Regulatory Impact Statement

Legislation to allow recovery of indigenous timber from some protected areas affected by West Coast (South Island) cyclone event

Agency Disclosure Statement

This Regulatory Impact Statement has been prepared by the Department of Conservation.

It provides an analysis of options for the management of timber harvest from a recent windfall event caused by Cyclone Ita.

The Minister had provided clear objectives that he wished to achieve, and the analysis focuses on whether available options would deliver on those objectives.

The information available on the amount of windthrow, the value of the timber, and market conditions was changing rapidly during the process, and so was inadequate for a full analysis of economic effects.

There are significant scientific questions about the effects on forests of different types and levels of log removal, and even of the effects of windfall events in natural systems and in systems where pests are present. It is planned to use this event to answer at least some of those questions.

Ngai Tahu are being consulted, and their views must be “had particular regard to” in the Minister’s final decision. It is not clear what effect those views would have had on the analysis had they been known at the time of drafting of this RIS.

There is some knowledge about the likely reaction of some conservation groups to recovery of timber, but the overall reaction to the proposals is difficult to predict, and may affect either feasibility or costs of options.

The information in this RIS is therefore indicative rather than definitive.

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Executive summary

A recent cyclone has caused significant windfall on the West Coast. The Minister of Conservation wishes to allow some timber recovery from some categories of protected area, with the income used for conservation purposes. He also wishes to use the event as an opportunity to research the ecological effect of timber recovery, to allow the potential for harvest in future to be better assessed.

The Minister has proposed new legislation to overcome some limitations in the existing legislation.

The Minister ruled out permanent amendments to protected area legislation, and also changes to the Forests Act 1949 in relation to export controls. Those options have therefore not been analysed in this RIS.

In terms of use of royalty income for conservation, both options are dependent on appropriations for Vote:Conservation being approved by Cabinet.

Option 1 is not a viable option if the Minister's desired level of timber recovery is to be achieved. Nor will it deliver on some other objectives, particularly the simplification of approval processes for operators.

A number of risks with option 2 are outlined in this RIS, and would need to be addressed in implementation.

There is very limited information on revenue benefits for conservation, and wider economic benefits. Possible risks to the long term sustainable timber industry would need to be addressed in implementation. A low income for conservation is not a problem, provided stumpage is sufficient to ensure a net benefit, including the desired research into recovery effects. If stumpage rates were too low to provide a net benefit, authorisation of recovery would be contrary to the Minister's objectives.

Status quo and problem definition

New Zealand native forests are subject to periodic wind events, which cause trees to fall. These events are major drivers of the distribution (species and age) of trees within forests, and generate the variety of habitats (e.g. fresh logs, rotted logs, exposed root plates) that are needed to maintain the high biodiversity in those forests.

Wind events vary in size. The most recent event, Cyclone Ita in April 2014, was an unusually large event, significantly affecting thousands of hectares of forest on the West Coast. It also affected forests and other trees on private land.

Given the size of event, there have been strong arguments from sawmilling and local interests for some or all of the indigenous trees that have fallen on public conservation land to be recovered and milled as timber. Scientific work (see appendix) has shown that dead standing and fallen logs are essential or favoured habitat and food source for many species, a normal part of nutrient cycling in forests, and beneficial to regeneration. At some scale their removal would have negative effects on overall ecology and forest regeneration. This event offers an opportunity to better understand and explain the importance of logs in forest ecology.

Notwithstanding the ecological role of windfall, the size of this event means that some scientists consider that there is potential to recover a proportion of the material without having major effects on natural processes. If the income from that timber removal was used for conservation purposes, the net effect on forest ecology may be minor or even positive. There would also be economic benefits from recovery of timber, assuming that the sudden spike in supply does not damage the overall market for sustainable indigenous timber.

Based on those arguments, the Minister of Conservation has expressed a willingness to consider some recovery of timber from this windfall event.

The current legislation governing protected areas was specifically designed to prevent the harvest of indigenous timber from those lands. The Conservation Act 1987 (and Department) was the product of an institutional reform process which took agencies with multiple and potentially conflicting objectives and replaced them with agencies that had narrower and internally consistent objectives. In particular, the NZ Forest Service was replaced by a new production forestry state owned enterprise, and the Department of Conservation as manager of protection forests and parks. Timberlands no longer had to achieve a range of public objectives (e.g. retention of areas for scientific purposes, provision of recreational opportunities). The Department of Conservation was required to manage its forests for conservation and recreation, with tourism allowed and commercial harvest of timber virtually prohibited.

