

National Environmental Standard for Plantation Forestry

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Abstract

The Ministry for Primary Industries (MPI) released a proposed National Environmental Standard (NES) for Plantation Forestry for a third round of public consultation in June. This article examines the purpose of the NES for Plantation Forestry, provides some background to its development, goals and content, and the lessons learnt in the process.

The NES as proposed has been developed over seven years by a working group with wide stakeholder involvement including representatives from ministries, councils, environmental non-governmental organisations (ENGOS) and forestry companies, supported by expert input as required from Crown Research Institutes. The goal of the NES was to develop one set of consistent rules across the country for eight core forestry activities. The NES draws on plan provisions and resource consent conditions currently operating well in parts of the country. The NES does diverge from current practice in some areas, most notably through the introduction of new rules requiring resource consent for afforestation in the most erosion-prone land in New Zealand. This will enable councils to undertake an assessment of the suitability of the land for production forestry use, and the risks of roading and harvesting, prior to the forest being established.

The NES is supported by three new environmental risk assessment tools – an Erosion Susceptibility Classification system, a Fish Spawning Indicator and a Wilding Risk Calculator. The submission period for the NES has now closed and MPI is currently analysing submissions. A report back to Cabinet and recommendations for the future of the NES is expected to take place in November 2015.

Introduction

In June 2015, MPI released a third draft of the proposed NES for Plantation Forestry for public consultation and feedback. This latest draft of the NES is the culmination of seven years of work by the NES working group, tasked at the outset to develop one set of consistent plantation forestry rules for New Zealand. Over time, the working group membership has included representation from the key ministries (Ministry for the Environment (MfE), MPI and Department of Conservation), Forest and Bird, Fish and Game, ECO, the NZ Farm Forestry Association, forestry companies and regional and district councils. The process has also included an unprecedented three

rounds of public consultation and numerous targeted consultation meetings with communities, local authority groups, forestry interests and iwi representatives. To support the process and development of key tools, input has also been obtained from a range of organisations including NIWA, Landcare Research, Scion and the University of Canterbury.

Some have noted that it is unusual for MPI to lead the development of an instrument under the Resource Management Act (RMA) 1991. The process was initially started and led by MfE from 2009 to 2011, during which time the current proposed framework of the NES and the majority of the rules were established. Following two rounds of public consultation in 2010 and 2011, the decision was made by MfE to park the NES until completion of a second round of RMA reforms. It seemed at that time the plantation forestry NES was destined to follow many prior attempts to develop national instruments under the RMA and languish in draft form on the bookshelves at MfE. However Associate Minister for Primary Industries, Jo Goodhew, saw the potential of the NES and tasked MPI to pick up and resource the process, to continue to fine-tune provisions and to address some of the concerns raised through consultation. Since 2013, MPI has led the process but MfE staff have continued to remain directly involved.

Goal of the NES

The challenge from the Minister at the outset was to develop a consistent policy framework for plantation forestry management that reflects the way the plans currently function and does not significantly tighten or loosen the management of forestry overall. Given the massive variation in rules across the country this was no small challenge.

From the forest industry's perspective, a key goal of the NES was to untangle the plethora of rules we currently operate under and create one set of robust consistent rules. The nature of plantation forestry is such that forest owners, managers, consultants and contractors all tend to have interests over a considerable area, routinely operating in multiple regions and districts. As an example, PF Olsen Ltd manages forests located in 15 regions (including unitary authorities) and 41 districts. For some of the larger forests, such as Kinleith and Kaingaroa, the one forest spans multiple regions and districts, with different rules in different parts of the same forest.

The current regime of each region and each district coming up with their own unique set of rules within completely different frameworks introduces unnecessary complexity to interpreting what the rules are in a particular location, for [sometimes] questionable environmental benefits. Forestry staff are occupied in the bureaucracy of interpreting and administering the tangle of rules, rather than on more meaningful engagement with people on the ground to ensure good outcomes. One set of clear rules will also enable supporting systems such as industry training, company environmental management systems, the Environmental Code of Practice and guidance documents to be much more specific in their delivery to address compliance with the actual rules. At present, by necessity a lot of this material has to be generic given the rules are different in each location.

