



ENVIRONMENT AND CONSERVATION ORGANISATIONS OF NZ INC.

Level 2, 126 Vivian St, Wellington, New Zealand; PO Box 11-057, Wellington Email:
eco@eco.org.nz Website: www.eco.org.nz
Phone/Fax 64-4-385-7545

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Indigenous Biodiversity Team,
Ministry for the Environment,
PO Box 10362,
Wellington 6143.

Email: indigenousbiodiversity@mfe.govt.nz

**National Policy Statement on Indigenous Biodiversity
Consultation
Submissions by the Environment and Conservation Organisations of
NZ Inc**

Introduction

This submission is in response to the 2019 consultation paper on a National Policy Statement on Indigenous Biodiversity 2020 under the RMA.

The Environment and Conservation Organisations of NZ (ECO) is the national alliance of 49 groups with a concern for the environment and conservation. We were established in 1971-72. Some of our member bodies are themselves federations or multiple groups. Many are area-based, some are focused on specific species or activities or impacts, some are not actually environmental groups but share our concerns.

ECO has followed issues of conservation and environmental management and practice, law and policy since its formation in 1971-2. We have member groups from all around New Zealand.

We support Te Tiriti o Waitangi, and ensuring that the “voice” of the environment is heard.

We have a long standing interest in and engagement with the systems, institutions, incentives and drivers of activities and impacts on the environment and with appropriate public policy responses as well as international agreements and community and individual responsibilities.

ECO has long been involved in thinking and action to protect and restore native biodiversity and to tackle the threats to it. We above all want private actions and public policy responses and law that is effective, timely, efficient, fair.

ECO is a member of the International Union for the Conservation of Nature, IUCN, and recommends that the knowledge tools of IUCN including the classifications of Protected Areas, Nature based solutions, the Red list of threatened species and the Green list of ecosystems be taken into account in the work and design of the BioDiversity NPS. See iucn.org.ch for access to knowledge resources, policies and papers. The Department of Conservation is the New Zealand State Party to IUCN, while ECO, Forest and Bird and various other New Zealand NGOs are also members in their own right.

Introduction to the Submission

ECO outlines some initial important points, definitions, issues of scope and principles that we think need to frame the National Policy Statement on Indigenous Biodiveristy (NPS-IB) and then we move on to comment on the text and to answer the questions you pose.

A few points that we would be grateful if MfE staff and other officials could note about making it easier for submitters to respond, are:

It is great to have a .docx version of the paper, but it would be much easier to use if:

a) The doxc documents were simple word documents with the formatting of columns, rows, divisions and so on removed. We are not especially savvy about such things and spent a ridiculous amount of time wrestling with embedded formating that kept causing us problems.

b) The questions followed the sequence of the text of the draft IPS.

Our submission became unweildly because we started at the beginning and tracked it through, making comments in the sequence to the text, only to find that questions about much earlier sections draft popped up later out of sequence. Not knowing what method or software you had for analysing submissions, we then had to repeat text in case your method made it unfeasible for you to deal with responses from us like “see section xx above”. We got thoroughly lost at times as we wrestled with what seemed at times like a chaotic order of questions.

c) It would be very helpful if the questions could very rigorously indicate whether the referecne was to the discussion document or to the Draft IPS. We found ourselves floundering at times to work out to what and where the questions referred.

We appreciate the work that has gone into your paper, and we regret we are late making our submissions. We have explained by emails why the delays occurred and would be

grateful if you would accept and read our submissions. We hope they are useful and we look forward to seeing the result of the work you are doing.

If you wish to discuss any element of this submission, please email eco@eco.org.nz AND Cath.Wallace10@gmail.com with a contact number and we will call you back, or please use the contact details in our email of transmission.

Some initial Points

We observe that this Draft NPS-IB is relentlessly terrestrial. We consider that the obligations to protect indigenous biodiversity under the RMA extend to the 12 nm limit, and New Zealand has other obligations to protect marine biodiversity beyond that by virtue of various international agreements including the UN Convention on the Law of the Sea (UNCLOS); the SDGs and the Aichi targets and subsequent agreements under the Convention on Biodiversity (CBD).

The NZ Coastal Policy Statement was developed with the expectation that a National NPS on Indigenous Biodiversity would also apply. So too was the Freshwater NPS and NES.

ECO urges that this draft NPS-IB should be expanded to include marine and coastal and freshwater indigenous biodiversity out to the outer limit of the Territorial Sea (12 nautical miles). That means that some of the activities must be controlled by Regional councils and others by territorial authorities (and Requiring authorities).

We consider that this Draft NPS-IB must be expanded to apply beyond Mean High Water Springs.

We suggest that the NPS-IB should apply to **all indigenous biodiversity**, at least out to the 12 nm Territorial sea oceanic limit.

As such, we want it to be widened in geographic scope to include all indigenous aquatic ecosystems, species and genetic stock, including freshwater ecosystems and also coastal and marine areas, notwithstanding that there are other NPS that relate to these areas. That is because biodiversity applies to all and is not necessarily well dealt with in the other NPS's.

We applaud the limitation of the scope of the NPS-IB to indigenous biodiversity. That gives it far more clarity of focus and purpose than if it were "*all valued species*" or something of that ilk.

Legal and convention including definitions

We note key aspects of the RMA for biodiversity:

biological diversity means the variability among living organisms, and the ecological complexes of which they are a part, including diversity within species, between species, and of ecosystems

This is similar to the international definition agreed under the Convention on Biological Diversity (CBD):

"Biological diversity" means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

Both definition includes variability among living organisms – genetic diversity. As the CBD notes:

“Biodiversity ..includes genetic differences within each species - for example, between varieties of crops and breeds of livestock. Chromosomes, genes, and DNA-the building blocks of life-determine the uniqueness of each individual and each species.” Also “Yet another aspect of biodiversity is the variety of ecosystems such as those that occur in deserts, forests, wetlands, mountains, lakes, rivers, and agricultural landscapes. In each ecosystem, living creatures, including humans, form a community, interacting with one another and with the air, water, and soil around them.”

Other relevant definitions in the convention are:

"Biological resources" includes genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity.

"Ecosystem" means a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.

"Habitat" means the place or type of site where an organism or population naturally occurs.

The other important RMA definition is “intrinsic values” which includes biological and genetic diversity.

intrinsic values, in relation to ecosystems, means those aspects of ecosystems and their constituent parts which have value in their own right, including—

(a) their biological and genetic diversity; and

(b) the essential characteristics that determine an ecosystem’s integrity, form, functioning, and resilience

Under the RMA section 7, Intrinsic values of ecosystems are a matter that Council shall have particular regard to: (d) intrinsic values of ecosystems:

The preamble to the CBD recognises the intrinsic values of biological diversity (see below).

The reference to “have particular regard to intrinsic values of ecosystems” should be included in the list of Part 2 principles of the Act listed on page 5 of the explanatory note.

Under section 30:

*“Every regional council shall have the following functions for the purpose of giving effect to this Act in its region:
(ga) the establishment, implementation, and review of objectives, policies, and methods for maintaining indigenous biological diversity:”*

Under section 31

*“Every territorial authority shall have the following functions for the purpose of giving effect to this Act in its district:”
(b) the control of any actual or potential effects of the use, development, or protection of land, including for the purpose of—
(iii) the maintenance of indigenous biological diversity;*

Under section 62

*A regional policy statement must state—
i) the local authority responsible in the whole or any part of the region for specifying the objectives, policies, and methods for the control of the use of land—
(iii) to maintain indigenous biological diversity;*

Precautionary action

Principle 15 of the [Rio Declaration on Environment and Development](#), adopted by the United Nations Conference on Environment and Development in Rio de Janeiro, Brazil, 1992, states that:

“In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”

In the [preamble of the Convention on Biological Diversity](#) it is noted that:

“Where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat.”

As noted by Cooney (2006)¹:

“the precautionary principle has subsequently been extensively included in decisions and related work on biosafety (see below), marine and coastal biodiversity (eg, Decision II/10, SBSTTA I/8), invasive alien species [Decision XIII/13], the ecosystem approach (Decision V/6),⁴ and guidelines on sustainable use (Decision VII/12).” There are also other more recent examples.

[Decision II/10](#) of the CBD on conservation and sustainable use of marine and coastal biological diversity, adopted by the Conference of the Parties at its second meeting in Jakarta in November 1995, states that:

“The work [of the Secretariat on marine and coastal biological diversity] should not be impeded by the lack of full scientific information and will incorporate

¹ Cooney, R. (2004). *The Precautionary Principle in Biodiversity Conservation and Natural Resource Management: An issues paper for policy-makers, researchers and practitioners*. IUCN, Gland, Switzerland and Cambridge, UK. xi + 51pp.

explicitly the precautionary approach in addressing conservation and sustainable use issues.”

Under sustainable use - sustainable use (CBD 2004 COP 7 Decision VII/12):

8. In structuring a sustainable use programme and the attendant policies, laws and regulations to implement such a programme, there are a few underlying conditions that should be taken into account in Government and natural resource management planning:

(f) To ameliorate any potential negative long-term effects of uses it is incumbent on all resource users, to apply precaution in their management decisions and to opt for sustainable use management strategies and policies that favour uses that provide increased sustainable benefits while not adversely affecting biodiversity. Likewise, Governments should be certain that licensed or authorized sustainable uses of biological diversity are taking such precaution in their management;

Operational guidelines for sustainable use under Practical Principle 5 are:

“Sustainable use management goals and practices should avoid or minimize adverse impacts on ecosystem services, structure and functions as well as other components of ecosystems”:

“§ Apply a precautionary approach in management decisions in accordance with principle 15 of the Rio Declaration on Environment and Development;”

On the policy on the Ecosystem Approach (CBD 2004 COP 7 Decision VII/11) under the implementation guidelines under **“Principle 6: Ecosystems must be managed within the limits of their functioning”** the call for cautious management included:

“6.2 Given the uncertainty associated with defining the limits to ecosystem functioning under most circumstances, the precautionary approach should be applied.”

In the section on invasive alien species in the 2016 Decision XIII/13, the CBD says:

“Encourages Parties, other Governments and relevant organizations, when using classical biological control to manage already established invasive alien species, to apply the precautionary approach and appropriate risk analysis, including the elaboration of contingency plans, taking into account the summary of technical considerations annexed to the present decision as appropriate;”

And Further under the **Precautionary approach and risk assessment and management:**

“2. Risk assessment, reflecting the precautionary approach, of candidate biological control agents against direct and indirect non-target impacts, prior to any release decision, is key for the success of classical biological control programmes.”

Other obligations are the United Nations Food and Agriculture Organisation (FAO) Code of Conduct on Responsible Fisheries (1995) which states that:

“6.5 States and sub-regional and regional fisheries management organizations should apply a precautionary approach widely to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment, taking account of the best scientific evidence available. The absence of adequate scientific information should not be used as a reason for

postponing or failing to take measures to conserve target species, associated or dependent species and non-target species and their environment.”

Article 7.5 of the Code of Conduct further sets out what constitutes precautionary management in fisheries:

7.5 Precautionary approach

“7.5.1 States should apply the precautionary approach widely to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment. The absence of adequate scientific information should not be used as a reason for postponing or failing to take conservation and management measures.”

The United Nations Implementing Agreement on High Seas Fisheries and Straddling Stocks includes a requirement of *“coastal States and States fishing on the high seas [to] apply the precautionary approach in accordance with article 6.”* Article 6 includes requirements for:

- “1. States shall apply the precautionary approach widely to conservation, management and exploitation of straddling fishstocks and highly migratory fishstocks in order to protect the living marine resources and preserve the marine environment.*
- 2. States shall be more cautious when information is uncertain, unreliable or inadequate. The absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures.”*

Points not covered by your Questions

ECO would like to see the Indigenous Biodiversity NPS adopt a non-anthropocentric position. We comment on this matter in some of the parts of this submission. In the context of **s1.7, on p8 of the Draft**, on line 5, **we suggest that instead of “our forests, shrublands ...” etc, the term “New Zealand’s” is used.** That will lessen the sense of human ownership of the environment.

In **1.7(4)(e)** some indication of how the degradation of mauri is to be determined would be helpful.

In **1.7(4), (g)**, we welcome references to pests but consider that these should not be limited to vegetation and fauna. It is clear that members of a range of kingdoms including microorganisms and fungi are indigenous or are non-indigenous and can harm indigenous biodiversity. Thus any biosecurity risk or invasive non-indigenous species should be included in (g).

In **1.7(4), (h)** Adverse effects on indigenous biodiversity should also include under (h) all other biological kingdoms, such as vegetation, fungi, protista and monera, with any potentially affected (by rusts, diseases, fungi etc, etc). We see no good reason to limit (h) to fauna. Further, we would like to see here disruptions caused by alien invasive species, including, but not limited to, diseases and disease vectors.

In ECO's view both of these sub-sections and the whole proposed NPS – IB should be revised to include all biological kingdoms and taxa, including thermophilic species and the cyanobacteria and other non-photosynthesing organisms. Granted, for the most part, insufficient is known about indigenous Protista and Monera is known for effective management of risks to them, but in principle they should be included.

Alternatively, refer to indigenous biodiversity and it will all be covered.

In respect of 1.7(4)(i) we suggest the addition into the lists i-iii, or the addition of a iv and v, of medicinal, health, aesthetic uses and values and also the passive non-extractive uses and benefits of retaining existence, option and bequest values.

Re 1.8 Definitions

In the [] where there is “**more than minor**” we suggest instead, “*non-negligible*”. This could serve in place of “more than minor” which has become dreadfully debased at the hands of those who have vested interests in classifying activities and effects as only minor.

In the definition of **biodiversity compensation**, we consider it would be clearer if in line 3, **instead of “biodiversity effects” these words are replaced by “effects on biodiversity”**.

In relation to the definition of “**ecosystem**” we suggest that instead of “**and a physical space**” some words be used to capture dynamic interactions of biogeophysical processes and systems.. The language might include some words to the effect of “**and the biogeophysical systems and spaces in which these operate**”

The effects management hierarchy seems to omit any suggestion of not doing an activity or not causing the effect.

Some *strategic evaluation of alternatives* or “*do nothing*” should in our view be inserted here. In this hierarchy, the language in (a) that “**adverse effects are avoided where possible**” and the language in (d) seems to imply that if it is not possible to avoid the adverse effects, then the activity can just go ahead anyway.

We recommend language to clarify that the effects and activities not be generated in this case, and that the Precautionary Principle and Approach apply here to favour the environment, not the sub-division, use and development.

Mitigation Hierarchy: We offer these authoritative discussions of the Mitigation Hierarchy:

a) IUCN policy sets out a clear mitigation hierarchy comprising:

*a. **Avoidance:** measures taken to avoid creating impacts from the outset, such as careful spatial or temporal placement of elements of infrastructure, in order to completely avoid impacts on certain components of biodiversity. This results in a change to a 'business as usual' approach.*

*b. **Minimisation:** measures taken to reduce the duration, intensity and / or extent of impacts that cannot be completely avoided, as far as is practically feasible.*

*c. **Rehabilitation / restoration:** measures taken to rehabilitate degraded ecosystems or restore cleared ecosystems following exposure to impacts that cannot be completely avoided and / or minimised.*

*d. **Compensation or Offset:** measures taken to compensate for any residual significant, adverse impacts that cannot be avoided, minimised and / or rehabilitated or restored. Measures to achieve No Net Loss or a Net Gain of biodiversity for at least as long as the project's impacts are biodiversity offsets. Offsets can take the form of positive management interventions such as restoration of degraded habitat, arrested degradation or averted risk, where there is imminent or projected loss of biodiversity.*

b) Walker et al (2018) developed a series of tables of effects with the following high-level criteria:

“Table A. **Avoid:** effects that are irreversible (loss is permanent or feasibility of full replacement within 25 years is low) on biodiversity features that are much reduced, threatened or at risk.