Crown forests were allocated to the two new agencies according to the intended management objective for those forests. Allocation adjustments were made in subsequent years, including a major re-allocation of production lands to conservation on the West Coast.

While there are provisions in both the Conservation Act and Reserves Act 1977 that could be (and have been) used to allow very limited disposal of indigenous timber in unusual circumstances (e.g. where they have been felled to allow mining or clear roads, or have been illegally harvested), the advice to the Minister is that they would not be appropriate to use for large scale timber recovery, and their use in this event would carry a judicial review risk.

In the case of the Conservation Act, the provision for disposal of timber requires a public process, with public notification, a 40 working day submission process, and hearings if submitters wish to be heard. Use of those provisions would be unlikely to allow the grant of any authorisations before sap stain and borer had affected much of the fallen beech logs.

The Minister is therefore considering a new piece of legislation to allow recovery for this event only.

The Minister has indicated that he would only consider allowing the removal of indigenous trees if the income from their sale was made available for conservation work

Use of timber for sawmilling, and particularly where the product is to be exported, must comply with the Forests Act 1949. There are some difficulties in satisfying the Forests Act requirements given that protected areas are not subject to sustainable forestry plans or permits. New legislation would allow that difficulty to be addressed.

The Minister is also keen to ensure that the number of consents needed by timber recovery operators is reduced. Specifically, he wishes to absorb any Resource Management Act 1991 requirements into the authorisation process. That would also only be possible with new legislation.

Objectives

The Minister of Conservation's objectives in terms of allowing timber recovery are:

1. To generate additional revenue for use in conservation management.
2. To use the windfall event as an opportunity to carry out research to increase our understanding of the effects of windfall events and tree removal on forest ecology, paid for from timber sales.

He has set some objectives in relation to how timber recovery would be authorised, including ensuring that authorisation processes were timely and efficient, that operations were safe, and that effects on the ecology of the forests was minimised. He has excluded a number of protected area categories and areas – national parks, ecological areas, areas within the South West NZ World Heritage Area, and the white heron breeding site nature reserve. He has indicated that he wishes legislation to be passed in time to allow beech as well as rimu recovery.

Options and impact analysis

Two options have been identified:

- Option 1: Use of the current law and Budget processes

  The Minister could decide to dispose of timber using the existing clauses in the Conservation and Reserves Acts. He could reach an agreement with the Minister of Finance that ensured that future appropriations would allow additional conservation work to be done.

- Option 2: Special legislation for this event. This would need to be enacted under urgency to allow recovery of beech to occur, given the Parliamentary timetable and the likely rate of damage to beech.

Both options would be limited to recovery of timber from trees irreversibly damaged by the Cyclone Ita event.

Option 2 as proposed in the Cabinet paper would allow timber recovery to be authorised using a range of methods (e.g. tender). Authorisations would cover approval for the taking of a Crown resource and the activities that need to happen within the conservation area to allow that resource to be recovered. Those authorisations would replace any RMA authorisations, but would not affect the need for RMA consents for activities that are outside the protected area or have significant affects outside the protected area. The legislation would ensure that timber recovered could be milled in accordance with the Forests Act as if it had been taken from a forest subject to a management plan or permit under that Act, but other Forests Act requirements would remain in place. The legislation would self-repeal after five years.

Match with the objectives

Option 1 could not fully match the Minister's objectives, because:

- It may not be possible to allow the level of recovery intended by the Minister (see implementation risks below).
- It would not be possible to provide a "one-stop-shop" consenting approach.
- A public process would be needed before any recovery could be authorised for conservation areas, which would impede the ability to meet the desired timeframe in terms of beech recovery.
- The arrangements in the law are not designed to allow efficient and effective management of timber recovery. For example it may be difficult to run a tender process across a range of mix of conservation areas and reserves.

Option 2 can be designed to achieve all the objectives.

Direct implementation risks

Option 1 has high implementation risk if used to approve a high rate of timber recovery.

1. The policy and provisions were not designed to allow large scale windfall recovery, and judicial review of decisions to use it for that purpose may be successful.
2. There is likely to be strong opposition to use of the existing law, because that would be seen as opening the door for a similar response to common windfall events. That means the risk of judicial review being taken would also be very high.
3. The process in the legislation is not designed to cater efficiently and effectively to the type of recovery intended by the Minister.