A second key goal was to attempt to short circuit at least part of the resource-hungry and time-consuming RMA processes for developing and reviewing regional and district plans. At any one time the larger forestry companies are typically grappling with five or more plans in various stages of development. The idea that the second generation of plan changes would be more straightforward than the first round of plan development under the RMA has not been borne out in practice. In most cases, significant changes are proposed and even lengthier hearing and deliberation processes. The tragedy has been that for many of these, the plan changes have once again seen re-litigation of issues long since dealt with elsewhere. In our view, it is a complete waste of resources to repeatedly debate across the country things like the appropriate set-back for planting trees off a boundary, often with many of the same people involved in the debate other than the changing cast of council representatives. Interestingly some of the ENGO representatives expressed the same view, given they face the same challenges as forestry representatives of resourcing multiple RMA processes on a shoestring.

A final and overarching goal for all involved was to achieve a robust standard to achieve good environmental outcomes that must not provide a means to lower standards overall. The standard of rules across the country is extremely variable. Despite what has been asserted by some opponents to the process, the goal was never to achieve a free ride for forestry, and in reality that was never going to be the case. The NES as proposed is based on existing approaches by regional and district councils that are working effectively in parts of the country. When reviewing such approaches with multiple stakeholder representation, it was somewhat inevitable the end result was going to land at the higher end of rule stringency across the country.

The NES as drafted represents activity status and rules similar to that currently operating in regions such as Waikato, the Bay of Plenty, Northland and Auckland, but considerably more stringent than regions such as Horizons, Hawkes Bay and many parts of the South

Island. This was always going to be the price paid by the industry to achieve consistency.

How the proposed NES works

NES's are a mechanism under the RMA to develop national level regulation, to replace the usual approach of each region and district coming up with their own rules, and they can take a number of forms. The plantation forestry NES as proposed sets out the activity status and conditions for undertaking eight plantation forestry activities – afforestation, replanting, mechanical land preparation, thinning and pruning, earthworks, harvesting, forestry quarrying and stream crossings. If approved, the NES rules for these activities will replace the equivalent rules in regional and district plans in their entirety, creating one consistent set of rules for the whole country by way of a regulation.

One obvious omission in the activity list is agrichemical application. Given the activity of applying agrichemicals is almost identical to that carried out for other land uses, typically by the same spraying contractors, it was felt it did not make sense to write a forestry-specific set of rules. That said, an NES for all agrichemical application would seem a low-hanging fruit given the effects and risks are very similar across the country.

The proposed NES does allow for local authorities to retain local decision-making in some key aspects where it was felt site-specific consideration is required. This includes:

- Set-backs from the coastal marine area
- Geothermal and karst protection areas
- Heritage values
- Significant natural areas
- Set-backs from outstanding freshwater bodies
- Controls of some activities within outstanding natural features and landscapes
- Quarrying activities over shallow aquifers
- Where additional rules are required to meet objectives of the National Policy Statement (NPS) for Freshwater.

The last item on the above list, the NPS for Freshwater, was the subject of considerable discussion and legal advice as to how the two national instruments dovetail together. Under the RMA hierarchy it is clear that an NPS effectively overrides an NES. In practice, this should only become an issue in the instance where catchment level analysis to give effect to the NPS identifies that water quality improvement is needed, forestry is identified to be a material contributor to the problem, and where further constraints over and above the [Plantation Forestry] NES are required. In such instances additional rules could be developed above the NES, only as necessary to achieve water quality objectives and targets.

Erosion Susceptibility Classification underpinning the NES

One argument that has come up repeatedly against a national approach is the challenge of coming up with one set of rules across New Zealand when there is such a range of geology, risk and receiving environments. The first response to this is that clearly many regions and forestry companies already face that exact same challenge, with a huge variation in the working conditions between forests located within different parts of the same region. The issue is one of managing risk. Some regions currently do this by identifying areas or soil types with more stringent rules. Many simply use slope as an indicator of risk.

