

National Policy Statement on Indigenous Biodiversity

Criteria for RMA s6(c) Assessments

PREAMBLE

These criteria are for the identification of areas of significant indigenous vegetation and significant habitats of indigenous fauna, to assist with application of section 6(c) RMA. Broader RMA obligations (s.31) to maintain and enhance indigenous biodiversity are addressed by other parts of the National Policy Statement (NPS).

These criteria assume that the NPS will require territorial authorities to survey and assess areas of significant indigenous vegetation and significant habitats of indigenous fauna, and to include those Significant Natural Areas (SNAs) on maps and schedules in District Plans. It is assumed (and urged) that these criteria are applied objectively by experienced ecologists with a good understanding of local and national context. For the purposes of application of these criteria, an SNA is defined as “an area of vegetation or habitat that is important for the maintenance of indigenous biological diversity in the Ecological District”.

It is expected that District Plans will require that activities which diminish the ecological integrity or mauri of SNAs are avoided. Other plan provisions will provide for the wider maintenance of indigenous biodiversity, such as important fauna habitat not captured by the identification of “sites” (SNAs).

These criteria are intended to be applied to terrestrial, freshwater and marine areas. They are intended to be consistent with the New Zealand Coastal Policy Statement (notably Objective 1 and Policy 11). These criteria do not attempt to embrace Mātauranga Māori. Advice received by the Biodiversity Collaborative Group proposes that iwi are provided with resources and sufficient time to develop separate significance criteria, and to identify sites, to protect those values.¹

Two definitions are important for the application of these criteria:

Indigenous vegetation is “vegetation that contains vascular plants, non-vascular plants, fungi or algae that are native to the ecological district or marine biogeographic area”.

Habitat of indigenous fauna is “an area or natural resource that is used by indigenous fauna for any part of its life cycle”.

A primary purpose of these criteria is to determine which areas of indigenous vegetation or habitats of indigenous fauna cross the significance threshold. Consideration of existing criteria, and consultation with ecologists, concluded that a site should be regarded as significant if it met any one of the four criteria. This eliminates the need for a rating system, and negates the effect of rating site attributes more than once. However, it is proposed that the attributes of sites be rated High, Medium or Low against each criterion, to help ensure a more robust assessment and to provide useful information about the site for management, or for the assessment of effects. One Medium rating is sufficient for a site to be significant.

An important consideration is the level at which to set the threshold for significance. One view is that section 6(c) is intended to provide protection for only the most important sites. Another view is that due to the serious ongoing loss of indigenous biodiversity, most remaining areas of terrestrial indigenous vegetation and habitat are now significant. The Biodiversity Collaborative Group has received compelling advice from Landcare Research that the latter view should prevail.

The proposed national priorities for protecting rare and threatened biodiversity on private land (Ministry for the Environment, 2007) are addressed by these criteria.

¹ Hutia te Rito, Te Kahu o te Taio, June 2018, paragraph 10.1

The frameworks for assessment of significance are ecological districts (McEwen, 1987), freshwater biogeographic units (FENZ/WONI), and marine biogeographic areas. Biogeographic areas of an equivalent scale to ecological districts have not been defined nationally for the marine environment. An example is Marlborough District (Davidson et al, 2011). Ecological districts include freshwater environments, but not marine environments.

CRITERIA

Four criteria are proposed for assessment of significant indigenous vegetation and significant habitats of indigenous fauna:

- Representativeness
- Diversity and Pattern
- Rarity and Distinctiveness
- Ecological Context

Representativeness

The extent to which the vegetation or habitat of indigenous fauna is typical or characteristic of the indigenous biodiversity of the ecological district or marine biogeographic area.

Guidance:

Indigenous vegetation or habitat of indigenous fauna that would be expected to occur at undeveloped² sites in the ecological district or marine biogeographic area in the present-day environment (e.g. landform, soils, substrate, climate), including seral (regenerating) indigenous vegetation. Representativeness includes commonplace vegetation/habitats, which is where most indigenous biodiversity is present. It is not restricted to the best or most representative examples. And, it is not a measure of how well that vegetation or habitat is protected elsewhere in the ecological district.

