by the Parliamentary Commissioner for the Environment (PCE) expressing concern as recently as June 2015 on declining rates of afforestation in New Zealand. The 2015 Discussion Paper on MPI’s Permanent Forest Sink Initiative states that “Forests are an essential part of global ecosystems, and deliver a wide range of environmental and economic benefits.”
8. A large number of studies exist to support the proposition that afforestation and therefore forestry is consistent with the “sustainable management of the environment” purpose of the RMA. For example a 2004 NIWA report identifies the need for an estimated 64,000 hectares of forestry in order to reverse declines in water quality in the Waikato catchment. Restoration of water quality within the Waikato catchment is a statutory commitment.
9. The Discussion Document (Table One, page 14) lists “replanting” as having similar adverse effects to “afforestation” and less of the effects that can be associated with other related aspects of forestry such as roading. We contend that the identification of replanting as an adverse effect is unjustified. We are concerned that the adverse effects of NOT replanting have not been afforded due weight, including potential liability for emissions costs under the Climate Change Response Act, the potential for adverse effects associated with forest conversion such as nitrate pollution and the impacts of loss of critical mass on both the forestry and wood processing parts of the sector. Extrapolating comments by NIWA and the PCE suggest that not replanting is contrary to the statutory expectation of sustainable management under the RMA and potentially an adverse effect in some areas and catchments. To constrain replanting in any way could lead to an increase in the “more than 1 million hectares of marginal pasture land” that the Government is targeting for afforestation through the PSFI.

### Relief sought

- 9.1.Delete ‘replanting’ from Table One list of adverse effects of forestry.
- 9.2.Recognise ‘replanting’ as an existing use in areas where it is the current land use.

### Section 3, Box 7(c)(iv); Proposed definition of ‘plantation forestry’

10. The proposal is to exclude fruit and nut crops from the definition of plantation forestry. The rationale for the proposed exclusion is not strong. ‘Plantations’ of trees are planted, tendered and periodically removed and replaced for many reasons including wood, fire wood, fruit, and UMF honey. The potential adverse effects of replacing an area of fruit trees or flowering Mānuka are no different to those described in Table One for plantation forests on the same class of land. The adverse effects of orchard plantations including those related to water yield and summer ‘low flow’ in water-short

catchments are no better and potentially worse than traditional plantations to the extent that orchards may create an irrigation demand. The exclusion of 'crop' trees from the definition of plantations covered by the proposed NES could create confusion and unnecessary regulation of plantations planted and managed for other 'crops' such as Mānuka honey.

### Relief Sought

10.1.Delete "(iv) fruit and nut crops" from Box 7(c) in section 3.

### Environmental risk assessment tool 3 - wilding spread risk calculator.

11. The Proposal is to require councils and land owners to limit afforestation to those areas and species deemed suitable to a "wilding spread risk calculator" available on MPI's website. The justification for this proposed constraint is the "...potential for conifers to affect landscape values, conservation and biodiversity values, existing land uses, future land use options (and) catchment hydrology".
12. There is no explanation as to why the effects listed with respect to afforestation with conifers are not of equal concern with other species. Other trees including deciduous broadleaf trees will affect future land use options and hydrology including summer low flow to an equal or greater effect as a conifer. There is no explanation as to why the 'noxious plant' effects of conifers in plantations of 1 hectare or more would not apply to the same species grown in a shelterbelt of 30 meters or less width.
13. There is inadequate justification for the separate treatment of wilding plantation conifers as compared to any other noxious plant and no discussion of possible duplication of or confusion between the proposed NES and current and future Regional Pest Management Strategies. Section 3.5.3 appears contrary to the intended purpose of the proposed NES, being the streamlining and minimisation of regulatory impediments to forestry.

### Relief Sought:

- 13.1.amend the Proposal to remove all doubt that the NES and in particular Section 3.5.3 precludes the application of Regional Pest Management Strategies to existing plantation forest stands, and;
- 13.2.delete Section 3.5.3 and other references to conifer plantation forest as posing a separate and distinct adverse noxious plant effect.

### Genetically Modified Tree Stock

14. NZIF supports the explicit recognition of EPA-approved GM tree stock as a permitted activity. We consider GM technologies offer significant opportunities for forestry and New Zealand's other biologically based industries and is likely a co-request to achieving the Government's economic goal of doubling export receipts. In additional to

the economic benefits, GM technology has the potential to cost effectively address some of the aspects of forestry identified as requiring control, including under the proposed NES. A specific example is 'wilding spread', where GM technology could allow the deployment of trees incapable of pollen and or cone formation and therefore be incapable of unintended distribution and establishment. The potential financial value of GM technologies is illustrated by the same example, where results from indirect trials have supported the hypothesis that sterility could boost wood and fibre production by diverting metabolic effort from reproductive aspects of plant growth.

15. NZIF endorses the statement in the discussion document that "...the EPA is best placed to evaluate the risks of genetically modified organisms..." We contend that technical and specialist aspects of GM technologies are beyond the capability of even the larger Councils and that duplicating such expertise as is needed for accurate assessments across all Councils would amount to significant regulatory inefficiency.

### Relief Sought

- 15.1. We support retention without modification of those provisions of the proposed NES related to GM tree stocks.

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### Conclusions

16. Notwithstanding the specific submissions above, NZIF supports the adoption of the Proposed NES for forestry and commends the efforts of all those involved in its preparation and promulgation.

Yours sincerely



James Treadwell





New Zealand  
**Planning Institute**<sup>®</sup>  
Te Kokiringa Taumata



**The New Zealand Planning Institute's Response to the Proposed  
National Environmental Standard vis a vis Plantation Forestry**

7 August 2015

## **1. Introduction**

The New Zealand Planning Institute (NZPI) welcomes the opportunity to provide comment on the Proposed National Environmental Standard for Plantation Forestry (NESPf).

Established in 1949, NZPI is the professional organisation representing planners and planning practitioners throughout New Zealand. NZPI is the “home of the planning profession and achieves a better future for NZ by championing the profession, promoting excellence and supporting its members. It aspires to empower planners and promote excellence.” NZPI membership is broad, and individuals within our organisation have a varied range of opinions and experiences which underpin this submission.

This submission is the product of consultation with all members. This submission may not necessarily reflect the views of individual NZPI members, but rather, it reflects the views of a range of members, including minority views.

We provide our submission at a high level, on the knowledge that many of our members have made more specific detailed submissions.

## **2. General Intent of the NESPf**

NZPI acknowledges the objectives of the NESPf; being to remove unwarranted variation, improve certainty of RMA processes, improve certainty about environmental outcomes and contribute to the cost-effectiveness of the resource management system. NZPI concurs that there is room for standardisation of practice within the industry and that such standardisation would provide better certainty for applicants, councils and the general public.

NZPI would ask that MPI consider a number of matters which have been raised by our members. Key amongst those is the fact that the objectives of the NESPf do not include the achievement of better environmental outcomes.

Some of our members also consider that there is a lack of rationale provided as to why a national environmental standard is being developed for plantation forestry when there are other activities that have the same or similar effects. The premise of the RMA is on managing effects, rather than the management of activities. As an example, some of our members do not understand the rationale that sees earthworks rules, sediment discharge rules or river crossing rules for forestry varying from those for farming or for subdivision. Some NZPI members consider that there are far greater opportunities for standardisation in respect of looking at providing greater consistency and certainty across matters such as earthworks, sediment discharge and river crossings than limiting consideration to a singular activity.

NZPI recommends that the Crown consider:

- whether taking an activity based approach to managing effects is appropriate; and
- the potential impact that the proposed NESPf may have on plan development and resource consent assessment in terms of the permitted baseline.

## **3. Alignment with the RMA and national direction**

Some members of NZPI have expressed concern that the NESPf does not “talk to” or is not aligned with

other national direction, leading to confusion and uncertainty. In particular, the NESPF does not appear to be aligned with the National Policy Statement for Freshwater Management (NPSFM), regional councils' statutory responsibilities to manage the risks of pest species and regional council and territory authority responsibilities in respect of matters contained in sections 6, 7 and 8 of the RMA. A potential risk of this lack of alignment is for example, the development of effects gaps within the NESPF and that fail to provide councils with the ability to impose more stringent provisions where there are potential effects on all the matters contained within sections 6 to 8.

NZPI recommends that the Government consider these potential areas of misalignment before progressing further. NZPI also notes that regional councils and their communities are engaged in giving effect to the NPSFM and have until 2015 to do so with their communities and stakeholders and that the NES, may intrude upon that engagement.

#### **4. Regulatory Framework and Cost Recovery**

Another major concern of some of our members is that the regulatory framework proposed in the NESPF would result in significant costs to determine compliance, with no available mechanism to recover the costs of such assessment. There is concern that the NESPF places emphasis on remedying adverse effects with very little emphasis on avoiding adverse effects in the first place. This emphasis on curative remedies rather than preventative ones does not sufficiently protect environmental values or enable better environmental outcomes.

Another area of concern is the use of the Land Resource Information (LRI) dataset to produce the Erosion Susceptibility Class map which forms the framework for the NESPF; in particular it is perceived to possess a number of deficiencies for the purpose intended. Members question if more up-to-date slope stability software can be used to produce a more detailed and reliable national map of erosion susceptibility. They are of the view that there is sufficient data and information available to perform this for the whole country and that LiDAR data is not required to do this.

In respect of the proposed rules, some members consider that they do not sufficiently match the erosion susceptibility even as currently mapped. In particular, they note that the rules relating to Erosion Susceptibility Classes 'Low', 'Moderate' and 'High-Under 25 degrees' are all identical despite the fact that on the ground, the erosion risks increase through these classifications.

Under the NESPF, councils would need to assess proposals for plantation forestry activity within their districts/regions in order to decide whether consent is required, as well as monitor existing plantation forestry activities for compliance with the NESPF. Given the design of the NESPF, this would take considerable council time and resources, in effect it is a cost imposition on councils and ultimately on the ratepayer.

With no current ability to recover such costs, this places a significant burden ultimately on the ratepayer to ensure that plantation forestry operators are complying with the NESPF; that is, the ratepayer would be subsidising the assessments and monitoring required to determine the activity status of plantation forestry and compliance with the NESPF. While it is acknowledged that there are social benefits arising from good plantation management, it appears unfair and inequitable for ratepayers to be bearing the burden of the costs of monitoring and enforcing compliance where there is a risk of operators externalising environmental impacts.

Further, some of our members consider that with reduced means for council input and control, no measurable thresholds, a reliance on a permitted activity framework, and with such an overwhelming

proportion of the country covered by this regime, it means adverse effects can occur before any meaningful constraints can be applied. There is concern that the NESPF is enabling a voluntary Code of Practice to be embedded as a permitted activity, undermining the purpose and integrity of the RMA.

NZPI notes that the NESPF relies upon complex assessments and judgements to be made to determine activity status. The resulting determination of activity status is likely to be open to interpretation and dispute, which has the potential for costly delays. Again, there is concern that these delays would be in part at the expense of the ratepayer.

NZPI questions the workability and reliance placed on highly specialised assessments. Some of the assessments required, such as for wilding tree dispersal and fish spawning, require detailed knowledge of environmental and biological science. It is unlikely that many councils or forestry operators have the capability to undertake such assessments themselves. This again adds to the costs and complexities when determining if a matter is permitted or not, and may act to deter councils and forestry operators from undertaking them altogether, thus undermining the whole intent of the NESPF.

Another matter raised in respect of the workability of the NESPF was whether councils would have the ability to require changes to plans that must be provided in advance of operations commencing, including requiring amendments or resource consent if conditions are not being met. There appears to be gaps in the regulatory framework proposed that require addressing. In particular, there is concern that adverse effects will still occur in the three zones, despite the need for erosion and sediment control plans and for earthworks and harvest plans for harvesting, as any requirement to obtain a resource consent is only triggered by non-compliance with the permitted conditions. In other words, an adverse effect has to occur before a council can require a consent or changes to harvest and/or erosion & sediment control plans.

As it stands, a plantation owner is only required to make a harvesting plan and/or an erosion & sediment control plan available to the council. While they are required to notify the council, they are not specifically required to submit these to the council – councils will have to proactively request the plans. Some members believe this will inevitably lead to an increase in non-compliance with NES conditions and complaints about operations. In addition, if the council determines that one of these plans is unsatisfactory, there is no process under the permitted activity status to do so.

Finally, many of our members are concerned that some of the permitted activity provisions require subjective assessments and as such, do not have the necessary level of certainty to meet the standards set by case law for permitted activities. NZPI recommends that the provisions are assessed against the tests for permitted activities set out in the Environment Court decision on *Carter Holt Harvey vs Waikato Regional Council A123/08*, being that a permitted activity must:

- (a) be comprehensible to a reasonably informed, but not necessarily expert, person;
- (b) not reserve to the Council the discretion to decide by subjective formulation whether the activity is a permitted activity or not; and
- (c) be sufficiently certain to be capable of objective ascertainment.

That same decision sets out further tests for a permitted activity as being that a permitted activity must:

- be clear and certain
- not contain subjective terms
- be capable of consistent interpretation and implementation by lay people without

- reference to council officers  
not retain later discretions (decision making) to council officers

NZPI recommends that the Government also consider elevating the permitted activity framework to a controlled activity so as to provide certainty, consistency and a mechanism for councils to assess applications, seek changes to erosion and sediment control plans and harvest plans and recover associated costs. It would also provide greater certainty for operators and the wider public, and assist to achieve better environmental outcomes.

### **Contacts**

NZPI appreciates the opportunity to respond to the proposed NES and hopes that its views will be considered as a constructive contribution to the development of this important guidance document.

Should you have any queries please do not hesitate to contact either Bryce Julyan, Chair of NZPI ( [REDACTED] ) or Susan Houston, CEO of NZPI ( [REDACTED] ) or [REDACTED]  
[REDACTED]

Yours sincerely



Susan Houston  
CEO





10 August 2015

Spatial, Forestry and Land Management  
Ministry for Primary Industries  
PO Box 2526  
Wellington 6140

Attention: Stuart Miller

Dear Stuart

**National Environmental Standard for Plantation Forestry - Consultation document June 2015**

The NZ Transport Agency recognises that plantation forestry is an important industry that delivers significant economic and social benefits to New Zealand. The Agency commends the efforts that the industry is making towards environmental benefits such as supporting water quality, controlling erosion and preserving biodiversity by providing habitats for indigenous plants and animals.

The Transport Agency's purpose is creating transport solutions for a thriving New Zealand. The Transport Agency shapes New Zealand's transport networks and people's safe and efficient use of them. We connect families, help businesses take goods to market, and help others work, study and play. An integrated approach to transport planning, funding and delivery is taken and we exhibit a sense of social and environmental responsibility in undertaking this work.

With the expected increase in plantation forestry, the Transport Agency seeks to ensure that any NES for Plantation Forestry appropriately safeguards users of New Zealand's transport network and supports our approach of early engagement with stakeholders in order to achieve appropriate land transport outcomes.

**Overall Position**

The Transport Agency supports the development of an NES for plantation forestry because the development of nationally consistent standards has the potential to benefit the industry, the environment and provide a greater degree of certainty to forestry owners.

The Agency currently works with forestry owners on access and maintenance arrangements and seeks to widen the conversation to include road safety through our 'Safe System' approach.

The primary focus of these comments is to ensure that the appropriate level of controls is achieved for transport network infrastructure and the safe and efficient operation of the network. For this reason, the specific recommendations are focussed on Appendix 3: Draft Rules of the Proposed NES-PF of the consultation document.

## Specific Recommendations

Glossary	
Page 53	<p><u>Definition of road</u></p> <p>The definition of “road” should be amended to make it clear that it includes sealed cycle ways and formed footpaths.</p>
Interpreting the Draft Rules	
Page 60	<p><u>Early Engagement</u></p> <p>The Transport Agency encourages early engagement with all our parties who contribute to a safe land transport network, and the NES should encourage all forestry landowners/operators needing access to the State highway to consult early with the Transport Agency. The Agency would encourage the following text to be included in the introductory part of the NES that explicitly highlights the desirability of seeking early consultation, particularly prior to harvesting, with the Transport Agency.</p> <p><i>“Forestry operators/owners and local authorities may be required by legislation to consult with NZ Transport Agency over access to and from the State Highway network, including intersections with local roads. The Transport Agency encourages all forestry operators/owners and local authorities to undertake early consultation with the Agency to address access standards, particularly prior to harvesting, to allow consideration of safety aspects of all accesses onto the State Highway, whether these are private crossing places or intersections with local roads.</i></p> <p><i>The Transport Agency’s assessment incorporates safety considerations, sight distances, access spacing, trips generation, sealed entry setback and impacts from harvest-related activity accessing the SH from a local road, and may in some cases require the access standard to be upgraded.</i></p> <p><i>The NES for Plantation Forestry to note expressly that access to and from forestry properties is a matter not covered within the NES, and that existing district plan rules and the Government Roadway Powers Act 1989 will continue to apply to access.”</i></p>
Afforestation	
Page 62	<p><u>Wilding Tree Risk</u></p> <p>Wilding spread – the calculator does not specifically acknowledge the potential consequences of wilding spread in close proximity to the transport network. The Transport Agency still considers that the planting of spread prone conifers is likely to pose a cost for control on the Agency as an adjoining land owner (road reserve).</p> <p>Examples of the type of impact tree removal can have on the network is shown here:</p> <ul style="list-style-type: none"> <li>▪ <a href="http://www.nzta.govt.nz/media-releases/tree-felling-will-cause-delays-on-western-corridor/">http://www.nzta.govt.nz/media-releases/tree-felling-will-cause-delays-on-western-corridor/</a></li> <li>▪ <a href="http://www.nzta.govt.nz/media-releases/pine-tree-removal-at-oponae-in-the-waioeka-gorge/">http://www.nzta.govt.nz/media-releases/pine-tree-removal-at-oponae-in-the-waioeka-gorge/</a></li> <li>▪ <a href="http://www.nzta.govt.nz/media-releases/tree-felling-this-weekend-near-state-highway-6-near-frankton/">http://www.nzta.govt.nz/media-releases/tree-felling-this-weekend-near-state-highway-6-near-frankton/</a></li> <li>▪ <a href="http://www.nzta.govt.nz/media-releases/high-winds-and-fallen-trees-cause-closure-on-sh5/">http://www.nzta.govt.nz/media-releases/high-winds-and-fallen-trees-cause-closure-on-sh5/</a></li> </ul> <p>The Transport Agency considers that the beneficiary of the forestry should be responsible for the control of wilding trees beyond the forestry boundary, whether that be by direct removal of the trees or by establishing funds for that purpose.</p>



## Setbacks

A major focus of the Transport Agency's safety activities is on putting in place measures that help prevent road crashes from occurring. However, no matter how many measures we develop, factors outside of our control, such as driver error, mean that road crashes will still occur. That's why one of our supporting prevention measures is the creation of 'forgiving roads and roadsides'. Roadsides are areas beside a road that provide the safest possible environment for vehicles in the event that they leave the road. The Transport Agency supports clear roadside areas (known as clear zones) where there are no obstacles, such as trees, that a vehicle could hit. Crash data analysis indicates that on average 322 vehicles per year have crashed on State highways and struck trees over the past 5 years.

Count of vehicles involved in crashes on State Highways (2010–2014) where object struck was a tree						
Vehicle Type	2010	2011	2012	2013	2014	Total
Bus	1	0	0	0	0	1
Car/Stn Wagon	272	249	230	213	249	1213
Motor Cycle	7	3	2	6	2	20
SUV	44	29	30	30	31	164
Taxi	1	0	0	0	0	1
Truck	15	17	13	15	12	72
Van Or Utility	35	22	29	29	24	139
<b>Grand Total</b>	<b>375</b>	<b>320</b>	<b>304</b>	<b>293</b>	<b>318</b>	<b>1610</b>

Source: Crash Analysis System, managed by the NZ Transport Agency.

The Transport Agency recognises that clear zones are one variable in the safe system approach and recent Austroads research<sup>i</sup> indicates that other factors such as speed, (un)sealed shoulders, roadside surface types, open drains, drainage structures, roadside slopes, poles and utility poles, vegetation types, watercourses, barriers, median barriers and attenuators all contribute to roads and roadsides.

Due to the number of different types of variables that play a part, the Transport Agency is unable to support any permitted activity conditions for afforestation of sites that have any frontage to a public road. These particular sites will need to be considered on a case by case basis and should be assessed as a restricted discretionary activity.

Discretion should be restricted to:

- obstruction to sightlines;
- shading and ice formation (and retention) of the carriageway, sealed cycleways and pedestrian footpaths;
- risk of trees and debris falling on infrastructure located within the state highway corridor;
- risk of errant vehicles hitting trees; and
- need for maintenance and felling operations to occur within the state highway corridor.

