LAND. PEOPLE. WATER.

4SIGHT CONSULTING

m.e consulting

Department of Conservation
Te Papa Atawhai

Ministry for the Environment
Manatū Mō Te Taiao

NATIONAL POLICY STATEMENT FOR INDIGENOUS BIODIVERSITY – SECTION 32 EVALUATION AND COST BENEFIT ANALYSIS

Department of Conservation
Strategic Policy

DRAFT REPORT

October 2019

REPORT INFORMATION AND QUALITY CONTROL

Prepared for:		
	Strategic Policy	Land and Air Policy
	Department of Conservation	Ministry for the Environment

Authors:	Jerome Wyeth Principal Planning and Policy Consultant 4Sight Consulting	
	Natalie Hampson Director Market Economics	
Reviewers:	Mark Ashby Principal Planning and Policy Consultant 4Sight Consulting	
	Douglas Fairgray Director Market Economics	
Approved for Release:	Jerome Wyeth Principal Planning and Policy Consultant	
Document Name	NPSIB Draft Section 32 Evaluation and CBA (V1_14.10.2019)	
Version History:	V0.1 – V0.3 - Drafts for client review	April to June 2019
	V0.4 – Final draft for client review	1.07.19
	V0.5 – Updated for NPSIB changes	29.08.19
	V1 – Final Draft	14.10.19

CONTENTS Page

List of Tables

List of Figures

List of Appendices

EXECUTIVE SUMMARY

Introduction

The Associate Minister for the Environment is proposing a National Policy Statement for Indigenous Biodiversity (**NPSIB**) under the Resource Management Act 1991 (**RMA**). The purpose of this report is to provide a draft section 32 evaluation of the NPSIB in accordance with the relevant provisions in the RMA and an indicative Cost Benefit Analysis (**CBA**). This report been prepared by 4Sight Consulting (**4Sight**) and Market Economics (**M.E**) for the Department of Conservation (**DOC**) and the Ministry for the Environment (**MfE**). It is a draft section 32 evaluation and indicative CBA to test the NPSIB prior to public consultation and help inform stakeholders on the likely impacts, benefits and costs of the NPSIB. It is based on the draft NPSIB provisions[1] provided to 4Sight and M.E (version 7)[2], a review of relevant policy papers prepared by officials, feedback and information provided by six case study councils, and a spatial analysis of data within those districts.

A number of key considerations and complexities have informed our overall approach to the draft section 32 evaluation and indicative CBA. These include uncertainties on how the NPSIB will be implemented, the alignment of the NPSIB with existing council approaches and plan provisions to manage indigenous biodiversity, landowner intentions and associated opportunity costs, gaps in information, and difficulties quantifying key benefits and costs. The impacts, costs and benefits of the NPSIB are also expected to vary significantly within, and between, regions and districts.

Addressing these matters in a section 32 evaluation and CBA is an inherently challenging task under the RMA and is particularly challenging for an NPS. This draft section 32 evaluation and indicative CBA is therefore largely based on:

- A qualitative assessment of benefits and costs of the NPSIB provisions;
- A case study approach to illustrate the potential impacts, benefits and costs in a selection of districts[3]; and
- An assessment of certain monetised and quantitative costs where possible – this is focused on indicative implementation cost ranges for councils and a spatial analysis of SNA coverage (actual and indicative) on different land uses in the selected case studies.

A number of key benefits (e.g. natural capital benefits from improved indigenous biodiversity) and costs (e.g. opportunity costs for landowners) have not been monetised/quantified at this stage. These benefits and costs will be assessed in more detail following consultation when a full national assessment of benefits and costs is undertaken. This will require some additional data collection and agreement on an approach to extrapolate NPSIB benefits and costs across all districts and regions.

4Sight and M.E anticipate that public consultation on the NPSIB will provide more detailed information on impacts, benefits and costs of the NPSIB to inform the final section 32 evaluation and CBA report. This will then enable the Minister to make a recommendation on the NPSIB in accordance with section 52 of the RMA. As such, this report should be treated as a draft document that will be refined, updated and finalised following public consultation.

Draft section 32 evaluation

Section 32 of the RMA requires an evaluation of a proposed national policy statement to determine whether:

- The objectives of the proposal are appropriate to achieve the purpose of the RMA; and

[1] The policies and Part 3 of the NPSIB (implementation requirements) are 'provisions' for the purposes of section 32 evaluation. This is in accordance with the definition of 'provisions' in section 32(6) of the RMA which includes policies or provisions that implement, or give effect to, the objectives of the proposal.

[2] There have been multiple, ongoing updates to the NPSIB and substantial structural changes since the draft section 32 report and CBA was first prepared. In some places, the analysis and numbering in this report may not reflect the version of the NPSIB consulted on. This will be addressed in final section 32 and CBA.

[3] Far North, Auckland, Waikato, Tasman, Westland, and Southland.

- The provisions of the proposal are the most appropriate to achieve those objectives by:
  - Identifying other reasonably practicable options for achieving the objectives; and
  - Assessing the efficiency and effectiveness of the provisions to achieve the objectives.

Overall, this draft section 32 evaluation found that the impacts, costs and benefits of the NPSIB are expected to vary significantly between, and within, regions and districts and for different land-uses, agencies and stakeholders. This evaluation has therefore focused on assessing the appropriateness, effectiveness and efficiency of the NPSIB objectives in a qualitative manner supported by some monetised and quantified costs from the indicative CBA, with the key findings outlined below.

Assessment of the appropriateness of the NPSIB objectives

Section 32(1) of the RMA requires that the evaluation examine the extent to which the objectives of the proposal are the most appropriate to achieve the purpose of the RMA. The draft section 32 evaluation concludes that the NPSIB objectives are collectively the most appropriate to achieve the purpose of the RMA. The NPSIB objectives are directly related to a number of matters in Part 2 of the RMA, most significantly section 5(2)(b) in terms of safeguarding the life-supporting capacity of ecosystems, section 6(c), section 6(e), section 7(aa), section 7(a) and section 8 of the RMA.

The key objective of the NPSIB is to maintain indigenous biodiversity. The combination of Objective 1 and the explanation of '*maintenance of indigenous biodiversity*' in the NPSIB provide greater clarity and direction to councils on what this means in practice. This will assist councils to carry out their functions under section 30(1)(ga) and 30(1)(b)(iii) of the RMA to maintain indigenous biodiversity and is directly related to the core problem the NPSIB seeks to address – the ongoing loss of New Zealand's terrestrial indigenous biodiversity.

The NPSIB objectives also recognise the importance of allowing people and communities to provide for their social, economic and cultural wellbeing. The implementing provisions recognise that maintaining indigenous biodiversity does not preclude subdivision, use and development in appropriate locations and forms and within appropriate limits – and this is a key focus of the effects management provisions in the NPSIB. Providing for appropriate subdivision, use and development within nationally consistent "bottom lines" that have been identified by experts as necessary to maintain indigenous biodiversity is fundamental to overall approach of the NPSIB, and is an effective and appropriate approach to achieve the purpose of the RMA.