Assessment:

Significant vegetation has structure and composition (biodiversity) typical of the indigenous vegetation of the ecological district or marine biogeographic area in the present-day environment. This includes secondary or regenerating vegetation that is recovering following natural or induced disturbance, provided species composition is typical of that type of vegetation. Significant fauna habitat is that which supports the typical suite of indigenous animals that would occur in the present-day environment.

Attributes of Site	Rating
Vegetation which has structure and composition (biodiversity) that is highly typical of the indigenous vegetation of the ecological district or marine biogeographic area.	H
Intact habitat that supports a highly typical suite of indigenous animals.	H
Vegetation which has modified structure and/or composition (biodiversity) though is still typical of the indigenous vegetation of the ecological district or marine biogeographic area.	M
Modified habitat that supports a typical suite of indigenous animals.	M
Vegetation or habitat that is not typical of the indigenous vegetation or habitat of the ecological district or marine biogeographic area.	L

Diversity and Pattern

The diversity and pattern of biological and physical components at the site.

Guidance:

Diversity has biological components, such as species/taxa, communities, and ecological variation. It also has physical components, such as geology, soils/substrate, aspect/exposure, altitude/depth, temperature, salinity, turbidity, and waves/currents. Pattern includes changes along environmental gradients, such as ecotones and sequences. Some communities or habitats are uniform, with naturally low species diversity; that attribute is assessed under the representativeness criterion.

Assessment:

² “undeveloped” sites mean those sites at which the soil/substrate has not been cultivated/dredged

Significance is the extent to which the biological range and environmental variation at a site reflects that present in the ecological district. Sites that have a wider range of species, habitats, or communities, or wider environmental variation due to ecotones, gradients and sequences, rate more highly.

Attributes of Site	Rating
A high diversity of indigenous species, habitats or communities, and/or presence of important ecotones, or complete gradients or sequences.	H
A moderate diversity of indigenous species, habitats or communities, and/or presence of ecotones, or partial gradients or sequences.	M
A low diversity of indigenous species, habitats or communities, and lack of ecotones, gradients or sequences.	L

Rarity and Distinctiveness

The presence of rare or distinctive species, habitats, vegetation or ecosystems.

Guidance:

Rarity is the scarcity (natural or induced) of indigenous species, habitats, vegetation, or ecosystems. Rarity includes things that are uncommon, and things that are threatened. ‘Threatened’ and ‘at risk’ (including ‘naturally uncommon’) species at a national scale are listed in publications (for plants, mammals, birds, and reptiles) prepared and regularly-updated by the Department of Conservation. Rarity at a regional or local scale is defined by local lists or determined by professional advice. Further effort is needed to prepare regional and local lists, especially for fauna. The significance of nationally-listed species should not be downgraded if they are locally common.

Historically rare (or naturally uncommon) terrestrial ecosystems are defined and listed by Williams et al (2007). These ecosystems, along with wetlands and sand dunes, are proposed as a priority for protection on private land by the Ministry for the Environment (2007).

Two national frameworks that are available for the assessment of depletion of terrestrial indigenous vegetation or ecosystems are in common use: Ecological Districts, as defined by McEwen (1987); and Land Environments, as defined by Leathwick et al (2003). Rarity of indigenous vegetation in each Land Environment has been assessed by Walker et al (2006) and Cieraad et al (2015). Land Environment data should be interpreted with caution. These are based on physical attributes which may not accurately reflect vegetation (or habitat) patterns at a local scale.

Distinctiveness includes distribution limits, type localities, local endemism, relict distributions, and special ecological or scientific features.

Assessment:

Vegetation/habitat is significant if it supports any of the following:

- ‘threatened’, ‘at risk’ or ‘data deficient’ indigenous species (as defined by national lists)
- regionally or locally uncommon indigenous species, habitats, vegetation or ecosystems
- terrestrial indigenous vegetation depleted to less than 30% of its former extent in the ecological district or land environment
- indigenous vegetation/habitat on sand dunes, wetlands, or estuaries
- biogenic habitats³ in the marine environment
- indigenous vegetation in historically rare/naturally uncommon ecosystems
- an indigenous species at its distributional limit
- the type locality of an indigenous species

³ “biogenic habitats” are habitats created by the physical structure of living or dead organisms or by their interaction with the substrate

- a distinctive assemblage or community of indigenous species (such as on unusual substrates)
- a special ecological or scientific feature.