“Table B. **Avoid if the effect cannot be fully remedied:** effects are potentially reversible or the biodiversity feature is neither much-reduced nor at risk of extinction presently. We assume that for features in this category:

i there will need to be an ecological assessment of the feasibility and probability of complete remediation within 25 years

ii if complete remediation is improbable (which may be the case in a high proportion of the features in this category), **Avoid** would apply”

Highly mobile fauna – ECO disagrees with the restriction in the definition at (c) of its application to “**only threatened or at risk species**”. Our concern here is that the restriction may provide a short route to that status for species not classified as threatened or at risk. We thus recommend the deletion of the last clause in (c).

We also note that a key problem with the DoC Threat classification is that it doesn't include species which are classified as “migrant” or “vagrant” (ie highly mobile species) but these are part of New Zealand's indigenous taxa. To assess these taxa you have to rely on the IUCN Red list.

ECO agrees with DoC that: “At a global level, the International Union for Conservation of Nature's (IUCN) Red List is the benchmark for assessing the conservation status of flora and fauna.” (Whitebait Fishery consultation document).

The IUCN criteria are internationally recognised and have been developed and refined over more than 60 years. ECO puts greater weight on the IUCN criteria. ECO is concerned at the use and application of the DoC criteria. (See our later comments on the criteria).

An **information sufficiency test is needed** to ensure that where the effects may be more than minor and there is uncertainty and the risk of significant environmental harm, then the activity should not be undertaken.

The definition of **Natural Range** needs to be tightened up from the area within which **that species can be expected to be found** to instead reference **a baseline from their original range**, not just some current, and usually shrunken area of range.

Plantation Forest Biodiversity Areas – we suggest that that this be more carefully worded to ensure that biodiversity in areas set aside under the Forest Stewardship Council certification schemes requirements, and any off set areas or other provision for biodiversity that is part of a plantation forest addressing their conditions for certification or for planning rules, are NOT exempt from biodiversity controls. Any such exemption should only apply to the production harvest designated areas, and not to riparian zones, or set-aside areas.

The definition of “**Reconstruction**” refers to “**appropriate biota**”. We submit that this should be **appropriate locally sourced (if possible) indigenous biota**. We suggest this because we have heard some suggest (erroneously in our view) that deer and other alien invasive species can be a substitute for the original indigenous species’ browsing in our indigenous forests

Threatened or at risk species. We do not accept that DoC’s *New Zealand Threat Classification System* should be used instead of the IUCN species status classification which is the internationally recognised and accepted Threat classification system. Thus we suggest that the IUCN Threat Classification should be the **primary benchmark** and added to the definition here.

You say: “threatened or at-risk species are taxa that meet the criteria specified by Townsend et al. (2008) for the categories Threatened or At-risk” (*Andrew J Townsend, Peter J de Lange, Clinton A J Duffy, Colin Medium Miskelly, Janice Molloy and David A Norton (2008). The New Zealand Threat Classification System Manual*, available at: <https://www.doc.govt.nz/globalassets/documents/science-and-technical/sap244.pdf>).

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The IUCN criteria are internationally recognised and have been developed and refined over more than 60 years. ECO puts greater weight on the IUCN criteria. ECO is concerned at the use and application of the DoC criteria for a number of reasons.

As well as using non-standard criteria, confusion is generated by DoC criteria separation of “threatened” and “at risk” species for what are threatened species when other species are defined as “non-threatened”. This change happened when the DoC criteria were revised in 2008. The old criteria are much more logical.

An additional problem with the DoC Threat classification is that it doesn’t include species which are classified as “migrant” or “vagrant” but make up New Zealand’s indigenous taxa. To assess these taxa you have to rely on the IUCN Red list. The list of migrant or vagrant species does not include introduced or naturalised species.

ECO recommends that it be clear that “threatened” species includes “at risk” species and that the status under both these two criteria can be considered.

The definition could be widened to read: ***“the taxa that meet the criteria in the IUCN Red List Threat Classification System augmented by the criteria specified by Townsend et al....”***. For more information on the IUCN threat classification system and criteria, see <https://www.iucnredlist.org/resources/categories-and-criteria> and also <https://www.iucnredlist.org/resources/classification-schemes>

For example the Red List classifies shortjaw kōkopu as Endangered and the giant kōkopu as Vulnerable [threatened species]. Both have decreasing populations and occur only in New Zealand. The other whitebait species are assessed as Least Concern, with stable or unknown population trajectories.”

Concern over the DoC criteria was expressed the recent downgrading of Hector's and NZ Sea lion threat status which seems rather contrary to the evidence. This has led to open criticism of DoC's approach (eg <https://sciblogs.co.nz/making-waves/2019/06/05/how-endangered-are-new-zealand-dolphins-and-sea-lions/>).

We submit that the criteria must include the internationally recognised IUCN Red list as the primary point of reference.

ECO recommends the definition be changed to read:

“threatened or at risk species are taxa that are listed as threatened species under the IUCN – Red List – (www.redlist.org) under the criteria vulnerable, endangered or critically endangered, and augmented by the species or taxa that meet the criteria specified by Townsend et al. (2008) for the categories Threatened or At-risk”

Red List of Threatened Ecosystems

IUCN is also developing or has developed the Red list of threatened ecosystems and the Green list of Protected and Conserved Ecosystems. It may be sensible, in this Indigenous Biodiversity NPS to look through their criteria and to ensure that those are included with authoritative definitions as well.

An introduction to the IUCN Red list of Ecosystems, with guides and the criteria is here: <https://portals.iucn.org/library/sites/library/files/documents/2016-035.pdf>, a publication of 2016.

The IUCN Green list of Protected and Conserved Ecosystems and the Global Standard and User manual can be found here: <https://www.iucn.org/theme/protected-areas/our-work/iucn-green-list-protected-and-conserved-areas>

Taupo Volcanic zone – ECO supports the inclusion of the definition and the inclusion of geothermal areas in the NPS with the proviso that coastal and marine geothermal areas are included, including the Hot Water Beach and off shore seeps and vents.

Your Questions and our Responses, and some other points.

Q1. Do you agree a National Policy Statement for Indigenous Biodiversity (NPSIB) is needed to strengthen requirements for protecting our native plants, animals and ecosystems under the Resource Management Act 1991 (RMA)? Yes/no? Why/why not?

Yes, ECO does think we need to strengthen protection for indigenous biodiversity in all its forms ie ecosystem diversity, species diversity and genetic diversity.

Why: We are painfully aware of the losses of native species, the thinning out of the genetic diversity of many species to critical genetic bottlenecks, and the losses of many species, populations and ecosystems. The losses of populations, the contraction of the ranges, of abundance, functionality and health of indigenous biodiversity and the losses of ecosystems and their functions.

We consider that the NZ Biodiversity NPS should extend to all kingdoms and taxa, and biodiversity at all levels (eg genetic diversity, species diversity and ecosystem diversity). Except for the reference to “ecosystems” the proposed NPS-IB only includes flora and fauna. It omits Fungi, Protista and Monera. We appreciate that the RMA lists indigenous flora and fauna as matters of national importance (section 6(c)), but it also refers to “the environment” and other more generic terms that would encompass taxa of micro-organisms, and marine taxa. In our view it should cover all taxa, not just the flora and fauna cited in the Draft NPS.

The losses of biodiversity in New Zealand are particularly tragic due to the high rates of endemism of species in New Zealand, the specialised and vulnerable nature of terrestrial plants and animals due to their evolution in the absence of mammalian predators. The loss of biodiversity has been sustained and fast, both in New Zealand and in the rest of the world, as evidenced in numerous reputable reports (e.g. from the PCE, scientific institutions, lay observations and the Ministry for the Environment/ Statistics NZ Environmental Reporting. In the international arena, the losses of Biodiversity have been reported in many studies and reports by IUCN, by the IPBES (The

Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services), and by numerous other reports and scientific studies.

Q2 The scope of the proposed NPSIB focuses on the terrestrial environment and the restoration and enhancement of wetlands. Do you think there is a role for the NPSIB within coastal marine and freshwater environments? Yes/no, why/why not?

Yes we do think that the NPS-IB – should – *indeed must* - cover all biodiversity in the coastal, marine and fresh water environments. This is essential to biodiversity protection and the RMA applies out to the 12 nautical mile limit (12nm). We do environmental management a dis-service by omitting these other realms.

We do understand that the politics are difficult, but the influence of the fishing oligarchs and siloed fisheries managers should not be allowed to infect good biodiversity management.

Q3 Do you agree with the objectives of the proposed NPS-IB?

Not entirely, no. They lack ambition and as set out may fail to comply with revisions to the Resource Management System and the urging of the Convention on Biodiversity, the SDGs and the Aichi and post 2020 Global Biodiversity Targets. The NPS-IB needs to include mandatory, measurable and time bound targets and reporting and milestones for improvement in indigenous biodiversity, as well as requirements for policies. In addition to halting indigenous biodiversity losses, we need to allow biodiversity to regenerate, recover and to be restored. Working through the Objectives in Part 2, Section 2.1,

Yes/no? Why/why not? (see Part 2.1 of the proposed NPSIB)

Objective 1 We consider that “maintain” indigenous biodiversity should be “***maintain, regenerate, restore and assist to recover ...***”

Objective 2 We suggest that this Objective be **reworded to add** after the words “Treaty of Waitangi” the words “**and our international obligations relating to biodiversity**”.

This change would be analogous to Section 5 of the Fisheries Act 1996 which is a section that deals with both the Treaty of Waitangi (fisheries claims) settlement Act and with New Zealand’s international obligations.

Objective 3 “*to recognise and provide for Hutia Te Rito in the management of indigenous biodiversity*” is in some ways difficult for clarity of the NPS in that it seems significantly to slant the objective to an anthropocentric goal, rather than the existing constrained optimisation objective of the Act. The RMA’s Purpose section 5(2) a-c,

imposes constraints on the enabling of people in order to protect the potential of resources for future people, for safeguarding life supporting capacity, and for the environment.

The discussion of Hutia Te Rito in section 1.7, Fundamental Concepts, construes or interprets the meaning of the lines of the **whakataukī** in Hutia Te Rito, but we can envisage that other interpretations could rely on the last line's repetition of "he tangata" to mean a far more anthropocentric focus on the needs of people over and above the needs of the environment. Tamara Paul (2020)² notes "Many quote this in reference to people being the most important thing in the world – but actually, the origin of this whakataukī speaks to the need for balance between people and planet." We would like to see this interpretation clearly spelt out.

We should think broader that this whakataukī – an important part of biodiversity strategy is the need to see links and an integrated approach.

He taura whiri kotahi mai anō te kopunga tai no i te pu au

From the source to the mouth of the sea all things are joined together as one

The statement in 1.7(1) as to the interpretation of Hutia Te Rito, is helpful, but we can't imagine that this will not be challenged and possibly undone or distorted to a more anthropocentric meaning. It introduces potential ambiguity in the name of providing Maori meaning, concepts and frameworks.

Objective 4: "to improve the integrated management of indigenous biodiversity".

Some clarity of the dimensions of "Integration" are needed here. Is the integration spatial, by administrative body, by ecotype or what? We suggest that one option here would be to change Objective 4 to this"

Objective 4: "to **provide for ecosystem-based and improved** the integrated management of indigenous biodiversity".

Objective 5: "To Restore indigenous biodiversity and enhance the ecological integrity of ecosystems".

ECO welcomes this Objective but we consider more is needed. Do the dimensions and parts of biodiversity health need to be spelt out here? Should we have range, abundance, trophic relationships and other such in here? All these are aspects of ecosystems and natural features that need to be retained and protected.

Objective 6: Re Objective 6, we are puzzled by this Objective for two reasons:

² T. Paul (2020) Our native species are under threat, and we can help them.

<https://thespinoff.co.nz/atea/08-03-2020/our-native-species-are-under-threat-and-we-can-help-them/>

1 the omission of public authorities, central and local government agencies and of companies from this list. Why are central and local government agencies, companies and others not included here?

2 The chapeau (lead in paragraph) to Objective 6, if it covered, also the various agencies etc we refer to in our point 1 (above), would be fine if it terminated before the word “by”. It does not seem to have a subclause (a), only (b) and (c), so we wonder if some text is missing?

Even then, we do not see that the sentence of the chapeau and (b) works to achieve the goal of the objective. Why would allowing (b) achieve Objective 6? The Chapeau plus (c) makes some sense, but not the Chapeau plus (b).

Subsection (b) also seems very sweeping. It seems to say that allowing people and communities to provide for these aspects of their wellbeing, will achieve recognition of the roles of land owners etc. But allowing (b) could, if unconstrained, defeat the objectives in the list and the Purpose of the Act. We think this Objective 6 needs a rethink and a re-write. We can't offer suggestions because we do not know what it is trying to do.

Q4 Hutia Te Rito recognises that the health and wellbeing of nature is vital to our own health and wellbeing. This will be the underlying concept of the proposed NPSIB. Do you agree? Yes/no? Why/why not?

ECO agrees that the health and well being of nature is vital to the health and wellbeing of humans, now and in the future. We consider though that nature has its own ethical standing independent of services and values to humans, albeit we are part of nature. As such, we are nervous about giving primacy to human wants and demands.

For your convenience, in case you are analysing responses in groups of questions, we repeat here our comments in relation to Objective 3:

“to recognise and provide for Hutia Te Rito in the management of indigenous biodiversity” is in some ways difficult for clarity of the NPS in that it seems significantly to slant the objective to an anthropocentric goal, rather than the existing constrained optimisation objective of the Act. The RMA's Purpose section 5(2) (a) to (c), imposes constraints on the enabling of people in order to protect the potential of resources for future people, for safeguarding life supporting capacity, and for the environment.

The discussion of Hutia Te Rito in section 1.7, Fundamental Concepts, construes or interprets the meaning of the *whakatauki* lines in Hutia Te Rito, but we can envisage

that other interpretations could rely on the last line's repetition of "he tangata" to mean a far more anthropocentric focus on the needs of people over and above the needs of the environment. The statement in 1.7(1) as to the interpretation of Hutia Te Rito, is helpful, but we can't imagine that this will not be challenged and possibly undone or distorted to a more anthropocentric meaning. It introduces potential ambiguity in the name of providing Maori meaning, concepts and frameworks. (see our earlier comments).

As Tamara Paul (2020)³ notes "Many quote this in reference to people being the most important thing in the world – but actually, the origin of this whakataukī speaks to the need for balance between people and planet."

Q5 Does the proposed NPSIB provide enough information on Hutia te Rito and how it should be implemented? Yes/no. Is there anything else that should be added to reflect te ao Māori in managing Indigenous Biodiversity?

As in our answers to Q3 Objective 3, and Q4, we do not feel confident that the ideas in 1.7 would remain unchallenged and that Hutia Te Rito might not be simply seen as entirely anthropocentric. We recognise human-environment holism, but if this Whakatau ended in "te Taio, te Taio, te Taio" - the Environment, the environment, the environment, we would feel more clearly that humans do not trump other species.

We should think broader that the whakataukī" proposed – an important part of biodiversity strategy is the need to see links and integration.