The NPSIB objectives also seek to improve the role of tangata whenua in the management of indigenous biodiversity, consistent with the provisions in Part 2 of the RMA to recognise and provide for the relationship of tangata whenua with the environment and their taonga (section 6(e)), have particular regard to kaitiakitanga (section 7(a), and take into account Te Tiriti o Waitangi/Treaty of Waitangi (section 8). The NPSIB includes an objective to recognise and provide 'Hutia Te Rito' as the underlying concept in the management of indigenous biodiversity.. This concept seeks to provide a convergence of Māori and non-Māori world views in the management of indigenous biodiversity. The acceptability and feasibility of this conceptual framework needs to be further tested through public consultation to better understand its appropriateness in achieving the purpose of the RMA.

Reasonably other practicable options for achieving the objectives

Section 32(1)(b)(i) of the RMA requires that "*other reasonably practicable options to achieve the objectives*" are identified as part of the assessment of whether the provisions are the most appropriate way to achieve the objectives. This draft section 32 evaluation identifies the following options to achieve the NPSIB objectives:

- Increased guidance, support and funding;
- National Environmental Standards for Indigenous Biodiversity;
- A National Policy Statement focused on Terrestrial Indigenous Biodiversity; and
- A National Policy Statement that comprehensively addresses the terrestrial environment, freshwater, and the coastal marine area.

The assessment of options concluded that a National Policy Statement focused on terrestrial indigenous biodiversity is the most appropriate, efficient and effective option to achieve the NPSIB objectives. The NPSIB provides a comprehensive approach to manage indigenous biodiversity in the terrestrial environment. It provides clear direction on the outcomes sought for indigenous biodiversity, while also providing some flexibility for councils to respond to

local pressures and priorities. This is achieved through a combination of prescriptive provisions that provide clear 'environmental bottom lines' and leave little room for interpretation and other provisions that provide more discretion and flexibility to promote and incentivise good outcomes. Further, the NPSIB builds on the draft NPS prepared by the Biodiversity Collaborative Group (**BCG**) which has significant buy-in from key stakeholders and involved considerable technical input and advice.

Increased guidance, support and training is considered to be critical to support the implementation of the NPSIB. Comprehensive guidance and support from central government is necessary to achieve the efficient and effective implementation of the NPSIB given that some of the requirements will be new, complex and resource intensive for councils, and the capacity of councils to effectively implement the NPSIB requirements (e.g. map Significant Natural Areas (**SNAs**)) is highly varied. It is also important that the NPSIB retains some policy direction to improve integrated management of indigenous biodiversity across the terrestrial environment, freshwater, and coastal marine area and there is close alignment with the National Policy Statement for Freshwater Management (**NPSFM**) and the New Zealand Coastal Policy Statement 2010 (**NZCPS**). This is necessary to ensure the NPSIB provisions achieve Objective 4 of the NPSIB to improve the integrated management of indigenous biodiversity.

Assessment of effectiveness and efficiency

Effectiveness

The assessment of the effectiveness of the NPSIB provisions focuses on the how successful they are likely to be to achieve the NPSIB objectives and address the identified issues. Overall, this evaluation concludes that the NPSIB provisions are likely to be effective to achieve the NPSIB objectives.

In particular, the NPSIB provisions are likely to be effective to achieve the key objective to maintain indigenous biodiversity as they require a comprehensive range of actions to protect, maintain, restore and enhance indigenous biodiversity. A key focus of the NPSIB provisions is the identification and protection of SNAs. The NPSIB will require a nationally consistent approach to identify SNAs based on existing best practice and introduce nationally consistent bottom lines to avoid and manage adverse effects within SNAs. It will also introduce a nationally consistent effects management regime for indigenous biodiversity within and outside SNAs. This 'effects management hierarchy' is clearly defined in the NPSIB and is based on best practice nationally and internationally. This comprehensive approach is expected to be effective to protect SNAs and contribute to the maintenance of indigenous biodiversity.

Complementing these provisions is a combination of provisions in the NPSIB to restore and enhance indigenous biodiversity focusing on those areas that need it most. These actions are to be articulated through a regional biodiversity strategy developed in a collaborative manner between councils, tangata whenua, landowners and the wider community. This is likely to be an effective approach to incentivise positive efforts, form partnerships between councils and communities, and foster contributions from landowners to restore and enhance indigenous biodiversity and achieve the NPSIB objectives.

There is an inevitable tension between the effectiveness of the NPSIB provisions to maintain indigenous biodiversity (Objective 1) while also allowing people and communities to provide for social, economic and cultural well-being (Objective 6). The NPSIB provisions seek to 'strike the right balance' by providing clear direction on the adverse effects that need to be avoided and the effects management hierarchy that must be followed for other adverse effects, while allowing for a limited range of exceptions with clearly defined parameters. This is likely to be an effective approach to achieve the NPSIB objectives by ensuring subdivision, use and development occurs in appropriate locations forms, and within appropriate limits, in order to maintain indigenous biodiversity.

Efficiency

The assessment of the efficiency of the NPSIB provisions in **section 7** of this report is focused on the main environmental, economic, social and cultural benefits and costs anticipated from the NPSIB policies and implementing requirements in Part 3 of the NPSIB. This assessment identifies a range of expected benefits and costs from the implementation of the NPSIB provisions, with these impacting stakeholders in different ways and some having greater relative benefits and costs than others. The overall benefits and costs anticipated from the NPSIB provisions are detailed in the indicative CBA findings below.

Risk of acting where there is uncertain or insufficient information

Section 32(2)(c) of the RMA requires an assessment of the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions. There is a high level of certainty that the NPSIB provisions will improve the management of indigenous biodiversity under the RMA and lead to improved outcomes for indigenous biodiversity in the terrestrial environment. In particular, the provisions will provide a more robust, nationally consistent approach to identify and protect SNAs and provide greater clarity and direction on how to maintain, restore and enhance indigenous biodiversity.