Given these risks, it is unlikely that this option could fully deliver on the Minister's objectives.

Option 2 has an implementation risk related to the Parliamentary process. The extent of those risks is not known, as at the time of writing there had not yet been full consideration by Cabinet and the Leader of the House of the proposal to pass legislation under urgency. The ability to gain a majority in the House is also not tested.

There are risks related to drafting of the legislation and design of authorisation procedures, as a result of both the truncated timeframe and the need to keep the Bill short and simple. That means that most procedures and safeguards would need to be developed subsequently, without strong scrutiny by Parliament and submitters. Those risks could be reduced by having focused consultation or full public consultation on the detailed procedures before they are used. It could also be reduced by only authorisation of beech timber recovery undertaken rapidly, with a longer timeframe for authorisation related to other species.

Effects of options on ecological and other conservation values

The effects of the options largely depend on the level of log recovery approved, and how many forests are affected by log recovery.

Effects of option 1 would be likely to be far lower, as it is unlikely that high levels of recovery would be able to be authorised.

Effects will also be dependent on how recovery is managed. Provided there is sufficient time to develop good authorisation and management methods, either option will allow recovery to be managed. As discussed above, risks can be reduced by designing the authorisation process with care, and consulting a range of parties to ensure it addresses all potential issues.

In the case of option 2, good process development is particularly significant given the intention not to have the provisions in Part 3B of the Conservation Act apply to activities to recovery timber will remove the existing safeguards for those interests, including the requirement that activities be consistent with the purpose for which the land is held and any management plans.

Successful use of option 1 would set a precedent for recovery of timber under the existing law that would probably be outside what was intended by Parliament, and be likely to lead to longer term adverse effects on conservation values.

Self-repeal after five years will reduce impacts on conservation, as it will ensure that log removal/processing is only occurring for a short period in a site that is already disturbed. Log removal after seed germination and re-colonisation had commenced would have a far higher impact. The period during which log recovery should be considered will need to be considered carefully during implementation if risks of new disturbance are to be avoided.

Income for conservation

Allowing some effects on conservation values has been proposed in order to generate income for conservation management purposes.

There are two areas of uncertainty in analysing the options:

- How big would the income be, and therefore how much conservation management could be achieved from those funds; and
- What level of conservation management would be necessary to justify the likely risk to conservation from timber recovery.

Conservation land managers would at most only receive the current market stumpage price for the timber.

The Ministry for Primary Industries (MPI) provided the following information on stumpage rates being paid to private landowners affected by the Cyclone on the West Coast:

> **Value:** We asked the same operators for information on the prices they are currently paying for timber. There is a price variation depending on species type (rimu is more valuable than beech) and whether transport costs are paid by the mill operator or the forest owner. The following figures provide a useful preliminary indication:
>
> - Rimu: $250m^3$ stumpage (mill covers cost of extraction)
> - Beech $60m^3$ stumpage (mill covers cost of extraction)
>
> ...On average a rimu tree provides $4m^3$ and a beech $3m^3$ of timber...

Higher extraction costs from conservation land are likely, for a number of reasons, and high costs would be likely to lower stumpage rates:

- Much of the conservation estate is more remote than private lands.
- Extraction would be by helicopter rather than by cheaper ground-based methods that have been used on private land.
- The authorisation conditions are likely to be more stringent, requiring low impacts on surrounding vegetation, high safety standards, etc.
- There would be costs to the operators in gaining an authorisation, because a competitive tender or similar method would need to be used.
- There would be costs to the operators arising from auditing and monitoring requirements that are probably not required by private landowners (e.g. independent audit of health and safety plans).
- Costs for inspection of sites to ensure there are no particularly sensitive values (e.g. bat roosts in fallen trees) would be passed on to operators.

In addition, the effects of extraction would need to be measured, so some of the income from stumpage would go into science to answer questions about extraction, rather than conservation management. I note, however, that much of the science to answer those questions would also provide useful information for normal management of the forests (e.g. information on whether there are changes in pest numbers as windfall areas regenerate), so that may not significantly reduce the benefits of the income to conservation.

Average stumpage rates would be likely to be higher if a higher extraction rate was allowed in a smaller number of areas that were particularly attractive to operators (e.g. because of their proximity to roads and the quality of logs present), rather than having a small number of logs extracted across most of the affected forests. That approach would also lower research costs, but be likely to increase ecological effects (if harvest methods do not have high impacts and the main impact is from removal of the log habitat and associated nutrients). Removal of more logs from a site will increase the risks of removal impacts, such as trampling, soil compaction, disturbance of habitat, sediment entering streams, etc.

