

While I appreciate the desirability of having greater consistency between regions in how forestry activities are managed, I oppose the NES-PF as it is currently drafted. The key reasons for my opposition are outlined below.

The consultation document (page 6 of the hardcopy) states that the draft rules in the NES-PF are based on four principles.

1. Where appropriate, activities should be permitted, provided conditions are met.
2. The level of control associated with each activity should be directly associated with the level of risk of adverse effects on the environment at the location the activity takes place. As the level of risk of adverse effects increases, a requirement for consent is introduced.
3. Understanding the risk of adverse effects on the environment around the country should be informed by up-to-date science.
4. The NES-PF should provide a nationally consistent approach, but should also be responsive to local environments.

In my opinion it appears that the focus on applying permitted activity status has taken precedence over the other three points. 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, appear to impede the ability to be responsive to local environments.

Applying these restrictions on councils implies that all possible situations and outcomes have been considered in drafting the NES-PF. This seems unlikely, given that it is intended that this NES will remain in place over a long term and that our scientific understanding is constantly changing, not to mention 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, I consider there ought to be greater discretion for councils to adapt the rules to changing local conditions and information.

I consider that a more reasonable approach would be to specify consistent 'bottom line' standards and conditions at a national level, but allow councils greater scope to adapt these to take account of local conditions and community interests and desires.

Relief sought:

Allow greater council discretion, with respect to matters where councils are able to apply more stringent rules, and matters that councils are able to consider in the situations where consents are required.

Accuracy of the Erosion Susceptibility Classification system:

The Erosion Susceptibility Classification (ESC) system is critical to interpretation of the NES-PF draft 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 activities¹ in very high ESC zones and one activity (earthworks) in high ESC zones where the slope is >25 degrees.

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-PF.

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 river². A recent report to Nelson City Council³ 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. 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*".

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 moderate ESC zone.

Relief sought:

Allow councils to adapt the ESC system within their regions to take account of local knowledge and ground-truth data for verifying ESC zoning.

More tiered approach to activity status to reflect gradient of risks:

As mentioned above, the activity status for listed forestry activities does not vary much between erosion susceptibility classes. In fact, 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 <25

¹ Afforestation, earthworks, quarrying, and harvesting.

² 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.

³ LandVision Ltd. And Moore & Associates. 2014. Review of forestry, Nelson City Council. Draft report prepared for NCC. 24p.

degrees, controlled status in the yellow (moderate ESC) zone >25 degrees and orange (high ESC) zone <25 degrees, and discretionary status in the higher ESC zones.

In addition, it seems incongruous that under the existing draft rules that in Orange (high ESC) zones where slopes are >25 degrees earthworks is a restricted discretionary activity, whereas forest quarrying is permitted.

Relief sought:

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 <25 degrees, controlled status in the yellow (moderate ESC) zone >25 degrees and orange (high ESC) zone <25 degrees, and discretionary status in the higher ESC zones).

Shift in the onus of monitoring and cost:

The move to permitted status for most forestry activities over the vast majority (~94% of that assessed) of New Zealand's productive land, will have the effect of shifting the responsibility and cost for monitoring environmental outcomes from the consent holder (i.e. forestry owners and companies that stand to profit from the forestry activities) to councils (i.e. rate payers). It is unreasonable for rate payers to carry the cost of monitoring environmental impacts of forestry activities. This will also add workload to (already stretched) council monitoring staff.

A simple solution for this would be to make activities controlled, rather than permitted, and allow councils to impose consent conditions requiring monitoring.

Relief sought:

Provide a mechanism for councils to recover costs from forestry owners for monitoring and auditing associated with forestry activities within their regions.

Harvest Plans, Quarry Management Plans, and Erosion and Sediment Control Plans:

Harvest Plans, Quarry Management Plans, and Erosion and Sediment Control Plans are required to be prepared for harvesting, quarrying and earthworks, respectively. The contents required of these plans is broadly described and it is unclear whether the plans will adequately describe activities or if the activities intended will be sufficient to achieve other permitted activity conditions.

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 the plans as adequate.

A related point is that the NES-PF 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 (by council 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).

Relief Sought:

The content of management plans should be made clear and linked to clear outcomes. 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.

Setback distances:

The conditions for earthworks and afforestation require setbacks of 5 metres for streams less than 3 metres in width and 10 metres for those greater than 3 metres. However, the harvesting rule allows for the felling of trees directly across waterbodies where unavoidable and for harvesting within and across riparian zones. 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 zones should be permitted as of right, they should be controlled activities subject to case specific consent conditions and monitoring.

Relief sought:

Allow councils to identify sites of significance for native fish in their regions, and to be more stringent in relation to riparian margin setbacks and activities that can be undertaken in these zones.

Fish spawning rules:

There are several issues with the draft rules relating to fish spawning.

