COMPARISON BETWEEN WELLINGTON REGIONAL POLICY STATEMENT CRITERIA AND NPS-IB CRITERIA FOR ASSESSMENT OF SIGNIFICANT NATURAL AREAS





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1. INTRODUCTION

Wildlands Consultants Ltd (Wildlands) has been working with the Wellington City Council (WCC) to identify, map and assess significant natural areas (SNA) in Wellington since 2013. Each potential SNA was assessed against the ecological significance criteria in Policy 23 of the Regional Policy Statement (RPS23) for the Wellington region (Greater Wellington Regional Council 2022) (Wildlands 2016). Since the SNA sites were initially designated, Wildlands has worked with WCC, other consultants, and landowners to refine SNA definitions and boundaries through consultation, field assessments, and landowner requested site visits. These assessments were also informed by updated aerial imagery that became available in 2021.

'Significance' has a specific statutory meaning derived from S6(c) of the RMA, and relates to the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna. However, the definition of significance has been the subject of much discussion among ecologists and its meaning has been broadly clarified through RMA hearings, including in the Environment Court.

The National Policy Statement on Indigenous Biodiversity (NPS-IB) came into effect on 7 July 2023 and (Subpart 2 (3.8), 2023) states that every territorial authority must undertake a district-wide assessment of vegetation and habitats to identify areas of significant indigenous vegetation or significant habitat indigenous fauna. Wellington City Council has engaged Wildlands to provide a report that compares the identification process undertaken for WCC SNAs using Policy 23 of the RPS with the identification criteria set out in Appendix 1 of the NPS-IB.

WCC SNA Methodology

The SNA assessments undertaken by Wildlands include the following (as listed in Appendix 1, Wildland Consultants 2016):

- A map of the area.
- A description of its significant attributes, including for each criterion a description of the attribute (as specified below) that applies.
- A description of the indigenous vegetation, indigenous fauna, habitat, and ecosystems present.
- Additional information such as the key threats, pressures, and management requirements.

A workshop was convened on 9 September 2015 that included qualified ecologists from Wildland Consultants, Kessels Ecology, and Boffa Miskell. This workshop was facilitated by Environmental Management Services, and an observer from Greater Wellington Regional Council (GWRC) also attended. The workshop provided a platform for open discussion, with a purpose to discuss how the RPS23 criteria should be interpreted and to define a suitable methodology for determining the ecological significance of the SNAs. The methods agreed upon at this workshop were adopted by Wildlands for their work with WCC assessing ecological significance of areas in the Wellington region.

Note that no geothermal SNAs were assessed in the Wellington Region.

2. COMPARISON OF WCC SNA (BETWEEN 2013-2023) AND NPS-IB (2023) CRITERIA

The four ecological attributes for WCC SNAs (from RPS23 in both the GWRC 2013 and 2022 operational RPS) are almost identical to the four ecological attributes outlined in Appendix 1 of the NPS-IB. The second and third attributes 'Diversity' and 'Rarity' are respectively titled ''Diversity and Pattern', and 'Rarity and Distinctiveness' in the NPS-IB.

- Representativeness
- Diversity (NPS-IB: Diversity and Pattern)
- Rarity (NPS-IB: Rarity and Distinctiveness)
- Ecological context

As prescribed in both the RPS23 and the NPS-IB, an area qualifies as significant if it met one or more of these four criteria.

2.1 Representativeness

The criteria for Representativeness, as outlined in RPS23, is generally consistent with the definitions in Appendix 1 of the NPS-IB. However, there are small discrepancies that may affect the outcomes of the assessments undertaken by Wildlands.

The RPS 23 defines Representativeness as:

"the ecosystems or habitats that are typical and characteristic examples of the full range of the original or current natural diversity of ecosystem and habitat types in a district or in the region, and:

- *i.* are no longer commonplace (less than about 30% remaining); or
- *ii.* are poorly represented in existing protected areas (less than about 20% legally protected)."

The NPS-IB defines the attributes of Representativeness as:

"the extent to which the indigenous vegetation or habitat of indigenous fauna in an area is typical or characteristic of the indigenous biodiversity of the relevant ecological district."