However, there are still some large uncertainties and information gaps on the actual impacts, benefits and costs of certain NPSIB provisions at the local, regional and national level. In particular:

- **Hutia Te Rito** - there is a degree of uncertainty on what Hutia Te Rito means in practice and how this will be given effect to by councils. Stakeholders have expressed general support for the concept but further clarity on what it means.
- **Identification and extent of SNAs** - there is uncertainty (and potential risks) in terms of the extent of indigenous vegetation and habitats that will be identified as SNAs. Ecological advice has been that NPSIB criteria are consistent with more recent plans and policy statements and are not unduly restrictive. It is important that this assumption is thoroughly tested through public consultation to better understand the likely benefits and costs.
- **Effects to be avoided in SNAs –** there is a degree of uncertainty on what the requirement to "avoid" certain adverse effects within SNAs will mean in practice for new subdivision, use and development. Ecological advice suggests only very small-scale activities will be able to occur within the 'environmental bottom lines' provided for in Part 3.9(1) and most new subdivision, use and development managed under this provision will be heavily restricted (or effectively precluded).
- **Impacts on specific subdivisions, uses and development** – there is a degree of uncertainty in the extent of SNAs that will be ranked 'High (H)' and 'Medium (M)' in accordance with Appendix 2 of the NPSIB. This has significant implications and potential costs for certain subdivision, use and development provided for in Part 3.9 of the NPSIB in terms of whether certain adverse must be avoided and/or managed in accordance with the effects management hierarchy.

These findings from the draft section 32 evaluation are intended to inform public consultation on the NPSIB. The expectation is that more detailed information and feedback on the likely impacts, benefits and costs of the NPSIB provisions will be collected and analysed during and post public consultation to address these (and other) uncertainties and potential implementation risks.

Case Study Summary

A key focus of the CBA is understanding the scale and significance of potential costs and opportunity costs to landowners associated with the presence of SNAs, and particularly High SNAs where effects on SNAs must be avoided. This relates to the ability for existing activities to continue (under Policy 10) and for new use, development and subdivision (Policy 8, Part 3.9). The analysis considers Māori land separately from general land and examines the relationship between SNA coverage of each property and property size. The basic assumption of the spatial analysis is that as coverage increases and the property size decreases, the amount of land available to develop outside of SNAs reduces and may increasingly constrain the ability to subdivide, use or develop that property (e.g. construction of a new dwelling, papakainga, marae or another new activity).

The councils included in the case studies were Far North District, Auckland, Waikato District, Tasman District, Westland District and Southland District. The case studies involved a semi-structured interview with the councils and a desktop analysis of spatial data within each district to understand the potential impact of the NPSIB for different land uses and activities. The focus of the spatial analysis was the policies and provisions relating to the identification of SNAs and the management of adverse effects of specific subdivisions, uses and developments within SNAs.

The purpose of the spatial analysis was to provide a baseline assessment of the current geography of relevant land covers, land uses and land ownership structures and how these intersect with the presence of actual (or indicative) SNAs. Where a council has mapped SNAs these have been used for the spatial analysis. This applies to Waikato and Auckland. Where a case study council has not carried out or completed SNA mapping, a 'proxy' for SNAs in that district

has been developed to allow for consistent analysis. This applies for the Far North, Tasman, Westland and Southland districts.

The proxy for SNAs was based on indigenous land cover (based on a combination of landcovers included in the Land Cover Data Base (**LCDB**). This overestimates the extent of SNAs likely to be identified under NPSIB. The ground-truthing required under the NPSIB (where practicable) is expected to remove a portion of this area and add in other areas not captured by the indigenous land cover.

The NPSIB manages effects of certain activities on SNAs based on whether the SNA has a 'High' or 'Medium' rating in accordance with Appendix 2 of the NPSIB. Waikato District and Auckland Council have not categorised their SNAs in this way, and this would be a new requirement under the NPSIB. To capture this distinction for the purpose of the spatial analysis, the approach has been to categorise all defined SNAs and 'Indicative SNAs' (proxy analysis)e that fall within the <20% indigenous biodiversity coverage area of the Threatened Environments Classification (**TEC**) dataset as 'Indicative High' SNAs, which is consistent with the 'rarity and distinctiveness' attribute in the NPSIB. The balance default to 'Indicative Medium' SNAs for the purpose of this analysis. This is a simplified approach and does not capture all of the indicators that would qualify an SNA as having a High rating in accordance with Appendix 2 of the NPSIB.

Table 1 compares a selection of results from the spatial analysis. Waikato District and Auckland have defined a very different number of discrete SNAs, but the combined area is similar – both accounting for 16% of total land area. However, Auckland has yet to map SNAs on the Hauraki Gulf Islands and any additional SNAs will raise this percentage and in doing so increase the coverage of DOC administered land which is concentrated on the islands (and currently under-represented).

The case study areas contain very different extents of DOC administered land. Inclusion of DOC land within SNAs is expected to be high (i.e. 87% is included in Waikato District's defined SNAs). This is a relevant issue in terms of both the cost of mapping SNAs and the benefits that the NPSIB can achieve in a district (when much of the indigenous biodiversity is already protected through other mechanisms).

The spatial analysis indicates that Indicative High SNAs affect between 0% and 8% of general land properties across the case study areas. Further, between 0% and 1% of total general land properties have >80% of Indicative High SNA coverage – with only a small proportion of those being small properties less than 1ha. The incidence of actual or Indicative SNAs on Māori land is more significant. Across the case studies, between 0% and 18% of total Māori land properties contain an area of Indicative High SNA. Between 0% and 4% have >80% Indicative High SNA coverage. Few of these are small properties.

A limitation of the spatial analysis is that it is not known how many of the properties estimated to contain an SNA are undeveloped. Nor are the development or subdivision aspirations of those properties known. Both are relevant to the probability of costs and opportunity costs faced by landowners.

Table 1: Comparison of Key Case Study Parameters.

High Level Paramaters	Based on Defined SNAs		Indicative Only - Based on Proxy SNA			
	Waikato District	Auckland Region	Far North District	Tasman District	Westland Dsitrict	Southland District
SNA (Terrestrial) Count (n)	697	3,637	N/A	N/A	N/A	N/A
SNA (Terrestrial) Area (ha) - Includes DOC Administered Land	70,693	79,093	263,885 *	658,806*	762,868*	1,708,330*
SNA (Terrestrial) Area (ha) - Excluding DOC Administered Land **	46,316	71,823	166410 *	86230 *	48765 *	225250 *
Total District Land Area (ha)	435,289	489,228	662,466	956,381	1,164,466	2,927,376
Total District Land Area (ha) - Excluding DOC Administered Land **	419,836	459,920	559,851	339,304	149,788	1,190,714
SNA Coverage of Total District Land Area (%)	16%	16%	40%	69%	66%	58%
SNA Coverage of Total District Land Area - Excluding DOC Administered Land (%) **	11%	16%	30%	25%	33%	19%
Indigenous Land Cover (LCDB) (ha)	66,883	126,028	263,620	658,798	762,868	1,708,330
Indigenous Land Cover (LCDB) as Share of Total Land Area (%)	15%	26%	40%	69%	66%	58%
DOC Administered Land Area (ha)	26,283	29,176	109,341	625,669	1,036,484	1,829,126
SNA Coverage of DOC Land (%)	87%	19%	89%	92%	69%	81%
Maori Land Court Tenure Land Area (ha)	19,573	6,967	102,613	107	3,841	39,203
SNA Coverage of Maori Land Area (%)	47%	18%	50%	4%	47%	83%
Estimated Number of Maori Land Properties (n)	659	227	3,688	24	105	485
Percentage of Maori Land Properties Containing Indicative Medium SNA (%)	16%	14%	48%	29%	62%	73%
Percentage of Maori Land Properties Containing >80% Indicative Medium SNA Coverage (%)	9%	4%	17%	4%	25%	55%
Percentage of Maori Land Properties Containing Indicative High SNA (%)	18%	11%	15%	8%	-	6%
Percentage of Maori Land Properties Containing >80% Indicative High SNA Coverage (%)	3%	1%	3%	4%	-	4%
General Land Tenure Land Area (ha)	387,992	433,112	403,171	284,707	119,140	981,210
SNA Coverage of General Land (%)	9%	16%	26%	28%	30%	10%
Estimated Number of General Land Properties (n)	29,475	419,049	32,198	40,667	7,727	39,497
Percentage of General Land Properties Containing Indicative Medium SNA (%)	4%	5%	25%	15%	37%	7%
Percentage of General Land Properties Containing >80% Indicative Medium SNA Coverage (%)	0.4%	1%	7%	4%	10%	1%
Percentage of General Land Properties Containing Indicative High SNA (%)	8%	1%	6%	6%	-	4%
Percentage of General Land Properties Containing >80% Indicative High SNA Coverage (%)	0.4%	0.04%	1%	1%	-	0.2%