## Road Setback

The Transport Agency acknowledges that the setbacks to prevent shading of the formed road occurring between 10am and 2pm on the shortest day is aimed at preventing the build-up and retention of ice, which is a major hazard to users of the State highway.

	<p>However, the Transport Agency notes that this standard does not address shading effects during peak traffic times in the early morning, and does not account for specific road features e.g. the outside of bends tend to be more crucial for preventing shading.</p> <p>Proposing the shading standard as a 'permitted activity condition' would also be difficult to monitor and enforce. This is because there will be no requirement to demonstrate compliance (e.g. by commissioning shading diagrams and submitting for approval) by the forestry industry. The onus will be on Councils and the Transport Agency to monitor and enforce this permitted activity condition, and demonstrate any aspects of non-compliance at their own time and cost.</p> <p>The wording of the permitted activity condition allows exceptions where 'topography already causes shading' and where 'icing does not occur'. Again, there is no requirement to demonstrate compliance with this permitted activity condition so the onus will be on the Councils and the Transport Agency to monitor whether these exceptions have been correctly applied or not.</p> <p>The Transport Agency is also concerned that the NES relies on obtaining a third parties' consent (e.g. written consent obtained from the road-controlling authority) as a condition of permitted activity status. The Agency understands that the intent of the condition is to enable a road controlling authority to consent to a road setback being breached, however, there is a risk that a condition of this nature may be ultra vires or otherwise unlawful in RMA terms. The problem with a rule which makes something a permitted activity if a third party's approval has been obtained is that it essentially unlawfully delegates the Council's decision making responsibility to a third party and it turns that third party into a de facto consent authority.</p> <p>The Transport Agency seeks that all afforestation of sites that have any frontage to a public road be treated as a restricted discretionary activity, with no permitted activity conditions. In the event that the permitted activity conditions are retained, the conditions should be amended to clarify that all of the conditions must be met (i.e. by inserting "and" after "icing does not occur;").</p>
Page 63	<p><u>Perennial river or stream setback</u></p> <p>The Transport Agency considers that setbacks from waterways must be sufficient to prevent plantation debris entering waterways where there is the potential to generate log jams against downstream infrastructure (such as culverts and bridges) causing damage. This includes the placement of slash material, skid sites, afforestation and replanting. Extended setbacks and planting of riparian areas in species not intended for harvest will also provide better filtering of sediments, and address any bank stability issues.</p> <p>Setbacks should be greater than 10 metres from all waterways. To address issues around erosion of stream banks and to prevent mature trees encroaching on the waterway. These areas should be planted/managed with species that are not intended for harvest.</p>
Page 64	<p><u>Notification</u></p> <p>The Transport Agency notes that a 'non-notification' clause is proposed to apply to any resource consents required for afforestation within the Orange Zone. This means that if an application is located within the Orange Zone and the applicant is unable to obtain the written consent of the relevant road-controlling authority, then resource consent would be required as a restricted discretionary activity.</p> <p>However with a non-notification clause the Transport Agency would not be able to express any safety concerns or reasons why the written consent was withheld. The Agency would effectively be excluded from the resource consent process and unable to comment on the</p>

	relevant matter of discretion e.g. icing and shading effects on the road. The Transport Agency therefore seeks that the afforestation of sites that have any frontage to a public road be treated as a restricted discretionary activity, and the relevant road controlling authority should be identified as an 'affected party' for the purposes of limited notification (i.e. removal of the non-notification clause).
Harvesting	
Page 70	<p><u>Risks</u></p> <p>Within the section on "Risks" for harvesting activities, the adverse effects of harvesting on roads should be acknowledged. These adverse effects include wind throw onto roads and poor placement of slash leading to blocked, swales, road drains and culverts. Any blockage of stormwater systems can adversely affect the water quality discharges from the Transport Agency's infrastructure.</p>
Page 71	<p><u>Harvest Planning</u></p> <p>Harvest Plans should include a section on the management of risks relating to impact upon public roads (where relevant) and slash management planning should include an assessment of the potential impact on public road infrastructure.</p> <p>The Transport Agency seeks to be advised of any harvesting operations in advance so that issues of access, sediment tracking on road surface and impact on road maintenance requirements can be adequately addressed prior to harvest commencing. The amendments sought by the Transport Agency to the Introductory text of the NES, as discussed at page 2 of this letter, would assist in this regard.</p>
Forestry Quarrying	
Page 78	<p>The Transport Agency notes that a permitted activity condition of forestry quarrying is that material must not be transported off the property on public roads.</p> <p>If forestry quarrying is proposed (except for the Red Zone) and is unable to comply with this condition, then resource consent would be required as a controlled activity. This means that consent must be granted.</p> <p>The Transport Agency considers that it is important for it to be given the opportunity to consider and comment on the effects of transporting material on traffic and public infrastructure, such as the State highway network. The Agency recommends that road controlling authorities be considered as an affected party under the restricted discretionary activity rule in this section. Discretion under this rule should apply to the transportation of material across all of the zones (not just the Red Zone). The controlled activity status in this section should be deleted, as the Agency consider that it is appropriate for applications to transport material on public roads to be considered on a case-by-case basis, and it may not be appropriate to grant consent in all cases.</p>
Replanting	
Page 81	The Transport Agency seeks that all replanting on sites that have any frontage to a public road be treated as a restricted discretionary activity, with no permitted activity conditions.

The Transport Agency encourages the use of the proposed template documents to support the implementation of an NES for plantation forestry. The Agency would like to provide assistance with drafting any templates, such as Harvest Plan templates, where the potential for effects on the land transport network will need to be addressed. There is also an opportunity to develop guidelines for forestry owners on planting alongside a public road, and the Transport Agency can provide assistance with developing any future guidelines on this.

If you have any further questions please do not hesitate to contact Laura Willoughby, Senior Advisor – Integrated Planning on [REDACTED]

Yours sincerely



**David Silvester**  
National Planning Manager

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<sup>1</sup> Austroads Research Report AP-R437-14, 2014; Improving Road Safety, Summary Report.  
<https://www.onlinepublications.austroads.com.au/items/AP-R437-14>

11 August 2015

NES-PF Consultation Team  
Ministry for Primary Industries  
PO Box 2526  
Wellington 6140

Dear Madam or Sir,

**Re: Submission on National Environmental Standard for Plantation Forestry**

**Summary**

NZBIO is the industry association for New Zealand's bioscience community. Our role is to help advance New Zealand's economic growth by assisting companies developing high value businesses from bioscience. NZBIO has no vested financial interests, or support from companies with vested financial interests, in commercialised genetically modified organisms (GMOs).

NZBIO agrees with the National Environmental Standard for Plantation Forestry proposal insofar as it relates to the treatment and regulation of genetically modified organisms. Under Section 6.4 of the NES-PF Consultation Document, it is correctly noted that use of genetically modified organisms are regulated by the Environmental Protection Agency (EPA) under the Hazardous Substances and New Organisms Act 1996. NZBIO agrees that the EPA is best placed to evaluate risks of genetically modified organisms (if any) and that approval and conditions imposed under the EPA regime will be sufficient to ensure any risks associated with the deployment of tree stock will be managed.

**About NZBIO**

NZBIO is the industry association for New Zealand's bioscience community. The aim of NZBIO is to advance New Zealand's economic growth by assisting companies developing high value businesses from bioscience. With over 60 corporate members and another 70 individuals, NZBIO has broad representation of the sector in the country from multi-national pharmaceutical companies to small start-ups.

As well as what might be considered 'core biotech companies' - those for which bioscience is the main activity and are focused on the production of bioscience products, we represent companies and organisations involved in primary production - such as forestry, farming and food production, industrial and environmental research and technologies, high tech manufacturing, alternative fuels, human therapeutics, diagnostics and devices, animal health products, and biologically-based clean tech companies.

Bioscience is obviously already a strong contributor to the New Zealand economy with core biosciences companies exporting \$0.5B in 2011<sup>1</sup> (the last year for which figures are available) and industries based on bioscience, such as the more advanced end of the food and agritech industries,

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<sup>1</sup>[http://www.stats.govt.nz/browse\\_for\\_stats/industry\\_sectors/science\\_and\\_biotechnology/Bioscience\\_HOTP2011.aspx](http://www.stats.govt.nz/browse_for_stats/industry_sectors/science_and_biotechnology/Bioscience_HOTP2011.aspx)

contributing substantially more. The bioscience sector also invests a significant amount in R&D; \$101m by private industry in 2012,<sup>2</sup> an investment that is aimed at increasing the productivity and export returns of the sector. If New Zealand is to reach the Government's goal of doubling exports in real terms by 2025 this investment by industry will need to be strengthened in what is very much a biobased economy.

## Introduction

In a 2013 Ministry of Business Innovation and Employment (MBIE) report,<sup>3</sup> the Agriculture, Forestry and Fishing sector was shown to account for 7.7% of GDP and \$5.0 billion pa or 8 % of exports and Food & Beverage Manufacturing, which is based on raw materials from the Agriculture Forestry and Fishing sector, was 4.5% of GDP at \$23.8 billion pa or 23.8% of exports. This makes Food and Beverage manufacturing the largest contributor to New Zealand's exports and Agriculture Forestry and Fishing the second largest exporter. The Wood and Paper sector is also a strong contributor to New Zealand exports at \$2.6 billion pa and 4% of the total.

While New Zealand has a strong reliance on these primary industries, it is also important that New Zealand seeks to enlarge and diversify its economy by building the country's manufacturing sector. Micro-organisms, and the enzymes derived from them, play an important and increasing role in adding value to primary industries such as agriculture and forestry as well as manufacturing processes. This is particularly the case as the global economy seeks low energy, low waste processing technologies and seeks to replace petrochemical derived feedstocks with renewables from biomass.<sup>4</sup> Innovation in this area requires the discovery, importation or development by GM technologies of new micro-organisms. All of which are covered by the Hazardous Substances and New Organisms Act 1996 and despite a range of natural advantages in the area, New Zealand has made relatively little progress on a modern manufacturing industry based on biomass and low energy processing.

Forestry has been one of the core active areas for the application of GM technologies in New Zealand. There is considerable scope for increasing the value of New Zealand's log output by altering the wood quality. New Zealand forestry is based on *Pinus radiata* which grows relatively quickly, even on poor soils, but produces wood of relatively low quality.

The Crown Research Institute SCION has undertaken an economic analysis of the potential value of GM trees in New Zealand. In a 2004 ERMA application SCION looked at improving tree qualities using GM techniques to:

- Increase growth rates
- Improve density
- Provide more consistency for lumber

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<sup>2</sup>'Research and Development in New Zealand: 2012' Statistics New Zealand, 15 August 2013, [http://www.stats.govt.nz/browse\\_for\\_stats/businesses/research\\_and\\_development/research-development-in-NZ-2012.aspx](http://www.stats.govt.nz/browse_for_stats/businesses/research_and_development/research-development-in-NZ-2012.aspx)

<sup>3</sup> The New Zealand Sectors Report 2014, Main Report, MBIE, 2014 <http://www.mbie.govt.nz/what-we-do/business-growth-agenda/sectors-reports-series/pdf-document-library/nz-sectors-report.pdf>

<sup>4</sup> Opportunities for a Fermentation-based Chemical Industry, Deloitte, September 2014, <https://www.rabobank.com/nl/images/deloitte-fermentation-study.pdf>



- Improve biofuel/pulping efficiency

SCION estimated this would add \$530 million pa to the New Zealand economy by 2030 and this estimate was reiterated in a subsequent application in 2010.<sup>5</sup>

The ability to alter wood, by lowering lignin content is particularly important if wood based biofuels are to become economic. It could also have a dramatic effect on paper production with GM reduction of lignin estimated to improve pulping cost by \$US15/tonne. In 2013 New Zealand produced 1.4 million tonnes of wood pulp so this would represent a saving of \$US21 million. In 2011 the Green Growth Advisory Council predicted there was potential for \$NZ400 million pa from biochemicals from wood by 2020.<sup>6</sup>

ArborGen, which was cited by SCION as a commercialisation partner in its 2010 application to ERMA for a field trial of GM *Pinus radiata*, is working to commercialise a range of GM trees modified to use less water and nitrogen in the US and South America.<sup>7</sup>

GM technologies also offer considerable potential to improve disease resistance in forestry. GM technology is already being used make the American Chestnut resistant to chestnut blight<sup>8</sup> and bananas resistant to fungal disease.<sup>9</sup> In both cases the technology was essential because of a lack of sufficiently related species or difficulties in using traditional breeding.

### Existing regulatory systems

NZBIO notes several local councils have taken steps to invoke provisions in the Resource Management Act 1991 to further regulate the regional use of GM technologies and we consider this both an unreasonable financial burden and an unnecessary replication of existing regulatory systems. NZBIO agrees with the position provided by the Minister for the Environment at the Hastings District Plan Hearings Committee Meeting 27 May 2015 (Section 29.1 Hazardous Substances and GMO) including:<sup>10</sup>

#### *National-Level Decision Making*

- It is not appropriate for councils to use the Resource Management Act 1991 (RMA) for the purpose of controlling GMOs. Decisions about the testing and release of GMO's are best made at the national level, by the Environmental Protection

<sup>5</sup> EPA Database <http://www.epa.govt.nz/search-databases/Pages/applications-details.aspx?appID=ERMA200479>

<sup>6</sup> Greening New Zealand's Growth: Report of the Green Growth Advisory Group <http://www.med.govt.nz/sectors-industries/environment/pdf-docs-library/Greening%20New%20Zealands%20Growth.pdf>

<sup>7</sup> ArborGen Press Release, October 2014 <http://www.arborgen.us/arcadia-biosciences-and-arborgen-to-develop-drought-tolerant-and-nitrogen-efficient-eucalyptus-trees/>

<sup>8</sup> A New Generation of American Chestnut Trees May Redefine America's Forests Scientific American, March 2014 <http://www.scientificamerican.com/article/chestnut-forest-a-new-generation-of-american-chestnut-trees-may-redefine-americas-forests/>

<sup>9</sup> <http://phys.org/news/2011-02-genetically-key-banana-industry.html>

<sup>10</sup> Submission of the Minister of the Environment to Hastings District Council Proposed District Plan – Section 29.1 (Attachment 16, Item 2, page 299-302) [https://www.hastingsdc.govt.nz/files/agendas/District%20Plan%20Hearings%20Committee/2015-05-27/Attachment%20District%20Plan%20Hearing%20270515%20Sec%2029.1%20Harzardous%20Substances%20GMO\\_Part3.pdf](https://www.hastingsdc.govt.nz/files/agendas/District%20Plan%20Hearings%20Committee/2015-05-27/Attachment%20District%20Plan%20Hearing%20270515%20Sec%2029.1%20Harzardous%20Substances%20GMO_Part3.pdf)



Authority (EPA), using the clear and robust process for decision making, as set out in the Hazardous Substances and New Organisms Act 1996 (HSNO).

- The EPA is expert in environmental risk assessment. Approvals for GMO activity can have conditions attached to protect the environment from adverse effects.
- The cost of a HSNO approval from the EPA can be up to \$40,000. The additional cost of preparing the application can be much greater than this figure. An applicant who is not in a financial position to meet these costs is not granted approval.

#### *Monitoring*

- The EPA may impose controls on an approval to require monitoring, auditing, reporting and record keeping. The costs of this fall on the applicant.

#### *Public input into HSNO decision making*

- HSNO has clear processes for public, including public authority, input into decision making. This allows community concerns to be fully considered by the EPA.

#### *Technical expertise*

- The EPA has the necessary risk assessment, legal, policy and scientific expertise required to consider GMO applications.

#### *Duplication of regulation and compliance costs*

- The proposed objective and policies [council regulation of GMO] would create unnecessary duplication with HSNO. They will also impose additional compliance costs on applicants.

Your proposal under Section 6.4 of the NES-PF Consultation Document avoids unreasonable compliance costs and duplication while maintaining a stringent regulatory framework. NZBIO fully supports your proposal insofar as it relates to the treatment and regulation of genetically modified organisms.

NZBIO would be pleased to present this submission in person and no part of this submission needs to be withheld under the Official Information Act 1982.

Yours sincerely,



Dr Will Barker  
CEO





# Physicians and Scientists for Global Responsibility

New Zealand Charitable Trust

Formerly Physicians and Scientists for Responsible Genetics New Zealand

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11 August 2015

Ministry for Primary Industries  
PO Box 2526  
WELLINGTON 6140

cc relevant recipients

For attention: Stuart Miller - Spatial, Forestry and Land Management

## **The proposed National Environmental Standard for Plantation Forestry (NES-PF)**

In this submission, we refer to questionable and conflicting legal aspects, and those sections of the NES-PF that call for a reduction or loss of consent oversight to local authorities, in particular where it involves consent on the release into the environment of trees that have undergone DNA manipulation (NES-PF 6.4; pp 64, 82). Such authority must remain with local authorities elected to meet the requirements of their local community, industries, forest owners, farmers, non-governmental organisations, iwi involved in managing unique local environments; in fact, any person or organisation with a vested interest in protecting an environment.

It is appreciated that consistent standards can aid in the sustainable management of natural and physical resources. What is not appreciated are the decisions made by central regulatory authorities that substantially support industry without meeting any duty of care or the wishes of communities.

The New Zealand Environmental Protection Authority (EPA) has admitted in recent correspondence in relation to the herbicide glyphosate that it does not have the capacity to operate post-approval controls on the matters that it approves using its powers under the Hazardous Substances and New Organisms Act 1996 (HSNO). Such an admitted absence of post-approval controls means that the purpose and intent of that Act is at hazard of not being met following EPA approvals being given.

Further, the funding and competencies in EPA are admitted to be inadequate for undertaking in-depth enquiries into an application. It admits that it is therefore reliant in large part upon an applicant's disclosures and references and/or upon similar approvals having been made by other overseas recognised authorities with questionable trustworthiness detailed in footnote one.<sup>1</sup>

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<sup>1</sup> In *Alliance for Bio-Integrity et al v Shalala* (1998) over 44,000 pages of files produced by the US Food and Drug Administration (FDA) at the behest of the Court revealed it had declared genetically engineered foods to be safe despite disagreement from its own experts, and that it falsely claimed a broad scientific consensus supported its stance. Internal reports and memoranda disclosed agency scientists repeatedly cautioned that foods produced through recombinant DNA technology - that is, genetically engineered organisms - entail different risks than do their conventionally produced counterparts and that this was consistently disregarded when FDA policy was written in treating transgenic foods the same as conventional ones. In taking this stance, the agency violated the US Food, Drug and Cosmetic Act in allowing genetically engineered foods to be marketed without testing on the premise that they are 'generally recognized as safe' (GRAS) by qualified experts. The consensus of scientists working for the FDA at that time was that transgenic foods were inherently risky, and might create hard-to-detect allergies, poisons, gene transfer to gut bacteria, new diseases, and nutritional problems. They urged rigorous long-term tests.

Thus the EPA cog in the New Zealand machinery of government is missing some important teeth that should be available to protect New Zealand; that is, EPA may reasonably be regarded as 'false armour'.

That factor is arguably a relevant consideration when central government considers approaching and formulating a national policy statement or national environmental standard like NES-PF. Was this approach made?

Thus, it is our advised opinion that the essence of the matter is that government appears to have approached and formulated its proposed NES-PF in a manner that is likely to by-pass and therefore be in conflict with the purpose and intent of the HSNO Act 1996. This effectively by-passed effective administration of that Act because it assumes that NES-PF can by-pass the scrutiny that would otherwise be required by that Act.

EPA's apparent ineffective administration of the glyphosate matter is arguably proof that EPA is not competent - of its own admission in recent correspondence - to administer its powers in the public interest; or administer its powers in such a way as to apply the precautionary principle<sup>2</sup>; and/or is unable to assert its restrictive powers even in cases of a high probability of harm - the legal test for an action in Tort; e.g. the glyphosate matter or the current Kiwifruit group action on PSA.

The interests of the New Zealand public and safety requires lawful and effective government.

We agree New Zealanders are practical environmentalists. Because of this they want to be able to protect their land, their livelihoods, and their environment, especially from the consequences of the release into the environment of transgenic plants. The strength of local supervision of this contentious issue, in the best interests of all concerned, reinforces buyers' confidence.

The cost to New Zealand of allowing the release into the environment of transgenic organisms cannot be measured in dollars and cents, or in making the process easy. As had been shown overseas, any release would, in the short- and long-term, create unmanageable, detrimental and irreversible consequences.