First, the peak spawning periods listed in the table in the draft rules (page 84 of the hardcopy) are inconsistent with those stipulated in the NIWA report (Smith 2014⁴) on which they were supposedly based. For example, rainbow trout peak spawning period is shown as 1 April to 31 May c.f. 1 June to 31 August in Smith (2014), the same period (1 September to 31 October) is specified for all non-migratory galaxiids listed as well as for redfin bully, whereas Smith (2014) lists no peak period for any of these species but spawning range varies between species from 1 June to 31 September for bignose galaxias to 1 August to 31 December for lowland longjaw galaxias.

Second, shortjaw kokopu 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.

Third, 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.

Fourth, the precise nature of the periods listed could imply that they are based on highly precise scientific knowledge. However, the NIWA report (Smith 2014) clearly state 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.

Relief sought:

Update the table in the draft conditions to ensure consistency with scientific advice cited, and allow councils to identify regionally specific 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.

Bed disturbance exclusions:

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-PF is supposedly science based⁵, 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?

⁴ 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.

⁵ One of the four principles underlying the NES-PF draft rules is that "Understanding the risk of adverse effects on the environment around the country should be informed by up-to-date science."

Relief sought:

Delete 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.

Fish habitat outside of spawning periods:

The existing rules do not provide for protection of fish habitat from bed disturbance outside of 'peak spawning' periods. The protected periods do not necessarily even cover the likely incubation period (e.g. for brown trout the listed peak spawning period is 1 May to 30 June, but eggs are likely to remain incubating in the gravel until late winter or early spring and this incubation phase is arguably even more sensitive to bed disturbance and sedimentation spawning activity is).

Furthermore, the General Conditions do not provide adequately for protection of river resident fish, particularly non-migratory galaxiids with high conservation threat status (e.g. lowland longjaw and round head galaxias). These fish spend all of their life in rivers or streams, and adverse impacts from forestry related activities present a significant risk to juveniles, adults, their habitat, and lifecycle (beyond just the spawning season). This also applies to migratory species, such as the kokopu and koaro that migrate to sea for a short period as juveniles, but which 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.

Relief sought: same as above

Allow councils to identify sites of significance for non-migratory and migratory native fish in their regions and to apply more stringent regulations in relation to activities in the beds of rivers to protect both fish habitat and their lifecycles, beyond just the peak spawning period.

Incorporating updated information:

As stated in the consultation document, one of the four principles underlying the NES-PF draft rules is that "Understanding the risk of adverse effects on the environment around the country should be informed by up-to-date science."

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 report (Smith, 2014) states that expert opinion was applied, given the limited information available. There needs to be a clear mechanism for advances in available science and information to update the provisions and rules in the NES-PF.

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-PF as they become available (the same point also applies for bird nesting times on the preceding page of the draft rules).

Relief sought:

Provide a clear mechanism for updated information to be incorporated into updates of the NES-PF rules as it comes to hand, for example: updated information on species distribution, spawning habitat and timing, conservation status

Hydrological effects of afforestation:

The consultation document (page 94 of the hardcopy, matters that are out of scope of the proposed NES-PF) recognises that afforestation can impact water yields, and states that “it is intended that regional Councils retain the ability to manage afforestation in catchments that have been assessed as being water sensitive”. However, this intent does not appear to have been implemented in draft conditions for afforestation.

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 report Smith, 2014). It also has the potential to impact instream habitat for fish and their invertebrate food supplies.

Relief sought:

Allow councils to consider the potential hydrological impacts of afforestation on water supply and fish habitat (in streams, rivers and wetlands), and impose appropriate controls and conditions within their region.

General conditions appear to over-ride all specific activity rules:

As written the draft general conditions state that, “Notwithstanding specific activity rules, all forestry activities are permitted, provided the following conditions are met.” The Oxford Dictionary defines ‘notwithstanding’ as meaning ‘in spite of’ i.e. ‘without being affected by’. As written this rule could be interpreted to mean that the following general conditions over-ride all specific activity rules.

The condition on fish spawning has a more clearly worded clause, “...provided all other activity-specific rules or consent conditions have been met...”

Also the phrase “all forestry activities are permitted” seems too inclusive. It does not appear to account for matters that are out of scope of the proposed NES-PF (listed on page 94 of the hardcopy

consultation document), for example. These include agrichemical use, burning, gravel extraction from the beds of rivers, etc.

Relief sought:

Redraft the general conditions to make it clear that they apply in addition to, rather than in place of, activity specific rules or consent conditions. Make it clear that there are exclusions to the forestry activities that are permitted, by reference to a schedule of activities either included or excluded, for example. Councils should be allowed to add to that schedule as they see fit, to account for local conditions.

Other apparent typos:

There are several other apparent typos, which if left uncorrected would make the intent of the rules ambiguous or confusing.

e.g. on page 64 of the hardcopy consultation document:

Permitted activity conditions for earthworks for road widening and realignment for safety purposes includes a condition that “the volume moved is more than 5000 m³ per activity area”, presumably this should be “is not more than...”

on page 72 of the hardcopy consultation document:

“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”.

on 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.

Relief sought:

Ensure that the NES-PF draft conditions undergo a thorough external legal and planning review and proof reading process prior to finalising.