* Proxy for SNAs was based on indigenous land cover (based on a combination of land covers included in the Land Cover Data Base (LCDB)).
This overestimates the extent of SNAs likely to be identified under the NPSIB.
** Includes the following tenures: Crown, General, Maori Land Court, Treaty Settlement and Not Specified. Excludes DOC administered land.

CBA Summary

The provisions in the RMA relating to indigenous biodiversity are considered to be unclear. Without national guidance and improved national policy on this issue (i.e. the counterfactual scenario), it is likely that councils across New Zealand will continue to manage indigenous biodiversity inconsistently, practice will continue to vary, and indigenous biodiversity will continue to decline.

The indicative CBA addresses the 'with NPSIB' scenario – bundling all policies and provisions in the NPSIB for the purposes of the analysis of benefits and costs. The indicative CBA has identified and reported on a range of indicative costs and benefits using a mix of qualitative, quantitative and monetised approaches. This analysis has involved consideration of the NPSIB draft provisions, the BCG report, discussions with officials on changes to the BCG draft NPS provisions, draft RIS report, official's analysis, and feedback from interviews with case study councils, along with general input from the NPSIB project team.

Summary of benefits of the NPSIB

The main benefits of the NPSIB are those to New Zealand's natural capital – the biophysical benefits of achieving the objectives of the NPSIB are significant and the flow-on effects will be felt by current and future generations in terms of the ecosystem services and wider direct and indirect use values and non-use values provided by, and associated with, terrestrial indigenous biodiversity.

The main beneficiaries of implementing the NPSIB as a planning instrument are the community at large, councils, central government, landowners and tangata whenua. The community will benefit to the extent that protection and enhancement of natural capital will be improved by the NPSIB. Councils will benefit from clear policy direction which will allow them to manage indigenous biodiversity and other land use activities more effectively and efficiently, which is likely to translate to cost savings over time and reduced litigation. Central government will benefit from a better flow of targeted, up-to-date information on the state of indigenous biodiversity from the regions. This will build a more robust and accurate evidence base that will allow for more effective investment and future planning. Similarly, regional councils will be better placed to evaluate the effectiveness of their regulatory framework as a result of developing and implementing a regional monitoring plan and a regional biodiversity strategy.

Achieving greater consistency in the management of indigenous biodiversity across regional policy statements, regional plans and district plans will lead to a more effective and efficient national resource management system. Landowners, including Māori landowners, and owners of forestry, mining and extractive industries, and providers of national infrastructure will all benefit from greater certainty on the location and value of SNAs and indigenous biodiversity generally while maintaining their ability to carry out existing and new activities where the effects on indigenous biodiversity are minor and can be avoided, remedied, mitigated, offset, and in certain cases, compensated. Tangata whenua will benefit from greater involvement in resource management and decision making that impacts on indigenous biodiversity through better incorporation of the concepts of Te Ao Māori, matauranga Māori and tikanga Māori in council practices.

Summary of costs of the NPSIB

The majority of the costs generated by the NPSIB fall on councils and to a lesser extent central government and tangata whenua to implement the proposed policies. Councils are required to carry out extensive, resource intensive and costly processes to identify and map SNAs, including undertaking physical inspections where practicable and engagement with landowners. Assuming no work has been completed on scheduling SNAs, these costs have been estimated $590,000-$1,095,000 per council in present value terms.

Council will also need to undertake extensive work to identify possible habitats of highly mobile fauna, taonga species, degraded and depleted environments, and areas targeted for restoration and enhancement. Regional biodiversity strategies are estimated to cost regional/unitary authorities $60,000-$112,000 (present value) each.

Giving effect to the NPSIB will also require councils to develop new/revised provisions to manage indigenous biodiversity and progress these changes to regional policy statements and district plans through the Schedule 1 process (including engagement, notification, public submissions, hearings and potential litigation and appeals). Plan change costs to implement the NPSIB are estimated to range from $71,000-$176,000 (present value) per regional council and $211,000-$247,000 (present value) per unitary authority. District council plan change costs fall within this indicative range. In addition, the requirement for two yearly plan changes to update SNA schedules are estimated at

an additional $64,000-129,000 (present value) per council over the period to 2050. Regional councils/unitary authorities will also face costs to develop and implement a regional indigenous biodiversity monitoring plan. This set up and ongoing operational cost is estimated at $955,000-$3,820,000 (present value) each over the next 30 years. The estimated range is wide as it will be heavily influenced on how comprehensive existing monitoring of the state of indigenous biodiversity is within the region.

Tangata whenua and other stakeholders will face costs (including time and financial) to resource their involvement in these processes although this may be supported to an extent by councils and central government.

Total guidance and support costs for central government have been estimated at between $1.77m-$2.65m in present value terms (excluding costs for Ministry for the Environment to review the effect and implementation of the NPSIB).

Lastly, landowners and infrastructure providers may face increased costs to manage the effects of their activities on indigenous biodiversity as well as potential opportunity costs to subdivide, use and develop land (over and above the status quo). This will primarily occur when subdivision, use and development is within a SNA which may result in planned activities being moved, scaled-down or modified, and in some cases prevented altogether, to ensure that certain adverse effects on High SNAs are avoided or are appropriately avoided, remedied, mitigated, offset, or compensated in accordance with the effects management hierarchy (when the NPSIB provision allow for this). Opportunity costs have been partially quantified through spatial analysis of SNA coverage on different land uses in the case studies. Potential impacts on individual property owners may be significant, but only a small percentage of landowners is expected to face significant opportunity costs.