Plantation forestry is New Zealand's third biggest export industry. It is a significant employer for many regional economies. Northland has moved to protect itself by including a precautionary statement in its Regional Policy Statement. The Environment Court agreed it had this right.<sup>i</sup> Bay of Plenty Regional Council also has a precautionary statement supported by the Environment Court.<sup>ii</sup> Auckland and Hawkes Bay are working to make similar provisions. Other local authorities are also moving towards having more local say on this issue.

Contamination by novel DNA inserted into pine trees would also potentially impact on wilding pines (NES-PF 3.5.3).

We urge that genetic engineering / modification technology and its products should not be included in the proposed National Environmental Standard for Plantation Forestry (NES-PF).

## **1 How we define DNA manipulation**

In this submission we use transgenic to represent organisms that are the result of genetic engineering or genetic modification technologies; that is, novel organisms that are not found in nature.

Biotechnology is used interchangeably with the preceding terms when in fact transgenic technologies are only a very small part of biotechnology. Whereas biotechnology has added much of value to our agricultural and scientific heritage, the experimental approach to evaluating the effects of the aforementioned technologies and questionable decisions on releases has proven novel organisms released into the environment lead to contamination by previously unknown transgenic organisms. Such contamination is inevitable and irreversible.

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<sup>2</sup> <http://www.psg.org.nz/the-precautionary-principle/finish/8-uncategorised/24-the-precautionary-principle>

Variations of genetic engineering technology - and indeed nanotechnology and collectively what are called New Breeding Technologies, and more – are used in forestry tree development experimentation.

Genetic use restriction technology (GURT) is terminator technology that is rejected internationally. Governments involved in the United Nations Convention on Biological Diversity (CBD) established and maintain an international moratorium on Terminator technology, with only Australia, Canada, the US and New Zealand withholding support.

Decision V/5, III, 23 "Recommends that, in the current absence of reliable data on genetic use restriction technologies, without which there is an inadequate basis on which to assess their potential risks, and in accordance with the precautionary approach, products incorporating such technologies should not be approved by Parties for field testing until appropriate scientific data can justify such testing, and for commercial use until appropriate, authorized and strictly controlled scientific assessments with regard to, inter alia, their ecological and socio-economic impacts and any adverse effects for biological diversity, food security and human health have been carried out in a transparent manner and the conditions for their safe and beneficial use validated."

Despite obvious strength of global caution about the technology, the New Zealand Forest Research Institute at Rotorua trading as Scion has experimented with this technology (see more in section 3.1 to follow).

Where gene stacking is used – introducing multiple novel traits into a new host – it cannot be predicted how stable each gene will be, or how predictable or stable the development of the combination of genes will be.

Despite decades of study, the complex inter-relationships between organisms are genetically determined naturally in ways about which we have little knowledge. Introduced genes have proven to be unpredictable. Unforeseen traits can develop and irretrievably be passed on to future generations and scattered in the open environment.

NB A register of transgenic contamination can be found on <http://www.gmcontaminationregister.org/>.

## **2 Maintaining standards of safety**

Forests are vital to the world's ecological, social, cultural and economic well-being. Intensively managed, highly productive forestry incorporating the most advanced methods for tree breeding, has tremendous potential for improvements in quality and standards. New Zealand has an established track-record for doing just that. To include deployment of transgenic trees in plantation forests would pose potential irreversible harms to the environment that are simply not acceptable at current levels of understanding of the risks involved. .

As acknowledged above, consistent standards can aid in the sustainable management of natural and physical resources. What is not acceptable to the general public or to a substantial body of respected experts in relevant fields are the 'rubber stamp' decisions made by regulatory authorities which substantially support industry without meeting full duty of care of communities. New Zealand's Environment Court has substantiated the public's right to protect their own environment for control of the use of transgenic organisms through regional policy statements and plans. Central decisions have shown they do not meet that right.

## **3 The impact of transgenic organisms**

The development of such technologies has led to novel trees being widely planted in open trials and in plantations in China, North America, Australia, Europe and India and, to a lesser extent, South America and Africa. Novel tree species include Populus (about 47% of experiments), Pinus (19%), Eucalyptus (7%), Spruce (picea), Ulmus, Larix, Casuarina, Betula, Liquidambar and others. Among the traits addressed are herbicide resistance, lignin content and trees that produce sterile seeds.

It is recognised that in some countries record keeping and monitoring of plantations are inadequate and there are plantations where no monitoring at all is carried out. This is particularly reported as happening in China.<sup>iii</sup>

New Zealand authorities have also shown neglect in monitoring the likes of the 2001 transgenic tamarillos trials in Northland and Scion's experiments near Rotorua (see Section 5).

Novel trees can impact on local flora and fauna in ways that cannot be adequately predicted. Pollen is in the order of 10 to 100 microns or smaller in size. Once in the atmosphere, it can travel vast distances, riding thermals and wind. A study undertaken in India established that pollen from pine trees travelled over 600 kilometres (Singh et al, 1993). The destinations of novel, introduced DNA would be untraceable and irretrievable.

Transgenic traits tend to be unstable. They can break down, revert to flower-development, and spread transgenes to native trees. They could create pollen that poisons bees and other pollinators as well as causing potential harm to human beings. It would need a failure rate of only part of a percent for transgenes to contaminate other trees, potentially at large distances, in ways that could not easily be monitored. Even if totally sterile, terminator trees can spread by asexual means. The genes can spread horizontally to soil bacteria, fungi and other organisms in the extensive root system of the forest trees, which in turn could have unpredictable impacts on the soil biota and fertility.<sup>iv</sup> There is the potential, however slight, that terminator genes could spread horizontally to other forest trees, also making those infertile, and in turn the potential to devastate entire plantations over huge areas.

Preventing sexual reproduction radically reduces genetic recombination, which in nature generates genetic diversity and evolutionary novelty.<sup>v</sup> Trees developed using 'terminator technology' claimed not to flower and fruit cannot provide food for the insects, birds and mammals that feed on pollen, nectar, seed and fruit. Thus local flora could lose the variety of pollinating insects normally attracted to an area. This would inevitably have huge impacts on biodiversity, particularly in large areas of monoculture forests. Any monoculture crop is known to adversely affect the diversity of flora and fauna in an area and impact on local agricultural and horticultural industries.

The perceived benefits of such novel trees are claimed as, for example: easier pulping methods and reduced use of chemicals for the timber industry; pest and disease resistance; phyto-remediation of mercury in soil; secondary compounds to pharmaceuticals; and the potential to withstand extreme environmental conditions such as drought, heat and cold. Developing and testing of these traits could require years of biological and environmental assessment before commercialisation is practical, and along the way pose substantial risks.

Plantations of transgenic trees would inevitably and irreversibly put at risk native flora and fauna. Most commercial species of trees grow in the region of 30 years to attain commercial value, but trees can live for centuries. This can evolve the spread of their seeds and pollen over great distances and time periods.

### 3.1 'Terminator' trees

The US Department of Agriculture and the Delta & Pine Land Company developed terminator technology; novel trees claimed to produce sterile seeds. Terminator technology has attracted a global moratorium because of the unacceptable risks involved (see Section 1).

There are risks of transmission of the terminator trait to cultivated or to wild plants, and the undermining of food security. This can result from the dispersal or gene flow of pollen and seeds from forest trees measured potentially in hundreds or thousands of kilometres. Once released, transgenes from transgenic trees cannot be contained and pose serious threats to forest ecosystems and plantations of other forest tree varieties.

In terminator trees, anti-sense genes or small regulatory RNA prevent active gene products from being formed. Also employed is a kind of genetic abortion using a 'suicide' gene. This could be the barnase ribonuclease gene from the soil bacterium *Bacillus amyloliquefaciens*, which is controlled by a promoter specific to floral or pollen development. Once activated, the gene product kills the cells in which the gene is expressed. The ablation toxins used in creating sterile trees, for example barnase ribonuclease, have proved toxic to rats' kidneys; and barnase was cytotoxic in mice and human cell lines.

Scientists at Sopenen University, Finland, have studied the control of flowering in silver birch trees, using a flower specific birch promoter gene, BpMADS1, to drive the barnase gene. They found that floral cell ablation prevented flowering, but that this had side effects to leaves and branching which may have been a pleiotropic effect of the gene insertion.

Pleiotropic effects seen may extend into areas not yet detected; for example, we have little knowledge of how these effects would affect soil bacteria.

### 3.2. Wilding pines (3.5.3)

Wilding pines are invasive, aggressive colonisers, and a threat to biodiversity, farm productivity, and landscape values. They create adverse economic and environmental consequences.

While the Wilding Spread Risk Calculator<sup>vi</sup> highlights problems and potential controls for new afforestation, the simple fact is that the spreading of pollen or seed cannot be contained. Even a fraction of one percent of pollen or seed escaping will spread novel DNA irretrievably into the New Zealand environment, potentially long distances.

What is vital to recognise is that New Zealand's forests of *Pinus radiata* have been developed over many decades using highly efficient, selective breeding. The returns are a major export earner.

Ninety percent of New Zealand's plantation forests grow *Pinus radiata*.<sup>vii</sup> The other nine main wilding species growing in this country are: Douglas-fir (*Pseudotsuga* species); Bishop Pine (*Pinus muricata*); Corsican Pine (*Pinus nigra*); Dwarf Mountain Pine (*Pinus mugo*); Lodgepole Pine (*Pinus contorta*); Maritime Pine (*Pinus pinaster*); Ponderosa Pine (*Pinus ponderosa*); Scot's Pine (*Pinus sylvestris*); and European Larch (*Larix decidua*).<sup>viii</sup> Varieties of pinus, picea and larix have been genetically manipulated.

Scion's Application to plant *Pinus radiata* with a number of engineered traits - Applications GMF000032, GMF000033, GMF000034, GMF000035, GMF000036, GMF000037, GMF000038, and GMF000039 - were all approved, including pine trees engineered with 'terminator' technology and herbicide-resistance.

Transgenic traits are likely to be unstable and the variants of terminator technology offer no absolute guarantee of sterility. The traits can break down and the trees revert to flowering. Trees that do not flower and fruit cannot provide food for the organisms that feed on pollen, nectar, seed and fruit; thus, essential pollinating insects may not be available. Such conditions would affect horticulturalists, beekeepers, other crop growers, and pasture grasses so essential to agriculture. Sterile radiata pine monocultures may be more susceptible to disease.<sup>ix</sup>

The New Zealand Forest Research Institute at Rotorua says security measures to stop cross-pollination include a buffer zone around the novel pine trees. One study found "long-distance pine pollen remains viable even after meso-scale transport and that the escape of GM transgenes into less-managed forest ecosystems is a certainty that cannot be reversed."<sup>x</sup> As mentioned above, pollen from pine trees has been shown to travel over 600 kilometres (Singh et al, 1993). In New Zealand, it is acknowledged that "pollen (and therefore, gene) flow from pines can be copious, and pine pollen has been known to travel very large distances and remain viable."<sup>xi</sup>

Warren and Forham established that conventional *Pinus radiata* seeds can be viable "at least up to twenty-four years."<sup>xii</sup> A mature cone produces winged seeds that are readily dispersed.<sup>xiii</sup> Wind-blown seeds can be widely distributed and readily take root in a range of soils to produce wilding pines, potentially novel wilding pines. It would need a failure rate of only a part of a percent for transgenes in pollen to contaminate other trees, potentially at great distances, in ways that could not easily be monitored. Novel wilding pines are a very real possibility in New Zealand.

### **3.3 Trees resistant to glyphosate or other herbicides**

Some 80 percent of transgenic crops have been developed for resistance to copious applications of glyphosate. In the US, herbicide-tolerant transgenic crops have almost doubled the use of herbicides. The result is that substantial numbers of weed species have become herbicide-resistant, in some cases being resistant to multiple herbicides. These weeds are aggressive and invasive.<sup>xiv</sup> As of the end of 2014, there were 32 weed species globally registered as resistant to glyphosate, the majority in the United States where a significant number of transgenic crops are grown.<sup>xv</sup>

In December 2012, the Foundation for Arable Research confirmed New Zealand's first case of glyphosate-resistant ryegrass in a Marlborough vineyard and blamed frequent applications of that herbicide as the cause.<sup>xvi xvii</sup> Four further cases of glyphosate-resistant ryegrass have been identified in Marlborough vineyards and weeds surviving glyphosate treatment are reported nation-wide.<sup>xviii</sup>

Trees resistant to glyphosate or other herbicides potentially carry the same risks of contamination to other plants.

### **4. Traditional forestry biotechnology is less costly and requires less regulation**

Transgenic food crops have led to super bugs and pesticide-resistant super-weeds. It is illogical to assume transgenic forests would be free of similar results. There are scientists who state that genetically altered trees are even more environmentally damaging than transgenic food crops.

If released on a large scale, there is no way to stop novel DNA from cross contaminating non-engineered pines. This is deliberate, irreversible and irresponsible contamination of the environment with unknown and possibly devastating consequences. Forest ecosystems are far from well understood, and the introduction of trees with genes with modified wood characteristics could have all manner of negative impacts on soils, fungi, insects, wildlife, songbirds, and public health - all for short term commercial profit.

Any safety assessment framework for forestry must acknowledge the diversity of existing forests and recognize the benefits of multiple uses of forests that conserve diversity.<sup>xix</sup>

The 2008 Review of the Forty-Nine Recommendations of the Royal Commission on Genetic Modification<sup>xx</sup> - released by Sustainable Future - included two recommendations not implemented by government. These were that transgenic crops need to be excluded from regions where their presence would be a significant threat to an established conventional crop and that MAF provide a strategy to ensure honey is not contaminated with pollen from a transgenic crop. The review noted that the RCGM called for 'preserving opportunities' and formulated 49 recommendations that included allowing for non-GE producers to be able to maintain production, organic or otherwise, without fear of transgenic contamination.<sup>xxi</sup>

New Zealand has a successful history of developing conventional pines. We should not put those at risk.

### **5. Safety and monitoring**

It is recognised that record keeping and monitoring can be inadequate, as can meeting approval conditions. This is particularly reported as happening in China, and has happened in New Zealand.

The Crown Research Institute, Scion, has historically been accused by observers of negligent reporting. The auditor - MAF Biosecurity New Zealand - and the Environmental Risk Management Authority were accused of being complicit in the negligence. Scion had claimed that all the trees in one tree experiment were healthy and growing normally, when photographs available to New Zealand's Soil & Health Association clearly showed some trees had significant die-back and abnormal growth. Scion was also accused of not pruning all trees according to the approval conditions and of potentially transporting transgenic plant material on mowing equipment to other research and forest areas, and thus the wider environment. Many forest owners have ground crews working in multiple areas, almost certainly transporting equipment. Local monitoring and oversight would be a preferred practice.



PSGR Trustee, Dr Elvira Dommissie, a geneticist, speaking on the genetic engineering of pine trees, has said the claim of using genes that occur in New Zealand that pose no risk, “does not mean that the same gene which has been genetically engineered into another species in an artificial gene construction will be harmless. It is in part true, but we cannot conclude from this that all is well. In its genetically engineered form, the gene is no longer under the control of its own DNA. It may well be a synthetic modified version of the original gene and is jammed into a complicated construct made up of bits of DNA from a number of different organisms. This means the gene is always switched on and is engineered to produce large amounts of a protein or proteins that pine trees don't normally make. The cellular machinery of a pine tree may produce a protein or proteins that are different from those used in the GE process. Such altered proteins can be harmful. This has already happened in genetically engineered peas, when a harmless bean protein became a toxin when engineered into the closely related pea.”

Safety testing of anything produced using genetic engineering technology is generally left to the developer. Only a handful of independent tests have in fact been carried out and generally ignored. There is a very urgent need for independent oversight and safety testing of all such experimentation. We advocate people on the spot maintaining local monitoring.

Pierre Sigaud, an expert in forest genetics at the United Nations Food and Agriculture Organization, has warned against rushing into growing transgenic trees commercially before running environmental risk assessments according to national and international protocols: “The issue goes beyond country level since pollen flow and seed dispersal do not take account of national boundaries and wood is a global commodity.”<sup>xxii</sup>

## 6. In conclusion

In response to the communities they serve, an increasing number of New Zealand's local authorities are including or planning to include precautionary provisions or controls for transgenic organisms in their Regional Policy Statements. Taking away that right undermines the democratic process.

Local authorities in the Bay of Plenty, Hawkes Bay, Auckland, and Northland – representing in excess of a third of the country's population - have recognised the need for stricter local controls over transgenic organisms in the environment than central government requires. Communities no longer have faith in the integrity of government agencies to meet their duty of care to protect New Zealanders. What the public see is a rubber stamping of applications without regard to the population or the environment. As they have experienced it, it is the demands of ‘big business’ that are met.

The Environment Court has supported the inclusion of a local precautionary approach to meet public needs in the Bay of Plenty and Northland.<sup>xxiii</sup> A local community will have a more immediate ‘eye’ on developments.

The risks associated with the release into the environment of novel DNA are environmental and economic, and can potentially affect human health and welfare.

Being ‘GE-free’ is a substantial part of New Zealand being claimed clean, green and 100% Pure which gives exporters a significant edge in selling their products and gives tourism a unique competitive tool to attract overseas visitors. The effect on New Zealand's reputation overseas and exports of growing transgenic plants or trees would be very damaging.

Considering honey exports alone. Proteins of transgenic origin found in Canadian honey exported to the European Union resulted in a drop in honey exports to Europe of 55%.<sup>xxiv</sup> In 2011, the European Court of Justice ruled that honey produced though cross-pollination with a transgenic crop must be authorized as a ‘GM product’ before being sold.<sup>xxv</sup> Not only do transgenic crops threaten pollen contamination, also contaminated weeds and plants from truck seed spillages.

A substantial part of Mexico's agricultural export is honey; ranked fifth worldwide for exporting honey.<sup>xxvi</sup> In 2014, researchers sampled honey from nine hives in the Campeche region and found they contained pollen from transgenic soy crops grown near the apiaries. German buyers rejected the honey.

The costs to public bodies and the public purse of transgenes free in the environment would be in the millions, if not billions of dollars. Local authorities should retain the right to manage these risks locally with local support. In response to their communities and businesses, Councils are including precautionary provisions or controls in their Regional Policy Statements based on community input and scientific uncertainty about transgenic organisms. They should retain the right to do so. The proposed NES-PF would take away this right of protection.

## 6.1 Integrity

The general public give no credibility to the integrity of decisions by regulating bodies.

Conflicts of interest have been exposed and irresponsible approvals given:

- Crop & Food merged with HortResearch to form Plant and Food Research just a year after HortResearch's Kieran Elbrough and Max Suckling were half of the 2007 ERMA decision-making committee that approved the Crop & Food's transgenic brassica field trial application<sup>xxvii</sup>; a trial that was very poorly managed. This is reminiscent of the "Revolving Door" applied to and discrediting many approvals made by US regulatory bodies.<sup>xxviii</sup>
- Media reports showed Scion mislead the public ahead of getting its last transgenic field trial approval. It was spending taxpayers' dollars preparing its field trial site in July 2009, four months ahead of the ERMA (now EPA) hearing in November. The application was approved later.<sup>xxix</sup>
- Despite world governments involved in the United Nations Convention on Biological Diversity (CBD) establishing an international moratorium on Terminator technology, Scion's Applications to plant *Pinus radiata* using genetic use restriction technology - terminator technology – were approved; Applications GMF000032, GMF000033, GMF000034, GMF000035, GMF000036, GMF000037, GMF000038, and GMF000039.

The public have asked Councils to protect their region and Councils must be able to exercise precaution. A major obstacle to that right of protection comes from an industry – principally, with overseas interests - that influences government policies worldwide. This National Environmental Standard should set effective and precautionary bottom lines that allow all communities to oversee any application for transgenic trees in their local environment. No approval should be given without that consultation, and additionally independent evaluation and testing.

Local industries that play an important part in exports will be affected if the acceptance of novel DNA release is eased; for example, beekeepers who wish to keep their products free of transgenic organisms because overseas as well as local markets demand it; New Zealand's growing organic product export market.

Councils in the Bay of Plenty, Northland, Auckland and Hawkes Bay recognise the need for local controls, and the Environment Court has supported the inclusion of a local precautionary approach in Regional Policy Statements.

We urge that the risks described above are addressed in the proposal by allowing local authorities to have jurisdiction over decisions that affect the communities they serve.

Jean Anderson

On behalf of the Trustees of Physicians and Scientists for Global Responsibility New Zealand Charitable Trust

## The Trustees and Members of Physicians and Scientists for Global Responsibility Charitable Trust

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Jean Anderson, Businesswoman retired, TAURANGA.