I conclude that stumpage rates being paid to private landowners are an indication of the maximum possible income, but not of the likely income, and that therefore the value of the logs in terms of providing income for conservation management is highly uncertain.

The overall level of income is also uncertain. It would depend on the actual amount of merchantable timber that has been windthrown by the Cyclone, the areas of interest to operators, and the logs available after ecological and health and safety limitations were factored in (e.g. some may not be able to be safely extracted without felling live trees to open up a broader working area, which the Minister has indicated would not be authorised).

Estimates of what has been windthrown and what would be merchantable have been provided by MPI, but have changed significantly as new information has come from surveys. These estimates are not reliable, as they are based on low information levels. It is unlikely that full information would be available until a tender process or expressions of interest process were undertaken, as only those processes will allow reliable information on what operators are interested in to be determined.

Which areas would be of interest is also not known. For example MPI has indicated that one 8300ha northern beech block is all unmerchantable beech species, and it is possible that other areas would be similarly ruled out over time as more information on extraction costs or log values becomes known. In addition, the need for paired controls may reduce the areas that would be made available, although in many cases controls will be available in ecological areas or national parks, or areas that are considered by operators to be too far from roads or mills.

What level of extraction would be allowed is also unknown.

MPI's highest estimate of overall income is $8m, their lowest is $810,000. That 10-fold variation illustrates the extreme uncertainty of any estimates.

The legislation that has been proposed would set a broad framework, and implementation may for various reasons result in a very low rate of recovery and very low income. The legislation would not be able to require that some minimum income was achieved. I am not aware of any work that has been done to set a limit on what level of economic benefit would justify new legislation, or new urgent legislation.

Recovery of beech is not expected to significantly affect the revenue available for conservation work, as the highest estimates are that it might contribute 10% of the overall value, and low value beech will be more affected by high extraction costs.

An effective research programme to study the effects of timber recovery will be developed. Because timber recovery would extend across a large number of forests types, slopes, and geologies, there would need to be multiple research sites, with measurement undertaken over a long time period (to track the changes as logs rot and regeneration occurs). Research would need to cover a wide range of physical matters (e.g. nutrient flows and habitat diversity), species, and both terrestrial and freshwater ecosystems. Without that type of research programme, there would continue to be high uncertainty about whether timber recovery is ecologically acceptable.

That said, some of the research would be desirable even if there was no need to answer questions about timber recovery. The event is recognised as a major opportunity to better understand how forests respond to windfall events, whether such events alter the need for pest control, and whether changes to food sources affect rare species populations (e.g. of kaka and kea). Without a new source of revenue, the type of research that is desirable may be difficult to fund.

As a general rule, increased spending on conservation management will improve conservation outcomes. For example the Parliamentary Commissioner for the Environment has recommended that more pest control should be undertaken, and the current beech mast event has necessitated pest control in forests that might not normally be high priorities for work. It is possible that this wind event will increase the need for pest control, but that will not be known until research and monitoring deliver results. A pool of funds to allow rapid response to any issues is clearly desirable.

Wider economic effects

Recovery of timber would provide economic benefits to the operators that gain the authorisations, and an economic study has estimated the wider economic benefits from timber recovery at 10 times the stumpage value. So if $1m of timber was extracted, that would generate around $10m of economic benefit.

MPI have, however, raised concerns about the potential for a spike in supply to have negative effects on the sustainable forestry industry overall.

The extent of risks to the industry from a spike in supply of logs affecting the timber market is unclear, and it appears from the various views expressed that it will depend on whether new markets can be created (e.g. through displacement of imported timber), and how rapidly the timber is processed and sold.

Significant disruption to the sustainable forestry industry market would be undesirable, given that a stable industry is necessary to allow a predictable income for forest managers (and therefore allow sustainable forest management), and provide ongoing employment for those working in the industry, and a stable timber supply for high end processing industries (e.g. furniture).

The Minister has indicated that he would expect the Director-General to manage extraction to avoid significant impacts on the sustainable timber market. Provided the legislation allows the Director-General to control the rate of authorisations, and MPI can provide good information on market effects, that should be achievable.