Conclusions of the Draft Section 32 and Indicative CBA

Overall, the long-term environmental benefits of achieving the objectives of the NPSIB will be wide-spread and will be felt by current and future generations. The indigenous biodiversity loss avoided, and the enhancements to indigenous biodiversity achieved in any one district or region does not just benefit communities in that district or region but will benefit the wellbeing of wider New Zealand (and beyond). This is because indigenous biodiversity is a public good that delivers multiple benefits.

Other costs and benefits of the NPSIB will primarily be borne more locally - at the district and regional level[4]. A key cost of the NPSIB will be the requirement to implement a more spatially explicit and stringent planning framework to protect SNAs and maintain indigenous biodiversity. These costs are expected to be significant for some councils, although actual costs will depend on the level of change required from current provisions relative to NPSIB requirements and/or their ability to fund the implementation of the NPSIB. These are mostly short-term costs and it is expected that the ongoing implementation costs of the NPSIB will reduce substantially over time.

A key finding of the draft section 32 and indicative CBA is that there is a high level of variability in how the NPSIB will impact each council area. The type, scale, geography and tenure of indigenous biodiversity is highly varied throughout New Zealand, as is the extent to which councils already provide for indigenous biodiversity protection, maintenance, restoration and enhancement in their plans, consenting and monitoring (in terms of scope and effectiveness). This presents challenges for estimating benefits and costs for any one council area, and in aggregate across New Zealand.

Preventing the further loss indigenous biodiversity is critical and enhancing indigenous biodiversity will contribute directly to social, cultural and economic wellbeing. Further work is needed to quantify and monetise the costs and benefits identified in this indicative CBA (where practicable) following public consultation. However, the analysis completed to date (including the six case studies) supports the preliminary conclusion that the aggregate, long-term and cumulative benefits of implementing the NPSIB will, on balance, outweigh the expected aggregate and generally short-term costs. The NPSIB objectives and implementing provisions will help to achieve the purpose of the RMA to promote sustainable management through maintaining New Zealand's terrestrial indigenous biodiversity while also enabling subdivision, use and development to provide for social, economic and cultural benefits within appropriate limits.

[4] With the exception of central government, national infrastructure providers, and businesses that operate at a national level.

1 INTRODUCTION

1.1 Purpose of report

The Associate Minister for the Environment is proposing a National Policy Statement for Indigenous Biodiversity (**NPSIB**) under the Resource Management Act 1991 (**RMA**). The purpose of this report is to provide a draft section 32 evaluation and indicative Cost Benefit Analysis (**CBA**) of the NPSIB in accordance with the relevant provisions in the RMA. Specifically, this report provides:

- An evaluation of the extent to which the objectives in the NPSIB are the most appropriate way to achieve the purpose of the RMA;
- An evaluation of whether the provisions[5] in the NPSIB are the most appropriate to achieve the objectives, including:
  - Identifying other reasonably practicable options for achieving the objectives;
  - Assessing the efficiency and effectiveness of the provisions;
  - Assessing the risk or acting or not acting where there is insufficient or uncertain information; and
- A CBA of the NPSIB that focuses on key policies and adopts a case study approach to identify the key effects, benefits and costs anticipated from the NPSIB in six districts[6].

This report been prepared by 4Sight Consulting (**4Sight**) and Market Economics (**M.E**) for the Department of Conservation (**DOC**) and Ministry for the Environment (**MfE**). It is a draft section 32 evaluation and indicative CBA to inform public consultation by helping to inform stakeholders on the likely impacts, benefits and costs of the NPSIB. It is based on the draft NPSIB provisions provided to 4Sight and M.E (version 7)[7], a review of relevant policy papers, feedback and information provided by six case study councils, and a spatial analysis of data within those districts.

The impacts, costs and benefits of the NPSIB are expected to vary significantly within, and between, regions and districts. They will also vary for different land uses and activities, and for different agencies and stakeholders. This draft section 32 evaluation and CBA is therefore largely based a qualitative assessment of benefits and costs and a case study approach to illustrate the potential impacts, benefits and costs that are anticipated from the NPSIB provisions. A number of key benefits (e.g. natural capital benefits from improved indigenous biodiversity) and costs (e.g. opportunity costs for landowners) have not been monetised/quantified at this stage. These benefits and costs will be assessed in more detail following public consultation which is expected to provide more detailed information on impacts, benefits and costs of the NPSIB provisions. This will then enable the Minister to make a recommendation on the NPSIB in accordance with section 52 of the RMA. As such, this report should be treated as living document that will be refined, updated and finalised following public consultation.

There are two key areas of the NPSIB where the preferred policy approach was not confirmed when this report was prepared – SNA identification on Crown Land and public conservation land and the application of the NPSIB to geothermal areas. It is understood that officials will be seeking feedback on policy options on these unresolved areas through public consultation. As such, these options have not been assessed in this draft section 32 evaluation and indicative CBA but will be assessed in detail following consultation.

1.2 Overview of the NPSIB

The NPSIB is a National Policy Statement (**NPS**) prepared pursuant to sections 45 to 55 of the RMA. The purpose of an NPS is to state objectives and policies for matters of national significance that are relevant to achieving the purpose

[5] Note that both the policies and Part 3 of the NPSIB (implementing objectives and policies) are 'provisions' for the purposes of section 32 evaluation. This is in accordance with the definition of provisions in section 32(6) of the RMA which includes policies or provisions that implement, or give effect to, the objectives of the proposal.

[6] Far North, Auckland, Waikato, Tasman, Westland and Southland.

[7] Note that there have been multiple, ongoing updates to the NPSIB and substantial structural changes since this report was first prepared. In some places, the analysis and numbering in this report may not reflect the version of the NPSIB consulted on. This will be addressed in final section 32 and CBA.

of the RMA. An NPS must include objectives and policies and may also state methods and other requirements that regional councils and territorial authorities (**councils**) must include in their policy statements and plans[8]. Council must "give effect to" relevant NPS provisions through their regional policy statements and plans[9]. Consent authorities must also "have regard to" relevant provisions of an NPS when considering an application for resource consent[10].

The NPSIB is a comprehensive proposed NPS focused on the protection, management and enhancement of terrestrial indigenous biodiversity, with some provisions that relate to the restoration of wetlands. A decision was made by officials to limit the scope of the NPSIB to focus on indigenous biodiversity in the terrestrial environment at this point of time given that there is already other national direction in place to manage indigenous biodiversity in freshwater and the coastal environment. This also recognises that the methods to manage terrestrial indigenous biodiversity are well established and there is a greater urgency to protect indigenous biodiversity on private land.