He taura whiri kotahi mai anō te kopunga tai no i te pu au

From the source to the mouth of the sea all things are joined together as one

Q 6 Do you think the proposed NPSIB appropriately takes into account the principles of the Treaty of Waitangi? Yes/no? Why/why not?

Is "take into account" rather than "give effect to" the Treaty of Waitangi dictated by the language of the RMA instead of the language of the Conservation Act? How much scope is there for strengthening this language from "take into account"?

We also do not understand why the main set of obligations seems to exclude central government, yet many government agencies such as NZTA, and Crown companies, Crown entities and government owned or partnered entities may well be either

³ T. Paul (2020) Our native species are under threat, and we can help them.
<https://thespinoff.co.nz/atea/08-03-2020/our-native-species-are-under-threat-and-we-can-help-them/>

promoting an activity or be the owner of land or involved in other capacities such as regulatory or other governmental roles.

Non-Crown entities do not, as we had understood it, have Treaty of Waitangi obligations, per se, though we have no quarrel with an NPS that imposes obligations on the Crown and on local government - so long as local governments have the skills and resources to achieve these.

Q 7 What opportunities and challenges do you see for the way in which councils would be required to work with tangata whenua when managing indigenous biodiversity? What information and resources would support the enhanced role of tangata whenua in indigenous biodiversity management? Please explain.

In relation to Part 3, Implementation Requirements, 3.2 and Hutia Te Rito, and 3.3, Tangata Whenua as kaitiaki, we recommend the deletion from 3.2.2.ii, of the words “**that are taonga**”, since all indigenous species and biodiversity should be considered taonga.

In relation to 3.2.b, we suggest that after the word “stewardship” the words “**and resources to fulfil these roles;**” be added.

In relation to 3.2.c, we suggest “**take steps to ensure**” is much too weak.

It should be reworded to provide a set of goals, mandatory time bound targets, and deadlines for regeneration and recovery of biodiversity. This should be strengthened with reporting requirements and verification measures. A schedule for biodiversity recovery and the steps to achieve this is needed.

Q8 Local authorities will need to consider opportunities for tangata whenua to exercise kaitiakitanga over indigenous biodiversity, including by allowing for sustainable customary use of indigenous flora. Do you think the proposed NPSIB appropriately provides for customary use? Yes/no, please explain.

a) We agree with the objective of kaitiakitanga, but this will have to be done carefully so that people on private land do not take fright and oppose the measures, with a political defeat as a result.

b) The “early consultation” could be strengthened to development of a jointly governed process, so tangata whenua are not in a supplicant position, but have joint decision making as well as specific culturally designated roles.

c) In ECO's view, customary use of indigenous vegetation should be restricted to non-threatened species of vegetation. Some provisions governing how any use and harvest on non-Maori land will be managed will need to be developed.

d) In respect of 3.4, "Integrated Approach" some reference to this section should be provided earlier.

e) We have read the draft Urban Development Bill with mounting horror. We are struck by just how unlike are that Bill's provisions to the Integrated Approach envisaged here. In that Bill, the proposal is for the Urban Development authorities including Kainga Ora to:

- over-ride environmental and local authority policies and plans; to "realign" and in fact repurpose, or take over for housing and infrastructure many kinds of reserves without consideration of their purpose;
- be able to request the Minister of Conservation to declassify the conservation purpose of many kinds of conservation reserves and for the Minister of Conservation to decide and give effect to that in the light of the Urban Development Bill Purpose, not the Conservation or Reserves Act purposes; and
- override all Local Authority Plans and Policies, and to be able to issue consents irrespective of local authority consent processes.

We have urged that this Bill be cut back to more reasonable provisions, and we flag these concerns as a matter of vital importance and needing urgent action.

Clarkson et al (2018)⁴ noted:

- "Urban centres have resulted in significant depletion of the indigenous biodiversity of the lowland zone and eighty-three acutely threatened environments are represented within urban and peri-urban zones;
- There is significant potential to contribute to protection, restoration and reconstruction of indigenous habitat within urban centres;"

And

"Remnant indigenous vegetation assessed in 20 urban centres covered from <1 to 8.9% of the built-up matrix".

f) In trying to read between the lines in this section 3.4, we wonder if it is saying that indigenous biodiversity protection is in fact being instructed here to give way to subdivision, use and development (presumably including infrastructure)?

ECO's view is that indigenous biodiversity maintenance and restoration must NOT be over-riden by housing and other use and development. Section 3.4 seems to undermine the NPS, and in effect to demand that in the name of an "integrated approach" that indigenous biodiversity will be the loser.

⁴ B. D. Clarkson, C. L. Kirby and K. J. Wallace (2018) Restoration targets for biodiversity depleted environments in New Zealand. Prepared for: The Biodiversity Collaborative Group. University of Waikato. 23p.

Is the effect of 3.4.b essentially that Local Authorities have to give way to Kainga Ora? We reject this provision if so, and we ask that the Urban Development Bill be modified to remove the over-ride powers, and that it be required to take the environment into account.

g) We suggest that 3.4 could be a useful and suitable place to require that local authorities develop indigenous biosecurity policies and plans and to input to MPI's work and the efforts of the community on biosecurity as it relates to indigenous biodiversity.

3.5 Resilience to climate change

We agree with the need to provide biodiversity with resilience to climate change.

In ECO's view, the impacts of greenhouse gases and climate and ocean disruption are such that the NPS-IB should **require** consideration of greenhouse gas emissions from activities and the effects of these on indigenous biodiversity and biophysical systems including climate-ocean systems.

This section needs to add that the contribution of indigenous biodiversity to carbon sequestration – or losses of carbon if disturbed – must also be recognised and provided for.

Central government needs to play its part by recognising and rewarding owners for the contribution to indigenous biodiversity and to carbon sequestration of any regeneration of pre 1990 indigenous forests, wetlands or other ecosystems.

Q9 What specific information, support or resources would help you implement the provisions in this section (section A)?

Your reference to Section A, seems to refer not to the draft NPS-IB, but to the *He Kura Koiora I hokia* paper.

We would like to see policy, public processes and input into decision making by civil society and the public at large with support for this. The paper, as it stands, seems to provide no role or input from groups and experts already working on indigenous biodiversity protection and biosecurity control measures, despite the fact that many people are already undertaking biodiversity protection work including biosecurity within New Zealand and the eradication or control of invasive alien species.

We also consider that there must be recognition of and support for those who protect indigenous biodiversity and that all those with land that will require expenditure on various measures such as fencing, weed control and protection measures, alternative

stock water, and so on, should be given practical and financial some support in their efforts permanently to secure indigenous biodiversity.

Many people will need assistance in establishing or building on good relations with Councils and with Maori in their roles envisaged in this NPS-IB. This will be especially important where the rural culture of self-reliance and autonomy with distrust of others including distrust of regulators and in some cases distrust of “others” is dominant or where people are simply shy due to cultural inadequacy of understanding Maori.

3.6 Precautionary Approach.

The Precautionary Principle and the Precautionary Approach need to be more clearly spelt out so that the object of precaution is the protection of the environment. The Fisheries Act has a mangled version of the Precautionary Principle in its S10, and the fact that it refers only to precaution, but not that in such precaution the environment not utilisation should be the object of precaution, has led to perverse legal judgements that maintained excessive utilisation of fisheries.

The 1995 UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks (Aka the UN Fish Stocks Agreement, UNFSA)) agreed on a Precautionary Approach. The P. Principle and the P. Approach are now widely accepted and adopted in international law.

For example relevant text from the UNFSA includes:

“Article 6

Application of the precautionary approach

1. States shall apply the precautionary approach widely to conservation, management and exploitation of straddling fish stocks and highly migratory fish stocks in order to protect the living marine resources and preserve the marine environment.

2. States shall be more cautious when information is uncertain, unreliable or inadequate. The absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures.”

See the text at

https://www.un.org/Depts/los/convention_agreements/texts/fish_stocks_agreement/CONF164_37.htm

Notably, in the above statement, the object of precaution is to protect the environment and that is plainly laid out. That is missing from the text proposed in 3.6 on page 19 (as it is also from the Fisheries Act 1996) and from the discussion on

p58 of the discussion document. We suggest that the proposed precautionary principle be adapted for the purposes of this NPS and we suggest wording below. See also our initial comments on biodiversity and precaution.

Thus we propose this wording:

3.6 "Precautionary Approach

*"Local authorities must adopt a precautionary approach **to protect indigenous biodiversity** toward proposed activities where- "*

3.7 Social, Economic and Cultural Wellbeing.

a) **In 3.7 b)** we suggest that the truth of this statement depends a good deal on what, where and with what impacts the subdivision, use and development is, and the sensitivity of the receiving environment.

We do not agree with the statement as worded in the Draft NPS-IB. It is not universally true at all, and would limit the scope of the NPS and local authorities to protect indigenous biodiversity.

b) The language is also vague and imprecise, and provides no guidance for the basis of judging what "appropriate places and forms" and "appropriate limits" might be.

ECO proposes that the proposed text be reworded to:

"b) that the maintenance of indigenous biodiversity will ~~does~~ *may not always* preclude subdivision, use and development, ***depending on place, form, extent, method, impacts, the receiving environment, and the observance of local and biological limits***".

c) This section, like others in the NPS-IB, omits any reference to the roles and contributions of decision makers under the Act who are not local authorities. For instance **in the chapeau of 3.7 and in 3.7 d)**, we suggest that there be reference to Requiring Authorities and Heritage authorities.

We submit that that language that includes Requiring Authorities and Heritage authorities in addition to "local authorities" should be used for directions under this NPS-IB.

The RMA itself uses formulations such as **"any person exercising duties, powers or functions under this Act"** but we are unsure whether that would be suitable in this case.

In the context of 3.7 d), those partnerships could include central government agencies and entities such as BioSecurity New Zealand (MPI), Predator Free NZ Ltd and/or the New Zealand Transport Authority (NZTA), or various others.

3.7 e) We agree with this clause. Recognition and support of land-owner efforts will go a long way to help and to pacify landowners, especially those already wearing opportunity costs of indigenous biodiversity protection. Conversely, there must also be some form of regulation and penalties for those who disregard the importance of indigenous biodiversity protection.

It is well established in the psychology literature **that intrinsic motivation for environmental protection activity can be the most potent, the least cost and the most durable form of motivation.**

It is also well established **that extrinsic measures such as regulation and penalties can displace intrinsic motivation.** This was demonstrated in a different context by the well-known case of the Israeli child-care centre that tried to motivate parents to collect their children on time at the end of the childcare day by imposing a penalty for late collection of the children. Instead of dissuading the parents, the fine was taken by the parents as a transactional permission to leave their children in care, and they came late and paid the penalty, rather than as before, feeling socially obliged to pick the children up on time.

Many landowners will be willing and proud to protect indigenous biodiversity if they are assisted with some of the immediate costs of doing so, and if they are given support and social recognition.

Q10 3.8 Identifying significant natural areas (SNAs)

Territorial authorities will need to identify, map and schedule Significant Natural Areas (SNAs) in partnership with tangata whenua, landowners and communities. What logistical issues do you see with mapping SNAs, and what has been limiting this mapping from happening?

We are not best placed to know the logistical issues but there will be social resistance by some to such identification if this is projected as a partnership of mapping so that land owners and occupiers feel that their places are under community, iwi or other scrutiny.

Because of the rural NZ culture of wanting to maintain autonomy, any such mapping will have to be done sensitively and tactfully and best with land-owner approval.

Remote sensing and aerial mapping, augmented as possible by ground-truthing, will likely be some of the more socially acceptable methods, particularly for those who are not on-board and proud of the biodiversity values on the land they own or manage.

We recommend adding to 3.8(2) d), after the words “*should first rely on a desktop assessment*” the words “**and/or aerial or remote sensing information**”.

Q 11 Of the following three options, who do you think should be responsible for identifying, mapping and scheduling of SNAs? Why?

- a. *territorial authorities*
- b. *regional councils*
- c. *a collaborative exercise between territorial authorities and regional councils.*

ECO considers this should be regional and territorial authorities together, Option c, with augmentation of information from academic, DoC, Maturanga Maori, CRI and other sources. Regional Councils have responsibility with MPI for biosecurity matters and can help both educate and inform the SNA identification, mapping and scheduling, of course in association with other informed people, including the land occupiers and owners.

3.8 (7) We think this text is ambiguous and thus confusing. We recommend you add language to clarify when you say “following subclauses (1) and (2)”, whether “**following**” is intended to mean “**subsequent to**” those processes, or “**consistent with**” them. It is unclear.

We recommend the end of 3.8 (7) be amended to read:
“,following **the provisions of** subclause (1) and (2).

Application to Crown Land and to public conservation land

In ECO’s view, any Crown conservation land should be, *ipso facto*, an SNA, and mapping etc should be worked into the Conservation Management Plans where those exist or the Conservation Management Strategy.

On non-public conservation land, such as that in the hands of other government agencies (CRIs etc) or held for government purposes, e.g. Defence Department land, Corrections, NZTA, education and other land, the Crown should be responsible for funding the analysis and mapping of SNAs, using the same criteria as those in Appendix One.

We note with dismay the provisions in the Urban Development Bill that would allow a range of reserves, including Historic, Recreational, Government-purpose, local purpose, and Scenic reserves to be repurposed and realigned or simply taken over for infrastructure or housing by Kainga Ora and or the Special Development Vehicles it creates. The lands affected could include many vital areas such as catchment reserves, regional parks and reserves, the Lewis Pass scenic reserve and the World Heritage Area to the extent that it does not include National Parks.

The attempts to give priority to national infrastructure, the proposals in the Urban Development Bill and the Infrastructure Funding and Financing Bill are all major threats to biodiversity protection, and should be rejected.

In the same vein, attempts in this NPS-IB must not give precedence to nationally important infrastructure over indigenous biodiversity, since the latter is taonga, is likely to be irreplaceable, and many of its natural, inherent, cultural and scientifically authentic qualities and functions can neither be restored nor substituted for.

Q12 Do you consider the ecological significance criteria in Appendix 1 of the proposed NPSIB appropriate for identifying SNAs? Yes/no? Why/why not?

The criteria in Appendix 1 would need to be amended to included elements and attributes relevant to freshwater and marine ecosystems. An example is the addition of marine attributes which include Scientific Criteria for Identifying Ecologically or Biologically Significant Marine Areas (EBSAs).

The CBD scientific criteria for ecologically or biologically significant areas (EBSAs) (annex I, decision IX/20):⁵ These are

1. Uniqueness or Rarity
2. Special importance for life history stages of species;
3. Importance for threatened, endangered or declining species and/or habitats;
4. Vulnerability, Fragility, Sensitivity, or Slow recovery;
5. Biological Productivity;
6. Biological Diversity;
7. Naturalness.

CBD Decision IX/20 sets out more details on the EBSA criteria, definition and rationale. The scientific criteria is in annex I to the present decision, the scientific guidance in Annex II.

Further details on our comments on Annex 1 and the EBSA criteria are found in an appendix at the end of the submission.

In particular missing elements are:

- **Special importance to life history stages of species in D. ecological context—for example these could include rookeries, breeding sites, or spawning sites.**
- **Vulnerability, fragility, sensitivity, or slow recovery in C. rarity and distinctiveness.**

The criteria should include any indigenous species listed as threatened on the IUCN list of threatened species (eg include in C3 and C6 a)) (see our comments elsewhere)..

The criteria should particularly recognise endemic species as well as indigenous species which may also be found outside New Zealand. This should be included as a criterion in C with added assessment principles and added as a new criteriaon in C6.