The NES uses a system of Erosion Susceptibility Classification developed initially for MfE by the University of Canterbury and more recently fine-tuned by Landcare Research. The Erosion Susceptibility Classification uses data from the NZ Land Resources Inventory (NZLRI) system, in effect translating the 'potential erosion risk' assigned to each Land Use Capability (LUC) unit into four levels of risk for undertaking plantation forestry activities – low (green), moderate (yellow), high (orange) and extreme (red). For earthworks in the orange zone, a slope indicator was also incorporated with different activity status above and below a 25 degree slope threshold. The proposed activity status for each activity in each Erosion Susceptibility Class is shown in Table 1.

In some limited instances, the original LUC classification is incorrect and more commonly the mapping scale is such that the unit boundaries do not reflect reality on the ground. That said, the LUC unit descriptions represent the best information currently available for assessing erosion risk across the country, and for the purpose for which it is intended (a drafting gate for activity status), in many instances it is perfectly adequate even with localised inaccuracy. However where a unit classification or boundary is clearly in error, and this materially affects activity status, the process does allow for landowners or any other party to apply to have a unit reassessed by approved independent experts. One potential spin-off benefit of the NES is that it will not only ensure that the valuable information in the NZLRI remains accessible and live, but also that it continues to be refined and upgraded over time, which will surely be of nationwide benefit for other purposes.

New approaches in the NES

The activity status and rules as proposed are largely reflective of the approaches currently used in existing plans in parts of the country. One key area of difference is the proposed controls for afforestation on very erosion-prone land (higher risk Class VIIe and all Class VIIIe units). In the view of the industry representatives, the current approach of the almost universal permitted status for afforestation (in some cases with active encouragement through grant assistance), and then



National Environmental Working Group meeting. Around the table from the front left: Stuart Miller (MPI), Trevor Freeman (Gisborne District), Kit Richards (PF Olsen), Bridget Robson (BOP Regional Council), Sally Strang (Hancock Forest Management), Aoife Martin (MPI), Steve Markham (Tasman District Council) and Trish Fordyce (Timberlands). Missing from the MPI team at the meeting were Parnell Trost, Steven Dobson, Myles Guy, Peter Lough, Richard Nicolls, and missing from the MfE team Brigid Preston. ENGO representatives not present were Neil Deans from Fish & Game and Kevin Hackwell from Forest & Bird. Photograph taken by Peter Weir (Ernslaw)

extremely restrictive controls at the time of harvest (including in some cases preventing harvest taking place) is not leading to the best economic or environmental outcomes. On the worst of the erosion-prone land, the appropriate time for making decisions about whether the land is suited to production forestry is surely at the outset, before significant capital has been invested and a crop established in a location that is extremely difficult to manage if it cannot be harvested.

The NES allows for afforestation as a permitted activity on low to high erosion risk areas, but specifies a restricted discretionary status for 'very high' risk country. This will enable an assessment to take place before any trees are planted, as to whether the land is suitable for future roading and harvest, with potential conditions imposed around planting boundaries to lead to better outcomes at harvest. Similarly, the assessment could include the appropriateness of the species because in some carbon regimes harvest may not be contemplated but radiata pine may not therefore be an appropriate species.