Where Definitions of Representativeness Align

The RPS23 criterion for representativeness includes the 'full range' and 'current' in the definition. Therefore, the commonly occurring indigenous vegetation types and degraded indigenous vegetation types, which the NPS-IB refers to as "*typical of what remains in depleted ecological districts*" and therefore representative (Appendix 1, A(4)), were also considered representative in the WCC assessment (e.g., regenerating māhoe forest and scrub).



Where Definitions of Representativeness Differ

The WCC SNA assessment not only included consideration of whether the ecosystem or habitats were representative, but also the extent to which the vegetation is remaining and/or was protected in Wellington District, i.e., it provides quantitative thresholds for areas remaining. However, the NPS-IB states that Representativeness "*may include commonplace indigenous vegetation and the habitats of indigenous fauna*" and "*is not a measure of how well the indigenous vegetation or habitat is protected elsewhere in the ecological district*." These discrepancies may have resulted in areas being excluded from WCC SNAs. For example, areas where the ecosystem or habitat represents a typical or characteristic example of the original or current diversity, did not qualify as a WCC SNA if it was commonplace (>30% remained), or was sufficiently protected elsewhere (>20% legally protected).

Vegetation was deemed to be significant in the WCC assessments if indigenous cover was dominant (i.e., >50% of cover). The NPS-IB does not include a dominance criterion but states that *"Representativeness is the extent to which the indigenous vegetation or habitat of indigenous fauna in an area of typical or characteristic of the indigenous biodiversity of the ecological district,"* noting that the habitat of significant indigenous fauna could be either indigenous or exotic (Appendix 1, A (3)). However, there is inconsistency in the Representativeness definitions used in the NPS-IB, whereby an area of indigenous fauna habitat dominated by exotic vegetation (e.g., exotic pasture grassland with indigenous lizard fauna) is unlikely to qualify for the first Representativeness criterion (the extent of vegetation or habitat is characteristic of the indigenous biodiversity of the relevant ecological district). It is acknowledged, however, that in such cases the Rarity and Distinctiveness criterion would most likely be triggered.

Finally, based on agreements at the 2015 workshop, Wildlands undertook assessments of areas of forest or scrub only if they were ≥ 0.5 hectares (wetlands were not set a minimum area criterion). The NPS-IB does not include a minimum area criterion for Representativeness of scrub or forest sites, which we consider is appropriate given that very small fragments of, say, alluvial swamp forest can still be highly representative.

2.2 Diversity (and Pattern)

The RPS23 defines the attribute of Diversity as: "the ecosystem or habitat has a natural diversity of ecological units, ecosystems, species and physical features within an area."

The NPS-IB defines the attributes of Diversity and Pattern as: "the extent to which the expected range of diversity and pattern of biological and physical components within the relevant ecological district is present in an area."

Based on the RPS23 definition, and following on from agreement reached in the 2015 workshop (Wildland Consultants and Kessels Ecology 2015), Wildlands proceeded to assess Diversity relative to the particular ecosystem or habitat type (as some may be naturally more diverse than other types), and relative to the pre-human baseline condition and other remaining similar ecosystems and habitats.



Where Definitions of Diversity (and Pattern) Align

Diversity and Pattern, as defined in the NPS-IB, is therefore consistent with the definition applied to SNA assessment by Wildlands for WCC, as both the NPS-IB and RPS23 prescribe Diversity (and Pattern) as the extent to which the expected range (i.e. the pre-human baseline, or remaining ecosystems and habitats) of biological and physical components is present.

Where Definitions of Diversity Differ

In our opinion, there are no meaningful deviations in NPS-IB methodology that would affect the outcomes of the Diversity assessments undertaken by Wildlands.

2.3 Rarity (and Distinctiveness)

The RPS23 defines the attribute of Rarity as:

"the ecosystem or habitat [having] biological or physical features that are scarce or threatened in a local, regional or national context. This can include individual species, rare and distinctive biological communities and physical features that are unusual or rare."

The NPS-IB defines the attributes of Rarity and Distinctiveness as: "the presence of rare or distinctive indigenous taxa, habitats of indigenous fauna, indigenous vegetation or ecosystems."