⁵ See 'Background on the EBSA Process' at <https://www.cbd.int/ebsa/about>

“Endemic species” – is a species only found in New Zealand, including its offshore areas.

Q 13 Do you agree with the principles and approaches territorial authorities must consider when identifying and mapping SNAs? (see Part 3.8(2) of the proposed NPSIB) Yes/no? Why/why not?

Please see also our responses to your Q10 as well as our comments below.

Yes, but clearly there should also be scientific input, as in 3.8 1) and 4) and the Appendix One. There should also be consideration of updating information by remote methods – including the use of drones etc.

We are concerned that the phrase “suitably qualified ecologist” in (4 and Appendix 1 5)) is not defined in the document and could lead to wide interpretation,. We suggest that criteria should be developed in discussion with the Ecological Society and other professional ecological organisations. The criteria should include elements like:

- At least 5 years relevant professional experience;
- Be independent of the Council.
- Have undertaken assessments of significant natural areas with at least 3 year’s experience.
- Has relevant ecological training to at least masterate level.
- Have training relevant to the ecosystems in questions – eg, aqautic ecosystems should be assessed by limnologists or marine ecologists, depending on the ecosystems.

Q14 The NPSIB proposes SNAs are scheduled in a district plan. Which of the following council plans should include SNA schedules? Why?

- a. *regional policy statement*
- b. *regional plan*
- c. *district plan*
- d. *combination.*

d. We suggest all of the above plans and policy statement include SNAs. This would ensure there are regionally consistent criteria as well as clear provisions in regional and district plans.

In addition, neither the Urban Development Bill nor the Infrastructure Financing and Funding Bill should include any provisions that can override these policy statements or plans. We would like to see the NPS – IB specifically prohibit that, if that is

constitutionally and legally possible. If not, we ask officials, MPs and ministers to specifically work to prevent such provisions going into the Bills mentioned above.

Q 15 We have proposed a timeframe of five years for the identification and mapping of SNAs and six years for scheduling SNAs in a district plan. Is this reasonable? Yes/no. What do you think is a reasonable timeframe and why?

Our main concern about the timeline is that it should not give time and legal space for the obliteration of the values of SNAs in order to prevent such listing.

There must, if not already provided for, be a provision to prevent strategic pre-emptive destruction. We recall a land owner remarking to one of his peers in reference to protection of Maori taonga and sites that “there’s nothing that 3 hours on a bulldozer won’t fix”, meaning of course, that he would destroy or obscure the values before they could be designated for protection.

A moratorium on any such modification must be included in the NPS to preserve the status quo. If that is not done, then these mooted NPS-IB rules, will create highly perverse incentives amongst some and will trigger behaviour by those with no intrinsic pro-environmental behaviour to obliterate indigenous biodiversity. Such counterproductive behaviour has already been seen in relation to the announced but not implemented ban on new mines on conservation land, with a slew of new applications to beat the proposed ban.

3.9 Managing Adverse effects on SNAs

3.9 ECO recommends that the meanings recorded in 3.95) are instead included in subsection 2 since that is where they apply.

ECO supports the provisions in 3.91)a), but opposes various exceptions in 3.9 2), 3) and 4).

The definitions in 3.9 5) of Operational Need and of “Functional Need” are much too wide and in effect provide a massive exemptions which inevitably be will be exploited. That must be tightened up to only the most pressing cases.

In effect 3.9 2) to 5) provide a vast array of reasons to permit damaging impacts to indigenous biodiversity in SNAs. We oppose that.

The language of 3.9 2) in effect gives new subdivisions, use and developments priority over SNAs and indigenous biodiversity, in the cases that meet the criteria in 3.92). We oppose that.

We submit that the special treatment for “nationally significant” infrastructure, minerals and aggregate extraction and 3.9.2.d.iii are too sweeping. It may well be that nationally significant infrastructure should give ground to important biodiversity, rather than vice versa.

The definition of “nationally significant infrastructure” in 1.8

See also our answers to your specific questions. In Qs 19-24

The language in 3.94d) appears to permit damage to indigenous biodiversity for a range of reasons, including, we assume, planted indigenous biodiversity and habitat. What else may it allow? How much does this permit and how long may it have been when the original establishment was done? Would this permit all regeneration of indigenous biodiversity to be destroyed if it was established as farmland 80 or 150 years ago?? Again, we consider this could be used to permit rather a lot of destruction because it is so loosely worded.

We submit that these counterproductive and loose provisions be either tightened up to a very narrow permissiveness or withdrawn altogether. Far too much destruction would be allowed with the wording as it now stands.

NOTE: we have further submissions relating to 3.9 in response to some of your questions, especially questions 19-24.

Note re 3.10 Managing Adverse Effects in Plantation Forests: ECO's comments about 3:10 are contained in our answer to your questions 25.

3:11 Managing impacts and activities in Geothermal Areas

ECO agrees that geothermal ecosystems and biodiversity – on land and at sea – are very important and also poorly understood. We note that hydrothermal areas include places other than the Taupo Volcanic Zone, Northland, Hawkes Bay and the South Island.

Hot water seeps such as that at and offshore from Hot Water Beach on the east coast of the Coromandel, and hydrothermal vents on the seafloor and flanks of seamounts should also be the object of this NPS_IB. These are often accompanied by highly endemic species and ecosystems and so all hydrothermal vents and seeps and their surrounding and affected ecosystems should be given careful protection.

ECO notes that geothermal ecosystems highlights the importance of considering genetic diversity.

The Woods Hole Oceanographic Institute (WHOI) of Massachusetts, has pointed out that the test being used to diagnose the novel Coronavirus - and other pandemics like AIDS and SARS - was developed with the help of an enzyme isolated from a microbe found in marine hydrothermal vents as well as freshwater hot springs⁶.

In 1969 scientists discovered a bacterium, *Thermus aquaticus*, living in the extreme temperatures of a hot spring in Yellowstone National Park. Two decades later, WHOI biologists discovered new strains of bacteria on a hydrothermal vent off of Italy that could withstand even greater extremes (including heat, pressure, and lack of oxygen).

⁶ Hugus, Elise (2020)_Finding answers in the ocean - In times of uncertainty, the deep sea provides potential solutions. 19 March, 2020 See <https://www.whoi.edu/news-insights/content/finding-answers-in-the-ocean/>

The enzymes from these species are now used in tests for viruses, including coronaviruses like SARS (the avian flu) and COVID-19.

3.12 Existing Activities in SNAs

ECO supports most of these provisions, but we consider that some time limits should apply. Existing activities provisions have long been a drag on environmental protection and the recovery of modified environments.

Some indication of time limits before the “periodic” clearances become no longer permitted should be inserted here into **3.12.4**. On one property with which we are familiar, a 20-year closure from stock has allowed very significant natural regeneration.

We welcome the proviso in **13.12.4.b**, but we suggest that a **ten-year limit be imposed after which clearance is no longer ok**. Clearance of fence lines and to keep open existing tracks ,however, should be permitted.

We are concerned that the provisions of 3.12 4) a) and b) may actually induce clearance.

In 3.12 4)c).(iii) – the definition of “**in an area that supports any threatened or at risk species**” should be more closely defined. This needs to be done for the terrestrial, freshwater and the coastal and marine environments.

3.12.4a) should be augmented to require recognition of degraded ecosystems of all kinds, not solely those that have been converted to improved pasture. We suggest that local authorities be required to consider all areas that have the potential to regenerate and recover indigenous biodiversity including native forests that have been selectively logged but and subject to stock grazing, browsing animals such as possums or wallabies, weed invasion and other situations where regeneration is feasible. Simply focussing on areas cleared for improved pasture will leave areas that are ripe for regeneration without attention or support.

What else may 3.12 allow? How much does this permit and how long may it have been when the original establishment was done? Would this permit all regeneration of indigenous biodiversity to be destroyed if it was established as farmland 80 or 150 years ago?? Again, we consider this could be used to permit rather a lot of destruction because it is so loosely worded.

3.13 General rules applying outside SNAs.

In respect of 3.13.1.a, ECO is unclear how feasible it will be for Local authorities – and Requiring authorities – to fully specify “where, how and when controls on subdivision, use and development in areas outside SNAs are necessary to maintain indigenous biodiversity”. This seems a difficult thing to do without being clear on the specifics and particularities, and it may lead to excessive anticipatory controls. It might be better to provide criteria and for judgements to be made when specifics are known. It risks putting considerable burdens on decision-making authorities to

anticipate activities and effects and that could induce unnecessarily restrictive rules to ensure damaging activities are not allowed.

ECO supports 3.13.1.b.

3.13.3 – and other similar clauses throughout the Draft NPS seem to allow indigenous biodiversity to be put at risk on Maori land. Given that the RMA has hitherto been blind to who owns land we are not sure that it is reasonable or sound socially or environmentally to implicitly allow Maori to damage indigenous biodiversity. We acknowledge the huge disadvantage that many Maori suffer today and the need to respond justly and effectively to Wai262. We understand that there must be provision for Maori to pursue their cultural, social and economic wellbeing, but as with other people, we would not like to see this being achieved via damage to indigenous biodiversity, especially SNAs.

“Mutual Assurance” refers to people being willing to do something or forego something so long as everyone else does. This is important when individuals consider whether to comply with a requirement. It is one element in the willingness of people to put up with things that they may not like – itself part of the “consent of the governed”.

3.14. – Identified Taonga

Q 16 Do you agree with the proposed approach to the identification and management of taonga species and ecosystems? (see Part 3.14 of the proposed NPSIB) Yes/no? Why/why not?

As in relation to other proposed provisions in this Draft NPS-IB, we think it is likely to be necessary to insert “or Requiring Authorities” where ever there is reference to local government. If requiring Authorities usurp the roles of local authorities, then we assume they must also be included?

In 3.14, we submit that there should be in 1, a requirement for a suitably qualified independent ecologist as well as the Council people.

We do agree with Maori having the right to not disclose locations of taonga species and ecosystems. We note that in some cases an area or place may be Tapu, not because of the species there but because of some other reason or history. We are not clear how that should be dealt with, given it may not be a matter of the species or ecosystem being taonga, but some guidance is needed.

Other landowners may also wish to not disclose where some threatened and sought-after species are in order to keep poachers in ignorance of the presence and location of species sought after for the black market. This situation arises, and needs also to be catered for so that it is not made public.

More generally, we consider that all native ecosystems, species and components are in need of protection.

Q 17 Part 3.15 of the proposed NPSIB, Highly Mobile Fauna requires regional councils and territorial authorities to work together to identify and manage highly mobile fauna outside of SNAs. Do you agree with this approach? Yes/no? Why/why not?

3.15.3 Highly Mobile Fauna – disclosure v risk of poaching

Yes we support co-ordination between regional councils and territorial authorities in identifying.

It is crucial that the criteria include “migrant” and “vagrant” species.

We suggest caution here as to the extent to which non-landowners and occupiers are notified of the location of some species if there is a risk of poaching. We are aware of a couple of cases where the locations are not disclosed by those in the know due to the risk of wildlife poaching.

As above, land-owners and occupiers may wish to not disclose where some threatened and sought-after species are in order to keep poachers in ignorance of the presence and location of species sought after for the black market. This situation arises, and needs also to be catered for so that it is not made public.

In the coastal and marine environment, which this proposed NPS does not cover, highly mobile fauna would cover marine mammals and other marine creatures including seabirds, pelagic and some other fishes and other marine creatures. As such the provisions would need to be undertaken by Regional Councils and DoC.

3.16 Restoration and Enhancement

3.16 3) This section should make it clear that what is meant by “restoration and enhancement”, and in particular, it should make it clear that enhancement does not include exotic species.

In some cases the former wetlands may be long gone. It will be very difficult if, as in many cases, farms and houses etc have been established on these.

ECO strongly supports 3.16.6, bearing in mind that such conditions should be crafted to assist consent holders to give effect to them and not to be impossible to implement.

The provisions here also should have some regard to the difficulties posed by competing biodiversity protection needs. We have struck this problem with the requirements to avoid earthworks to protect kauri against Kauri die-back, which then make fencing to exclude stock, or predator and weed control, much more difficult.

We observe that this NPS is relentlessly terrestrial and fresh water, but we consider that the obligations to protect indigenous biodiversity under the RMA extend to the 12 nm limit.

New Zealand has international obligations to protect marine and other biodiversity by virtue of various international agreements including the UN Convention on the Law of the Sea, UNCLOS; the SDGs and the Aichi targets and subsequent agreements under the Convention on Biodiversity (CBD). We have provided some details of the CBD requirements in the introduction to this submission.

As well as the activities in the Information Note on p27 under 3.16, we suggest that there be provisions for help and support for the establishment of more public and private protected areas.

Q 18 What specific information, support or resources would help you implement the provisions in this section (section B)?

Differences between preventing people from doing harm and supporting people to give extra protection through fencing and stock water, switching land uses and retiring stranded assets, and the implementation of pest control measures and infrastructure should be carefully thought through. Support for just transitions may be needed, but this should be for transition, not to support BAU.

At first we did not understand to what section of the Draft NPS paper this question referred. After some time consuming confusion, we think you mean section B of the discussion paper rather than the Draft NPS-IB. It is difficult for submitters when you switch your references between the two without warning.

We agree there is scope for management of adverse effects, but we also consider that “avoid, remedy or mitigate” adverse effects are essential elements to the Management hierarchy. Thus both approaches should be combined.

ECO is not an implementing agent though of course as an ENGO with member groups and as members of civil society we and our members do engage with indigenous biodiversity protection and at times, restoration.

Q 19 Do you think the proposed NPSIB provides the appropriate level of protection of SNAs? Yes/no? Why/why not? (see Part 3.9 of the proposed NPSIB)

In some respects yes, in some respects no.

We suggest that the NPS-IB should apply to **all indigenous biodiversity**, at least out to the 12 nm Territorial sea limit.

As such, we want it to be widened in geographic scope to include all indigenous aquatic ecosystems, species and genetic stock, including freshwater ecosystems and also coastal and marine areas, notwithstanding that there are other NPS that relate to these areas. That is because biodiversity applies to all and is not necessarily well dealt with in the other NPS's.

We applaud the limitation of the scope of the NPS-IB to indigenous biodiversity. That gives it far more clarity of focus and purpose than if it were “all valued species” or something of that ilk.

We have made the point in the context of 3.9 that we do not support the provisions that allow for the avoidance of adverse impacts on indigenous biodiversity and in particular we would like to see 3.9.2.d.ii deleted, and our other doubts about the other exemptions from avoidance in 3.9.2.

Q20 Do you agree with the use of the effects management hierarchy as proposed to address adverse effects on indigenous biodiversity instead of the outcomes-based approach recommended by the Biodiversity Collaborative Group? Yes/no? Why/why not?

Yes, so long as “avoid, remedy and mitigate and the management hierarchy are included. We do not want to see “avoid” removed, but we do agree that there needs to be a hierarchical process.

Q 21 Are there any other adverse effects that should be added to Part 1.7(4), to be considered within and outside SNAs? Please explain.

As ECO has noted above, there is no consideration of the adverse effects of activities on indigenous fungi and various kinds of indigenous microorganisms. In aquatic and marine environments, the pathways and processes are different from those in the terrestrial environment, and we would like to see careful attention to these and what is the advice of marine biodiversity and biosecurity specialists.