Some regional councils have expressed concern that such rules will deter afforestation in their regions. From the industry point of view this is easily managed by any council through an encouraging consenting process, including potentially waiving the consent processing charges where councils are seeking to encourage afforestation of erodible land. It is also notable that many of those same councils are failing to recognise that foresters by their nature take a long-term view of the world. Regardless of how encouraging the afforestation rules are, nothing will deter afforestation

Table 1: Application of the Erosion Susceptibility Classification (Source: MPI National Environmental Standard for Plantation Forestry, Consultation Document June 2015)

Activity	ESC Classification			
	Green	Yellow	Orange	Red
Mechanical Land Preparation	P	P	P	P
Afforestation	P	P	P	RD
Earthworks	P	P	P (<25°)	RD
Forestry Quarrying	P	P	P	P, (RD in earthflow country)
River Crossings	P	P	P	P
Pruning & thinning to waste	P	P	P	P
Harvesting	P	P	P	C, (RD in 8e)
Replanting	P	P	P	P

Key: P=Permitted, C=Controlled, RD= Restricted Discretionary

Note: 'Undefined' areas are conservation land and urban areas.
Source: Landcare Research, 2015

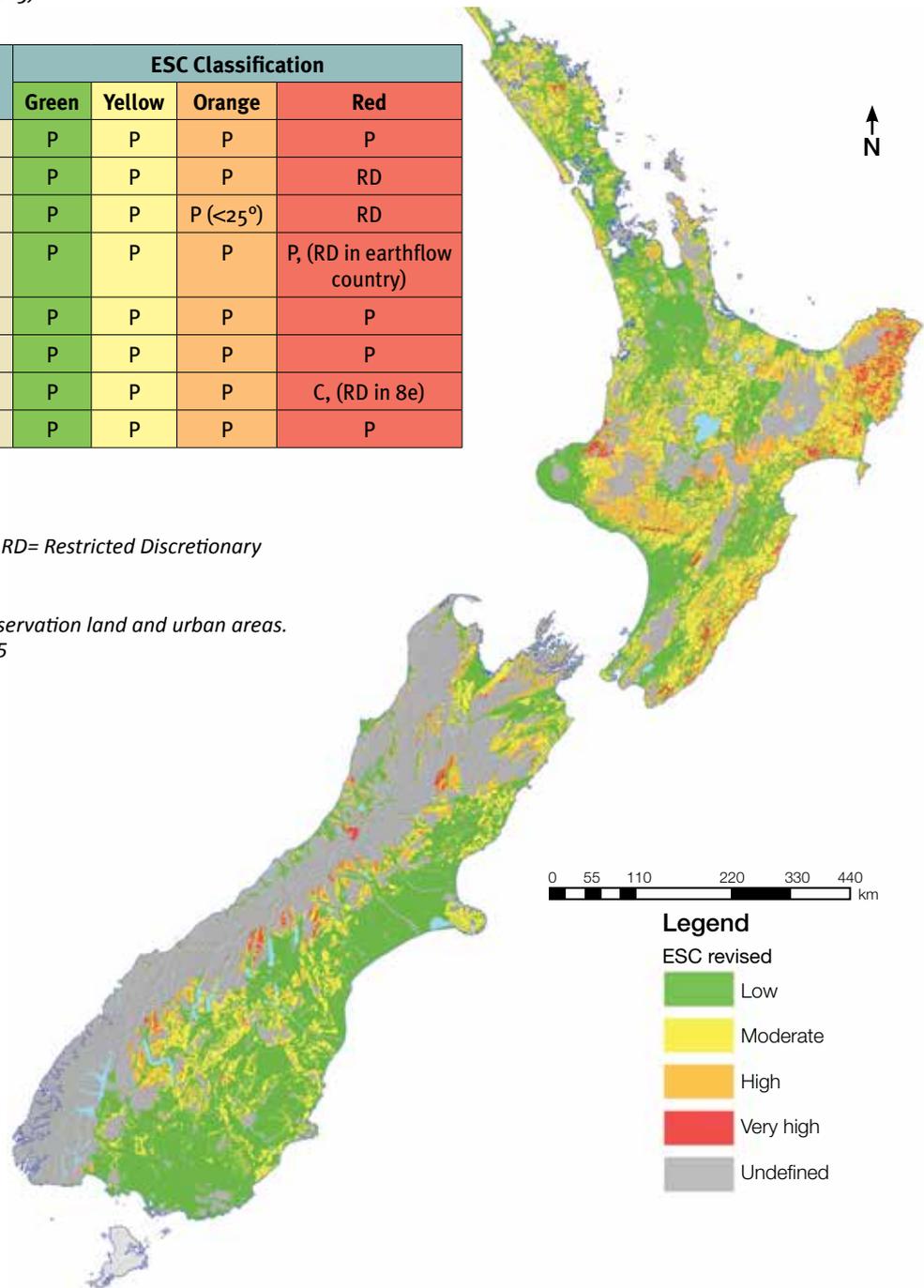


Figure 1: Map of revised Erosion Susceptibility Classification (Basher et al., 2015a)

Source: MPI National Environmental Standard for Plantation Forestry Consultation Document, June 2015

more than extremely restrictive harvesting rules and the possibility that forest investors may not be able to either harvest or replant their forest and therefore achieve a return.

The NES also introduces requirements across the country for forest managers to notify their local authority prior to commencement of operations, and produce both a harvest plan and erosion and sediment control plan for harvesting and earthworks operations. While this will be relatively routine for larger

companies, it is hoped this will raise standards for the smaller woodlot operators as it is well recognised that poor environmental outcomes often have a root cause in poor planning.

Other tools underpinning the NES

Two other key tools have been developed to underpin the NES. The first is a web-based Fish Spawning Indicator for freshwater fish. Some plantation forestry activities impacting directly on streams have

the potential to substantially disrupt fish migration and spawning. MPI engaged NIWA to develop a calendar for key freshwater fish species indicating the peak time for spawning and migration across the country. The species included in the calendar are those that would be disrupted by sediment discharge. MPI have developed this into a web-based tool, making use of the River Environments Classification and the Freshwater Fisheries Database (records of actual fish presence) to enable people to click on any stream in the country and identify the fish actually or likely to be present. The web-based tool combined with the NES rules will require that activities that disturb riverbeds, such as installing stream crossings, are either carried out outside of the peak spawning period for fish actually within that stream or will require consent.