Recommended: 'A Silent Forest: The Growing Threat, Genetically Engineered Trees,' narrated by Dr David Suzuki (44 min. DVD). It discusses the threats posed by transgenic trees to our environment and to human health. Professor Emeritus, David Suzuki, is an internationally respected geneticist, an award-winning broadcaster, the author of 43 books, and recognized as a world leader in sustainable ecology.

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- <sup>i</sup> Environment Court decision (No. [2015] NZEnvC 89) – Northland RC vs Federated Farmers, Judge LJ Newhook, full document on <http://www.ge-free.co.nz/assets/pdf/20150512145527872.pdf>.
- <sup>ii</sup> Environment Court Decision November 2013 BOP vs Scion <http://www.boprc.govt.nz/media/321876/environment-court-decision-18-dec-2013-env-2012-339-000041-part-one-section-17.pdf>
- <sup>iii</sup> China was the first country to release transgenic trees commercially. Its Chinese State Forestry Bureau is unable to trace all of the 1.4 million GE poplars (*Populus nigra*) it planted. Field trials are progressing with Poplars engineered to be infertile and pest resistant. 'GM trees lost in China's forests,' SiS 25.
- <sup>iv</sup> <http://globaljusticeecology.org/wp-content/uploads/GE-Trees-Myths-updated.pdf>
- <sup>v</sup> See The Institute of Science in Society (ISIS) Press Release, 2 March 2005, Terminator Trees. Soil & Health [www.organicnz.org](http://www.organicnz.org), Scion Annual Report to ERMA, 2007 Annual Report GMF99001 & GMF99005 [Public version]; Organic NZ 'Failure in GE Tree Reporting May Bring Tears To Crop & Food's Onion Trial' 5 February 2008; 'Rotorua GE Tree Trial remains an environmental threat' 16 March 2008, 'GE Tree trial breach shows institutional contradictions' 16 January 2008, 'Christmas is over Scion, take the GE trees down' 13 January 2008; Hawkes Bay Today, 16 and 19 January 2008. 'GM trees the ultimate threat.' SiS 26.
- <sup>vi</sup> MPI's website at <http://www.mpi.govt.nz/nes-pf>.
- <sup>vii</sup> 'Situation and outlook for New Zealand agriculture and forestry', NZ Ministry of Agriculture and Forestry, 2007.
- <sup>viii</sup> 'Wilding conifers - New Zealand history and research background', a presentation by Nick Ledgard at the "Managing wilding conifers in New Zealand - present and future" workshop (2003).
- <sup>ix</sup> <http://notenoughgood.com/2011/07/king-crops-part-3/>
- <sup>x</sup> 'Long-distance pine pollen still germinates after meso-scale dispersal', Claire G. Williams, Forest History Society and NESCent, North Carolina 27701 USA, 16 February 2010. <http://www.amibot.org/content/97/5/846.full>
- <sup>xi</sup> 'ERMA hearing for applications to field trial genetically-modified *Pinus radiata*', Dr Mike Carson. [http://www.nzif.org/free\\_issues/NZJF46\\_1\\_2001/8B9F810F-E5E2-4DEA-BA75-263BB56C6363.pdf](http://www.nzif.org/free_issues/NZJF46_1_2001/8B9F810F-E5E2-4DEA-BA75-263BB56C6363.pdf)
- <sup>xii</sup> 'The Fire Pines', Richard Warren and Alfred J Fordham, <http://arnoldia.arboretum.harvard.edu/pdf/articles/1040.pdf>
- <sup>xiii</sup> <http://www.weeds.org.au/cgi-bin/weedident.cgi?tpl=plant.tpl&ibra=all&card=E41>.
- <sup>xiv</sup> <http://www.nlpwessex.org/docs/benbrook.htm>. Dr Charles Benbrook, a research professor at the Centre for Sustaining Agriculture and Natural Resources at Washington State University, US, states: "the spread of glyphosate-resistant weeds in herbicide-resistant weed management systems has brought about substantial increases in the number and volume of herbicides applied. If new genetically engineered forms of corn and soybeans tolerant of 2,4-D are approved the volume of 2,4-D sprayed could drive herbicide usage upward by another approximate 50%." 'Ecological risks associated with the release of transgenic crops include non-target effects of the crop and the escape of transgenic DNA into wild populations. ...Because humans move seeds around the globe, both intentionally and accidentally, restricting transgenic crops to areas outside the native range will only temporarily delay the movement of transgenes into wild relatives.' 'Ecological effects of transgenic crops and the escape of transgenes into wild populations', Pilon D and Prendeville, H, Annu. Rev. Ecol. Evol. Syst. 2004. 35:149–74 <http://fbae.org/2009/FBAE/website/images/PDF%20files/Important%20Publication/ecological%20effects%20of%20transgenes.pdf>.
- <sup>xv</sup> <http://weedsscience.org/>
- <sup>xvi</sup> [www.far.org.nz/index.php/media/entry/glyphosate-resistance-confirmed-in-new-zealand](http://www.far.org.nz/index.php/media/entry/glyphosate-resistance-confirmed-in-new-zealand).
- <sup>xvii</sup> <http://resistance.nzpps.org/index.php?p=herbicides/glyphosate>
- <sup>xviii</sup> <http://www.stuff.co.nz/timaru-herald/central-farmer/8328952/Ryegrass-much-wider-problem>
- <sup>xix</sup> 'Multiple uses of forests,' SiS 25; [www.wrm.org.uy/plantaciones/RECOMA.html](http://www.wrm.org.uy/plantaciones/RECOMA.html)
- <sup>xx</sup> Listed on [http://www.mcguinnessinstitute.org/site/publications/project\\_reports.aspx](http://www.mcguinnessinstitute.org/site/publications/project_reports.aspx)
- <sup>xxi</sup> International Survey of Herbicide Resistant Weed <http://www.mcguinnessinstitute.org/>
- <sup>xxii</sup> (FAO 2004, Preliminary review of biotechnology in forestry, including genetic modification. Forest Genetic Resources Working Paper FGR/59E. Rome. Available at: [www.fao.org/docrep/008/ae574e/ae574e00.htm](http://www.fao.org/docrep/008/ae574e/ae574e00.htm); [www.i-sis.org.uk/UNCaution.php](http://www.i-sis.org.uk/UNCaution.php) 'A Concept to Engineer Male Reproductive Sterility in Conifers,' Christian Walter; [www.isb.vt.edu/news/2006/artspdf/jun0601.pdf](http://www.isb.vt.edu/news/2006/artspdf/jun0601.pdf); [www.isb.vt.edu/news/2006/news06\\_jun.htm#jun0601](http://www.isb.vt.edu/news/2006/news06_jun.htm#jun0601). ISIS Press Release 12/10/05, UN Cautions Over GM trees.
- <sup>xxiii</sup> Environment Court Decision November 2013 BOP vs Scion <http://www.boprc.govt.nz/media/321876/environment-court-decision-18-dec-2013-env-2012-339-000041-part-one-section-17.pdf> Environment Court decision (No. [2015] NZEnvC 89) – Northland RC vs Federated Farmers, Judge LJ Newhook, full document on <http://www.ge-free.co.nz/assets/pdf/20150512145527872.pdf>.
- <sup>xxiv</sup> Smyth et al., 2002
- <sup>xxv</sup> <http://organicalberta.org/news/gmos-in-honey-banned-in-europe> 29 September 2011
- <sup>xxvi</sup> Pollen from GM soybeans threatens Mexico's honey sales, 11 February 2014 [http://www.naturalnews.com/043931\\_GM\\_soybeans\\_bee\\_pollen\\_honey\\_sales.html](http://www.naturalnews.com/043931_GM_soybeans_bee_pollen_honey_sales.html)
- <sup>xxvii</sup> <http://www.organicnz.org.nz/node/258>.
- <sup>xxviii</sup> <http://rense.com/general33/fd.htm>
- <sup>xxix</sup> <http://www.organicnz.org.nz/node/245>; <http://www.organicnz.org.nz/node/232>; <http://www.organicnz.org.nz/node/227>.

5 September 2011

Lyn Neeson

s 9(2)(a)

Dear Lyn

### Effect of shading on pastures & profitability on Ruapehu hill country farms

Further to my discussions with Jim Walker, I present the following analysis:

#### A. DATA USED:

- Pasture growth data is as collected and analysed by AgResearch (supervised by scientist Rex Webby) from Gordon & Jean Dobbs' property in the Kaitieke Valley, during the period July 1992 to June 1993. This property was the Southern King Country Monitor Farm over this period, the programme facilitated by myself with involvement by AgResearch, Ruakura. The Dobbs' property is considered to be representative of the Ruapehu region.

Aspect	Contour	Annual pasture growth	
		Kg DM/ha	Shady as % of sunny
a) North-west (sunny)	Easy	9432	
	Moderate	9123	
	Steep	7939	
	Average	8831	
b) South-west (shady)	Easy	4620	49%
	Moderate	4889	54%
	Steep	4543	57%
	Average	4684	53%
c) Average difference		4147	47%

## **2. Profit from pasture grown:**

Analysis of actual Taumarunui hill country results for the financial year ending 30 June 2011 and budgeted figures for the current year ending 2012 were considered.

Poor weather in the first, critical few months of the 2010/11 year reduced animal production and profit, but strong price increases were achieved in the latter half of that year.

The 2011/12 year budget figures assume improved production and product prices 5-10% below that achieved in the latter part of the previous year.

The return from 1 kg DM is expressed as the gross margin and ranges, depending on contour, from 5c to 9c per kg DM - average 7c.

This gross margin can be thought of as the cash loss which would be experienced through the loss of pasture volume, for any reason.

Where, for example in a shading situation, the pasture quality is also reduced, the cost could be expected to be greater (not allowed for in this analysis).

## **B. ESTIMATE OF PROFIT LOST FROM PASTURE SHADING:**

Using the above data, I estimate the lost profit per ha where sunny pasture becomes shaded as:

4147 kg DM x 7c = \$290 per ha.

Yours faithfully

**GEOFF BURTON B Ag Sc, MNZIPIIM (Reg), ANZIV, SPINZ**  
Rgd Farm Management Consultant  
Rgd Valuer

# FURTHER SUBMISSION

TELEPHONE s 9(2)(a) | WEBSITE [WWW.FEDFARM.ORG.NZ](http://WWW.FEDFARM.ORG.NZ)



To: **NES-PF Consultation  
Attn Stuart Miller  
Spatial, Forestry and Land Management  
Ministry for Primary Industries  
PO Box 2526  
WELLINGTON 6140**

From: **Ruapehu Federated Farmers**

Further Submission on: **Proposed National Environmental Standard for Plantation Forestry.**

Date: **9 August 2015**

Contacts: **LYN NEESON**

**s 9(2)(a)**

Ruapehu Federated Farmers have made submissions to previous versions of the NES Forestry, as well as District Council rules around forestry. We have been vocal and concerned for our members because of the detrimental effects forestry plantations have to pastoral neighbors on this steep, fertile sheep and beef country. We strongly believe that a neighbor should not negatively impact on another neighbor and we have documented clear evidence that this is the case when trees are planted too close to boundaries.

We are particularly concerned about the Afforestation setbacks (page 60 Nes Plantation Forestry 2015). The Risk associated with afforestation has been understated and does not consider risks associated to neighboring farmland such as shading of pasture, damage to fences and pasture by falling limbs and trees, impact of grass growth from pine needles and weed infestation.

A Nation wide setback of 10 meters horizontal from an adjoining property under different ownership is not sufficient to mitigate the Risks outlined above. We submitted to Ruapehu District Council Plan and believe that the outcome of that decision was more supportive of



neighbors than this proposal is. (See Appendix 1, RDC plan pg 7 RU4.1 Forestry activities attached)

The NES Proposal would be regressive for neighbors in Ruapehu. We are concerned that in the rush to make life easier for foresters the cost will fall on neighboring pastoral properties. We consider the 10 meter horizontal set back from adjoining property under different ownership is inadequate and propose a **15 meter horizontal setback**.

### **Supporting Arguments:**

#### **Shading**

Without doubt shading will cause a loss of income on pastoral land where the forest sits on a northern boundary causing maximum shading. This effect will vary depending on the quality of the land and will be more accentuated where it affects flat to rolling ground which is more intensively used.

In Ruapehu such pockets of land can be limited and extremely valuable to individual farms.

There seems to be a lack of research on shading effects on pasture growth by pine trees so we have had to call on local research done on sunny and shady faces in Kaitieke, Ruapehu District. We question what other research MPI has been able to use to arrive at the conclusion they have reached.

The relevant research and economic calculations are enclosed in Appendix 2 (Geoff Burton's Report and Jim's analysis as presented to RDC Plan hearing)

#### **Boundary Overlap.**

With a 10 meter horizontal setback many mature trees, especially outside trees, will lean over the boundary causing further pasture growth rate losses and souring of pastures by needle drop. This may give the visual effect of more pasture but is in fact due to avoidance by livestock.

Having trees too close to boundary fences also leads to ongoing issues with fence damage and given that branches of mature pine trees can fall 15-20 meters out from the tree base, a 10 meter setback will not help with this.

Previous responses to this issue have suggested that this is a simple boundary fence dispute that can be solved by the fencing act and is outside the scope of the NES but it was accepted as being a problem by the detailed rules around fencing in the MOU between Forestry and Federated Farmers signed in 2012.

Forests are a notorious harbor for a number of animal pests, notably pigs. Pigs can be devastating at lambing time and are known to take lambs at birth. This can cause serious economic losses and with branches falling on fences it becomes impossible for farmers to keep them out. We need rules that will solve this, not that will exacerbate it.

#### **Weed Control.**

Having trees too close to boundaries makes weed control difficult due to lack of access for foresters.

Blackberry, tutsan and gorse are all weeds that cause considerable problems in Ruapehu district and need to be controlled. Some have boundary separation rules under our Regional Plan of 10 meters where no infestation occurs on the neighboring land. Foresters should, at a minimum, be able to send back pack sprayers in to deal with weeds.

Wool growers can achieve reasonable premiums for low vegetable matter wool and weeds growing over boundary fences can affect that. Blackberry can also trap young woolly hogget's and lead to death.

### **Setbacks from Urban Areas**

The 40 m and 30 m setback proposed from existing dwelling or urban/residential zone is also less than that currently in the Ruapehu District Council rules (75 m and 45 m respectively). The current District Council rules understand the particular local climate with long winter shadows and cold foggy weather. As stated, "these conditions aim to establish setbacks so as to avoid effects of forestry on adjoining properties, including urban zones, residential sites and public roads" (page 61 NES-PF 2015) but our local regulators understand our local conditions and have already decided that these proposed setbacks will not go far enough.

### **GM Trees**

RFF do agree that the use of GM trees that allow for a reduction in the risk of wilding trees growing as pests and the use of less extreme chemicals used as a release spray would be beneficial to farming because of the devastation caused by overspray of highly toxic, long lasting chemicals currently used as a pre release for forestry.

### **Conclusion**

Ruapehu Federated Farmers believe that the rules in the Ruapehu District Plan go a long way to helping with the shading issues. It was a hard won fight and we spent considerable resources establishing our arguments for the current rules. The NES-PF as proposed will disadvantage Ruapehu Farmers.



*If any activity associated with this proposal, such as earthworks, fencing or landscaping may modify, damage or destroy any archaeological site(s) an authority (consent) from the New Zealand Historic Places Trust must be obtained for the work prior to commencement. It is an offence to modify, damage or destroy a site for any purpose without an authority. The Historic Places Act 1993 contains penalties for unauthorised site damage. The applicant is advised to contact the New Zealand Historic Places Trust for further information.*

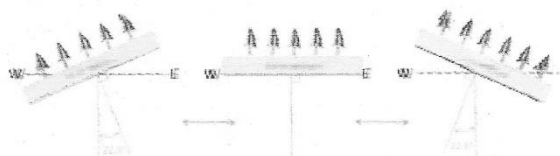
#### RU3.4 Specific Conditions

The following Specific Conditions shall apply to the Permitted Activities specified below. Where these Specific Conditions differ from the requirements of the General Conditions in Section RU3.3 above, the Specific Condition shall be applicable.

##### RU3.4.1 Forestry Activities

- (a) Separation from Urban Zone  
Forestry planting shall not be located within 75m of any Residential Zone or 45m of any Urban Settlement Zone.
- (b) Forestry planting shall not be located:
  - (i) Within 25m of the northern boundary of:
    - (1) Any adjoining property used for pastoral farming or horticulture at the time of planting; and
    - (2) Held in a separate certificate of title and owned or administered by a person or organisation other than who or which is undertaking the planting; and
    - (3) The orientation of the boundary is on a line perpendicular to a line within an arc 22.5 degrees either side of north (as shown on Diagram A below) except where topography is already preventing direct sunlight access onto the property or where the planting of trees will not cause shading of the adjoining property.

Diagram A – Rule 3.4.1(b)(i)(3).



- (ii) Within 10m of all other boundaries (excluding State Highways and local roads) held in a separate certificate of title and owned or administered by a person or organisation other than who or which is undertaking the planting.
- (c) Separation from Roads  
No vegetation shall be allowed to be grown in a position which will shade any road carriageway between the hours of 10am and 2pm on the shortest day of the year except where:
  - (i) Topography is already preventing direct access of sunlight onto the road carriageway; or
  - (ii) The road is a private road, or an unsealed public road (which is not programmed to be sealed within the lifetime of this Plan); or

## **Evidence to the Ruapehu District Plan Hearings From Jim Walker for Ruapehu Federated Farmers**

The effects of shading from plantation forestry on pastoral land adjoining the forests.

This evidence relates specifically to pastoral land on a forest's southern boundary.

Ruapehu Federated Farmers have been unable to find any direct credible research on this issue.

Any research attempting to quantify such losses directly is likely to be inaccurate due to other influences than light and temperature. An example of this is the transfer of nutrients on to the site from camping livestock.

There is some research available on the effects of space planted trees over pasture. This shows significant losses.

However, we have chosen to draw on our experiences of pastoral farming and research done in this district at Kaitieke on the effects of aspect and the influence of shading and temperature on pastoral production.

This influence will be similar to the effects of shading by trees.

This research is described in an attached letter from Geoff Burton, B Ag Sc, Registered Farm Management Consultant, Taumarunui.

Mr Burton also quantifies the value of this lost dry matter based on his extensive experience of hill country production in this area.

We will show the financial effects of this loss by using an example of a one kilometre long boundary strip with 25 metre high trees on the northern side, set back 10 metres.

The trees will cast a shadow of approximately 50 metres in a noon sun on June 2<sup>nd</sup> (Julia Masters page 68 RDC Proposed Plan Changes, Forestry Chapter.)

Given the midsummer shading will be reduced to 5 metres, being the trees overhang, we have assumed an average effect over the year of 25 metres shading.

A one kilometre length of boundary at 25 metre shading would amount to 2.5 hectares affected.

The research provided by Mr Burton gives production of 47% below average or an average loss of 4,147 kilograms of Dry Matter per hectare (DM/ha).

Much of this production is lost in the winter when pasture value is at its highest.

Mr Burton has valued this at 7c/kg DM/ha.

Taken over the one kilometre boundary that is a total of  $\$290 \times 2.5 \text{ ha} = \$725$  per year.

Taking this over the life of the forest for a site planted in radiata pine, where the effect is less early in the forest life but greater towards maturity when the trees will grow to 35 metres, we estimate the affect over 16 years.

16 years at  $\$725 \text{ pa} = \$11600.00$

In the case of carbon sink forests, where the trees are larger and longer lived, we estimate the effect would be accentuated.

These losses will be further accentuated by nutrient and moisture loss to the tree roots and acidification from pine needle drop.



# Proposed National Environmental Standard for Plantation Forestry Template for Submitters

We would like to hear your views on the proposed NES-PF.

Please feel free to use this template to prepare your submission. Once complete please email to [NES-PFConsultation@mpi.govt.nz](mailto:NES-PFConsultation@mpi.govt.nz).

As stated in section 8.2 of the consultation document, your submission must include at least the following information:

- your name, postal address, phone number and, if you have one, email address
- the title of the proposed standard you are making the submission about
- whether you support or oppose the standard
- your submission, with reasons for your views
- any changes you would like made to the standard
- the decision you wish the Ministers to make.

When commenting on specific draft rules, please be as clear as possible which rule you are referring to and provide a reference e.g. to the relevant page number, heading or text.

For more information about how to make a submission, please refer to section 8 of the consultation document.