Genetic diversity and naturalness

A point that may have been glossed over is the issue of genetic diversity and to what extent the gene pool is manipulated or changed by genetic engineering or other means such as gene drives. We noticed that at the beginning of the paper, the term “richness of species” was used but we are not clear on whether this included or excluded synthetic biology methods. We are well aware that there are a number of gains to be had from the use of gene drives and other mechanisms, but some of the methods are clumsy and blunt, most are irreversible, and we remain in profound ignorance of the ecological effects of the deployment in the field of GE organisms.

Use of gene drives to eradicate predators or sterile pines to prevent wilding pines, has great appeal for biosecurity, but for ethical reasons and for reasons of uncertainty, we are cautious of any such plan. The burden of breeding sufficient populations of mammals to make an effect in gene drive applications all but rules this out. The experiment on breeding sterile mosquitoes went badly wrong, so again, we are sceptical that enough is known to take the risks involved.

We were not reassured by the Royal Society paper and panel discussions since almost all of the scientists on the panel were themselves would-be users, and focused on solving a problem without considering ecological impacts and downsides of their

proposals. We have heard Prof Gluckman say that those opposed to GE are “mad”, but we have come to understand that his focus is on medicine, on impacts of GE in food, and he and most of those who follow his line of thinking do not pay attention to ecological consequences. As has been observed, for policy, you need not only to get the science right, but you need the right science.

Indigenous biodiversity in our view means native and not artificial and we think the issue needs to be clarified not fudged.

Other values and Effects on those

As we noted in response to questions about 1.7.4, there are medicinal, health, and aesthetic characteristics of indigenous species and ecosystems. There are also existence, bequest and option values that people hold dear, the effects on which should also be included in any consideration of adverse effects.

Q 22 Do you agree with the distinction between high- and medium-value SNAs as the way to ensure SNAs are protected while providing for new activities? Yes/no/Unclear? Please explain. If no, do you have an alternative suggestion?

ECO agrees with the general idea of ranking SNAs but we wonder whether “high” and “medium” gives sufficient definition? Would a finer ranking (0-5, for instance) on the variables help, with some rankings (say 4-5) automatically providing qualification for “high” ranking?

Q 23 & Q24

Q 23 Do you agree with the new activities the proposed NPSIB provides for and the parameters within which they are provided for? (see Part 3.9(2)-(4) of the proposed NPSIB) Yes/no? Why/why not?

ECO agrees with some but not others.

As we note in the sections above from 3.9 and following, and as set out here, **ECO supports the provisions in 3.9.1.a, but opposes significant aspects of the section exceptions in 3.9.2, and 3.9.4.**

The language in 3.9.2 and especially 3.9.2.d appears to permit damage to indigenous biodiversity for a range of reasons, including, we assume, planted indigenous biodiversity and habitat. The language of 3.9.2 in effect gives new subdivisions, use and developments priority over SNAs and indigenous biodiversity, in the cases that meet the criteria in 3.9.2.

Q24 Do you agree with the proposed definition for nationally significant infrastructure? Yes/no? Why/why not?

Please also see our discussion on this under 3.9.

In effect 3.9.2-5 provide a vast array of reasons to permit damaging impacts to indigenous biodiversity in SNAs.

The definitions in 3.9.5 of “functional need” and “operational need” are much too wide. The effect of these will be at the mercy of the proponents’ interpretation, and in effect provide for massive exemptions. That must be tightened up to only the most pressing cases.

In respect of 3.9.2 we do not believe that most subdivisions, uses or development are likely to be necessary to be in a particular location. We envisage that 3.9.2 .a and .b, will be used excessively. Strategic Environmental Assessments and Strategic Spatial Assessments both ask the question as to whether alternatives to an activity (or in the case, subdivision, use or development) exist and whether it is really needed at all. Those are questions that should be mandatory when there is an SNA, of high or medium significance. We think there should be a provision in 3.9 to ensure that such a question is asked.

We appreciate and support that the tests in this section are cumulative – ie, they are required to meet all the tests, but still there is too much scope for “slop”.

Re 3.9.2.d We submit that the special treatment for nationally significant infrastructure, minerals and aggregate extraction and 3.9.2.d.iii &iv are too sweeping. It may well be that nationally significant infrastructure should give ground to important biodiversity, rather than vice versa, or that the minerals should stay in the ground.

We appreciate that there is some useful restriction in the definition of “nationally important infrastructure” in the definitions section (s 1.8 p13 of the NPS-IB), but it could still be improved with tightening up. We have seen such terms’ scope become inflated as activities try to fit within them in order to gain exemptions and priority and as future governments add in new activities that are of significance to special interests.

In 2.d) and the definition on p13, we suggest that “*nationally significant infrastructure*” should omit state highways, since the designed route of these can often be shifted to avoid an important species or ecosystem. We propose that there should be an obligation to explore and adopt alternative routes if at all possible.

We also suggest that there be a mandatory consideration of alternatives not only to the location but to the activity itself. That would require consideration of different modes of transport or energy systems.

3.9.2.d.ii We reject the reference to the government’s minerals policy and the favouring of “green minerals” or any continued virgin extraction of fossil fuels or minerals that can be – and should be – recovered by “urban mining” – such as materials in existing obsolete technologies or items.

There may be some cases where aggregate extraction must be allowed, but in this case as with so many others, resource recovery and repurposing should be encouraged and use of virgin materials only permitted after stringent consideration

of alternatives to more roads, such as more public transport, or more reuse; substitution of plantation timber or other materials for concrete and steel, and so on must be considered in the case of subdivision and other buildings.

The presence of the minerals and mining interests on the committee, and the absence of the resource recovery industries from it, demonstrates once again that the mining industry has undue influence on government policies. We do not regard the conclusions of officials or the Committee to be sound given the lack of attention to alternatives to business as usual for minerals supply.

Catering for Maori Wellbeing

We recognise the need for Maori to exercise more autonomy on Maori land, but we do not think that those needs trump the need to foster and protect indigenous biodiversity, so such autonomy should be constrained within that limit.

We also have concerns about the resentment of some non-Maori who are obliged to be more careful of indigenous biodiversity, if they perceive Maori to be exempt from the rules that apply to themselves. This is an issue of mutual assurance. We agree that Maori are often in a disadvantaged situation and that corrective justice to remedy the injustices and inequalities are needed. We worry though, that in the pursuit of this, the loose language of the provisions in the IPS-IB might be interpreted as, and exploited as, allowing indigenous biodiversity to be harmed in the interests of environmentally damaging economic pursuits.

If exemptions are given to Maori then we can expect some unsavoury strategic behaviour to appear where Maori are open to pressure and incentives to partner with subdivision, use and development interests to gain for the partners the special exemptions in 3.9 2.d.iii and iv. This may become a source of tension within Maori communities and could become an unsavoury rort. The proposed policy invites such behaviour.

These are sensitive issues, and we do not wish to deny Maori the exercise of cultural and social practices and provision for the people, but indigenous biodiversity is as or more indigenous than Maori and so has standing of its own. Ultimately, as the RMA originally recognised, who “owns” the land, or does the activities, subdivision or developments is irrelevant to the biodiversity impacts.

The definitions in 3.9.5 of functional need and operational need are far too loose and subjective. We submit that these counterproductive and loose provisions be either tightened up to a very narrow permissiveness or withdrawn altogether. Far too much destruction would be allowed with the wording as it now stands.

Q 25 Do you agree with the proposed approach to managing significant indigenous biodiversity within plantations forests, including that the specific management responses are dealt with in the NESPF? (see Part 3.10 of the proposed NPSIB) Yes/no? Why/why not?

3.10 Managing adverse Effects in Plantation Forests

3.10.1 It is not entirely clear to us what is the definition of “plantation forest biodiversity areas” includes, despite the definition in s1.8.

The Forest Stewardship Council and some of the NES-EF rules require set-asides of areas of indigenous biodiversity in reserves and riparian areas. We do not consider that these should be exempted from the provisions of 3.9 the NPS –IB, since the whole point of them is to show good practice with protection of indigenous biodiversity.

3.10.3 is particularly weak. Managed to what end? To what extent and duration? This is inadequate. It should recognise that threatened or at risk flora – and any threatened fauna or fungi or other species, should be protected, and not put at risk.

Indigenous Biodiversity should be more strongly protected than proposed here where it occurs in plantation forests. It should also be protected in areas adjacent to or affected by plantation forests, since too often there is a massive risk to areas of indigenous biodiversity because of land disturbance, sedimentation, erosion, slash build-ups and flood-driven releases, fires and other events that are a result of the activities of plantation forestry and harvesting.

3:11 Managing impacts and activities in Geothermal Areas.

ECO agrees that geothermal ecosystems and biodiversity – on land and at sea – are very important and also poorly understood. We note that hydrothermal areas include places other than the Taupo Volcanic Zone, Northland, Hawkes Bay and the South Island.

Hot water seeps such as that at and offshore from Hot Water Beach on the east coast of the Coromandel, and hydrothermal vents on the seafloor and flanks of seamounts should also be the object of this NPS_IB. These are often accompanied by highly endemic species and ecosystems and so all hydrothermal vents and seeps and their surrounding and affected ecosystems should be given careful protection.

Q 26 Do you agree with managing existing activities and land uses, including pastoral farming, proposed in Part 3.12 of the proposed NPSIB? Yes/no? Why/why not?

We repeat here the comments we made under 3.12 above. (Please see our comments above under our discussion of 3.12)

3.13 General rules applying outside SNAs.

In respect of 3.13.1.a, ECO is unclear how feasible it will be for Local authorities – and Requiring authorities – to fully specify “where, how and when controls on subdivision, use and development in areas outside SNAs are necessary to maintain indigenous biodiversity”. This seems a difficult thing to do without being clear on the specifics and particularities, and it may lead to excessive anticipatory controls. It might be better to provide criteria and for judgements to be made when specifics are known. It risks putting considerable burdens on decision-making authorities to

anticipate activities and effects and that could induce unnecessarily restrictive rules to ensure damaging activities are not allowed.

ECO supports 3.13.1.b.

3.13.3 – and other similar clauses throughout the Draft NPS seem to allow indigenous biodiversity to be put at risk on Maori land. Given that the RMA has hitherto been blind to who owns land we are not sure that it is reasonable or sound socially or environmentally to implicitly allow Maori to damage indigenous biodiversity. We acknowledge the huge disadvantage that many Maori suffer today and the need to respond justly and effectively to Wai262. We understand that there must be provision for Maori to pursue their cultural, social and economic wellbeing, but as with other people, we would not like to see this being achieved via damage to natural biodiversity.

“Mutual Assurance” refers to people being willing to do something or forego something so long as everyone else does. This is important when individuals consider whether to comply with a requirement. It is one element in the willingness of people to put up with things that they may not like – itself part of the “consent of the governed”.

Q 27 Does the proposed NPSIB provide the appropriate level of protection for indigenous biodiversity outside SNAs, with enough flexibility to allow other community outcomes to be met? Yes/no? Why/why not?

See our discussion in response to Q26 and our comments under s3.13 and following from that section.

The level of protection is increased but we anticipate quite a bit of push-back as well as support. To the extent that the objectives can be achieved without resorting to expensive processes such as resource consents, we are likely to achieve more compliance.

As we have said in other parts of this submission, we submit that the NPS-IB must stretch to, be revised to, or supplemented with a new section to include the whole of the non-terrestrial indigenous biodiversity out to the 12 nautical mile limit.

ECO welcomes the provisions for encouraging and supporting land-owners and others to give serious attention to and action for biodiversity conservation, and welcome policy, support and regulation to achieve this.

We would like to be sure that reference to enhancement are qualified by “*indigenous biodiversity enhancement*”.

3.17 Increasing indigenous vegetation cover

In 3.17.3, we suggest adding aerial surveys, by aircraft or drones.

In 3.17.5, we recommend the insertion before “indigenous vegetation”, the words “naturally diverse”.

Re 3.17.6, we understand that change cannot be instantaneous, but we are conscious that the scientific advice (see O'Leary et al 2016)⁷ that, depending on the species and ecosystems, at least 30%, and better 40% -70%, of an ecosystem is retained intact to maintain ecosystem functions and integrity.

We would welcome but consider to be inadequate, a requirement that any area (defined how?), urban or rural, with less than 10% vegetative cover must take time bound measures to raise the diverse indigenous cover to 10% or more with time bound targets.

We consider that 10% is too low for ecological health and that a more carefully defined stepwise and ecologically significant set of targets to 30% at least be aimed at.

More specificity is needed as to the criteria for selection of kinds and qualities of vegetation and to ensure that this is in ecosystems, not monocultures, such as plantations of manuka.

Re the Information note on p28, we doubt that the Urban Development Bill or NPS will help biodiversity in any way, particularly because Kainga Ora, has no environmental purpose and has powers to override any or all regional or local government policies and plans and has powers to commandeer and repurpose and realign many important reserve categories.

ECO supports 3.18 and its provisions.

3.19 Assessment of Environmental Effects.

ECO would like to see all indigenous biodiversity considered, not only 3.19.1b) and c).

The language of the NPS_IB in this section of the NPS is somewhat unclear as to whether the specifications in 3.19 are additional to or instead of what is already there. Some ways of reading these could imply that if not specified 3.19.1,2 and 3, then the existing rules are to be disregarded. We assume that is not the intent, but wording such as "add" to the provisions of each of these subclauses, would remove doubt.

Q 28 Do you think it is appropriate to consider both biodiversity offsets and biodiversity compensation (instead of considering them sequentially) for managing adverse effects on indigenous biodiversity outside of SNAs? Yes/no? Why/why not?

Schedule 3 – Principles for Biodiversity Offsetting.

If biodiversity offsets are to be allowed at all, then these should be considered prior to any compensation, or perverse incentives may be created. Our preference is that the

⁷ [Bethan C. O'Leary](#), [Marit Winther - Janson](#), [John M. Bainbridge](#), [Jemma Aitken](#), [Julie P. Hawkins](#), and [Callum M. Roberts](#) (2016) Effective Coverage Targets for Ocean Protection 21 March 2016. 398-404, Vol 9 Issue 6. <https://doi.org/10.1111/conl.12247>

cause of the biodiversity loss be disallowed in the first place, so that harms are avoided not tolerated with compensation or offsets.

In Appendix 3.11, there should be a requirement for funding and other resources for any biodiversity offset management plan. We have too often seen companies default on or off load their obligations. Far too often, the modus operandi is to use a contractor who then takes over the obligation but can then easily dissolve and be unavailable – as with Rio Tinto’s aluminium smelter dross - or it obligations are passed on to a community or other Trust that is then left to struggle without support but with onerous obligations. There are a range of situations of default, such as Bathurst mining and various other mining company defaults on obligations.

Inclusion of stakeholders, such as suggested **in Appendix 3.13**, should not require them to be involved in the actual implementation, and any monitoring should only be done by those with no vested interest in the activity, use or development. Public input should also be provided for if there are impacts on public interest matters.

ECO welcomes the requirement of Transparency in Schedule 3.14, and this should be worded so that it is clear that the outcomes not only the design and implementation should be public.

A regime of pre-paid bonds, penalties and sanctions should be provided so that any defaults on the requirements can have consequences to deter non-compliance. Liability should be joint and several to deter the temptation to leave an empty corporate shell holding the responsibility.

The behaviour of Rio Tinto in relation to the Bluff aluminium smelter dross is an object lesson in how corporates can shrug off their responsibilities – and use a range of devices and power or legal levers to avoid any duties. We must have mechanisms that curb such blatant avoidance of responsibilities.

Q 29 Do you think the proposed NPSIB adequately provides for the development of Māori land? Yes/no? Why/why not?