The key objective of the NPSIB is to maintain indigenous biodiversity which is a core function of regional councils and territorial authorities under section 30(1)(ga) and 30(1)(b)(iii) of the RMA. The NPSIB objectives also seek to:

- Take into account the principles of the Te Tiriti o Waitangi/Treaty of Waitangi in the management of indigenous biodiversity;
- Recognise and provide for Hutia Te Rito in the management of indigenous biodiversity;
- Improve the integrated management of indigenous biodiversity;
- Restore indigenous biodiversity and enhance the ecological integrity of ecosystems; and
- Recognise the role of landowners, communities and tangata whenua as stewards and kaitiaki of indigenous biodiversity.

To achieve these objectives, the NPSIB includes a comprehensive package of provisions (policies in Part 2.2 and 'Implementation Requirements' in Part 3) addressing all aspects of indigenous biodiversity protection, maintenance, restoration, enhancement and monitoring. Many of the provisions in the NPSIB are highly prescriptive, detailed and complex and will represent a substantial shift in practice in many areas across New Zealand.

The comprehensive nature of the NPSIB provisions means that guidance and support from central government will be critical to achieve the effective and efficient implementation of the NPSIB and help to reduce the administrative burden and costs for councils. This is discussed throughout this report and feedback on implementation support for the NPSIB will be sought through public consultation.

1.3 Background and development of the NPSIB

The need for greater national direction on indigenous biodiversity under the RMA has been identified for some time with a number of unsuccessful attempts to develop an NPS.

1.3.1 Development of national policy on biodiversity prior to 2016

In April 2007, the then Minister for the Environment and Minister of Conservation issued a statement of national priorities for protecting rare and threatened native species on private land. This statement of priorities provided greater guidance on indigenous biodiversity management to councils and other decision-makers.

In 2009, the Government agreed to progress work on a proposed NPS for Indigenous Biodiversity. In January 2012, a proposed NPS for Indigenous Biodiversity was released for public consultation via the alternative (Minister-led) process. 426 submissions were received on the proposed NPS. The proposed NPS was well supported by research institutions, community groups and conservation interests. Local Government New Zealand submitted in general support of the proposed NPS on behalf of more than 80 councils. The main opposition to the NPS came from private landowners, business and industry. In the end, this proposed NPS version was not progressed due to mixed stakeholder support and a change in Government priorities.

[8] Sections 45A(1) and 45A(2).

[9] Section 62(3), 67(3)(a) and 75(3)(a).

[10] Section 104(1)(b)(iii).

1.3.2 The Biodiversity Collaborative Group

In 2016, the then Minister for the Environment announced that a collaborative group would be formed to draft an NPS for Indigenous Biodiversity. In 2017, the Biodiversity Collaborative Group (**BCG**) was formed. The BCG included representatives from Royal Forest and Bird Protection Society of New Zealand Incorporated, Federated Farmers of New Zealand Incorporated, New Zealand Forest Owners Association, Environmental Defence Society Incorporated, the Iwi Chairs Forum (through the Conservation and Freshwater Iwi Leadership Group) and representatives from the extractive/infrastructure industries. The BCG's purpose, as set out in their terms of reference, was:

> *To ensure that Aotearoa/New Zealand's unique biodiversity is protected and supported to thrive through the collaborative efforts of iwi, landowners, stewards, the Government and advocates.*

The explicit role of the BCG was to:

i. *Develop a draft National Policy Statement on Indigenous Biodiversity; and*

ii. *Make recommendations on supporting and complementary measures to address agreed issues and opportunities for biodiversity.*

The work of the BCG ran over 18-months and, on 25 October 2018, the group provided its recommendations in the form of a draft National Policy Statement on Indigenous Biodiversity and a report on complementary and supporting measures. The BCG considered the appropriate balance between what should be included in the National Policy Statement as regulatory measures and what should be included as part of the (largely non-regulatory) supporting and complementary measures. The BCG concluded that a comprehensive and detailed National Policy Statement would be the most effective approach.

In preparing the draft NPS and their recommendations, the BCG drew on considerable expertise from central and local government, tangata whenua, landowners, infrastructure providers, environmental groups, research agencies and experts. This was to ensure the BCG had a robust evidence-based approach to policy.

1.4 Structure of report

This report is structured as follows:

- **Section 2:** Approach to evaluation and CBA;
- **Section 3:** Statutory assessment;
- **Section 4:** Status quo and problem statement;
- **Section 5**: Evaluation of objectives;
- **Section 6:** Assessment of reasonably practicable options;
- **Section 7**: Assessment of efficiency and effectiveness;
- **Section 8**: Indicative CBA;
- **Section 9**: Case studies – summary of key findings; and
- **Section 10:** Conclusion.

This report includes the following appendices: **Appendix A**: High-level CBA of the NPSIB and **Appendix B:** Monetised implementation costs analysis. The detailed case study spatial analysis (**Appendix C**) is provided as a separate document.

2 APPROACH TO EVALUATION AND COST BENEFIT ANALYSIS

2.1 Key issues and considerations informing our approach

There are a number of key issues and considerations that have informed the approach to the draft section 32 evaluation and the indicative CBA:

- **Implementation of the NPSIB:** it is not possible to know exactly how the NPSIB will be implemented by each council and translate into objectives, policies, rules and other methods within their plans and policy statements. While the NPSIB provides some clear policy direction, there is still an inherent level of flexibility (and hence variation) in how councils "give effect to" the NPSIB through plan provisions.
- **The relationship between existing SNAs in district plans and the NPSIB**: it is well known than the approach to identify and map SNAs is highly variable and this is a key driver for the NPSIB. Some analysis has been undertaken by officials and their ecologists to examine the extent to which existing SNA criteria and schedules align with the NPSIB to provide an indication of what further work is required. However, there is still uncertainty on the extent of work required by councils across New Zealand to align their existing SNAs with the NPSIB and the associated costs and effort. This is expected to vary considerably between districts as highlighted in the case studies.
- **Landowner intentions:** the impacts of certain NPSIB provisions (e.g. SNA protection) will depend on landowner intentions for land in terms of future use, development and subdivision ambitions, and the timing and frequency of future development. This is not known and cannot be predicted with any real level of confidence. For example, the NPSIB may result in the identification and protection of a SNA on private land but the landowner may have no intention to develop that land (e.g. a pocket of marginal, steep land within a farming enterprise). Conversely, the introduction of new rules to protect SNAs may have opportunity costs for landowners in areas where there are greater pressures for development and subdivision. This has implications for the assessment of likely impacts and costs of certain NPSIB provisions.
- **Quantifying benefits and costs**: many of the benefits of the NPSIB are impracticable to quantify. One set of benefits is greater consistency of local level regulation, and greater certainty to landowners and decision makers. Such outcomes are very difficult to quantify. The key benefit anticipated from the NPSIB is improved indigenous biodiversity outcomes and such benefits are well recognised as being difficult to quantify.