## Contact details

**Name:**

Warren Parker

**Postal address:**

**Phone number:**

**Email address:**

**Are you submitting on behalf of an organisation? Yes [X]      No [ ]**

**If yes, which organisation are you submitting on behalf of?**

Scion (New Zealand Forest Research Institute Ltd)

**If you are a forest owner/manager, what size of forest do you own/manage (in hectares):**

-



### ***Privacy Act 1993***

Where you provide personal information in this consultation MPI will collect the information and will only use it for the purposes of the consultation. Under the Privacy Act 1993 you have the right to request access and correction of any personal information you have provided or that MPI holds on you.

### ***Official Information Act 1982***

All submissions are subject to the Official Information Act 1982 and may be released (along with the personal details of the submitter) under the Act. If you have specific reasons for wanting to have your submission or personal details withheld, please set out your reasons in the submission. MPI will consider those reasons when making any assessment for the release of submissions if requested under the Official Information Act.

*Please indicate below if you wish your personal details to be withheld:*

☒ Please withhold my personal details where submissions are made public

☐ Please withhold my personal details in response to a request under the Official Information Act 1982

## **Questions for submitters**

The questions for submitters that are included throughout the consultation document are provided below. We encourage you to provide comments to support your answers to the questions below.

### **Preamble**

#### **Scion**

Scion is New Zealand's pre-eminent forest industry research organisation. Scion's core purpose is to drive innovation and growth from New Zealand's forestry, wood product and wood-derived materials and other biomaterial sectors, to create economic value and contribute to beneficial environmental and social outcomes for New Zealand. With over 60 years of experience Scion has:

- managed a broad range of research programmes in partnership with the New Zealand forest industry to support economic development through forestry and forest products. This also includes science and innovation in relation to land-use within environmental limits, forest biosecurity (surveillance, eradication and protection) and market access; tree breeding and genetic improvement of plantation forestry species using a broad spectrum of biotechnologies; and mitigation of forest hazards (fire, wind and erosion/flooding).
- undertaken substantial work with Government and forest growers to provide authoritative technical information to support policy development and policy implementation related to the environmental impacts of plantation forestry including





harvest management on steep lands to minimise sediment and harvest residue flows into water ways; and effects of forest systems on water quality and biodiversity.

- worked extensively with the New Zealand forest owners in support of their 'license to operate', including environmental certification (such as Forest Stewardship Council (FSC) and PEFC) and resource consent requirements.
- led research programmes to expand opportunities for wood processors including via new materials, bio-energy and specialty chemicals derived from forest biomass.

### **New Zealand's forestry sector**

- The forest industry is New Zealand's third largest industry producing over \$5.1 billion of export revenue and about \$3 billion in domestic revenue per annum. The industry's strategic goal is to lift export earnings to \$12 billion per annum by 2022.
- New Zealand attracts substantial overseas investment into forestry. New Zealand's natural climatic advantages, world class sustainable forest resources and management systems and tools, strong research base and political stability are all attractive to investors.
- New Zealand's ability to grow and utilise renewable forests for a wide range of products provides a strategic, competitive advantage that is expected to strengthen as markets for low carbon renewable composite materials, energy and biochemical products grow.
- There is a large and steadily emerging economic opportunity for provision (and monetisation) of forest ecosystem services beyond timber production such as carbon sequestration, improved water quality, flood and erosion protection; and biodiversity enhancement.

1. Do you think section 2.1 and 2.2 of the consultation document accurately describe the problem facing plantation forestry?

Please provide comments to support your views.

The discussion document has suitably outlined the problems facing the forest industry and the rationale for the NES approach. Small improvements could be made by commenting on some additional issues such as land use change on neighbouring land that takes place after forest establishment. On-site and off-site impacts could be considered separately, with the former requiring a lower level of regulation – for example, sediment movement that does not enter waterways or leave the forest boundary.

2. Do you consider that the conditions for permitted activities will manage the adverse environmental effects of plantation forestry?

Please provide comments to support your views.



The conditions for permitted activities provide a sound scientific and reasonable basis for managing adverse environmental effects of plantation forests. These are fit-for-purpose, able to be monitored and allow scope for adaptive management (continuous improvement). It would be useful to make the criteria used to categorise risk explicit within the main body of the document.

3. Are the conditions for permitted activities clear and enforceable (see appendix 3 of the consultation document)? Can you suggest ways of making the rules clearer and more enforceable?

Please provide comments to support your views.

The conditions are clear and unambiguous and therefore should be enforceable, given adequate resources.

4. Are the matters where local authorities can retain local decision-making appropriate (summarised in Table 2 and Table 4 and provided in detail in Appendix 3 of the consultation document)?

Please provide comments to support your views.

In general, yes.

5. Will the environmental risk assessment tools (the Erosion Susceptibility Classification, the Wilding Spread Risk Calculator, and the Fish Spawning Indicator) appropriately manage environmental effects as intended (see section 3.5 of the consultation document)?

Please provide comments to support your views.

The tools will assist with the management of the environmental effects they address. Scion would like to see a formal process (and funding mechanism) adopted to ensure that the tools used to support risk assessment are continually upgraded to improve their accuracy and precision and ease of use (i.e. to ensure that these are easily able to be interpreted and applied in real time). For example, the Erosion Susceptibility Classification has undergone enhancement in response to testing by forest growers, whereas the Fish Spawning Indicator is new. As new results come to hand these tools should be updated for these findings and to ensure the full scope of matters impacting are adequately addressed.

6. Do you have any comments about any particular activity or draft rule (see appendix 3 of the consultation document)?

Please include reference to the rule you are referring to.



We suggest that the “General Conditions” are listed first.

**Page 70 Harvesting**

- riparian vegetation disturbance: change to “riparian vegetation and stream channel disturbance”;

**Page 72 Harvesting**

- Slash and debris management: There is no definition for flood flows. Pruning and thinning has a flood flow definition of up to a 10-year return event – there should be a similar definition here. In stating this we note it is impossible to manage for all flood flows.

The slash and debris management rules fail to consider that the retention of some logging slash in water ways is ecologically beneficial to stream ecosystems and a natural component of indigenous forested streams in New Zealand. The wording should be modified to acknowledge this or there should be at least a footnote to this effect.

**Page 96 Matters that are out of scope of the proposed NES-PF**

- Effects that may arise from forestry activities

We suggest adding an additional item to the table to the effect that impacts on biodiversity in plantation stands, excluding nesting, spawning and the effects of wildings, is considered out of scope of the current NES. The rationale given should include an indication of how broader biodiversity issues will be addressed in future.

Biodiversity impacts are limited to wildings, fish spawning, bird nesting and the clearance of indigenous vegetation and habitat where listed as significant in regional and district plans. This leaves a number of issues not covered, e.g.:

- loss of biodiversity in the pre-afforestation land use;
- replacement of pre-afforestation indigenous vegetation through competition (rather than clearance);
- protection for indigenous flora and fauna that has not already been identified in the Regional or District Plan, including invertebrates.

7. Is the NES–PF the best option to meet the assessment criteria (in Box 13 of the consultation document)?

Please provide comments to support your views.

Yes, Scion considers the NES-PF best meets the assessment criteria.

8. Have the expected costs and benefits of the NES-PF been adequately identified (see section 4.3 of the consultation document)?

Please provide comments to support your views.



Yes, Scion considers that the expected costs and benefits have been adequately identified, noting that assessing the economic impact of the environmental effects can be difficult.

9. Are there any issues that may affect the successful implementation of the NES-PF (such as decision-makers applying the permitted baseline test more frequently)?

Please provide comments to support your views.

Implementation success will depend on:  
Correct identification of the problem  
Identification and engagement of stakeholders  
A participatory approach with stakeholders to ensure uptake.

The ECFP is one example where more engagement with stakeholders may have led to greater uptake<sup>1</sup>.

Councils and forestry companies will require some support during the implementation phase. It is likely that the 'transitional' costs of staff training noted on page 34 will be on-going, given the turn-over of staff within Councils. Councils will also require resources for monitoring permitted activity conditions.

Warmenhoven, T., Barnard, T., Pohatu, P., Garrett, L., Porou, T., Fitzgerald, G., Harrison, D., Barry, L., & Ruru, W. (2014). Climate Change and Community Resilience in the Waiapu Catchment. Report prepared for MPI, June 2014.

10. Please describe any risks or opportunities that you consider have not been identified or addressed in the proposal.

Integration of Environmental Standards for all land uses in New Zealand will be an issue. This includes situations in which land use changes – for example, at what point does the conversion of planted forest to another land use cease to be a forestry operation subject to the NES-PF?

11. Will the proposed NES-PF support regional councils to implement the NPS-FM (see section 6.1 of the consultation document)?

Please provide comments to support your views.



For the most part – yes. However a critical point for the forest industry is around sediment control. For example, forest companies may be meeting their obligations under the NES-PF for sediment control yet potentially fail to meet forestry’s share of the freshwater objectives set for a particular catchment under the NPS-FM because there is still an increase in sedimentation in a specific year that corresponds to a certain point in the forestry cycle such as harvesting.

12. What resources or other implementation activities would help you to prepare for and comply with the proposed NES-PF (see section 7 of the consultation document)? How should these activities be delivered (for example, training, online modules, guidance material)?

Planted forests as a land-use are under-represented in the national water quality monitoring network, limiting the ability to monitor the effectiveness of the NES-PF in protecting freshwater resources. Increasing the number of planted forest water quality monitoring sites in the national network would improve the ability to monitor the effectiveness of the NES-PF.

13. Are there any other issues that you would like to raise?

Scion endorses the EPA having sole decision-making power over the introduction and use of genetically modified organisms. The provisions of the HSNO Act and the rigorous process undertaken by the EPA ensures wider public, iwi and local community issues are aired and considered in terms of benefits:risks. Forest companies confronted by a new biosecurity disease or pest threat to their planted forests need to have access to improved genetic material as early as practical after field trials in containment confirm the efficacy and benefits:risks of the new germplasm. They also need to be able to respond to the increased competitiveness of countries where leading genetic technologies are able to be responsibly applied. Scion also notes the increasing availability of new breeding biotechnologies that provide scope to replace conventional GE approaches.

To ensure consistency with the MfE LUCAS reporting system we suggest the NES be renamed to: A National Environmental Standard for Planted Forests. Similarly, throughout the NES document replace ‘plantation forestry’ with ‘planted forests’.

It would be helpful to include a definition of stream width in the Glossary that includes a diagram. The draft rules refer to “Bank full channel width” (eg. Setbacks, pages 63, 67, 75 & 81) but sometimes a width cutoff is given with no specific definition (eg. crossing placement, pg 90). It would be helpful if a single stream width definition is used and this is stated in the glossary (i.e. bank full channel width - rather than wetted width - applies in every case).

NES-PF Consultation  
Attention: Stuart Miller  
Spatial, Forestry and Land Management  
Ministry for Primary Industries  
PO Box 2526  
Wellington 6140  
Email: NES-PFConsultation@mpi.govt.nz

12 August 2015

## COMMENTS ON THE NATIONAL ENVIRONMENTAL STANDARD- PRODUCTION FORESTRY

1. Thank you for this opportunity to comment on the National Environmental Standard – Production Forestry (the Standard) by the Ministry for Primary Industry and Ministry for the Environment.
2. Southern Inshore Fisheries ('Southern Inshore') represents quota owners for 104 inshore fishstocks throughout the South Island and Taranaki regions (fisheries management areas 3, 5, 7 & 8) and is a member of Fisheries Inshore New Zealand.
3. Southern Inshore supports the combined submission from the Paua Industry Council, Specialty & Emerging Fisheries and NZ Rock Lobster Industry Council, and the submission from Fisheries Inshore New Zealand.

### Consultation

4. The seafood industry is the fourth largest merchandise-export industry and should have been consulted on the development of the Standard and the risk that it imposes on the marine environment and especially when it is contrary to the Resource Management Act and local authority planning controls.
5. We believe it is a failing of the Ministry for Primary Industry and Ministry for the Environment not to recognise that other primary industries are integrated with the terrestrial and marine environments and should be consulted.

### General

6. Southern Inshore recognise that plantation forestry is an important land use activity and industry in New Zealand and produces economic, social and environmental

benefits. However, we do not agree with the removal of local authorities from the planning, management and monitoring, and decision-making and have this role forfeited to a national standard that puts regional catchment and marine coastal environments at risk.

7. The Standard suggests the lack of co-ordination between local authority definitions for remedial actions or rules warrants the development of the Standard. Rather than proposing a further layer of bureaucracy, MPI and MfE should be working with local authorities to review and align planning controls to achieve standardisation.
8. Southern Inshore represents a number of fishstocks that rely on the coastal marine environment and have over recent years seen the increase in sedimentation from rivers and streams and impacting on demersal and sedentary fishstocks.
9. We note from your membership list for the Stakeholder working group that the seafood sector, southern South Island local authorities or the Marlborough District Council were not members even though especially in the Marlborough Sounds there is significant commercial seafood infrastructure and risks to seafood production from this Standard.
10. Notwithstanding the effect of suspended sediment and deposition effects of sedimentation on bivalve species the reduction in access to habitat for species such as blue cod especially will have a significant impact on the sustainability of this fishstock and access by the customary, commercial and recreational sectors. The blue cod fishery in the Marlborough Sounds is already under stress from fishing and will not benefit from a reduction in available habitat that is close to shore and adjacent to a number of catchment runoff areas. Habitat reduction has already impacted this species by sedimentation and marine farming.
11. We welcome a cessation to the decision-making until the commercial seafood sector has been consulted and the risks fully understood by the working group and government officials.

Contact: Carol Scott



11 August 2015

Spatial, Forestry and Land Management  
Ministry for Primary Industries  
PO Box 2526  
Wellington 6140

**Re: Submission Proposed National Environmental Standard for Plantation Forestry (NES-PF)**

Dear Minister Guy,

We **oppose** the Proposed Standard – NES & other relevant legislation: 6.4 - Genetically modified tree/root stock (p. 43, Appendix 3, Afforestation, p. 64 & Replanting, p. 82)

**Submission and Reasons –**

The GM clauses on p. 43, 64 & 82, in the proposed NES – PF do not meet the objectives of environmental protection for communities, nor does the standard take into account the inherent dangers and liabilities associated with novel genetic technology and its potential contamination of - soils, indigenous and exotic flora & fauna, pruning debris, waterways, trophic ecosystems and waterways.

We ask that you remove all conditions and references permitting genetically modified organisms to be the sole responsibility of the Environmental Protection Authority (EPA) under the Hazardous Substances and New Organisms Act (HSNO) and allow Councils to manage Regional and District land use through their mandated planning functions' under the Resource Management Act (RMA).

Both the Environment Court and the Royal Commission on Genetic Modification (Chapter 13, Recommendation 13.1, H1, p.339) have stated the clear responsibilities and boundaries between the EPA and Council jurisdiction, there is no "duplication" between the HSNO or RMA once a GMO is released. This must not be undermined by any clause in the proposed NES-PF.

The Environment Court, Judges Thomson and Newhook, decision upheld the Councils ability, under the RMA, to place policies, rules and objectives, on the management of GMO land use activities as part of their management and planning functions in their regional and district plans [1], [2].

**References:**

- [1] <http://www.boprc.govt.nz/media/321876/environment-court-decision-18-dec-2013-env-2012-339-000041-part-one-section-17.pdf>  
[2] <http://www.ge-free.co.nz/assets/pdf/20150512145527872.pdf>

**Changes we would like you to make -**


- Remove all GM clauses in the proposed NES – PF and references permitting genetically modified organisms to be the sole responsibility of the Environmental Protection Authority (EPA) under the Hazardous Substances and New Organisms Act (HSNO) and
- Retain and provide for Local Bodies to place more GM stringent land use rules, objectives and policies in their plans for the management of the natural and physical resources through their mandated planning functions' under the Resource Management Act (RMA).
- Protect the Local Bodies mandate and duty of care, under the RMA, to the existing foresters, primary producers and businesses in their region and districts so they can maintain their responsibilities with national and global certification bodies.
- Ensure that the Regional and District Councils have the ability, under the RMA, to create a much needed additional tier of local protection against the risks of outdoor release and use of GMOs.

**The decision we would like the Minister to make**

1. Remove all wording in the NES-PF in 6.4 p.43, Appendix 3; Afforestation: p. 64 & Replanting: p. 82, referring to genetically modified trees and rootstock.
2. Place an added condition in the proposed NES-PF stating that Local Bodies can set more stringent rules, objectives and policies on GMO's as part of their land use planning function, under the RMA, when addressing the economic, social and cultural wellbeing of their communities.

We wish to be heard. Please keep us informed.

Yours faithfully

  
Sally Adams  
Administration Manager



# Tennyson Inlet Boat Club Inc

11<sup>th</sup> August 2015

To: NES-PF Consultation,  
Attn: Stuart Miller,  
Spatial, Forestry and Land Management,  
Ministry for Primary Industries,  
PO Box 2526,  
Wellington 6140.

**Submission on the National Environmental Standard – Production Forestry,  
Consultation Document (MPI Discussion Paper No: 2015/18)**

## **Introduction**

The Tennyson Inlet Boat Club Inc (TIBC) welcomes the opportunity to submit on the “*National Environmental Standard – Production Forestry, Consultation Document*” (NES-PF).

TIBC is an incorporated society that was formed in 1958 and whose membership is made up of 184 families that predominately live or have holiday baches in the Marlborough Sounds. The Club owns and maintains launching ramps, swimming platforms and jetties in Duncan Bay and Penzance Bay. It also plays a leading role in representing and generating responses on:

- Legislative and regulatory proposals affecting the recreational fishing resource in the Marlborough Sounds area.
- Advocating for the protection of the marine and coastal environment of the Marlborough Sounds area.
- Advocating for the sustainable utilization of natural resources.
- Active participation in fisheries and coastal management initiatives that are in the best interests and for the benefit of the members of TIBC and the wider community.

Our interest in the “*National Environmental Standard – Production Forestry, Consultation Document*” is based on the potential damage that production forestry causes to the sensitive inshore environment of the Marlborough Sounds. This damage has been well documented by Davidson Environmental Ltd, in their report: *Davidson, R. J.; Richards L. 2003: Biological report on three sites in Tory Channel in relation to recent or proposed forestry activities. Prepared by Davidson Environmental Limited for Marlborough District Council. Survey and Monitoring Report No. 444.*

Further information on the general degradation of marine environments in the Marlborough Sounds is available from *Davidson, R.J.; Richards, L.A. 2015. Significant marine site survey and monitoring programme: Summary 2014-2015. Prepared by Davidson Environmental Limited for Marlborough District Council. Survey and monitoring report number 819.*

The damage to marine environments nationwide from inappropriate production forestry is worrying and a vastly improved management regime needs to be implemented to improve forestry practices. The health of the Marlborough Sounds marine environment is paramount to us, but this is something that needs to be addressed on a national basis, hence our interest in the NES - PF.

TIBC therefore would like to respond to the specific questions posed in the consultation document:

**1. Do you think section 2.1 and 2.2 accurately describe the problem facing plantation forestry?**

No. The problem of “unwarranted variation” between Councils is the result of poor planning and undue parochialism. If Council staff were better trained, and took more notice of submissions seeking consistency between planning instruments, then the “problem” would be automatically solved without the need for a National Standard.

Section 2.2 only really discussed fish spawning habitat and sedimentation risk. There needs to be a whole additional section on the effects of forestry-induced sedimentation on marine environments, especially in confined waters such as the Marlborough Sounds. The environmental benefits of production forestry are overstated. Production forestry effects are not well-managed in the Marlborough Sounds, or elsewhere. There is nothing in the NES-PF which suggests that these effects will be “well managed” in the future under the scenarios presented in the consultation document.

**2. Do you consider that the conditions for permitted activities will manage the adverse environmental effects of plantation forestry?**

No. They are far too permissive. They also duck-shove the trouble and expense of monitoring the effects of forestry activities onto the ratepayer. The adverse effects of forestry activities on marine environments in the Marlborough Sounds are a salutary lesson in how bad outcomes emanate from permissive planning. We believe that the rules, as

stated in the consultation document, are wholly inadequate for managing the effects of plantation forestry on coastal marine environments. At the very least the Marlborough Sounds (and similar enclosed waterways in NZ) should be all zoned “red”.

**3. Are the conditions for permitted activities clear and enforceable? Can you suggest ways of making the rules clearer and more enforceable.**

The Rules are quite unclear, and should be re-written in plain-english, at least for the benefit of submitters who try to make sense of it and do not have degrees in planning or public policy.

We believe that the enforceability of permitted activities will reduce as a result of the NES – PF, as it allows a much more permissive forestry regime.

**4. Are the matters where local authorities can retain local decision-making appropriate?**

Local authorities in Marlborough have not been able to prevent the adverse effects of sedimentation on the Marlborough Sounds marine environment, as documented in Davidson and Richards (2003). The NES-PF has made no attempt to rectify this problem. It merely focuses on allowing forestry activities to continue on inappropriate lands with fewer controls.