We have discussed this above in **3.13.3** – and other similar clauses throughout the Draft NPS seem to allow indigenous biodiversity to be put at risk on Maori land. Given that the RMA has hitherto been blind to who owns land we are not sure that it is reasonable or sound socially or environmentally to implicitly allow Maori to damage indigenous biodiversity.

We acknowledge the huge disadvantage that many Maori suffer today and the need to respond justly and effectively to Wai262. We understand that there must be provision for Maori to pursue their cultural, social and economic well being, but as with other people, we would not like to see this being achieved via damage to natural biodiversity.

“Mutual Assurance” refers to people being willing to do something or forego something so long as everyone else does. This is important when individuals

consider whether to comply with a requirement. It is one element in the willingness of people to put up with things that they may not like – itself part of the “consent of the governed”.

Q 30 Part 3.5 of the proposed NPSIB requires territorial authorities and regional councils to promote the resilience of indigenous biodiversity to climate change. Do you agree with this provision? Yes/no? Why/why not?

Yes, we do agree with 3.5, but some of these activities should be done for their own sake anyway, not solely for climate resilience. For instance, Biosecurity and the control of alien invasive species should be provided for as a separate section, not solely in relation to climate resilience. Moreover, prevention and avoidance, not only management and reduction of risks is needed.

Re 3.5.a), we suggest some indications or guidelines on what and how to make such provision be provided, since many people will have little idea what is intended here.

Consistent with ECO’s long held view that the RMA must be changed to require consideration of greenhouse gas emissions in the context of plans, policies and resource consents, we suggest that there be added to 3.5, b(bis) Consideration of the greenhouse gas emissions and sequestrations caused or created by an activity, use or development;

Q31 Do you think the inclusion of the precautionary approach in the proposed NPSIB is appropriate? (see Part 3.6 of the proposed NPSIB) Yes/no? Why/why not?

As discussed above in the context of section 3.6, we agree that the Precautionary Principle and Approach need to be required, but we think the wording proposed is inadequate. It needs to explicitly provide that the object of precaution is the environment and there also needs to be an information sufficiency test so that uncertainty is revealed.

To repeat our earlier response and proposal (and see our introductory comments):

3.6 Precautionary Approach.

The Precautionary Principle and the Precautionary Approach need to be more clearly spelt out so that the object of precaution is the protection of the environment. The Fisheries Act has a mangled version of the Precautionary Principle in its S10, and the fact that it refers only to precaution, but not that in such precaution the environment not utilisation should be the object of precaution, has led to perverse legal judgements that maintained excessive utilisation of fisheries.

The 1995 UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks (Aka the UN Fish Stocks Agreement, UNFSA)) agreed on a Precautionary Approach. The P. Principle and the P.Approach are now widely accepted and adopted in international law.

Relevant text from the UNFSA includes:

[“Article 6](#)

Application of the precautionary approach

1. States shall apply the precautionary approach widely to conservation, management and exploitation of straddling fish stocks and highly migratory fish stocks in order to protect the living marine resources and preserve the marine environment.
2. States shall be more cautious when information is uncertain, unreliable or inadequate. The absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures."

See the text at

https://www.un.org/Depts/los/convention_agreements/texts/fish_stocks_agreement/C_ONF164_37.htm

Notably, in the above statement, the object of precaution is to protect the environment and that is plainly laid out. That is missing from the text proposed in 3.6 on page 19 (as it is also from the Fisheries Act 1996) and from the discussion on p58 of the discussion document. We suggest that the proposed precautionary principle be adapted for the purposes of this NPS and we suggest wording below.

Thus we propose this wording:

3.6 "Precautionary Approach

"Local authorities must adopt a precautionary approach **to protect indigenous biodiversity** toward proposed activities where- "

Q32 What is your preferred option for managing geothermal ecosystems? Please explain.

- a. Option 1
- b. Option 2
- c. Option 3
- d. Or your alternative option – please provide detail.

ECO has briefly commented on some of the geothermal ecosystems section (C.9) of the discussion paper and the NPS. We have some other comments here.

We support the section on the problems of the current approach, except its omission of discussion of some of the hydrothermal areas not identified in your discussion on p59 of the discussion paper, and its omission of the marine vents and seeps.

We REJECT the reasons cited on p59 of the reasons cited for a specific approach for geothermal ecosystems. This is because there is no mention of indigenous biodiversity in the reasons given in the bulleted list.

We consider that mining and minerals activities as well as renewable energy generation dominate the discussion on pp59-60, and that indigenous biodiversity is not being properly considered here, albeit consideration of indigenous biodiversity appears in chinks in the discussion. The NPS-REG seems to be driving that, and the sentence from it that is quoted seems to ignore the environmental effects of such activities.

Of the three options you proffer, we reject options 1 and 2, and aspects of Option 3.

We favour a variant on option 3, so long as the framework is bound into the NPS-IB, and that the primary criterion is biodiversity characteristics, not some variant on use and development status.

Any consideration of the uses must be secondary. Avoidance of impacts and activities must be the first objective. If that is not so, then the users and developers will have little incentives to avoid impacts.

Systems must not be primarily organised around classifications of use or development – that is contrary to the Act and contrary to good conservation and to incentives for innovation. The indigenous biodiversity in these geothermal systems are especially important, sometimes unique, and frequently little understood. As such, we mess with them at our peril and could lose many benefits as well as functions if we do. We are reminded that the a thermotolerant organism from hot seabed vents is the basis for the testing process for identifying COVID-19 (See [Hugus, Elise \(2020\)](#) and our earlier comments.

Q 33 We consider geothermal ecosystems to include geothermally influenced habitat, thermo-tolerant fauna (including micro-organisms), and associated indigenous biodiversity. Do you agree? Yes/no? Why/why not?

Thermotolerant fauna including micro organisms should be included, but so should all taxa, from all kingdoms, not solely fauna.

As to definitions, we suggest that the definitions extend the geographical scope to include all natural occurrences and organisms, species and communities that are influenced by them, and that this include the coastal and marine area.

Any provisions should include avoidance and not simply management of impacts on these geothermal ecosystems.

Q 34 Do you agree with the framework for biodiversity offsets set out in Appendix 3 of the NPSIB? Yes/no? Why/why not?

ECO does not favour biodiversity offsets since they assume substitutability of indigenous biodiversity and that is not correct. Further, it obscures the irreversibility of most environmental losses and even if some services can be recreated, such as water and soil retention, “recreated” indigenous biodiversity can never be authentically natural again. We have made further comments on Appendix 3 above.

Q 35 Do you agree with the framework for biodiversity compensation set out in Appendix 4 of the NPSIB? Yes/no? Why/why not? Include an explanation if you consider the limits on the use of biodiversity compensation set out in Environment Court decision: Oceana Gold (New Zealand) Limited v Otago Regional Council as a better alternative.

See our combined comments. On Q35 and Q36.

Q 36 What level of residual adverse effect do you think biodiversity offsets and biodiversity compensation should apply to?

- a. *More than minor residual adverse effects*
- b. *All residual adverse effects*
- c. *Other. Please explain.*

Probably more than non-negligible effects, but we are wary of the temptation to use offsets as a rationale to allow activities that should not be allowed.

Q 37 What specific information, support or resources would help you implement the provisions in this section (section C)?

ECO is not an implementing body.

Q 38 The proposed NPSIB promotes the restoration and enhancement of three priority areas: degraded SNAs; areas that provide important connectivity or buffering functions; and wetlands. (see Part 3.16 of the proposed NPSIB) Do you agree with these priorities? Yes/no? Why/why not?

These are all worthy candidates for priority. We would add that other considerations also be added to the selection of priorities:

- a) The level of endemism in the biodiversity;
- b) Rarity, threatened status and threats;
- c) Greenhouse gas sequestration and emissions from the impacts of the activities.

Q 39 Do you see any challenges in wetland protection and management being driven through the Government's Action for healthy waterways package while wetland restoration occurs through the NPSIB? Please explain.

For integrated management and relationship between land and water, it is essential that wetlands are part of the NPS as well as the Healthy Waterways provisions. Wetland protection will include management of the conditions within which wetland indigenous biodiversity is sustained.

Q 40 Part 3.17 of the proposed NPSIB requires regional councils to establish a 10 per cent target for urban indigenous vegetation cover and separate indigenous vegetation targets for non-urban areas. Do you agree with this approach? Yes/no? Why/why not?

We repeat here the text we provided about that section 3.17 above in our comments in order of the sections:

3.17 Increasing indigenous vegetation cover

In 3.17.3, we suggest adding aerial surveys, by aircraft or drones.

In 3.17.5, we recommend the insertion before “indigenous vegetation”, of the words “naturally diverse”, so that we do not promote indigenous monocultures.

Re 3.17.6, we understand that change cannot be instantaneous, but we are conscious of the scientific advice (see O’leary et al 2016)⁸ that, depending on the species and ecosystems, at least 30%, and better 40% -70%, of an ecosystem must be retained intact to maintain ecosystem functions and integrity.

We would welcome but consider to be inadequate, a requirement that any area (defined how?), urban or rural, with less than 10% vegetative cover must take time bound measures to raise the diverse indigenous cover to 10% or more with time bound targets.

We consider that 10% is too low for ecological health and that a more carefully defined stepwise and ecologically significant set of targets to 30% at least be aimed at.

More specificity is needed as to the criteria for selection of kinds and qualities of vegetation and to ensure that this is in ecosystems, not monocultures, such as plantations of manuka.

Re the Information note on p28, we doubt that the Urban Development Bill or NPS will help biodiversity in any way, particularly because Kainga Ora, has no environmental purpose and has powers to override any or all regional or local government policies and plans and has powers to commandeer and repurpose and realign many important reserve categories.

Q 41 Do you think regional biodiversity strategies should be required under the proposed NPSIB or promoted under the New Zealand Biodiversity Strategy? Please explain.

We think they should be required, but could be augmented by the NZBD Strategy.

Q 42 Do you agree with the proposed principles for regional biodiversity strategies set out in Appendix 5 of the proposed NPSIB? Yes/no? Why/why not?

We are in agreement with most of the prescriptions for what should be in a Regional Biodiversity Strategy, but most of them are not actually principles. It will be essential that the government provides taxpayer funding to augment any regionally sourced funds, given the requirements on Regional Councils will be markedly increased.

This extra funding should not be from the DoC budget which is already greatly stretched. It should be new money – if need be borrowed to help reduce the much more serious ecological debt that has been incurred over the last 80+ years.

⁸ [Bethan C. O’Leary](#), [Marit Winther - Janson](#), [John M. Bainbridge](#), [Jemma Aitken](#), [Julie P. Hawkins](#), and [Callum M. Roberts](#) (2016) Effective Coverage Targets for Ocean Protection 21 March 2016. 398-404, Vol 9 Issue 6. <https://doi.org/10.1111/conl.12247>

Q 43 Do you think the proposed regional biodiversity strategy has a role in promoting other outcomes (eg, predator control or preventing the spread of pests and pathogens)? Please explain.

Yes, certainly the NPS-IB should promote mechanisms for achieving improved indigenous biodiversity, including but not limited to predator control and the introduction and spread of pests and pathogens. All of this will require some central government funding.

We do not support the proposed Appendix 5.4.e, “alignment with strategies under other legislation”. Our reason for this is that it is a sweeping provision, no doubt aimed at “joined up government” but almost certainly likely to see the subjugation of biodiversity protection under the thumb of other incompatible objectives. The Urban Development Bill and the Infrastructure Funding and Financing Bill are current examples of incompatible objectives.

We strongly support Appendix 5.5.

Q 44 Do you agree with the timeframes for initiating and completing the development of a regional biodiversity strategy? (see Part 3.18 of the proposed NPSIB) Yes/no? Why/why not?

We would like the timetable to be as fast as practicable and we would also like to see measures with immediate effect to preserve what indigenous biodiversity remains so that obliteration of biodiversity is not allowed or encouraged.

We have not had the available time and capacity to work out how such measures should be framed and implemented, but such perverse incentives are real and dangerous.

We recognise that there is a lot to be done and that regional councils have many other challenges, and will be busy also with the reforms to the Resource Management System and the Urban Development Bill etc.

Q 45 What specific information, support or resources would help you implement the provisions in this section (section D)?

ECO is not an implementing agent but our community of organisations and Friends, will want to have a high degree of autonomy, support and to a lesser extent, recognition.

NGOs need more financial assistance – many, including ECO get virtually no government support at all, despite the fact that we contain a good deal of expertise, knowledge of various kinds, and effort in communicating and critiquing policy and practice.

Community restoration and predator control groups need money for paying for equipment and also for accredited contractors for applying herbicides, toxins and for advising volunteers.

Q 46 Do you agree with the requirement for regional councils to develop a monitoring plan for indigenous biodiversity in its region and each of its districts, including requirements for what this monitoring plan should contain? (see Part 3.20) Yes/no? Why/why not?

The demands on regional councils for indigenous biodiversity work are high, albeit essential that these things are done. We suggest that in respect of **3.20.2** rather than making each Regional Council and other agencies establish methods and time frames for monitoring, that these be standardised across the nation as much as possible and applicable. That will save resources and provide comparability method-wise and across time. That will make the data far more useful. This is suggested in **3.20.2.c**, but it is not clearly flagged in **3.20.2a-b**.

In regard to **3.20.2.d**, the requirement to use the two sets of methods equally is obscure. What is the point of equality of use of methods if they are not equally applicable or useful? How is “equally” to be measured? By expenditure? By spatial or other extent? Should one substitute for the other, or is this provision intended to imply that the methods are both used over the same ground/biodiversity? These questions need to be addressed and clarified, least the provision looks to be fuzzy good intentions. We are not saying that is what it is, but that this is how it will be received.

Q 47 Part 4.1 requires the Ministry for the Environment to undertake an effectiveness review of the proposed NPSIB. Do you agree with the requirements of this effectiveness review? Yes/no? Why/why not?

Effectiveness Review

ECO agrees that an effectiveness Review is needed. Both the regulatory effectiveness should be reviewed – and the effectiveness in terms of impacts on indigenous biodiversity. There will need to be earlier reviews than 10 years to gauge what needs adjusting particularly in respect of perverse outcomes and in respect of the practicality of the provisions.

In 4.1.a, we strongly recommend that the monitoring and reporting programme collect data that is internationally comparable, especially in respect of the IUCN Red List criteria, the Red list of Threatened Ecosystems and the Green List of Ecosystems.

ECO urges too that the scope of the NPS – IB and the monitoring include the coastal and marine environments.

The Ministry for the Environment monitoring and review should be opened to the public and should be reviewed and reported on by the Parliamentary

Commissioner for the Environment. That would incentivise quality assurance and some degree of independent input and perspective.

Q 48 Do you agree with the proposed additional information requirements within Assessments of Environment Effects (AEEs) for activities that impact on indigenous biodiversity? (see Part 3.19 of the proposed NPSIB). Yes/no? Why/why not?

3.19 Assessment of Environmental Effects.

We repeat here what we said earlier above.
ECO would like to see all indigenous biodiversity considered, not only-.1b) and c).

The language of the NPS-IB in this section of the NPS is somewhat unclear as to whether the specifications in 3.19 are additional to or instead of what is already there. Some ways of reading these could imply that if not specified 3.19.1,2 and 3, then the existing rules are to be disregarded. We assume that is not the intent, but wording such as “add” to the provisions of each of these subclauses, would remove doubt.