The second tool is the use of a Wilding Spread Risk Calculator to determine the risk of wilding spread prior to undertaking afforestation. The indicator is based on the tool developed by Scion Researcher Nick Ledgard to assess the risk of wilding spread for key species in different situations. As proposed, the NES will require consent where the calculator score indicates a high risk of wilding spread, enabling the afforestation proposal to either be turned down, or alternatively controls to be placed on the forestry company to control wildings on neighbouring properties. Both these tools are again of nationwide applicability and value.

Feedback to date

MPI have confirmed that they have received 387 unique submissions and a number of proforma submissions. Those who attended the round of public meetings following release of the discussion document will be aware that some key issues dominated discussion.

The first related to a clause inserted in the afforestation and replanting rules cascades, allowing for the use of genetically modified tree stock where the tree stock has gained the appropriate approvals from the Environmental Protection Agency (EPA). This generated clear and extremely vocal opposition from anti-GE groups at consultation meetings in some parts of the country. The intent of this clause was not to give GE in plantation forests a free ride, but simply to make it clear that the EPA is the appropriate organisation to make decisions on GE deployment in New Zealand via the Hazardous Substances and New Organisms Act (HSNO) 1996. Those on the working group took the view that if the EPA process is considered deficient, then surely the appropriate solution is to address that process, rather than attempting to address it in a piecemeal fashion by the introduction of a second layer of ad hoc rules in some district plans, which are administered by local authority staff with limited understanding of GE technology. However this was clearly not the view of all parties and has resulted in a large number of submissions on this key point.

There has also been opposition from some councils. NES's by their very design and implementation

inevitably cut across every council's delegated authority under the RMA, so some opposition has to be expected, regardless of how well constructed that NES may be. Opposition from councils ranges from those uneasy that the rules are too strict and they do not have the resources to administer them, to concerns that the rules are too lenient and will allow foresters to run amuck. In some cases, however, a closer inspection has shown that the NES rules did in fact reflect very closely what was already in place for the same land units and in some instances it has been found there actually were no equivalents in place to what would be required under the NES.