Application of the recently-published list of the threat status of indigenous plants (de Lange et al, 2018) should be guided by professional advice. Species within the Myrtaceae family that are relatively common in many areas (kanuka, manuka, and rata species) are listed as ‘threatened’ or ‘at risk’, due to the threat posed by myrtle rust. These species are listed with the qualifiers DP (data poor) and De (taxon that does not fit the criteria so is designated to the most appropriate listing).

With respect to fauna habitat, professional judgement should be used when assessing significance, such as a golf course that has the occasional presence of a mobile ‘threatened’ species (e.g. black stilt), compared with a shrubland that has the presence of a relatively sedentary ‘at risk’ species (e.g. southern grass skink). The golf course should not be rated as significant habitat; whereas the shrubland should.

Attributes of Site	Rating
Provides habitat for a nationally ‘threatened’, or several ‘at risk’, indigenous plant or animal species.	H
An indigenous species or plant community at its distributional limit.	H
Indigenous vegetation or habitat of indigenous fauna or ecosystem that has been reduced to less than 20% of its former extent in the ecological district or land environment.	H
Indigenous vegetation/habitat occurring on sand dunes, wetlands, or estuaries.	H
Biogenic habitats in the marine environment.	H
Indigenous vegetation/habitat occurring on ‘originally rare’ ecosystem types.	H
Provides habitat for an ‘at risk’, ‘data deficient’, regionally uncommon, or locally uncommon indigenous plant or animal species.	M
An indigenous species or plant community near its distributional limit.	M
Indigenous vegetation or habitat of indigenous fauna, or ecosystem, that has been reduced to between 20% and 30% of its former extent in the ecological district or land environment.	M
The presence of a distinctive assemblage or community of indigenous species, or special ecological or scientific feature.	M
Supports no ‘threatened’, ‘at risk’, ‘data deficient’, regionally or locally uncommon indigenous species; and no indigenous species near distribution limits.	L
Is not indigenous vegetation/habitat on sand dunes, wetlands, estuaries or ‘originally rare’ ecosystems.	L
Is not indigenous vegetation or habitat of indigenous fauna that has been reduced to less than 30% of its former extent in the ecological district or land environment.	L
Has no distinctive assemblage or community of indigenous species, or special ecological or scientific features.	L

Ecological Context

The extent to which the size, shape, and position of an area within the wider environment (land, freshwater or marine) contributes to the maintenance of indigenous biodiversity.

Guidance:

Ecological context has two main attributes: the characteristics that help maintain indigenous biodiversity at the site (such as size, shape and configuration); and the contribution the site makes to protection of indigenous biodiversity in the wider landscape (such as by linking or buffering other sites, providing ‘stepping stones’ of habitat, or maintaining ecological and hydrological processes).

Assessment:

Higher value is placed on sites that: have features (such as size, shape, configuration or buffering) that help maintain indigenous biodiversity at the site; support large numbers of or provide important habitat

for indigenous fauna; provide a buffer to or link between other significant areas; or play an important role in the biological/natural functioning of a freshwater or coastal/marine system.

Attributes of Site	Rating
A site that is large, has a good shape, and is well-buffered.	H
A site that provides a substantial buffer to, or link between, other significant sites and/or is very important for the natural functioning of a freshwater or coastal/marine system.	H
A site that supports large numbers of and/or provides critical habitat for indigenous fauna.	H
A site that is of moderate size, and has a good shape and/or is well buffered.	M
A site that provides a partial buffer to, or link between, other significant sites and/or is moderately-important for the natural functioning of a freshwater or coastal/marine system.	M
A small and/or poorly-buffered site.	L
A site that does not buffer or link other sites, and is unimportant for the natural functioning of a freshwater or coastal/marine system.	L

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