In general we welcome these provisions, but we also have a gnawing concern that the provisions of the NPS-IB are new and will be considered too onerous, with the risk that they will be rejected.

As mentioned in other contexts in relation to this NPS-IB, we would like to see all biological kingdoms brought into the scope of the RMA and NPS-IB.

Q 49 Which option for implementation of the proposed NPSIB do you prefer? Please explain.

- a. Implementation as soon as reasonably practicable – SNAs identified and mapped in five years, scheduled and notified in plans in six years.*
- b. Progressive implementation programme – SNAs identified and mapped within seven years, scheduled and notified in plans in eight years.*

As we have discussed above, we recommend option a) but there needs also to be measures to prevent perverse incentives to destroy indigenous biodiversity.

Q 50 Do you agree with the implementation timeframes in the proposed NPSIB, including the proposed requirement to refresh SNA schedules in plans every two years? Yes/no? Why/why not?

We would like to see those time frames, but central government resources must be made available to assist with implementation or it will be just regarded as a burden to be sloughed off at the next election.

Q 51 Which of the three options to identify and map SNAs on public conservation land (PCL) do you prefer? Please explain.

- a. Territorial authorities identify and map all SNAs including public conservation land*
- b. Public conservation land deemed as SNAs*
- c. No SNAs identified on public conservation land*
- d. Other option.*

Application to Crown Land and to public conservation land.

We suggest that option b) is best so that PCL is deemed to be SNA, so that it has at least as strong protection as other SNAs.

In ECO's view, any Crown conservation land should be, *ipso facto*, an SNA, and mapping etc should be worked into the Conservation Management Plans where those exist.

On non-public conservation land, such as that in the hands of other government agencies (CRIs etc) or held for government purposes, e.g. Defence Department land, Corrections, NZTA, education and other land, the Crown should be responsible for funding the analysis and mapping of SNAs, using the same criteria as those in Appendix One.

We note with dismay the provisions in the Urban Development Bill that would allow a range of reserves, including Historic, Recreational, Government-purpose, local purpose, and Scenic reserves to be repurposed and realigned or simply taken over for infrastructure or housing by Kainga Ora and or the Special Development Vehicles it creates. The lands affected could include many vital areas such as catchment reserves, regional parks and reserves, the Lewis Pass scenic reserve and the World Heritage Area to the extent that it does not include National Parks.

The attempts to give priority to national infrastructure, the proposals in the Urban Development Bill and the Infrastructure Funding and Financing Bill are all major threats to biodiversity protection, and should be rejected.

In the same vein, attempts in this NPS-IB must not give precedence to nationally important infrastructure over indigenous biodiversity, since the latter is taonga, is likely to be irreplaceable, and many of its natural, inherent, cultural and scientifically authentic qualities and functions can neither be restored nor substituted for.

Q 52 What do you think of the approach for identifying and mapping SNAs on other public land that is not public conservation land?

Probably the work should be done by the same agency as others, but it should be funded by the Crown.

Q 53 Part 3.4 requires local authorities to manage indigenous biodiversity and the effects on it of subdivision, use and development, in an integrated way. Do you agree with this provision? Yes/no? Why/why not?

This seems sensible but of course what is integrated with what and by whom to what end are crucial issues. Those should be spelt out to ensure that the integration is the protection of biodiversity and we are not left with override.

Q 54 If the proposed NPSIB is implemented, then two pieces of national direction – the NZCPS and NPSIB – would apply in the landward-coastal environment. Part 1.6 of the proposed NPSIB states if there is a conflict between instruments the NZCPS prevails. Do you think the proposals in the NPSIB are clear enough for regional councils and territorial authorities to adequately identify and protect SNAs in the landward-coastal environment? Yes/no? Why /why not?

We will leave regional and local councils to answer this question.

Q 55 The indicative costs and benefits of the proposed NPSIB for landowners, tangata whenua, councils, stakeholders, and central government are set out in Section 32 Report and Cost Benefit Analysis. Do you think these costs and benefits are accurate? Please explain and provide examples of costs/benefits if these proposals will affect you or your work.

We have yet to go through this.

Q 56 Do you think the proposed NPSIB should include a provision on use of transferable development rights? Yes/no? Why/why not?

There are differing views in ECO on this matter within our member bodies. We recognise that there are both problems and benefits.

Problems include that these can become an unofficial version of offsets, and suffer the same issue as compensation and off setting that it assumes some degree of substitutability.

On the other hand, there may be cases where there is a net gain if say, someone who owns land in several parcels can consolidate say several dwellings together and leave the rest of the land unbuilt on. Human impacts will be reduced and edge and other effects reduced compared to allowing the scattering of dwellings. Infrastructure can be reduced with fewer roads or tracks over the land.

It would seem from the discussion document that such transferrable rights are already used in some quarters, and could be used without them being spelt out in the NPS?

Q 57 What support in general would you require to implement the proposed NPSIB? Please detail.

- a Guidance material*
- b Technical expertise*
- c Scientific expertise*
- d Financial support*
- e All of above*

Other (please provide details).

We expect that implementation of the proposed NPS-IB would require all of the above and more.

Guidance on Maori aspects is almost certain to be needed by councils.

Other absolutely vital elements include what is known in the policy literature as “consent of the governed” and social licence. There will be many New Zealanders who welcome the NPS-IB. There will be others who agree with the goal but will resent the loss of their autonomy, the message that they can’t be trusted and so have to have rules imposed, and there will be yet others who disagree with the objective and scoff at the idea that government and local government knowing what it is talking about. These will be people who regard all in Wellington as ignorant “shiny arses”.

If consent of the governed is achieved, then people will be more willing to reveal “private information” – the knowledge that they hold – say about the location and state of indigenous biodiversity or about their own activities.

Striking the wrong note and coming across as too top down and bossy will make the implementation of this NPS-IB more difficult. It will be essential to have community - trusted advocates for the policy, and to have “champions” for it from the affected sectors and the community at large.

Setting up community and landowner/occupier implementation teams to support implementation and to try to depoliticise the NPS so that it does not feed into the “bossy government leaning on salt of the earth farmers” etc, will be important. Working on social buy-in and social licence for this will be really vital for its success. So too will be central government funding and support for Councils and for the mapping and for incentives for landowners.

Given COVID-19, it may be that some of the stimulus package could be deployed now to help land owners/ the unemployed to do fencing, weeding and other biodiversity-

friendly activities – at a suitable distance from other people – to get the social approval started.

Q 59 Do you think a planning standard is needed to support the consistent implementation of some proposals in the proposed NPSIB? Yes/no? If yes, what specific provisions do you consider are effectively delivered through a planning standard tool?

Some of the methodological and mapping and classification aspects might benefit from this. Standards should be considered as part of the process of the effectiveness review and the monitoring of implementation of the NPS.

Q 60 Do you think there are potential areas of tension or confusion between the proposed NPSIB and other national direction? Yes/no? Why/why not?

Yes, most particularly a clash with the Urban Development Bill's provisions. There are probably gaps between the NZ Coastal Policy Statement and this NPS-IB. The lack of reference to and clear interlocking with the Water NPS and NES may also be a problem.

It may be that the politics of the situation means that this NPS-IB is passed and implemented prior to any extension of it beyond the terrestrial environment at first, and then the other geographic domains could be added subsequently?

Q 61 Do you think it is useful for RMA plans to address activities that exacerbate the spread of pests and diseases threatening biodiversity, in conjunction with appropriate national or regional pest plan rules under the Biosecurity Act 1993? Yes/no? Why/why not?

Yes, absolutely we do. It is essential. It is crazy to have all controls on biosecurity issues that affect biodiversity locked up in the Biosecurity Act processes and not to also consider land uses, activities and developments that can spread invasive species or encourage their spread. We are conscious that there is a plan to revise the Biosecurity Act as well. We do not disparage the work done by MPI, but it seems obvious to us that biosecurity and invasive species control are absolutely integral to improving indigenous biodiversity that it must be included in the NPS as well.

Appendix I Criteria for identifying significant indigenous vegetation and significant habitat of indigenous fauna

Firstly, the criteria in Appendix 1 should be amended to include elements and attributes relevant to freshwater and marine ecosystems. For example the addition of marine attributes which include Scientific Criteria for Identifying Ecologically or Biologically Significant Marine Areas (EBSAs).

*The CBD scientific criteria for ecologically or biologically significant areas (EBSAs) (annex I, decision IX/20):*⁹ These are

8. Uniqueness or Rarity
9. Special importance for life history stages of species;
10. Importance for threatened, endangered or declining species and/or habitats;
11. Vulnerability, Fragility, Sensitivity, or Slow recovery;
12. Biological Productivity;
13. Biological Diversity;
14. Naturalness.

CBD Decision IX/20 sets out more details on the EBSA criteria, definition and rationale. The scientific criteria is in annex I to the present decision, the scientific guidance in Annex II (see table below).

Further details on our comments on Annex 1 and the EBSA criteria are found in an appendix at the end of the submission.

In particular missing elements are:

- *Special importance to life history stages of species* in D. ecological context—for example these could include rookeries, breeding sites, or spawning sites.
- *Vulnerability, fragility, sensitivity, or slow recovery* in C. rarity and distinctiveness.

The criteria should include any indigenous species listed as threatened on the IUCN list of threatened species (eg include in C3 and C6 a)) (see our comments elsewhere)..

The criteria should recognise endemic species as opposed to just indigenous species, which may also be found outside New Zealand. This should be included as a criteria in C and added assessment principles and added as a new criteria in C6.

“endemic species” – is a species only found in New Zealand, including its offshore islands.

[continued below in a table]

⁹ See ‘Background on the EBSA Process’ at <https://www.cbd.int/ebsa/about>

ANNEX I SCIENTIFIC CRITERIA FOR IDENTIFYING ECOLOGICALLY OR BIOLOGICALLY SIGNIFICANT MARINE AREAS IN NEED OF PROTECTION IN OPEN-OCEAN WATERS AND DEEP-SEA HABITATS ^{10/}

Criteria	Definition	Rationale	Examples	Consideration in application
Uniqueness or rarity	Area contains either (i) unique (“the only one of its kind”), rare (occurs only in few locations) or endemic species, populations or communities, and/or (ii) unique, rare or distinct, habitats or ecosystems; and/or (iii) unique or unusual geomorphological or oceanographic features	<ul style="list-style-type: none"> • Irreplaceable • Loss would mean the probable permanent disappearance of diversity or a feature, or reduction of the diversity at any level. 	<p><i>Open ocean waters</i> Sargasso Sea, Taylor column, persistent polynyas.</p> <p><i>Deep-sea habitats</i> endemic communities around submerged atolls; hydrothermal vents; sea mounts; pseudo-abyssal depression</p>	<ul style="list-style-type: none"> • Risk of biased-view of the perceived uniqueness depending on the information availability • Scale dependency of features such that unique features at one scale may be typical at another, thus a global and regional perspective must be taken
Special importance for life-history stages of species	Areas that are required for a population to survive and thrive.	Various biotic and abiotic conditions coupled with species-specific physiological constraints and preferences tend to make some parts of marine regions more suitable to particular life-stages and functions than other parts.	Area containing: (i) breeding grounds, spawning areas, nursery areas, juvenile habitat or other areas important for life history stages of species; or (ii) habitats of migratory species (feeding, wintering or resting areas, breeding, moulting,	<ul style="list-style-type: none"> • Connectivity between life-history stages and linkages between areas: trophic interactions, physical transport, physical oceanography, life history of species • Sources for information include: e.g. remote sensing, satellite tracking, historical catch and by-catch data,

^{10/} Referred to in paragraph 1 of annex II to decision VIII/24.

Criteria	Definition	Rationale	Examples	Consideration in application
			migratory routes).	<p>vessel monitoring system (VMS) data.</p> <ul style="list-style-type: none"> • Spatial and temporal distribution and/or aggregation of the species.
Importance for threatened, endangered or declining species and/or habitats	Area containing habitat for the survival and recovery of endangered, threatened, declining species or area with significant assemblages of such species.	To ensure the restoration and recovery of such species and habitats.	Areas critical for threatened, endangered or declining species and/or habitats, containing (i) breeding grounds, spawning areas, nursery areas, juvenile habitat or other areas important for life history stages of species; or (ii) habitats of migratory species (feeding, wintering or resting areas, breeding, moulting, migratory routes).	<ul style="list-style-type: none"> • Includes species with very large geographic ranges. • In many cases recovery will require reestablishment of the species in areas of its historic range. • Sources for information include: e.g. remote sensing, satellite tracking, historical catch and by-catch data, vessel monitoring system (VMS) data.
Vulnerability, fragility, sensitivity, or slow recovery	Areas that contain a relatively high proportion of sensitive habitats, biotopes or species that are	The criteria indicate the degree of risk that will be incurred if human activities or natural events in the area or	<p><i>Vulnerability of species</i></p> <ul style="list-style-type: none"> • Inferred from the history of how species or populations in 	<ul style="list-style-type: none"> • Interactions between vulnerability to human impacts and natural events • Existing definition emphasizes site specific ideas

Criteria	Definition	Rationale	Examples	Consideration in application
	functionally fragile (highly susceptible to degradation or depletion by human activity or by natural events) or with slow recovery.	component cannot be managed effectively, or are pursued at an unsustainable rate.	<p>other similar areas responded to perturbations.</p> <ul style="list-style-type: none"> • Species of low fecundity, slow growth, long time to sexual maturity, longevity (e.g. sharks, etc). • Species with structures providing biogenic habitats, such as deepwater corals, sponges and bryozoans; deep-water species. <p><i>Vulnerability of habitats</i></p> <ul style="list-style-type: none"> • Ice-covered areas susceptible to ship-based pollution. • Ocean acidification can make deep-sea habitats more vulnerable to others, and increase susceptibility to human-induced 	<p>and requires consideration for highly mobile species</p> <ul style="list-style-type: none"> • Criteria can be used both in its own right and in conjunction with other criteria.

Criteria	Definition	Rationale	Examples	Consideration in application
			changes.	
Biological productivity	Area containing species, populations or communities with comparatively higher natural biological productivity.	Important role in fuelling ecosystems and increasing the growth rates of organisms and their capacity for reproduction	<ul style="list-style-type: none"> • Frontal areas • Upwellings • Hydrothermal vents • Seamounts • Polynyas 	<ul style="list-style-type: none"> • Can be measured as the rate of growth of marine organisms and their populations, either through the fixation of inorganic carbon by photosynthesis, chemosynthesis, or through the ingestion of prey, dissolved organic matter or particulate organic matter • Can be inferred from remote-sensed products, e.g., ocean colour or process-based models • Time-series fisheries data can be used, but caution is required

Criteria	Definition	Rationale	Examples	Consideration in application
Biological diversity	Area contains comparatively higher diversity of ecosystems, habitats, communities, or species, or has higher genetic diversity.	Important for evolution and maintaining the resilience of marine species and ecosystems	<ul style="list-style-type: none"> • Sea-mounts • Fronts and convergence zones • Cold coral communities • Deep-water sponge communities 	<ul style="list-style-type: none"> • Diversity needs to be seen in relation to the surrounding environment • Diversity indices are indifferent to species substitutions • Diversity indices are indifferent to which species may be contributing to the value of the index, and hence would not pick up areas important to species of special concern, such as endangered species • Can be inferred from habitat heterogeneity or diversity as a surrogate for species diversity in areas where biodiversity has not been sampled intensively.