**5. Will the environmental risk assessment tools (the Erosion Susceptibility Classification, the Wilding Spread Risk Calculator, and the Fish Spawning Indicator) appropriately manage environmental effects as intended?**

No. We have no faith in the Erosion Susceptibility Classification, as it was never designed to be used for forestry planning purposes. The Resource Management Act provides some safeguards from forestry-induced point-source sediment discharges, through Section 107. The NES-PF seeks to reduce these safeguards, and provides no meaningful rules which would effectively manage non-point sediment discharges. This is not an acceptable permitted-baseline for the Marlborough Sounds or elsewhere.

**6. Do you have any comments about any particular activity or draft rule?**

- 30m setbacks from the coastal marine area are totally inadequate.
- All earthworks on slopes >15 degrees, and within 50 metres of a waterway should be discretionary activities, as they all potentially release sediment into waterways
- There are some very loose controls in the Rules such as “all practical steps”, “other means as required” etc etc. These need to be tightened up a lot.

- Quarrying should not be included in the NES-PF at all. It will be far too easy to get away with quarrying for other purposes under the permitted-activity status for forestry quarrying.
- All areas within 2 kilometers of the coast, and 5 kilometers of enclosed marine environments (such as harbours, inlets, estuaries and including the Marlborough Sounds), should be zoned “red”.

**7. Is the NES – PF the best option to meet the assessment criteria in Box 13?**

The potential costs of unrestricted forestry on inappropriate land are enormous. The benefits of planting forests on erodible lands are minimal at best. The last thing that we should do is encourage inappropriate land use and investment, especially for long-term activities such as forestry.

With regard to monitoring, we are very concerned that the NES\_PF will transfer the costs of monitoring the adverse effects of forestry from the forest owners to the general ratepayers.

**8. Have the expected costs and benefits of the NES – PF been adequately identified?**

We think that a lot more work needs to be done on the environmental costs to the wider community, especially marine environments, before the NES-PF proceeds to the implementation phase through the gazettal of regulations.

**9. Are there any issues that may affect the successful implementation of the NES – PF (such as decision-makers applying the permitted baseline more frequently)?**

We expect there to be a lot of confusion about what is permitted and what is not, especially on the basis of the Erosion Susceptibility Classification, which are difficult to download, quite confusing, and unfit to be used as a tool for managing sedimentation of waterways.

**10. Please describe any risks or opportunities that you consider have not been identified or addressed in the proposal.**

The substantial effects of widening the permitted baseline to production forestry on coastal/marine environments have not been considered. There is a major risk to the Marlborough Sounds from the proposed NES- PF.

**11. Will the proposed NES-PF support regional councils to implement the National Policy Statement – Freshwater Management?**

No. Because the greater permissiveness and fuzzy controls on the damaging activities of forestry will reflect badly on water quality, both freshwater and marine. We are also concerned that the NES-PF Table 2 (out-of-scope activities) excludes some of the most

damaging forestry activities such as agrichemical use, fertiliser application, leachate management and water yield issues.

**12. What resources or other implementation activities would help you to prepare for and comply with the proposed NES – PF. How should these activities be delivered?**

We do not believe that the NES-PF should be implemented in its present form.

**13. Are there any other issues that you would like to raise?**

See 12 above.

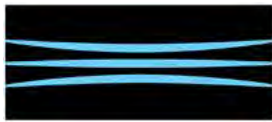
Yours Sincerely

A handwritten signature in blue ink, appearing to read 'R. Smith', is written over a light blue rectangular background.

Roger Smith

**Commodore**





**T R A N S P O W E R**

**Submission by Transpower New Zealand Limited on the  
Proposed National Environmental Standard for Plantation Forestry**

**11 August 2015**

**Address for service:**

Transpower New Zealand Ltd

s 9(2)(a)

Attention: Dhilum Nightingale, Corporate Counsel, Corporate Governance

Email: s 9(2)(a)

Telephone: s 9(2)(a)

1. Transpower welcomes the opportunity to comment on the Proposed National Environmental Standard for Plantation Forestry 2015 (**NES-PF**).
2. Transpower supports the NES-PF but considers that it should include standards relating to the management of forestry activities adjacent to National Grid transmission lines, specifically a setback for afforestation and replanting.

### **Executive Summary**

3. Afforestation and replanting too close to transmission lines creates fire and other risks such as loss of electricity supply and damage to property and infrastructure).
4. It is within the scope of the NES-PF to manage the effects of forestry activities on National Grid transmission lines.
5. The NES-PF is the appropriate vehicle to address this issue given the importance of achieving national consistency on this issue in an efficient and effective manner, and without recourse to submissions and hearings on every district plan in the country.
6. Incorporating an afforestation and plantation setback for forestry from transmission lines in the NES-PF will give appropriate effect to the policy directions in the National Policy Statement on Electricity Transmission.

### **Transpower and the National Grid**

7. Transpower New Zealand Limited (**Transpower**) is the State Owned Enterprise that plans, builds, maintains, owns and operates New Zealand's high voltage transmission network (**the National Grid**).
8. Transpower is required to deliver a reliable and secure electricity supply and operate as a successful business. Electricity underpins economic growth and supports the economic, social and cultural aspirations of all New Zealanders. Electricity contributes actively to the lives of people in New Zealand every day
9. The National Grid extends from Kaikohe in the North Island to Tiwai Point in the South Island. It is the physical infrastructure which transports electricity from where it is generated to the distribution companies which supply electricity to homes and businesses throughout New Zealand.
10. The National Grid comprises around 12,000 km of high voltage transmission lines and 40,000 towers and poles connecting 167 substations and switching stations across the country.
11. The National Grid is an interconnected and linear network and an essential part of New Zealand's electricity system. Without National Grid overhead transmission lines, cables, substations and associated infrastructure, electricity that is generated at power stations cannot reach distribution companies and therefore cannot power New Zealand's homes, businesses, schools communities and major industrial users.



12. The National Grid must be sustainably managed so it can endure and continue to supply a reliable, secure supply of electricity for all New Zealanders. As the country's dependence on electricity continues, the ability to maintain and upgrade the Grid becomes increasingly important in order to ensure a secure and reliable power supply for the country.
13. The importance of protecting the National Grid from adverse environmental effects is recognised in the National Policy Statement on Electricity Transmission (**NPSET**). Both the NPSET and the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009 (**NESETA**), which also apply only to the National Grid, confirm the national significance and critical importance of the National Grid.

### **Trees and transmission lines**

14. Trees must be managed carefully around transmission lines because of risks to the trees, the lines and people, animals and property in the vicinity.
15. Trees growing too close to transmission lines may cause:
  - damage to the lines;
  - faults in the operation of the lines leading to serious disruption to the supply of electricity, including to neighbouring communities;
  - injury or death to someone near the tree, including linespeople or members of the public; and
  - damage to land and property, including forest fires.
16. If trees touch high voltage conductors (wires), or electricity "jumps" the gap to a tree, then dangerous voltages may arise in the area around the tree, or on the tree itself. These voltages have the potential to cause serious injury or death. High voltage electricity flowing into trees can also cause trees to ignite. The effect of a tree fire can be very severe in forest areas, threatening human and animal life and causing property and infrastructure damage.
17. Section 6.2 of the NES-PF discussion document states that *"While it is not common for forestry activities to affect the operation of the electricity transmission network, there is the potential for this to occur if operations are not managed appropriately"*.
18. We make the following comments about this statement.
19. In our experience, trees do fall onto transmission lines and cause flashover incidents. Although these are not everyday occurrences, they do occur on a more than 'rare' frequency. In assessing the risks and determining whether mitigation measures are appropriate, it is important that the consequence as well as the likelihood is considered. The potential consequences of tree strike and flashover are severe. The effects can be described as effects of low probability but with high potential impact (s 3, Resource Management Act 1991 (**RMA**)).

20. Recently Transpower's Dobson Tee line was hit by a tree that fell during a storm event, the tree severed conductors on the line. Due to the snow issues on the two Coleridge-Otira circuits, this left Greymouth and the surrounding area on N security (one circuit only) creating risks to security of supply.
21. A storm event in March 2012 caused two large pines to fall on the Bunnythorpe-Wairakei A line near Rangipo. The weight of the trees on the conductor buckled the tower. New foundations and the replacement tower cost in the order of \$400,000 - 500,000 to repair (see photos below).





22. In another incident, forestry workers who were moving hauling machinery through a forest and close to National Grid lines, created a 'flashover' (where electricity arcs from conductors onto an object, in this case the machinery) causing damage to the lines and the machinery and creating significant fire and safety risks.
23. The serious safety, fire and security of supply risks in these few examples could have been avoided or significantly mitigated if the plantation forestry was setback a minimum safe distance from the transmission lines.
24. There have been increased requests over recent years for Transpower to provide observers during forestry harvesting, to minimise safety risks when trees are harvested near transmission lines. We also face increased pressure to de-energise lines during harvesting activities. Within the past week in Waikanae, two circuits were taken out of service on the Bunnythorpe-Wilton line to allow harvesting to occur safely. This takes redundancy out of the Grid and creates potential risks for security of supply.
25. Any forestry activity near transmission lines is problematic and needs to be carried out with extreme care. Consistent with the 'safety by design' approach that Transpower takes in other situations, Transpower considers that the best way to manage this risk is to ensure plantation forestry is setback a minimum safe distance from transmission lines.
26. At this point we note that the Electricity (Hazards from Trees) Regulations 2003 already provide transmission lines with some protection from trees, and vice versa. However, the regulations have significant limitations. They only deal with the parts of trees growing in very close proximity to conductors, do not cover fall distance trees and do not prevent trees being planted near electricity lines in the first place. The regulations proceed on the basis

that treating part of the problem is better than preventing the whole of it. Transpower does not agree with that.

**Is forestry-management near transmission lines an RMA matter?**

27. The planting of trees is a land-use matter that is appropriately managed under the RMA. In the recent case of *Re MacKenzie Brach of Federated Farmers of New Zealand (Inc)*<sup>1</sup>, the Environment Court held that even the growing of self-sown trees, is an activity that can be managed under the RMA in order to avoid, remedy or mitigate adverse environmental effects and therefore promote the sustainable management purpose of the Act.
28. In Transpower's view, contrary to the statement in section 6.2 of the NES-PF discussion document, land-use management of plantation forestry around transmission lines is within the scope of the NES-PF. Further, from an effects-management perspective, the issues should be addressed in the NES-PF because they are technical requirements that should be applied consistently throughout the country, and not require submissions and litigation in individual district plans.
29. The discussion document notes that the NPSET applies to the National Grid and forestry-management rules could be sought through that instrument.
30. The NPSET provides policy direction only; it does not require specific rules to be incorporated into plans. Policy 11 of the NPSET mandates buffer corridors for sensitive activities (which are defined as including schools, residential buildings and hospitals). Policy 10 requires decision-makers to manage activities to avoid reverse sensitivity impacts on the National Grid and to ensure the operation, maintenance, upgrading and development of the network is not compromised.
31. At present, very few district plans contain land-use rules restricting the planting of forestry, trees or vegetation within National Grid corridors. There has traditionally been resistance from forestry owners and other stakeholders for the inclusion of forestry or vegetation setbacks from lines. As a result, Transpower's approach has been to seek the inclusion of advice notes in district plans that reference the Tree Regulations and the need to consider planting in the vicinity of high voltage transmission lines.
32. Even if Transpower did seek rules in plans to manage forestry around National Grid lines in reliance on Policy 10 of the NPSET, we note this would require submissions and attendance at hearings at all district councils in the country<sup>2</sup>, and possibly Environment Court appeals. This would be a very costly, inefficient and time consuming process.
33. Approximately 28 councils have operative, or beyond challenge, provisions in plans implementing the NPSET so it could be another 10 years before these plans are again reviewed. Also, given the resistance to date in including forestry and vegetation setbacks in

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<sup>1</sup> [2015] NZEnvC 56.

<sup>2</sup> The National Grid is located in every district except Gisborne and the Chatham Islands.

plans, Transpower is uncertain whether such an approach would be successful. Forestry companies, councils and Transpower would be required to argue the merits for every plan district change process.

34. Transpower considers that it is more effective and efficient for forestry management near transmission lines to be addressed by the NES-PF on a nation-wide basis.
35. To do so would support the objectives stated in the discussion document, namely:<sup>3</sup>
  - Removing unwarranted variation in councils' planning controls,
  - Improving certainty of RMA processes,
  - Improving certainty about environmental outcomes, and
  - Contributing to the cost-effectiveness of the resource management system.
36. There was some progress on this issue in previous iterations of the discussion document on plantation forestry. It is disappointing therefore that the NES-PF does not take the issue forward and instead assumes that the matter can be addressed through the NPSET. Even if rules could be included on the basis of the direction in Policy 10 of the NPSET (a position which Transpower doubts based on its experience to date), Transpower notes that the risks associated with forestry and electricity lines also apply to distribution networks as well. The NPSET does not apply to distribution networks so they would not be able to use the NPSET's policy direction to secure appropriate rules in plans.
37. Also, it would be inefficient to progress a separate NES to address forestry-management around transmission lines on the basis of Policy 10 of the NPSET. A range of topic specific NESs could give effect to the NPSET; a specific NES relating only to transmission infrastructure is not necessary.

#### **Afforestation and Replanting: what changes is Transpower seeking?**

38. In Transpower's submission, the forestry activities of afforestation and replanting should include technical standards in the NES-PF to address the risks to National Grid lines.
39. The discussion document notes that afforestation can have risks that need to be managed, principally the longer-term effects that arise due to the location where trees are established.<sup>4</sup> The discussion document notes that these risks warrant consideration of design.
40. For the reasons explained above, in Transpower's submission, forestry crop should not be planted in a location where trees could fall into transmission lines.
41. It is important that appropriate setbacks from existing transmission lines are considered at the time of afforestation and anticipate the effects of future growth limits, future harvesting and associated earthworks and conductor swing movements.

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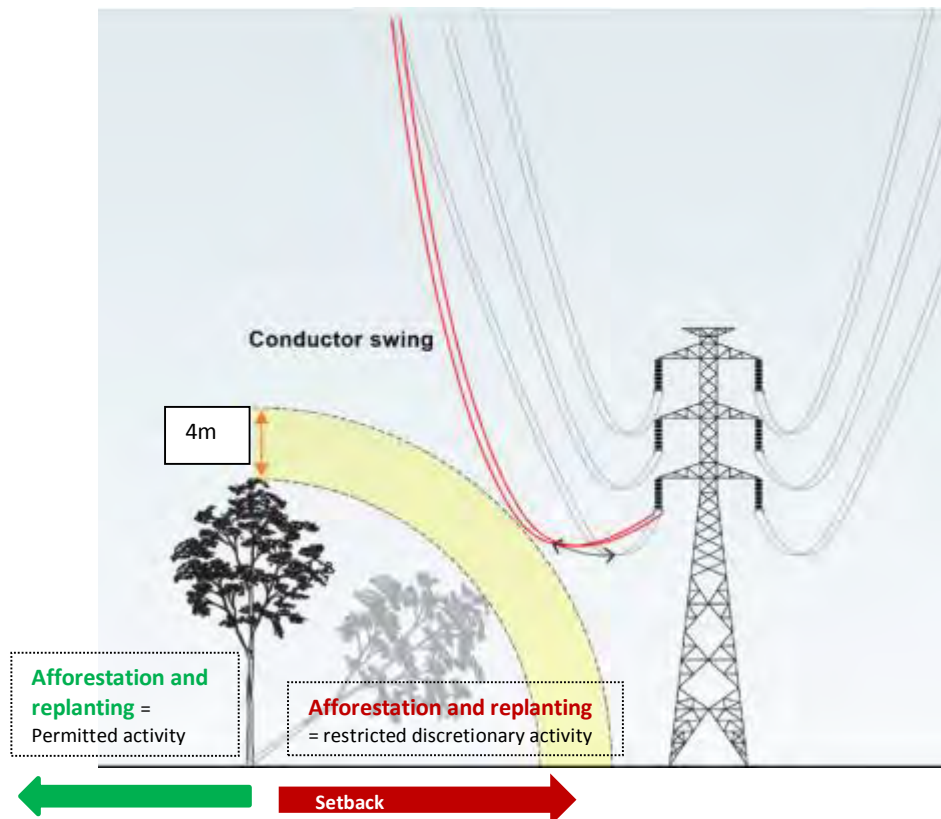
<sup>3</sup> Page 9.

<sup>4</sup> Page 57.

42. We note that we are seeking to manage forestry activities around *existing* transmission lines, most of which were established many decades ago. When Transpower builds a new line, it will acquire sufficient easement rights which will preclude forestry from locating within safe separation distances from the line.

*Plantation setback*

43. Transpower seeks a new permitted activity standard in the NES-PF.
44. Planting forestry crop would be a permitted activity where it was set back from existing overhead transmission lines by a minimum distance.
45. The setback distance should be such that a falling tree will not come within 4m of the transmission line conductors at any point on the arc of its fall. The 4m is required to mitigate the risk of a flashover as the tree is falling. The 90th percentile harvestable height for the given tree species shall be considered when assessing the fall distance of that tree. The conductor position should be considered at a 200 Pascal wind blowout condition. This is considered to be the highest wind at which a tree may still fall towards the wind (and conductors).
46. Because conductors swing in an arc, technically, the plantation setback could be staggered. However, in our view, this could raise issues of workability (in terms of compliance and enforcement) and it could be more practical to measure the setback as a uniform distance from the point at which the conductor blows out to its maximum distance in 200 Pascal wind conditions.
47. The diagram below illustrates the setback and shows the fall distance and 4m flashover tolerance.



48. Transpower accepts that the specifics of the setback, in particular the calculation of the setback width, may need further refinement but the minimum mandatory setbacks in the New Zealand Electrical Code of Practice for Electrical Safe Distances (**NZEC34:2001**) for buildings, structures and earthworks from transmission lines show that separation distances can be specified in a certain and workable way.
49. Plantation forestry would need to obtain restricted discretionary resource consent to locate within the plantation forestry setback from transmission lines.
50. Discretion would be restricted to matters such as:
  - the effects on the ability of the electricity line owner to operate, maintain, upgrade and develop the line,
  - the risk of electrical hazards affecting public or individual safety, and the risk of property damage,
  - access to the line,
  - the extent to which the location of the trees allows for harvesting, land disturbance and the use of mobile plant and machinery to comply with safe separation distances in the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZEC34:2001),
  - the proximity of the transmission line to the trees,
  - the topography and terrain gradient,
  - risk to the integrity of the transmission line or support structures, including from future harvesting activity;

- the use of mobile machinery near transmission lines or support structures, and
- any implications arising from technical advice provided by the electricity line owner.

51. The above list is a starting point and Transpower would be willing to discuss the assessment matters in further detail with officials.
52. With respect to notification, we consider that where afforestation is a restricted discretionary activity because it is within the setback distance from electricity lines then the application need not be publicly notified and need not be served on any affected party other than the electricity line owner.
53. With respect to the suggested setback, Transpower notes that the mature (harvestable) growth height of trees varies between species. Transpower suggests that Forestry Institute site index data could be a helpful way of establishing setbacks for particular species. The average harvestable height of species could provide another tool for calculating appropriate setbacks.
54. Transpower considers that the same setbacks should apply with respect to replanting activities.
55. Transpower has considered the appropriateness of standards addressing risks regarding earthworks and harvesting activities associated with plantation forestry. On balance, Transpower considers that an afforestation and replanting setback from transmission lines would adequately manage the risks from earthworks and harvesting activities. In addition, NZECP34:2001 prescribes mandatory minimum safe separation distances for earthworks and mobile plant near electricity lines.
56. The minimum safety setbacks within NZECP34:2001 could provide a useful reference point or framework for afforestation and replanting setbacks from transmission lines. Transpower would be very happy to discuss the specifics of the setbacks and the assessment matters suggested, in further detail with officials.