While the debate continues about whether the NES is too stringent or too lenient, one might ask what the reaction would have been to a similar set of national rules proposed for pastoral farming governing activities according to erosion risk, earthworks, stream protection and set-backs.

Lessons learned through the process

The path of the NES has been somewhat convoluted and certainly more time-consuming than anyone anticipated at the outset. The initial target for completing the project was something in the order of 12 months! However good things take time, and developing rules through a consensus process with wide stakeholder input is always going to take longer, but the ongoing refinement over time has resulted in a better product.

Resourcing of the working group over the years has been a challenge, with some groups such as the NZ Farm Forestry Association unable to be represented throughout, simply because the time commitment of monthly meetings was too great. That said, MPI have done their best to keep groups not directly represented at working group meetings involved and informed throughout the process.



Mangaharakeke Forest – Erosion Susceptibility Classification orange and yellow zones



Logging debris in a stream bed at Mahurangi. Photo courtesy of Brenda Baillie, Scion

The commitment and resourcing of staff from MfE, and subsequently MPI, has been key to the success of the project. Similarly the ability to make use of expert resources on specialist topics has been critical, with input from NIWA, Scion, Landcare Research and others greatly increasing the horsepower behind the NES development. Collectively, with the range of expertise and skills involved the proposed NES has resulted in some very beneficial national-scale tools that are likely to have use and benefits beyond implementation of the NES and the forest industry.

The cost benefit analysis (CBA) was a major hurdle for the NES to overcome and a key contributor to it being placed on the back burner by MfE in 2011. One thing that has been learnt is the very real difficulty of assigning accurate values to all costs and benefits, particularly those such as environmental benefits and disbenefits that do not lend themselves to being assigned a dollar value. Even those aspects that should in theory be able to be quantified and valued, such as the cost of increased planting set-backs, created major challenges in practice.

The NES initially looked likely to sink on the back of an NES CBA that assigned \$147 million of cost to the industry over 30 years for planting set-backs – a combination of ETS liabilities and lost productive land. This was an interesting situation of conflicting legislation, with increased set-backs unanimously agreed as desirable for freshwater quality objectives concurrently leading to penalties under climate change legislation. Changes to the ETS regulations and further refinement of the actual area affected on the ground

significantly reduced this number in the CBA, which along with a more accurate assessment of costs and benefits in other areas meant the second round CBA in 2015 came out with a positive overall cost benefit.

Next steps

MPI staff are currently working their way through the 387 submissions on a wide range of issues. Through the analysis process MPI intend to test proposed refinements with the NES working group. A formal Cabinet paper will then be prepared detailing issues raised through consultation and providing recommendations on next steps. At this stage, it is intended the Cabinet report back will take place in November 2015.

If approved by Cabinet, a process will commence to draft the content of the NES into the form of a regulation to come into force in 2016. MPI have already indicated that there will be a period of grace between any new regulations being released, and coming into force, to enable those in the industry and regulators to get up to speed with the new provisions.

Assuming the NES does proceed, the intention is for it to be supported by a range of guidance material to help both local authorities and forestry operators to implement the process. This will include guidance on such things as preparation of harvest plans and erosion and sediment control plans. It is intended that the Forest Owners Association Environmental Code of Practice will then be updated to dovetail with the NES and guidance material.

Conclusion

The NES for Plantation Forestry offers a significant opportunity for the industry and for regulators and communities to improve environmental outcomes across the country, while significantly reducing the bureaucracy involved in both regional and district plan development and in achieving compliance with such plans when undertaking forestry operations. Clear, consistent rules when combined with supporting guidance material should bring improvement to the level of understanding of rules and performance requirements across the industry, assisting not only the larger companies but also smaller operators working in woodlots and regulators themselves. The outcome of the current consultation round will be key to the future of the NES for Plantation Forestry. It is hoped that with some refinement the NES will become operational in 2016.

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