New legislation would give clear certainty to the industry of what might be available from the conservation estate, and the authorisation process that would be used. It is therefore more likely to deliver wider economic benefits than use of the existing law. The new legislation option will also allow better tailoring of the authorisation process to the industry needs, and reduce operating difficulties for the industry (by removing some other consent requirements).

Other risks

There are high health and safety risks involved in working in damaged forests. These would need to be addressed through health and safety planning and auditing.

There are risks associated with Treaty of Waitangi requirements. These will be addressed through decisions having particular regard to the views of Ngai Tahu (as required in the settlement legislation).

Consultation

Alan Mark, Gerry McSweeney and Kevin Hackwell were consulted by the Director-General of Conservation, who was seeking to understand what the likely reaction of the conservation movement would be to timber recovery. Their view is the windthrown trees should not be salvage-logged for ecological and other reasons.

Ngai Tahu are being consulted, and their views must be “had particular regard to” in the Minister’s final decision. It is not clear what effect those views may have on this analysis.

The Ministry for Primary Industries has provided advice, based on their communications with the sustainable native timber sector and their survey work.

No other consultation has been undertaken, given the timeframes for completion of this report.

Conclusions and recommendations

Option 1 is not a viable option if the Minister's desired level of timber recovery is to be achieved. Nor will it deliver on some other objectives, particularly the simplification of approval processes for operators.

A number of risks with option 2 are outlined in this RIS, and would need to be addressed in implementation. These include risks related to law drafting, authorisation processes, revenue generation, effects on the overall sustainable timber industry, and management of timber recovery. None appear to be intractable, but responses to them may prevent some of the intended outcomes being achieved.

There is very limited information on revenue benefits for conservation, and wider economic benefits. There is a risk that there will be very limited revenue benefits for conservation, and a somewhat lower risk of limited wider economic benefits. If stumpage rates were too low to provide a net benefit, authorisation of recovery would be contrary to the Minister's objectives.

The RIS identified but was unable to assess the relationship between the cost of passing and implementing legislation and the economic benefits delivered, as there is no information available on how the Parliamentary costs should be treated in such calculations.

Implementation plan

A number of matters that need to be managed in implementation are identified. The Department and MPI will develop implementation plans if urgent legislation is agreed.

The Minister has indicated that if legislation is to be used, it must be designed so that the Director-General can control what opportunities are offered, and whether any applications for timber recovery are agreed. That will help ensure that unwanted impacts on the market and other effects can be avoided.

Any new legislation would link to existing enforcement powers in protected area legislation and the Forests Act, allowing effective enforcement.

Monitoring, evaluation and review

The Minister has indicated that research to better understand the event, and the effects of log removal, would be an integral part of any programme, funded from timber income. A research programme is being developed but was not available at the time this RIS was finalised.

Appendix 1: Initial Scientific advice from DOC chief science advisor on ecological effects of windfall

Importance of deadwood in forest succession and renewal

Disturbance, particularly by wind, is a natural process of forest renewal and succession in New Zealand.

Species are resilient to wind damage and respond in a number of ways, including resprouting, increased growth rates and increased recruitment via seedling survival, although the response and recovery times are long term.

Wind-thrown deadwood has been recognized as being an important component of forest ecosystems, by acting as a reservoir for carbon, as part of nutrient cycling and release, and as substrate for seedling establishment and as habitat for fungi, insects, birds and other wildlife.

Given the severe nature of wind-throw and defoliation in some places on the Coast, extensive regeneration and succession will need to be encouraged as much as possible – thus retention of a high volume of deadwood will ensure adequate release of nutrients for regeneration and suitable substrates for seedling growth.

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Importance of deadwood for wildlife

Dead standing trees are important breeding sites for cavity dwelling species including threatened species such as mohua, long-tailed bats, short-tailed bats, kaka and others (e.g., robin, bellbird, rifleman).

Hollow wind-thrown trees have been recorded as breeding sites for kea and short-tailed bats.

Dead trees are important seasonal food sources for numerous wildlife species especially kaka, kea, mohua but also rifleman, tomtit, fantail, bellbird and silvereye. For example, in South Westland, for kea 52% and for kaka 26% of annual feeding on invertebrates was on rotting standing and wind thrown dead trees. They also ate wood on dead trees, taking soft, moist white decaying wood, possibly because of the food value of fungal mycelia or fruiting bodies, and ripped bark from branches and trunks exposing galleries of larval beetles that colonise dead wood.

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