Addressing these matters in a section 32 evaluation and CBA is an inherently challenging task for any proposal under the RMA and is particularly challenging for an NPS. The impacts, costs and benefits of the NPSIB are also expected to vary significantly within, and between, regions and districts and for different land uses and activities, agencies and stakeholders. This draft section 32 evaluation and indicative CBA is therefore largely based on a **case study approach** to illustrate the potential impacts, benefits and costs that are anticipated from the NPSIB provisions in a selection of districts. This is the preferred approach at this time until more detailed information is collected to enable a national assessment of benefits and costs to be undertaken. This will occur following public consultation and will require an agreement on an approach to extrapolate benefits and costs across all districts and regions.

2.2 Approach to section 32 evaluation

The approach to the section 32 evaluation is structured in accordance with the requirements set out in the RMA:

- **Section 5** - An evaluation of the objectives of the NPSIB (section 32(1)(a));.
- **Section 6** - An assessment of other reasonably practical options to achieve the objectives (section 32(b)(i)); and
- **Section 7** - An assessment of the effectiveness and efficiency of proposed provisions (section 32(b)(ii)).

As part of the assessment of the effectiveness and efficiency of the provisions, the assessment also considers the risk of acting where there is uncertain or insufficient information (section 32(2)(c)).

There is a moderate level of uncertainty about the nature and scale of the benefits and costs that are likely to arise from certain NPSIB provisions and how they will impact different stakeholders. This is a draft section 32 evaluation and the expectation is that public consultation will provide more detailed information on the impacts of NPSIB provisions. This will help ensure there is sufficient certainty on the benefits and costs of the NPSIB provisions when the section 32 evaluation is finalised.

2.3 Approach to Indicative Cost Benefit Analysis

The indicative CBA approach is focused on:

- A high-level identification of costs and benefits based on interpretation of the direct and consequent effects and processes that arise as a result of the NPSIB provisions (**section 8** and **Appendix A**); and
- A quantitative and qualitative assessment of costs and benefits of the NPSIB for six case study districts to more specifically test the potential impacts, costs and benefits arising from key NPSIB provisions (agreed in collaboration with DOC) (**Section 9** and **Appendix C**).

Developing the case studies involved discussions with each council to understand their current approach to indigenous biodiversity management and the likely impacts, benefits and costs of the NPSIB. It did not involve discussions with tangata whenua, landowners or other stakeholders likely to be impacted by the NPSIB provisions in each district. Implementation cost estimates were obtained from the selected councils where possible to assist with the quantification of these costs. However, the implementation cost information obtained was highly variable and, in most cases, limited to rough order estimates. As such, this cost information has been used to illustrate the **range** of implementation costs than might be incurred under the NPSIB rather than provide robust estimates. These monetised implementation cost ranges for councils are discussed further in **Appendix B**.

The costs and benefits to other parties are described largely in a qualitative manner and are indicative only as discussions with these parties was outside the scope of this stage of the CBA. However, the spatial analysis for the case studies does provide some quantification of impacts for different land uses based on SNA coverage (actual and Indicative). The key provisions for the spatial analysis and case studies are focused primarily on the SNA mapping and associated effects management provisions. These are the provisions in the NPSIB that lend themselves most easily to spatial analysis and therefore more practicable quantification. These are also the NPSIB provisions expected to have the most significant benefits and costs.

Table 2 provides an overview of the six case studies selected to analyse costs and benefits of the NPSIB. The sample focused on territorial authorities but also included two unitary authorities as this was the most efficient and effective way to incorporate implementation costs and benefits for regional councils. Other factors used to identify a suitable representation of case studies areas included:

- A mixture of SNA mapping approaches/progress relative to the NPSIB requirements;
- Population growth, as areas experiencing strong growth face greater pressures for land use change, subdivision and development
- Māori land ownership;
- Scale, nature and significance of indigenous land cover relative to the total district area; and
- Availability and willingness to assist with interviews and data provision (given resource and time constraints).

Table 2: Overview of case studies for CBA.

Case Study	Population Growth 2018-2043 (Med)	Māori Land (excl. Settlement Land)	Total Indigenous Forest, Scrub/ Shrubland, Tussock Area (ha)	SNA Approach in Plan[11]
Auckland	High. Growth of 37% projected (59% of national population growth in that period)	7,296ha (1% of land area in district). Accounts for 1% of total NZ Māori Land.	126,028ha (26% of land area in district). Accounts for 1% of total NZ indigenous land cover.	Significant Ecological Areas mapped, SNA criteria. *Plan schedule very complete*.

[11] Based on analysis and advice from officials and their ecologists.

Tasman District	Low. Growth of 9% projected (less than 1% of national population growth in that period)	107ha (less than 1% of land area in district). Accounts for less than 1% of total NZ Māori Land.	658,798ha (69% of land area in district). Accounts for 6% of total NZ indigenous land cover.	No SNA schedule in plan, SNA criteria. *Plan schedule not complete.* Voluntary work to identify SNAs underway.
Far North District	Low. Growth of 2% projected (less than 1% of national population growth in that period)	102,683ha (15% of land area in district). Accounts for 8% of total NZ Māori Land.	263,620ha (40% of land area in district). Accounts for 2% of total NZ indigenous land cover.	No SNA schedule, SNA criteria in RPS. *Plan schedule not complete.* SNA mapping currently underway for inclusion in proposed plan (2020).
Waikato District	High. Growth of 35% projected (3% of national population growth in that period)	19,574ha (4% of land area in district). Accounts for 1% of total NZ Māori Land.	66,883ha (15% of land area in district). Accounts for 1% of total NZ indigenous land cover.	SNAs mapped (600+), SNA criteria in RPS. *Proposed Plan schedule very complete.*
Westland District	Decline. Growth of -4% projected (0% of national population growth in that period)	3,839ha (less than 1% of land area in district) Accounts for less than 1% of total NZ Māori Land.	762,868ha (69% of land area in district). Accounts for 8% of total NZ indigenous land cover.	No SNA schedule, SNA criteria. *Plan schedule not complete.*
Southland District	Low. Growth of 2% projected (less than 1% of national population growth in that period)	39,085ha (1% of land area in district). Accounts for 3% of total NZ Māori Land.	1,708,330ha (58% of land area in district). Accounts for 16% of total NZ indigenous land cover.	No SNA schedule, criteria in RPS. *Plan schedule Not complete.*

The key findings from the case studies are outlined in **section 9** of this report and the detailed spatial analysis of each case study is contained in **Appendix C**. The (quantified and monetised) results from the CBA has been incorporated within the high-level assessment of costs and benefits where applicable in **Appendix A**. **Appendix B** outlines the indicative ranges of monetised implementation costs for key NPSIB provisions along with the assumptions and data those costs are based on. These are discussed more in the conclusion of this report (**Section 10**).