Naturalness	Area with a comparatively higher degree of naturalness as a result of the lack of or low level of human-induced disturbance or degradation.	<ul style="list-style-type: none"> • To protect areas with near natural structure, processes and functions • To maintain these areas as reference sites • To safeguard and enhance ecosystem resilience 	Most ecosystems and habitats have examples with varying levels of naturalness, and the intent is that the more natural examples should be selected.	<ul style="list-style-type: none"> • Priority should be given to areas having a low level of disturbance relative to their surroundings • In areas where no natural areas remain, areas that have successfully recovered, including reestablishment of species, should be considered. • Criteria can be used both in their own right and in conjunction with other criteria.
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Annex II Scientific guidance for selecting areas to establish a representative network of marine protected areas, including in open ocean waters and deep-sea habitats ^{11/}

Required network properties and components	Definition	Applicable site specific considerations (<i>inter alia</i>)
Ecologically and biologically significant areas	Ecologically and biologically significant areas are geographically or oceanographically discrete areas that provide important services to one or more species/populations of an ecosystem or to the ecosystem as a whole, compared to other surrounding areas or areas of similar ecological characteristics, or otherwise meet the criteria as identified in annex I to decision IX/20.	<ul style="list-style-type: none"> • Uniqueness or rarity • Special importance for life history stages of species • Importance for threatened, endangered or declining species and/or habitats • Vulnerability, fragility, sensitivity or slow recovery • Biological productivity • Biological diversity • Naturalness
Representativity	Representativity is captured in a network when it consists of areas representing the different biogeographical subdivisions of the global oceans and regional seas that reasonably reflect the full range of ecosystems, including the biotic and habitat diversity of those marine ecosystems.	A full range of examples across a biogeographic habitat, or community classification; relative health of species and communities; relative intactness of habitat(s); naturalness
Connectivity	Connectivity in the design of a network allows for linkages whereby protected sites benefit from larval and/or species exchanges, and functional linkages from other network sites. In a connected network individual sites benefit one another.	Currents; gyres; physical bottlenecks; migration routes; species dispersal; detritus; functional linkages. Isolated sites, such as isolated seamount communities, may also be included.
Replicated ecological features	Replication of ecological features means that more than one site shall contain examples of a given feature in the given biogeographic area. The term “features” means “species, habitats and ecological processes” that naturally occur in the given biogeographic area.	Accounting for uncertainty, natural variation and the possibility of catastrophic events. Features that exhibit less natural variation or are precisely defined may require less replication than features that are inherently highly variable or are only very generally defined.
Adequate and viable sites	Adequate and viable sites indicate that all sites within a network should have size and protection sufficient to ensure the ecological viability and integrity of the	Adequacy and viability will depend on size; shape; buffers; persistence of features; threats; surrounding environment (context); physical

^{11/} Referred to in paragraph 3 of annex II of decision VIII/24

Required network properties and components	Definition	Applicable site specific considerations (<i>inter alia</i>)
	feature(s) for which they were selected.	constraints; scale of features/processes; spillover/compactness.

Appendix II: Tools

Further to our comments from page 9 and following on the criteria
For example under Rarity and distinctiveness:

*“Provides habitat for a nationally Threatened, or At Risk indigenous species as identified in the New Zealand Threat Classification System lists **or the IUCN Red List of threatened species.**”*

Criteria:

As noted in the introduction to the MfE paper:

“Today, 80 per cent of native birds, 88 per cent of lizards and 100 per cent of frogs are threatened with extinction. Between 1996 and 2012, there was a net loss of approximately 71,000 hectares of indigenous habitat, mostly in areas of lowlands, wetlands and coastal habitats.”

The criteria for Rarity and Distinctiveness rightly includes sand dunes as a high criteria but surprisingly missed out other 71 rare habitats identified eg wetlands, braided rivers, etc.

As the discussion paper states:

“Coastal and lowland ecosystems that were once widespread (including wetlands) continue to decline in extent. Almost two-thirds of rare and naturally uncommon ecosystems are now threatened, with the proportion of threatened ecosystems being higher in coastal and lowland environments. For example, more than three-quarters of our rare coastal ecosystems are threatened with collapse.”

And

“In 2014, there were 71 identified rare ecosystems, with 45 of them threatened with collapse.⁴³ Wetlands are now only about 10 per cent of their pre-human extent. Critical thresholds mark the line between decline or persistence of an ecosystem and its species.”

And

“Wetlands are now only about 10 per cent of their pre-human extent. Critical thresholds mark the line between decline or persistence of an ecosystem and its species.”

The Ministry for the Environment and Statistics NZ 2018 report on the New Zealand Environment said:

“71 different rare and naturally uncommon ecosystems have been identified in New Zealand. These represent less than 0.5 percent of the land area of mainland New Zealand. They are ecosystems that are rare (they were once widespread and are now reduced in extent) and also naturally uncommon (they were never extensive). They occur in unusual physical environments, and

include for instance unique geothermal communities and volcanic dunes.” (Our Land Report, p 90).¹²

“Rare and naturally uncommon ecosystems contain half of New Zealand’s nationally threatened plant species. Similarly, 38 percent of the 160 nationally threatened Lepidoptera family (butterflies and moths) live in ecosystems that are themselves limited in distribution nationally”.

Holdaway et al. (2012)¹³ evaluated 71 of these naturally uncommon ecosystems according to IUCN criteria. They classified 45 (63%) as threatened (i.e. 18 [25%] as critically endangered, 17 [24%] as endangered, and 10 [14%] as vulnerable). Therefore just 36% (26 of 71) of naturally uncommon ecosystems are not currently considered to be threatened or vulnerable (Table 2).

“Terrestrial ecosystems that were rare before humans colonised New Zealand often have highly specialised and diverse assemblages of flora and fauna, characterised by endemic and rare species. A national-scale typology provides a list of 72 naturally uncommon ecosystems distributed across the country.” (Wiser et al 2013)¹⁴.

These areas include 45 threatened uncommon ecosystems that should be protected. The NPS should include a list of these ecosystems and it should be included with a high rating for rarity and distinctiveness.

TABLE 4 Status of the 45 threatened naturally uncommon ecosystems in New Zealand.

Critically endangered	Endangered	Vulnerable
Shell barrier beach	Active sand dune	Coastal cliffs on mafic rock
Coastal turf	Dune deflation hollow	Screes of calcareous rock
Old tephra plains	Stony beach ridge	Young tephra plains and hill slopes
Inland sand dunes	Shingle beach	Boulder fields of calcareous rock
Outwash gravels	Stable sand dune	Cliffs, scarps and tors of mafic rocks
Inland saline	Coastal cliffs on calcareous rock	Cliffs, scarps and tors of calcareous rocks

¹² Ministry for the Environment & Stats NZ (2018). *New Zealand’s Environmental Reporting Series: Our land 2018*. Retrieved from www.mfe.govt.nz and www.stats.govt.nz.

¹³ Holdaway, Robert & Wiser, Susan & Williams, Peter. (2012). Status Assessment of New Zealand’s Naturally Uncommon Ecosystems. *Conservation biology : the journal of the Society for Conservation Biology*. 26. 619-29. 10.1111/j.1523-1739.2012.01868.x.

¹⁴ Wiser SK, Buxton RP, Clarkson BR, Hoare RJB, Holdaway RJ, Richardson SJ, Smale MC, West C, Williams PA 2013. New Zealand’s naturally uncommon ecosystems. *In* Dymond JR ed. *Ecosystem services in New Zealand – conditions and trends*. Manaaki Whenua Press, Lincoln, New Zealand.

Critically endangered	Endangered	Vulnerable
Leached terraces	Ultramafic sea cliffs	Moraine
Fumaroles	Volcanic dunes	Lake margins
Geothermal stream sides	Sandstone erosion pavements	Blanket mire
Geothermal heated ground	Frost hollows	Estuary
Geothermal hydrothermally altered ground	Volcanic boulder fields	
Seabird guano deposits	Sinkholes	
Seabird burrowed soil	Dune slacks	
Marine mammal influenced sites	Domed bog (<i>Sporadanthus</i>)	

From Holdaway et al. (2012) in Wiser SK, Buxton RP, Clarkson BR, Hoare RJB, Holdaway RJ, Richardson SJ, Smale MC, West C, Williams PA 2013. New Zealand's naturally uncommon ecosystems. In Dymond JR ed. Ecosystem services in New Zealand – conditions and trends. Manaaki Whenua Press, Lincoln, New Zealand.

In addition Walker et al (2018)¹⁵ noted:

“According to Cieraad et al. (2015), in 2012, 158 Level IV environments of LENZ (Leathwick et al. 2003a,b) retained less than 10% of their indigenous cover, and 72 retained between 10% and 20% indigenous cover.

Together these 230 (MfE & DOC 2007) ‘National Priority 1’ environments represented 32.5% of New Zealand’s land area, but supported just 4.9% of New Zealand’s remaining indigenous cover and only 2.0% of public and privately protected land. Ecosystems, communities, and species that are specialised for, and adapted to, dry and seasonal conditions are now only to be found in these environments. Only the steepest, coldest, and highest of New Zealand’s land environments now have more than 30% of their land area remaining under indigenous cover and more than 20% of their land area protected. These represent only one-third (167 of 500) of the diversity of land environments recognised at Level IV of the LENZ classification.”

In summary this means the policy needs to be strengthened to ensure that these threatened ecosystem are retained and restored so an improved status.

Appendix 3 and 4: Biodiversity Offsetting/Biodiversity Compensation (Appendix 3 and 4)

A core problem with the policies for Offsetting and Compensation is that it hinges around judgments as to whether the activity is:

¹⁵ Walker et al 2018. Critical factors to maintain biodiversity: what effects must be avoided, remediated or mitigated to halt biodiversity loss? Contract Report: LC3116. 65p.

- a) likely to occur anyway, so that the introduction of best practice offsets and/or compensation improves the situation as it stands and can, by imposing the hierarchy, stringent conditions and limits as to where and what can be offset, can give protection while limiting “trades”;
- b) whether the biodiversity damaging activity is sensitive to the requirement to in effect, internalize costs by providing offsets and/or compensation;
- c) whether by providing offsets and/or compensation, there will be greater willingness by authorities to allow damage to biodiversity so that the net impact is higher losses of biodiversity in all its forms.

We support the policy’s recognition where offsetting or compensation shouldn’t take place:

- “i) residual adverse effects cannot be offset because of the irreplaceability or vulnerability of the indigenous biodiversity affected;*
- ii) there are no technically feasible or socially acceptable options by which to secure gains within acceptable timeframes*
- iii) effects on indigenous biodiversity are uncertain, unknown or little understood, but potential effects are significantly adverse.”*

We would add:

- iv) when it impacts on threatened species (including at risk species) or threatened ecosystems.

Walker, et al (2009) make a vital point in *Conservation Letters*:

“biodiversity is not fungible, the definition of “currency” of trade is difficult and costly, the pressures on officials and agencies and the interests of those who seek biodiversity offsets as a passport to development are such that there will always be government failures such that standards will relax, concessions will be given and enforcement will be absent”.

([\http://onlinelibrary.wiley.com/helicon.vuw.ac.nz/doi/10.1111/j.1755-263X.2009.00061.x/epdf](http://onlinelibrary.wiley.com/helicon.vuw.ac.nz/doi/10.1111/j.1755-263X.2009.00061.x/epdf).)

We note and agree with the statement on p10 of the IUCN Biodiversity Offsets Technical Study Paper (2014) that *“biodiversity offsets have the potential to provide net gains in biodiversity in the right context, but this has rarely yet been realized in practice..”*

Offsetting should only occur where there is a clear net gain: “A biodiversity offset must achieve gains in indigenous biodiversity above and beyond gains that would have occurred in the absence of the offset”.

We suggest that the policy proposal should be to not, at this stage, endorse the use of biodiversity offsets, since there is little evidence that they are effective and there are many case studies of failures. There is a risk that they are counterproductive, and, as the IUCN technical paper notes, there is potentially high risk to biodiversity.

In terms of *No Net loss and Net gain*, measurement must be in separated accounts with respect to species composition, habitat structure, ecosystem function and people's use and cultural values associated with biodiversity (Source: BBOP (2012a)¹⁶. Economic gain must not be allowed to be at the expense of biodiversity loss.

Biodiversity offsets assume fungibility or perfect - or adequate - substitutability and exchange of biodiversity. If that condition does not hold for biodiversity trades, then we suggest that what is being called biodiversity offsets are actually compensations for losses of biodiversity.

Measures that address residual impacts but are not quantified to achieve No Net Loss or not secured for the long term are compensation, otherwise known as compensatory mitigation. Source: BBOP (2012a).

At a minimum, offsets must not be used:

- Where impacts are likely to lead to a high risk of driving one or more previously non threatened species and/or ecosystems into the IUCN Red List Categories of Vulnerable, Endangered, Critically Endangered, Extinct in the Wild or Extinct, or driving one or more previously threatened species and/or ecosystems into IUCN Red List Categories of higher threat;
- Where the success of the offset action is highly uncertain due to a lack of knowledge;
- Where there is a substantial risk that investment generated by offsets might substitute for, rather than add to, other investment for conservation (e.g. 'cost shifting');
- Where the exchanges involved in the project's residual losses and the predicted offset gains are considered socially or culturally unacceptable to relevant stakeholders;
- Where the values that will be lost are specific to a particular place, and therefore cannot be found elsewhere and adequately protected or re-created;
- Where the time lag between the residual loss of biodiversity caused by the project and the gains from the offset causes damage that cannot be remediated and/or puts biodiversity components at unacceptable risk;
- When impacts will occur in internationally and nationally recognized 'no-go' areas.

Other points:

It is unclear to ECO how civil society will be involved in some of the processes proposed. We have support Tangata Whenua involvement and partnership with the Crown, but the "Crown" has an obligation to consult and engage with the community at large.

¹⁶ BBOP (Business and Biodiversity Offsets Programme) (2012a) Standard on Biodiversity Offsets. Business and Biodiversity Offsets Programme, Washington, DC, USA.

We do not agree that that this in some way invalidates or displaces the obligations on government for participatory processes and to allow civil society and individuals to be informed of and given input to decision making in sufficient time and by processes that are meaningful and participatory.

Q 62 Do you have any other comments you wish to make?

Our comments on the Appendices precede this question.

ECO strongly supports the introduction of an NPS-Indigenous Biodiversity so we welcome this initiative. We would like to see a bit more in the way of specific tools and especially, requirements, guidance and quality control over protected areas – on land and in the sea. These can be regional, local and also community-conserved, and private reserves. The provisions of the Urban Development Bill that would vitiate such reserves must be ditched, so both officials and politicians will have to achieve that.

As we have discussed, we want to see the geographic scope of the NPS-IB expanded to include the sea; the biotic scope extended to all biological kingdoms; and more emphasis on, and requirements to consider, the greenhouse gas emission and sequestration implications of the biodiversity losses and restorations.

We are glad that this difficult topic is being brought into the full light of legal obligations (if that is not too tortured language) since somehow in New Zealand biodiversity losses have been regarded by many in power, business and in recreation as acceptable collateral damage that can largely be disregarded.

There is a huge reservoir of New Zealanders who are deeply worried about biodiversity losses. We fully agree there is a major crisis and that we must tackle it and tackle it fast, along with climate and oceans systems destabilisation.

We thank you for your work and for your efforts to protect the indigenous biodiversity of New Zealand. We would be happy to discuss the issues with you – by remote, of course.

Keep safe,

Yours,

Cath Wallace
ECO Executive and ECO's Biodiversity, Biosecurity and Conservation Working
Group.
eco@eco.org.nz