Based on the RPS23 definition, and following on from agreement reached in the 2015 workshop, Wildlands proceeded to assess Rarity for fauna based on species listed as Threatened or At Risk under the Department of Conservation threat classification system. The site also had to comprise important habitat for it to be significant (i.e., not sites visited by vagrants or the odd individual of a rare species), with confidence that the rare or threatened species would be located within this site if an appropriate fauna survey was undertaken. Rarity for flora species was assessed based on the relevant Department of Conservation threat classification system. For regionally scarce species, Department of Conservation has produced a list of plant species that are regionally threatened, including which district they are known to be scarce in Sawyer (2004). Regionally scarce species may also include plant species at their distribution limit or beyond known limits.

Where Definitions of Rarity (and Distinctiveness) Align

The NPS-IB considers Rarity and Distinctiveness to include uncommon or threatened indigenous elements, based on updated lists of Threatened or At Risk species. Rarity and Distinctiveness of biological features, as defined in the NPS-IB, is therefore consistent with part of the RPS23 definition of Rarity.

The NPS-IB includes a criterion that indigenous vegetation will be considered rare or distinctive if it has been reduced to less than 20 percent of its pre-human extent in the ecological district, region, or land environment. This is consistent with the methodology employed by Wildlands (and agreed upon at the 2015 workshop), namely that assessments involve consideration of the national Threatened Environment

Classification (Walker *et al.* 2008) to identify areas that comprise 20% or less indigenous cover remaining.

Where Definitions of Rarity (and Distinctiveness) Differ

Physical features are specifically mentioned in the RPS23 criterion to ensure the survival of indigenous habitat values that are particular to unique and important geological features. There is no mention of geological features in the definitions and attributes of Rarity and Distinctiveness in the NPS-IB. Therefore, there may be instances where an area was designated an SNA by WCC based on rare geological features alone, that may not qualify as Rare according to the NPS-IB. However, many rare geological features, such as limestone outcrops or active sand dunes, are also naturally uncommon, an attribute that would qualify the site for Rarity and Distinctiveness according to attribute 6(e) in Appendix 1 of the NPS-IB.

If a site features, or contains habitat for, an At Risk (declining) fauna or flora species, the NPS-IB (Appendix 1: 1 (2) and (3)) provides additional criteria that need to be met before the site would qualify as significant. If the species is widespread in at least three other regions, the area does not qualify as an SNA unless:

- The fauna or flora species is considered rare within the region or ecological habitat, or;
- Protection of the flora or fauna species at that location must be important for the persistence of the species as a whole.

Therefore, there is a discrepancy between the RPS23 and the NPS-IB methods, with the presence of a nationally or regionally rare fauna or flora species at a site automatically triggering the Rarity criteria in Wildland's WCC SNA assessment, whereas, the NPS-IB only accepts that criterion as being met if the species: is not widespread in at least three other regions, or it is widespread in three other regions, but is still considered rare within the ecological district, or protection of the species at that location is needed for the species to persist.

2.4 Ecological Context

The RPS23 defines the attributes of Ecological Context as:

"the ecosystem or habitat: (i) enhances connectivity or otherwise buffers representative, rare or diverse indigenous ecosystems and habitats; or (ii) provides seasonal or core habitat for protected or threatened indigenous species."

The NPS-IB defines the attribute of Ecological Context as:

"the extent to which the size, shape, and configuration of an area within the wider surrounding landscape contributes to its ability to maintain indigenous biodiversity or affects the ability of the surrounding landscape to maintain its indigenous biodiversity."

Based on the RPS23 definition, and following on from agreement reached in the 2015 workshop, Wildlands proceeded to assess Ecological Context based on whether a site: protects or buffers another significant site/provides connectivity or corridors for mobile



species, <u>and</u>¹; provides important habitat for indigenous species, or; contributes to ecosystem function across the wider landscape (including downstream ecological and hydrological processes).

Where Definitions of Ecological Context Align

Ecological Context, as defined in the NPS-IB, is therefore consistent with the definition applied to SNA assessment by Wildlands for WCC, as both the NPS-IB and RPS23 prescribe Ecological Context as a site that buffers or links important habitats of indigenous fauna, and contributes to ecological function of the wider area.