### **Suggested amendments to the NES-PF**

Incorporate the following setbacks into the activity table for Afforestation and Replanting:

<b>Jurisdiction</b>	<b>Permitted activity conditions</b>	<b>Rationale</b>
District	Afforestation and replanting must not occur within the following setbacks	<p>A setback is required to minimise:</p> <ul style="list-style-type: none"> <li>• damage to the lines;</li> </ul>



	<p><b>Setback from</b></p> <p>Electricity transmission line</p>	<p><b>Minimum horizontal distance (m)</b></p> <p>The setback distance should be such that a falling tree will not come within 4m of the transmission line conductors at any point on the arc of its fall. The 90th percentile harvestable height for the given tree species shall be considered when assessing the fall distance of that tree. The conductor position should be considered at a 200Pa wind blowout condition.</p>	<ul style="list-style-type: none"> <li>• faults in the operation of the lines leading to serious disruption to the supply of electricity, including to neighbouring communities;</li> <li>• injury or death to someone near the tree, including linespeople or members of the public, and</li> <li>• damage to land and property, including forest fires.</li> </ul>
	<p><b>Restricted discretionary</b></p> <p>Afforestation and replanting is a restricted discretionary activity and a consent is required where the permitted activity conditions above cannot be met.</p>		
	<p><b>Matters to which discretion is restricted</b></p> <p>The effects on the ability of the electricity line owner to operate, maintain, upgrade and develop the line,</p> <p>The risk of electrical hazards affecting public or individual safety, and the risk of property damage,</p> <p>Access to the line,</p> <p>The extent to which the location of the trees allows for harvesting, land disturbance and the use of mobile plant and machinery to comply with safe separation distances in the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34:2001),</p> <p>The proximity and topography of the transmission line and trees,</p> <p>The terrain gradient,</p> <p>Risk to the integrity of the transmission line or support structures, including from future harvesting activity,</p> <p>The use of mobile machinery near transmission lines or support structures, and</p> <p>Any implications arising from technical advice provided by the electricity line owner.</p>		
	<p><b>Notification rule</b></p> <p>Where afforestation is a restricted discretionary activity because</p>		

	it is within the setback distance from electricity lines then the application need not be publicly notified and need not be served on any affected party other than the electricity line owner.	
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57. Transpower appreciates the opportunity to comment on the proposed NES-PF. We are aware that the details regarding the setbacks proposed and the assessment matters may need further refinement but we consider that the amendments proposed are workable and achievable. Transpower would be very happy to meet with official to talk through the amendments proposed if that would be of assistance.

## **Submission on National Environmental Standard for Plantation Forestry (NES-PF)**

**This submission from the University of Otago, prepared by the Institutional Biological Safety Committee, is to support the inclusion of the following condition which appears on page 64 and 82 of the proposed NES-PF: "Afforestation (page 64) or replanting (page 82) using genetically modified tree stock is permitted where the tree stock has gained the appropriate approval for deployment from the Environmental Protection Authority (EPA) and is subject to conditions imposed by the EPA."**

The University of Otago is a research-intensive university with internationally recognized expertise in genetics and genomics and a national presence. While the University does not anticipate seeking approval to field test or release a GMO in the foreseeable future, it strongly believes that products developed through the application of scientific research should be regulated in an evidence-based manner with full public consultation. As a strong evidence-based regulatory framework already exists through the HSNO Act administered by the EPA we consider the proposed NES-PF conditions to be preferred over other options, such as allowing local authorities to introduce additional regulations on the using of GMOs.

While there is public debate over the use of GMOs in New Zealand, this debate is often clouded and lacking in strong evidence-based arguments. The University notes that genetic modification (GM) technologies have been used in research laboratories world-wide for about four decades and GM plants have been widely grown commercially for nearly two decades. From this evidence base (which comprises over 2,000 published scientific studies), it is apparent that GM organisms do not generally pose special or in fact any risks other than those posed by the trait itself; indeed it can be argued that GM organisms developed by precise genetic modification can be safer than organisms exhibiting the same trait developed by less targeted approaches.

We therefore agree with the statement included in the NES-PF on page 64 and 82 that, due to their robust evidence-based processes, "the EPA is best placed to evaluate the risks of genetically modified organisms and that approval and conditions imposed under the EPA regime will be sufficient to ensure that any risks associated with the deployment of the tree stock are managed."



Professor Alison Heather  
Chair University of Otago Institutional Biological Safety Committee



Professor Richard Blaikie  
Deputy Vice-Chancellor, Research & Enterprise

August 10, 2015

Ministry for Primary Industries  
Stuart Miller  
Spatial, Forestry and Land Management  
Ministry for Primary Industries  
PO Box 2526  
Wellington 6140

By email to [NES-PFConsultation@mpi.govt.nz](mailto:NES-PFConsultation@mpi.govt.nz)

**Submission on the proposed National Environmental Standard for Plantation  
Forestry**

1. This submission is by the Waitakere Ranges Local Board of the Auckland Council

Contact Person: Greg Presland

Email: [REDACTED]

Phone number: [REDACTED]

2. The board wishes to comment on one particular aspect of the proposed NES for Plantation Forestry and that is the proposal to allow the Environmental Protection Agency and not local Councils to make decisions concerning the release of genetically modified tree stock. The board opposes inclusion of this provision.

3. Part 6.4 of the report states:

“Genetically modified organisms are regulated under the Hazardous Substances and New Organisms Act 1996. To avoid duplication, the proposed NES-PF includes a provision **permitting afforestation using genetically modified tree stock where it has been approved by the Environmental Protection Authority** under the Hazardous Substances and New Organisms Act 1996.”

4. Our concern is that this will thwart local communities' attempts to keep their forests GE free.
5. The huge public interest in the issue of Genetic Engineering was illustrated in mass protests in 2001. Globally the issue remains one of the most controversial environmental, social and political issues of our time. For example the Scottish Parliament recently declared Scotland GE free. Cross pollination of crops by GE or GM plant material has resulted in costly court battles and the loss of markets not to mention huge environmental damage.
6. Locally communities have taken strong positions declaring themselves GE free and in 2001 Waitakere City Council declared the west GE free in field and food. Most locals will want to preserve this status.
7. Most of the Board area is covered by the Waitakere Ranges Heritage Area Act 2008 which states that the area is of national significance and sets out to protect its heritage features by urging a precautionary approach when decisions are made that affect the area. Heritage features include the intrinsic value of local ecosystems as well as traditional cultural economic activity including organic farming.
8. The Government's proposal that the EPA assume all responsibility for decisions relating to the introduction of GM trees undermines the theme of the Resource Management Act to enable "people and communities to provide for their social, economic, and cultural well-being and for their health and safety" [section 5 RMA]. The Board's strong preference is that some decision making power be retained at a local level rather than given to a centrally controlled entity.
9. Auckland Council's draft Unitary Plan clearly sets out why management of GM material should continue to be regulated by local rules. Chapter 6.6 states:

“The relevant legislation which applies to the management of GMOs in New Zealand is the Hazardous Substances and New Organisms Act 1996 (HSNO Act). The HSNO Act establishes the legal framework for assessments by the national regulator, the Environmental Protection Authority (EPA). This Act sets minimum standards and enables the EPA to set additional conditions for a particular GMO activity.

Councils also have jurisdiction under s. 30 and 31 of the RMA to control field trials and the release of GMOs, to promote sustainable management. **This enables gaps in the national regulatory regime for the management of GMOs to be addressed.** In particular to:

- ensure GM operators are **financially accountable** for the full costs associated with the GMO activity including unintentional contamination, clean-up, monitoring and remediation
- adopt a **precautionary approach to manage potential risks** (economic, environmental, social and cultural) associated with the outdoor use of GMOs
- **protect marketing advantages** associated with a “GE free” status
- address **cultural concerns** of Mana Whenua.”

[Emphasis added]

10. The concerns referred to in the proposed Auckland Unitary Plan are appropriate although the Board’s previous position was that consideration needed to be given to further strengthening the protection provided by the Unitary Plan. The potential of cross pollination and horizontal spreading of GE material threatens natural, cultural and economic activity in the local area. If the Government’s policy statement is enacted in its current form then local decision making power will be removed and gaps in the statutory framework will not be addressed.

- 11.** The potential devastation that could be caused by the release of inappropriate genetically modified organisms mean that two layers of protection are appropriate. And a local community's desire to establish, for instance, an organic area should not be frustrated by a national decision to allow the entry of GMOs.
- 12.** In terms of process the Board considers that such a potentially significant change should not be achieved through a NES, particularly as the proposed change has allowed for limited time to feed back comments or even to understand the implications of what was proposed.
- 13.** The change the Local Board seeks is deletion of the proposal.



## **Proposed National Environmental Standard for Plantation Forestry Template for Submitters**

We would like to hear your views on the proposed NES-PF.

Please feel free to use this template to prepare your submission. Once complete please email to [NES-PFConsultation@mpi.govt.nz](mailto:NES-PFConsultation@mpi.govt.nz).

As stated in section 8.2 of the consultation document, your submission must include at least the following information:

- your name, postal address, phone number and, if you have one, email address
- the title of the proposed standard you are making the submission about
- whether you support or oppose the standard
- your submission, with reasons for your views
- any changes you would like made to the standard
- the decision you wish the Ministers to make.

When commenting on specific draft rules, please be as clear as possible which rule you are referring to and provide a reference e.g. to the relevant page number, heading or text.

For more information about how to make a submission, please refer to section 8 of the consultation document.

### **Watercare Services Ltd Submission on the Proposed National Environmental Standard for Plantation Forestry – Consultation Document June 2015**

Dated at **Auckland** this **11th Day of August 2015**

Signed on Behalf of Watercare Services Ltd

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John Van Brink  
General Manager – Strategy and Planning





## Contact details

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Ilze Gotelli

**Postal address:**

[REDACTED]

**Phone number:**

[REDACTED]

**Email address:**

[REDACTED]

**Are you submitting on behalf of an organisation? Yes [x]      No [ ]**

**If yes, which organisation are you submitting on behalf of?**

Watercare Services Ltd

**If you are a forest owner/manager, what size of forest do you own/manage (in hectares):**

n/a

### ***Privacy Act 1993***

Where you provide personal information in this consultation MPI will collect the information and will only use it for the purposes of the consultation. Under the Privacy Act 1993 you have the right to request access and correction of any personal information you have provided or that MPI holds on you.

### ***Official Information Act 1982***

All submissions are subject to the Official Information Act 1982 and may be released (along with the personal details of the submitter) under the Act. If you have specific reasons for wanting to have your submission or personal details withheld, please set out your reasons in the submission. MPI will consider those reasons when making any assessment for the release of submissions if requested under the Official Information Act.

*Please indicate below if you wish your personal details to be withheld:*

[ ] Please withhold my personal details where submissions are made public

[ ] Please withhold my personal details in response to a request under the Official Information Act 1982



## Questions for submitters

The questions for submitters that are included throughout the consultation document are provided below. We encourage you to provide comments to support your answers to the questions below.

### **Introduction** to Watercare and the Context for Watercare's Submission

#### ***Watercare's Public Water Supply Network***

Watercare Services Limited (Watercare) owns and operates Auckland's public water supply network. Water for this network originates from a variety of sources, including reservoirs, bores, springs and rivers. Watercare owns five reservoirs in the Waitakere Ranges, one in Papakura and four in the Hunua Ranges. Vegetation type and land uses that surround these reservoirs and the composition of the water supply catchment areas are quite variable. In the Waitakere Ranges, the vegetation type is mostly indigenous, and the catchment area is a Regional Park and covered by the Waitakere Ranges Heritage Area Act 2008. In the Hunua Ranges, the majority of the water supply catchments are a Regional Park, but there is also commercial plantation forestry in part of the catchments.

#### ***Commercial Plantation Forestry***

The four reservoirs in the Hunua Ranges currently provide 65 percent of Auckland's drinking water. The water supply catchment areas for these four reservoirs contain differing amounts of indigenous vegetation cover and commercial plantation forestry. More specially, the water supply catchment areas around Cossey's Reservoir and Wairoa Reservoir contain significant areas of plantation forest, while a smaller area of plantation forest is located in the Mangatawhiri Reservoir catchment. There is no plantation forestry within the catchment for Mangatangi Reservoir.

Following the local government amalgamation in Auckland in 2010, the Auckland-Waikato regional boundary was shifted. As a result, two of the four reservoirs— the Mangatawhiri Reservoir and the Mangatangi Reservoir— are now under the jurisdiction of Waitako Regional Council and the Waikato District Council.

Watercare has a 100-year Lease and Licence Agreement (commenced in 1992) with the Auckland Council for the use of parts of water catchment for municipal drinking water purposes. Auckland Council owns all the land where the reservoirs are located, as well as the surrounding water supply catchment areas. The Lease and Licence Agreement, supported by the Annual Operations Plan, sets out the responsibilities of Watercare and Auckland Council in respect of soil, vegetation, pest, weed and pollution management. A private commercial company (Waytemore Forests Ltd) also has a lease agreement with the Auckland Council. Their agreement allows them to operate for a term of 95 years (this lease commenced in 1997).

In addition to this, land owned by Watercare for potential water supply purposes in the Riverhead area north of Auckland is also surrounded by plantation forestry.



Watercare submitted on both National Environmental Standard for Plantation Forestry (“NES-PF”) proposals that were consulted on in 2010 and 2011. In both these submissions, Watercare stated that its major concern was that the proposed NES did not provide specific protection of water supply catchments. In this new discussion document it appears that Watercare’s views have not been fully recognised since water supply catchments have still not received any acknowledgement or extra protection from forestry operations.

Watercare recently considered the impacts of commercial forestry on water supply as part of the Independent Hearings for the Proposed Auckland Unitary Plan this year. Watercare argued that land disturbing activities within Water Supply Management Areas (WSMA) associated with plantation forestry should require consent (in this case as a restricted discretionary activity). This is because Watercare believes that a permitted activity standard was not appropriate in a catchment used for drinking water purposes because of the potential effects on water quality due to increased sediment run-off and possible elevated nutrient and agrichemical levels.

Finally, Watercare would like to state that it does not support the NES-PF primarily because it does not provide for adequate protection of any public water supply catchments from the adverse impacts of plantation forestry.

**1. Do you think section 2.1 and 2.2 of the consultation document accurately describe the problem facing plantation forestry?**

**Please provide comments to support your views.**

In principle, Watercare supports RMA reform initiatives that are focused on removing unwarranted variations between councils, improving certainty of RMA processes and reducing costs. However, because of the scope of activities associated with plantation forestry and the diversity of catchments in which these activities take place, Watercare believes that caution should be applied and questions whether an NES is appropriate. There is a great diversity of activities encompassed within plantation forestry, from pruning through to earthworks, log hauling, herbicide/pesticide application and quarrying. Having a single NES in place to manage these many complex activities and the many potential associated adverse environmental effects seems a too simplistic an approach for such complex issues. Another adverse environmental effect to be mindful of in association within plantation forestry is the well understood decline of overall water yield within commercially forested catchments. This is not captured in the NES-PF.

In relation to question 1, sections 2.1 and 2.2 do accurately describe a number of RMA related problems, but these problems are faced by many land-based activities. It has not been made clear within sections 2.1 and 2.2 why plantation forestry is an activity that can justify having an entire NES developed for it.



2. Do you consider that the conditions for permitted activities will manage the adverse environmental effects of plantation forestry?

Please provide comments to support your views.



No. Watercare believes that the permitted activity (“PA”) conditions as set out in this proposed NES-PF are too permissive and would undermine certain conditions outlined in its lease agreement with Auckland Council. As set out in this lease agreement, a setback of 50 metres from a water body has been applied to plantation forestry within its water supply catchments. Watercare wishes to ensure that, at a minimum, the existing setback limit of 50 metres is not in any way reduced. Maintaining such a setback helps to minimise adverse environmental impacts which can arise during harvesting, agrichemical application, mechanical land preparation, spraying, earthworks, river crossing and forestry quarrying operations.

Watercare is of the view that a 50m buffer for its reservoirs may not even be sufficient in a water supply catchment. Watercare is currently looking at whether an increase in buffer zones from 50m to a minimum of 200m would provide the required protection. Watercare’s monitoring has indicated a number of adverse impacts on water quality contained within the reservoirs that have 50m buffers. Maintaining constantly high water quality within Watercare’s Hunua Ranges reservoirs is extremely important for ensuring a good public water supply for Auckland. If water supply were to be reduced from the Hunua reservoirs, any shortfall made up from the Waikato River would result in greater expense as it is approximately three times more expensive to treat water from the Waikato River than from the Hunua reservoirs. Additional sedimentation would also reduce storage capacity within an affected reservoir over the long term.

Reducing minimum horizontal setbacks to just 5 metres for “perennial” rivers or streams less than 3 metres, or to 10 metres for “perennial” rivers and streams greater than 3 metres would substantially increase the risk to the water quality of Watercare’s water supply reservoirs. The risks from plantation forestry include increased sediment yields during and after harvesting and replanting phases and potential releases of residue after herbicide/pesticide use. A recent report commissioned by Watercare from AECOM Consulting Services (NZ) Ltd, (*“Forestry Activity Influence on Water Quality – Information Review”* – May 2015) comments that the current controls for permitted activities – earthworks, “...may not be sufficient to provide the desired level of protection to water quality.”

The definition in the proposed NES-PF of “perennial river or stream” is unclear. It includes reference to a “...a series of discrete pools that provide habitats for the continuation of the aquatic ecosystem...” but provides no indication as to the size of these pools. This definition also contains reference to “a stream that maintains water in its channel throughout the year...”. As a result this definition could mean that “perennial” actually means “permanent”. If this is the case, then intermittent or ephemeral streams would be excluded by this definition and would receive no protection or consideration.

A series of stream related classifications developed by the “Stream Management Group” – a collective between Auckland Council, Waytemore Forests Ltd and Watercare – could be of assistance in helping to clarify such definitions.



- 3. Are the conditions for permitted activities clear and enforceable (see appendix 3 of the consultation document)? Can you suggest ways of making the rules clearer and more enforceable?**

**Please provide comments to support your views.**

The PA conditions may be clear but the implementation of PA conditions is a problem. Councils cannot set section 36 charges for the recovery of monitoring costs of permitted activity conditions. This usually results in consent monitoring becoming more response/complaint driven, and as a result, assessing the degree of compliance with the PA conditions is not always carried out.

- 4. Are the matters where local authorities can retain local decision-making appropriate (summarised in Table 2 and Table 4 and provided in detail in Appendix 3 of the consultation document)?**

**Please provide comments to support your views.**



It is Watercare's position that water bodies used for drinking water supply (reservoirs, bores, springs and rivers) and their respective catchment areas should be included as a matter where councils may apply more stringent rules (as per Table 4) as they require additional protection. This is because water used for drinking water supply should be of a high quality to both reduce treatment costs and risks to public health. In addition to this, the freshwater lakes that develop behind water supply dams are also sensitive receiving environments due to the slow circulation of the water column, resulting in high residence times.

Therefore any activities within the catchments of reservoirs can overtly impact this impounded water quality for very long periods of time. Rivers, bores and reservoirs used for water supply are highly susceptible to any surplus sediment, nutrients or spray residues that can be generated from forestry operations. High sediment loads or contamination by residual herbicide/pesticides can reduce water clarity/quality and with additional nutrients, can activate algal blooms. Water treatment efficiency and effectiveness can reduce to such a point that it may be necessary to take a reservoir off line for a time due to a risk to human health. If this were to occur during summer high peak demand, a very real threat to Auckland's water supply would eventuate.

Watercare believes that the consideration of these above factors justifies a case for including water bodies used for municipal drinking water supply and their respective catchments as a matter for applying more stringent rules. Therefore, Watercare recommends that any plantation forestry activities carried out within its water supply catchments within the Hunua Ranges, and any other areas within the Auckland region, should be exempt from the permitted activity status of the proposed NES-PF.

It is also unclear why Table 4 contains "shallow aquifers" but not other sources (or their associated catchment areas) of drinking water supply.

In addition, if water supply were not included as a matter where councils may apply more stringent rules, there would be additional costs - due to section 32(4) - which requires an evaluation of a more stringent rule to examine whether the prohibition or restriction it imposes is justified in circumstances of the region or district.

**5. Will the environmental risk assessment tools (the Erosion Susceptibility Classification, the Wilding Spread Risk Calculator, and the Fish Spawning Indicator) appropriately manage environmental effects as intended (see section 3.5 of the consultation document)?**

**Please provide comments to support your views.**



No. It has been assumed within this proposed NES that the classification of erosion susceptibility automatically equates to an “environmental risk assessment”. This is incorrect. Risk is often expressed in terms of a combination of the likelihood of occurrence of an event, and its associated consequences (AS/NZS ISO 31000:2009 – *Risk Management: Principles and guidelines*).

Just considering the erosion susceptibility classification (ESC) of an area in order to determine which of the four “risk” categories (“Low”, “Moderate”, “High”, “Very High”) it may be does not indicate the real risk of an activity in that area. The consequences – or adverse effects – can be highly variable and can dependent upon factors such as the type of receiving environment (reservoirs, estuary, low energy streams), surrounding topography, weather variability and types of contaminants that could be mobilised. It is also unclear what scale the ESC is mapped to, how accurate it is, and how it would deal with catchment areas that contain isolated areas of steep slopes.