Where a Definition of Ecological Context Aligns with Representativeness

The NPS-IB states that an area be at least moderate in size and compact in shape. This size criterion aligns with the minimum size criterion (0.5 hectares) employed by Wildlands when assessing Representativeness of WCC SNA (see Representativeness section above).

Where Definitions of Ecological Context Differ

In our opinion, there no meaningful deviations in methodology that would affect the outcomes of the Ecological Context assessments undertaken by Wildlands.

2.5 Additional age criterion

Wildlands also informally considered an age criterion that would help to verify if a site was significant. Areas of indigenous vegetation >20 years old were considered significant if the assessment of significance using the four qualifying attributes alone resulted in a marginal result. Where there was doubt, it was assumed that habitat types of this age would likely be indigenous dominant, having shaded out fast-growing, light-demanding exotic species, and would likely have attained a species composition typical and characteristic of current habitat types, therefore qualifying for Representativeness. Analysis of historical aerial imagery was used to determine if a particular area of vegetation met the 20-year threshold.

Although there is no age criterion in Appendix 1 of the NPS-IB, this informal criterion used for assessment of WCC SNAs aligns with the NPS-IB criterion that "significant indigenous vegetation has ecological integrity typical of the indigenous vegetation of the ecological district in the present-day environment."

¹ At the 2015 workshop, it was generally agreed that these Ecological Context attributes would also qualify a site as either 'Representative, Diverse, or Rare', therefore Wildlands did not deem a site to be significant based solely on its role as a buffer or corridor.



3. CONCLUSION

Wildlands has undertaken a comparison of the SNA assessment approach and criteria used by WCC and Wildlands with those outlined in Appendix 1 of the recently released NPS-IB. Wildlands has identified discrepancies where sites that would qualify as significant according to the NPS-IB may not have qualified as an SNA under the WCC criteria. Specifically, regarding Representativeness, areas where the ecosystem or habitat represents a typical or characteristic example of the original or current diversity would not have qualified as a WCC SNA if it was considered commonplace (>30% remained), or sufficiently protected elsewhere (>20% legally protected). The NPS-IB however, regards commonplace and well-protected indigenous components as representative if they are typical or characteristic of the indigenous components of the relevant ecological district.

Furthermore, regarding Representativeness, the NPS-IB does not include a minimum area criterion for Representativeness of scrub or forest sites, whereas a 0.5 hectare minimum area was required by Wildlands for significant scrub or forest to qualify as a WCC SNA. However, the NPS-IB states that a site be moderate in size and compact in shape (see Ecological Context section above). Therefore, it is unlikely that very small sites excluded from WCC SNA status would qualify as significant in the NPS-IB unless they comprised a representative example of a rare habitat type.

We have also identified discrepancies where WCC SNA sites that qualified as significant may not qualify as significant under the NPS-IB criteria. Specifically, regarding Rarity and Distinctiveness, there is no mention of geological features in the definitions and attributes of Rarity and Distinctiveness in the NPS-IB. Therefore, there may be instances where an area designated as WCC SNA by Wildlands, based on rare geological features alone, may not qualify as rare according to the NPS-IB (noting, however, that some of these features could be assessed as naturally uncommon ecosystems and thus meet attribute 6(e) in Appendix 1 of the NPS-IB).

Furthermore, regarding Rarity, some WCC SNA sites will have been deemed significant because they featured a single Threatened or At Risk species. However, the species' distribution across the region would also need to be characterised to determine if it meets the additional criteria of Rarity and Distinctiveness in the NPS-IB. Regional data on species' distributions exist for multiple taxa in multiple sources¹, and will need to be consulted to resolve this discrepancy for SNAs in the Wellington Region.

¹ For sources of regional distribution data: DOC Threatened Plants database, and Sawyer 2004 (for plants); DOC Bioweb bat distribution database (for bats); eBird (<u>https://ebird.org/home</u>) for birds; DOC Bioweb herpetofauna database (e.g. for lizards); GBIF (<u>https://www.gbif.org/</u>) (for anecdotal observations of invertebrates).



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