The topography of the Hunua Ranges is extremely variable and contains slopes from moderate to very steep. Soil types are highly variable as well. However the majority of the Hunua’s are mapped with an ESC of “High” which given the proposed NES-PF would allow most forestry operations to proceed as permitted activities.

**6. Do you have any comments about any particular activity or draft rule (see appendix 3 of the consultation document)?**

**Please include reference to the rule you are referring to.**

No comments

**7. Is the NES–PF the best option to meet the assessment criteria (in Box 13 of the consultation document)?**

**Please provide comments to support your views.**

As noted previously it is still unclear as to exactly why a NES is being developed for plantation forestry.

**8. Have the expected costs and benefits of the NES-PF been adequately identified (see section 4.3 of the consultation document)?**

**Please provide comments to support your views.**





No. The environmental assessment - Scion Ltd (2015) *Environmental impact assessment of the Proposed National Environmental Standard for Plantation Forestry* – referred to is light-handed, and its methodology is unclear. How the “environmental values” were determined is not clearly explained and the various options used to generate the economic values appear to be just between the “status quo” and the “... more restrictive rules of the NES”. This means that the full range of monetised costs and benefits have not been assessed, and comparisons between other options “best practice”, vs NES vs controlled activity vs restricted activity has not been made. Therefore the statement on page 37 “The results show a net benefit excluding quantification of environmental effects” has no real meaning, and does not contribute to this discussion.

**9. Are there any issues that may affect the successful implementation of the NES-PF (such as decision-makers applying the permitted baseline test more frequently)?**

**Please provide comments to support your views.**

Yes, the inability to recover compliance monitoring costs from permitted activities, which will result in only complaint focused monitoring being carried out. This will result in greater risks to the environment.

**10. Please describe any risks or opportunities that you consider have not been identified or addressed in the proposal.**

No comments.

**11. Will the proposed NES-PF support regional councils to implement the NPS-FM (see section 6.1 of the consultation document)?**

**Please provide comments to support your views.**



No. It is difficult to see how the proposed NES-PS would support regional councils to implement the NPS-FM. It can be assumed that the final limits that will be set by regional councils within their plans for various water bodies will be highly variable. This is because different communities are likely to have quite different values and expectations/outcomes for various water bodies within a region, therefore a range of consent activity status's may be required to achieve improvements in water quality over time.

Since the proposed NES-PF would apply a predominately permitted activity status for forestry operations over large areas, certain water bodies that are highly valued, or earmarked for water quality /quantity improvement, may require stricter consenting regimes in order to achieve any desired outcomes. As noted previously, additional costs would be incurred by councils if they wanted to bring in more stringent rules over and above permitted activity conditions. This is due to section 32(4) which requires an evaluation of a more stringent rule to assess whether the prohibition or restriction it imposes is justified in circumstances of the region or district.

**12. What resources or other implementation activities would help you to prepare for and comply with the proposed NES-PF (see section 7 of the consultation document)? How should these activities be delivered (for example, training, online modules, guidance material)?**

No comments

**13. Are there any other issues that you would like to raise?**

No comments

***Wellington Electricity Lines Limited: Feedback on ‘A National Environmental Standard for Plantation Forestry: Consultation document- June 2015’***

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**To** Stuart Miller  
Spatial, Forestry and Land Management  
Ministry for Primary Industries  
PO Box 2526  
Wellington 6140

Sent via email to: [NES-PFConsultation@mpi.govt.nz](mailto:NES-PFConsultation@mpi.govt.nz)

**FROM:** Wellington Electricity Lines Limited (“WELL”)

[REDACTED]

[REDACTED]

Date **10 August 2015**

<b><i>Title of the proposed standard</i></b>	National Environmental Standard for Plantation Forestry Tim Lester [REDACTED]
<b><i>Address for Service</i></b>	[REDACTED] [REDACTED] [REDACTED]
<b><i>Organisations name</i></b>	Wellington Electricity Lines Limited (WELL)
<b><i>Support or oppose</i></b>	Support in principle subject to amendments
<b><i>Comments</i></b>	See below
<b><i>Changes sought</i></b>	See Below

## 1 About Wellington Electricity

- 1.1 Wellington Electricity Lines Limited ('WELL' from here on) owns and operates electricity distribution network assets within the Wellington Region (Wellington City, the Hutt Valley and Porirua Basin). This network has a system length of 4,600km and serves around 165,000 connected consumers.
- 1.2 WELL is committed in its regulatory obligation to provide consumers with an effective and secure supply of electricity, which in doing so provides a critical service to customers as well as a public good to local communities and industry.
- 1.3 WELL owns distribution substations, lines and cables located in public road reserve, as well as on private property and along easements. In addition to the distribution network, WELL has the ability to own and operate high voltage (up to 110kV) transmission lines, and associated structures (of which are not components of the Transpower National Grid).
- 1.4 WELL owns and operates critical<sup>1</sup> high voltage lines in rural environments of the Wellington Region that currently, or may be in the future, traverse plantation forestry land uses. Consequently, WELL has particular interest in the development of national-level environmental strategies that have the potential to impact the safe and efficient operation of such critical infrastructure.

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<sup>1</sup> Critical lines are high voltage lines that supply essential public services such as the hospital, civil defence facilities or Lifeline sites; or supply large industrial or commercial electricity consumers; or supply 1000 or more consumers; or are lines that are difficult to replace with an alternative electricity supply if they are compromised.

## **2 WELL's Submission on the proposed subject matter of a National Environmental Standard for Plantation Forestry**

- 2.1 WELL is an Electricity Distribution Business (EDB) and welcomes strategic environmental initiatives, where appropriate, including the introduction of national standards for various industries. EDB lines (in particular critical high-voltage electricity lines) can cover significant distances, often straddling areas under the jurisdiction of two or more councils and, therefore, cross-boundary issues (such as inconsistent local planning regulations) applicable to linier infrastructure are considered by WELL to be best addressed consistently through a robust and encompassing national approach as provided for under the provisions of the RMA.
- 2.2 Initially, and according to the Ministry for the Environment (MfE) and Ministry for Primary Industries (MPI), the purpose of the proposed National Environmental Standard for Plantation Forestry is to reduce 'unwarranted' variation in the way the forestry sector is regulated under the Resource Management Act 1991 (RMA). As indicated above, WELL can empathise with the forestry industry's frustration with regard to the effects that such environmental rule variations (in district and regional plans) can have in efficiently constructing, operating and maintaining physical resources<sup>2</sup> that traverse multiple territorial authority boundaries.
- 2.3 WELL own and operate electricity distribution assets within the Wellington Region's rural environment. These established assets can be located within close proximity to, or indeed directly through, areas of land use dominated by plantation forestry activities. It is the location, recognition and statutory protection of these EDB assets that has compelled WELL to submit on the proposed subject matter of a National Environmental Standard for Plantation Forestry<sup>3</sup>(from here onwards referred to as the 'NES-PF' or 'the Discussion Document')
- 2.4 WELL is committed in its regulatory obligation to provide consumers with a cost effective and secure supply of electricity<sup>4</sup>, which in doing so provides a critical service to customers as well as a public good to local communities including hospitals, schools, offices and residential dwellings. In consideration of this commitment, and upon review of the proposed NES-PF, WELL wish to emphasise and elaborate on EDB's previously submitted short comings of the NES-PF to the MfE/MPI as well as to add its own independent submission on changes sought to the NES-PF Discussion Document.
- 2.5 WELL strongly shares growing industry recognition that critical distribution lines are not yet adequately provided for, or protected, in local-level environmental plans prepared under the Resource Management Act 1991 (RMA); consequently, WELL submits that the current scope of the 2015 NES-PF will do little apart from consolidating such environmental limitations for EDBs.

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<sup>2</sup> The Electrical Distribution Network is a physical resource for the purposes of the RMA

<sup>3</sup> While this submission refers to the NES-PF, it is noted that the document is only in a pre-notification consultation stage of development and is merely a discussion document.

<sup>4</sup> Pursuant to the 1992 Electricity Act and 1986 Commerce Act

- 2.6 WELL also submits that, with its current scope, the NES-PF will not represent sound environmental practice pursuant to the RMA. In particular, the proposed NES-PF will, 1) not be conducive to the sustainable management of physical resources, and 2) fail to adequately avoid, remedy or mitigate adverse environmental effects on physical resources as envisioned by the RMA.
- 2.7 Based on WELL's review of the 2015 iteration of the proposed NES-PF, as well as discussions with other EDBs, WELL wishes to present the following submission points on the NES-PF discussion document:
- *Failure to address EDB concerns raised in previous industry consultation*
  - *NES-PF discord with provisions of the RMA*
  - *Perpetuation of local-level environmental regulation shortfalls for Network Utilities*

### **3 Response to EDB Concerns**

- 3.1 As part of earlier NES-PF consultation, EDBs and other electrical industry group advocacy has, in part, been provided to the MfE and MPI by the Electricity Networks Association (ENA). Upon review of ENA's 2010 and 2011 submissions, it is evident that the substantive content of the feedback has been either dismissed outright or considered to be out of scope for the 2015 NES iteration.
- 3.2 A search of the relevant NES-PF website portals (MfE and MPI) has not been able to reveal documented evidence satisfactorily counter-arguing submissions made by ENA – therefore the potency of ENA's previous submissions are still considered valid by WELL and, consequently, require meaningful consideration and transparent comment by the MPI.
- 3.3 Notwithstanding the above, a salient point presented to the MfE<sup>5</sup> in 2010 and 2011 on the NES-PF was that the very nature of NES removes a local authorities' discretionary ability to effectively manage plantation forestry and apply more stringent protection for network utilities in consideration of forestry effects (i.e., tree fall, earthworks etc.).
- 3.4 As indicated earlier, WELL support appropriate use of NES; however, the development of such standards by the forestry industry should not be at the expense of sound environmental consideration of adjacent, or abutting, developments - such as is the case with the NES-PF and safe and efficient operation of network utility infrastructure.

#### **Inconsistent Approach to Infrastructure**

- 3.5 A reoccurring point made in previous submissions related to the fact that suitable network utility setbacks needed to be integrated in the NES-PF via both permitted activity conditions, and or the requirement for the asset owner's written permission for the replanted forest to encroach within these setbacks. WELL note that such conditions apply to other linier infrastructure (roading), and therefore submit that they should similarly apply to EDB assets as well.

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<sup>5</sup> MPI took over the lead in developing the NES-PF in 2013.

- 3.6 WELL support ENA on the requirement for plantation forestry to be setback from the existing distribution lines and share ENA's disappointment that such setback provisions have not been adopted into the 2015 iteration.
- 3.7 Given no compelling reason by either the MfE or MPI not to include network utility (EDB) setbacks in the in the NES-PF, WELL submit that a fall height at harvest + 2m setback provision is provided in the notified NES-PF as a permitted activity condition. Furthermore, WELL submit to MPI that any breach of the setback distance can be permitted contingent on the relevant EDB providing their written approval.

#### **4 Part 2 and 3 of the RMA**

- 4.1 WELL submits that the 2015 NES-PF Discussion Document has narrowed its scope to such an extent that it fails in its duty to satisfactorily meet the 'purpose' of the RMA as specified in Part 2 section 5(1). As stated:

*"The purpose of this Act is to promote the sustainable management of natural and physical resources"*

- 4.2 WELL also submits to the MPI that sustainable management is taken to include the protection of physical resources (such as electricity distribution lines) which plays a fundamental part of enabling people and communities to provide for their social, economic and cultural wellbeing (section 5(2) of the Act).
- 4.3 The benefits of WELL's electricity infrastructure in achieving sustainable management are also enshrined in the RMA through section 7(b) and & 7(ba) that, in achieving the purpose of the Act, requires particular regard to be given to the "...efficient use and development of natural and physical resources" and "the efficiency of the end use of energy".
- 4.4 WELL contends that without the inherent mitigation of *all* aspects of the environment (i.e., setbacks from distribution lines), the NES-PF will not satisfy the purpose of the RMA as specified in section 5, or the section 7 other matters of the RMA.

##### Existing Environment

- 4.5 In WELL's experience, distribution lines within rural environments have been in place before the emergence of plantation forests around them. Under the 1992 Electricity Act such lines have existing use rights if established prior to 1 January 1993, and are protected by easement. Given that such lines existed prior to plantation forests, then WELL seeks acknowledgement (via setback assurances) in the NES-PF that such infrastructure are components of the existing environment, and without suitable setback provisions plantation forestry encroachment can introduce adverse reverse sensitivity effects.
- 4.6 In consideration of the above reverse sensitivity effect, and pursuant to Part 3, section 17 of the RMA there is a requirement to avoid, remedy, or mitigate effects on the environment regardless of whether the activity is permitted by the rules of the plan holds a resource

consent, or is in accordance with a national environmental standard. WELL submits that unless provisions such as setback distances are specified in the proposed NES-PF (i.e., in the permitted activity conditions) the standards will not satisfy section 17, and furthermore may open up the NES-PF to legal challenge as part of the public notification process.

#### Inconsistent Approach To Existing Infrastructure

- 4.7 Upon review of the NES-PF, WELL notes that permitted activity setback provisions are being applied to sections of the roading network. As roading networks share common traits with electricity infrastructure (both being linier and can be adversely impacted from a safety perspective and operationally through encroachment of plantation forestry activities) WELL consider it curious as to why roading infrastructure has been afforded protection, whilst electricity infrastructure has, apparently, been determined out of scope.
- 4.8 A possible reasoning as to the NES-PF exclusion of distribution lines from the setback protection is eluded to in the somewhat confused wording on page 43 of the Discussion Document. More specifically section 6.2 the document states:

*“The proposed NES-PF provides for the effects of forestry activities on network utility infrastructure to be out of scope. This will ensure council provisions to implement the NPS-ET remain in force, and foresters will have to adhere to these rules in addition to the requirements of an NESPF.”*

Network utility infrastructure such as that owned and operated by EDBs - *whilst integral with the national grid in delivering electricity to consumers* - are not provided for under the narrow focus of the National Environmental Standard for Electricity Transmission Activities (NESETA). The statement from section 6.2 above mistakenly infers that such distribution (EDB) infrastructure is deemed out of scope. Such an inaccurate assumption in the NES-PF represents a significant gap in the functionality of the document as the recognised adverse environmental effects of poorly managed plantation forestry on electricity infrastructure (undermining support structures, dust, and - somewhat confusingly omitted from the document - trees falling across established lines) can potentially still occur for critical distribution lines.

## **5 Shortfalls in Local-level Environmental Legislation**

- 5.1 The overriding matter expressed throughout this submission is that the current environmental statutory regime managing the safe and efficient distribution of electricity to individuals and communities is not being implemented as optimally as it should be.
- 5.2 WELL acknowledge that there is current legislation<sup>6</sup> and codes of practise regulating the safe and efficient distribution of electricity – however, as exhaustively submitted upon to the MfE

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<sup>6</sup> 1992 Electricity Act and associated regulations such as NZECP34:2001 and the Electricity (Hazards from Trees) Regulations 2003



and MPI by both the ENA and other EDBs (through consultation on previous iterations of the NES-PT) the effectiveness of such mechanisms is limited.

- 5.3 WELL submit that the 'status quo' approach implicitly advocated in the 2015 NES-PT (i.e., relying on Councils to regulate the effects of plantation forestry on existing electricity distribution infrastructure matters in their plans) is not working at a nationwide level as trees continue to be planted in areas where they will mature to present a danger to critical electricity lines. Furthermore, the current regulation regime is creating implementation 'grey areas' where maintenance costs / responsibilities between land owners and EDBs are uncertain and reactionary (i.e., actions can only be taken after the trees have been planted), and ultimately can restrict the primary regulatory obligations for EDBs.
- 5.4 WELL submits that the current iteration of NES-PT does not adequately address the issue of tree damage to critical electricity lines, and therefore perpetuates the environmental shortcoming of current regulatory implementation.

## **6 Conclusion**

- 6.1 WELL is a EDB and has network utility infrastructure that has the potential to be adversely effected by activities associated with the plantation forestry industry.
- 6.2 In response to the 2015 iteration of the NES-PF discussion document, WELL has provided submissions based on dissatisfaction of previous industry concerns expressed to the MfE and MPI in earlier versions of the NES-PF; the discord the NES-PF has with the purpose of the RMA and existing environments; and, the requirement in the NES for setbacks from network utilities given the current shortcomings of existing statutes and codes of practice regulating EDB assets.
- 6.3 WELL has submitted on the NES-PF in order to add its voice on how the standards can better reflect successful environmental outcomes for all stake holders.

Signature for and on behalf of  
Wellington Electricity Lines Limited:



.....

Tim Lester



Address for service: Wellington Electricity Lines Limited

[Redacted]

[Redacted]

[Redacted]

Attn: Tim Lester

11 August 2015

Submission

- to -

Stuart Miller  
Spatial, Forestry and land Management  
Ministry for Primary Industries  
PO Box 2526  
Wellington 6140

Email: [climate.contribution@mfe.govt.nz](mailto:climate.contribution@mfe.govt.nz)

## **A National Environmental Standard for Plantation Forestry**

### **Introduction**

The Wood Processors and Manufacturer's Association of New Zealand welcomes the opportunity to make a submission on a National Environment Standard (NES) for Plantation Forestry.

The wood processing sector delivers multiple benefits for New Zealand. It is one of the few sectors that align, simultaneously, the government's economic, social and environmental objectives.

Expansion of the planted forest resource is very important to wood processing investors. Continued commitment to, and expansion of, domestic processing will be heavily influenced by access to input supply. Achieving more cost effective regulation of plantation forests through an NES will contribute to encouraging forestry expansion and therefore help the value-add part of the supply chain make the necessary long term and large scale investment to grow the share of processing carried out on-shore.

## **WPMA, its members and sector value**

WPMA advocates on behalf of a broad membership spanning the whole wood supply chain. WPMA represents one of New Zealand's biggest manufacturing sectors. Our sector epitomises the low carbon/high value manufacturing economy that the nation is striving towards. Our members turn a commodity – logs – into high value, end products marketed in New Zealand and internationally.

WPMA members handle in excess of 85% of the wood processed in New Zealand. We produce pulp, paper, sawn lumber, panels, laminated products and mouldings. Increasingly our members are producing, or have the potential to produce, new construction systems, biochemicals, biofuels, textiles and bio composite material.....protecting the environment and creating jobs simultaneously.

The wood processing and manufacturing sector in New Zealand:

- Delivers \$2 billion GDP.
- Is the 3<sup>rd</sup> biggest export sector at \$2.5 billion per annum.
- Provides 20,500 regional jobs directly and 10,000 indirectly.
- Is one of these most productive manufacturing sectors showing a 40% rise in output per worker over the last 10 years. This is twice as fast as all manufacturing and 2.5 times as fast as the whole economy.
- Wood processors generate in excess of 70% of their own energy from residues avoiding an estimated \$1.1 billion per year in energy costs which means that this sector uses a higher proportion of renewable energy than any other manufacturing sector.
- The forests that supply logs to the wood processing and manufacturing sector have been estimated to generate in excess of \$12 billion per year in ecosystem services.

## **Submission Points**

The WPMA has read the NES consultation document and had an opportunity to review submissions made by other organisations representing forest growers. Based on this, the WPMA supports the submissions made by the NZ Forest Owners' Association (FOA) and the NZ Institute of Forestry (NZIF). We make one specific point below:

WPMA is aware that the NES consultation has raised public concerns about the deployment of GMOs in NZ. The WPMA shares the view with both FOA and NZIF that the EPA should have decision-making power over the introduction and commercial deployment of genetically modified organisms in New Zealand. This should be based upon all statutory public consultation requirements. We also understand that introduction and deployment of GMOs is, in fact, regulated by the EPA under the HSNO Act and that the proposed NES has no regulatory jurisdiction over this matter.

That said, please note that both of the main international wood product certification schemes (Forest Stewardship Council and the Programme for Endorsement of Forest Certification) explicitly ban the commercial use of GMOs. Under these schemes any commercial use of GMOs in New Zealand forestry would result in withdrawal of certification and therefore loss of access to some of the highest value overseas markets for our wood products.

The government should be aware that the public concern currently aroused risks being picked up in overseas markets and that this perception could undermine the value of our in-market brands. We urge the government to therefore proceed cautiously around this matter. At the same time WPMA recognises the usefulness and general acceptability of a diverse range of contemporary plant breeding techniques and recommends that the government proceed to remove confusion and ambiguity by reviewing the definitions of these techniques set out in the HSNO Act.

Yours sincerely



Dr Jon Tanner  
Chief Executive