The net benefits of the NPSIB have not been monetised in this indicative CBA for the reasons outlined above. While key implementation costs have been estimated (within a low and high range), there are still gaps in the monetisation of costs (e.g. opportunity costs for landowners associated with certain NPSIB provisions). The expectation is that there will be better data on key implementation costs following consultation to allow more of these costs to be monetised. Because there are no monetised benefits, the indicative CBA for the NPSIB does not (cannot) present a benefit-cost ratio at this stage. This means that the evaluation of the efficiency of the NPSIB provisions needs to be based on an overall assessment of the likely benefits and costs (which is anticipated under section 32 of the RMA).

2.4 Scale and significance of the proposal

Section 32(1)(c) of the RMA states that the evaluation must contain a level of detail that corresponds to the scale and significance of the effects that are anticipated from the implementation of the proposal. Scale and significance are

therefore key factors influencing the level of detail required for this evaluation. Overall, the scale and significance of the NPSIB proposal is assessed as being significant as:

- There are a number of reasons for national intervention with the key driver being to address the core problem of the ongoing loss of New Zealand's indigenous biodiversity;
- It will impact on councils, tangata whenua, landowners and the wider community throughout New Zealand;
- It will represent a significant change in practice for some councils, particularly where practice is limited and where SNAs have not been identified;
- It will impact on certain land uses and landowners (including Māori landowners) through increased restrictions and associated opportunity costs. In some cases, those impacts will be significant where there is high SNA coverage on the property and existing protections do not exist;
- It will impact on tangata whenua through greater involvement in indigenous biodiversity management and better consideration of mātauranga Māori where appropriate; and
- The implementation costs will primarily be in the short-term whereas the ongoing natural capital benefits of maintaining indigenous biodiversity are significant and will be felt by current and future generations.

Accordingly, a detailed assessment of the NPSIB proposal is provided in **sections 5-8** of this report.

3 STATUTORY ASSESSMENT

3.1 Purpose and principles of the RMA

Section 5 of the RMA outlines the purpose of the Act which is to:

(1) The purpose of this Act is to promote the sustainable management of natural and physical resources.

(2) In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—

(a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and

*(b) **safeguarding the life-supporting capacity** of air, water, soil, and **ecosystems**; and*

(c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.

The words underlined in section 5(2)(b) are emphasised to make it clear that safeguarding the life-supporting capacity of ecosystems is part of the purpose of the RMA.

Section 6 of the RMA outlines matters of national importance that must be recognised and provided for in achieving the purpose of the RMA. The section 6 matters of most relevance to indigenous biodiversity are:

(a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development; …

(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna; ….

(e) the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga;

Section 6(c) is a key consideration for indigenous biodiversity. It requires all persons exercising functions under the RMA to provide for the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna. The word "protection" is not defined in the RMA, but the Environment Court has stated it has the ordinary meaning "to keep safe from harm, injury or damage"[12] and that it has a near synonym meaning as safeguard in section 5(2)(b) of the RMA. Section 6(c) is not subject to any qualifiers and has more absolute terms than section 6(a) and 6(b) of the RMA.

Section 7 sets out other matters to have particular regard to in achieving the purpose of the RMA. The relevant matters of most relevance to indigenous biodiversity are:

(a) kaitiakitanga:

(aa) the ethic of stewardship:

(b) the efficient use and development of natural and physical resources: …

(c) the maintenance and enhancement of amenity values:

(d) intrinsic values[13] of ecosystems: …

[12] *Royal Forest and Bird Protection Society of New Zealand Inc v New Plymouth District Council* [2015] NZEnvC (2015) 19 ELRNZ 122 [63]

[13] Defined in the RMA as: ***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*

(f) maintenance and enhancement of the quality of the environment:

(g) any finite characteristics of natural and physical resources: …

(i) the effects of climate change:

(j) the benefits to be derived from the use and development of renewable energy.

Section 8 of the RMA is also relevant for the management of indigenous biodiversity. This section requires all persons exercising functions and powers under the RMA to take into account the principles of the Treaty of Waitangi in achieving the purpose of the RMA.

The Environment Court has attempted to explain (in summary) the scheme of Part 2 of the RMA with respect to indigenous biodiversity in *Director General of Conservation v Invercargill City Council*[14]. Some key extracts from that decision are provided below.

> *[44] In part 2 of the RMA there are three provisions that are particularly important and relevant to biodiversity issues. They are the obligations:*
>
> *"safeguard ... the life-supporting capacity of ... ecosystems" (section5(2)(b) RMA);*
>
> *" ... protect ... areas of significant indigenous vegetation and significant habitats of indigenous fauna" (section 6(c)); and*
>
> *…to have particular regard to the "intrinsic values of ecosystems" (section 7(d) recalling that is a defined term).*
>
> *[45] Five points should be made here about the scheme of the RMA in relation to indigenous biodiversity. First, the primary responsibility of local authorities when exercising their functions in respect of indigenous biodiversity is part of the very definition of "sustainable management": to safeguard the life-supporting capacity of ecosystems.*
>
> *[46] Second, the recognition and protection of areas of significant indigenous vegetation, nationally important as it is, is an extension of that primary obligation. If an ecosystem or part of an ecosystem (being in either case an area of indigenous vegetation or a habitat of indigenous fauna) is found to be significant then that ecosystem is to be protected in itself, not merely to have its life-supporting capacity protected.*
>
> *[47] Third, safeguarding (or protecting) the life-supporting capacity of ecosystems includes in each case having particular regard to each of its components including – as the definition of 'intrinsic values" 6 implies…*

3.2 Functions of regional councils and territorial authorities

3.2.1 Regional council functions

Section 30 of the RMA sets out the functions of regional councils and this includes:

"(1) Every regional council shall have the following functions for the purpose of giving effect to this Act in its region

(c) the control of the use of land for the purpose of –

(iiia) the maintenance and enhancement of ecosystems in water bodies and coastal water;

(ga) the establishment, implementation, and review of objectives, policies, and methods for maintaining indigenous biological diversity;

Regional councils are required to prepare regional policy statements and section 62 of the RMA sets out what regional policy statements must contain. This includes:

(1) A regional policy statement must state—

[14] *Director General of Conservation v Invercargill City Council* [2018] NZEnvC 84.

(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; and…

This requirement is intended to ensure there are clear allocation of roles and responsibilities for the control of land to maintain indigenous biodiversity between regional councils and territorial authorities. Regional policy statements and regional plans must give effect to national policy statements.

3.2.2 Territorial authority functions

Section 31 sets out the functions of territorial authorities and this includes:

(1) 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.

Territorial authorities must prepare district plans to carry out its functions. District plans must give effect to national and regional policy statements.

3.3 Relevant national direction

3.3.1 New Zealand Coastal Policy Statement 2010

The New Zealand Coastal Policy Statement is mandatory under section 57 of the RMA. It is prepared by the Minister of Conservation and its purpose is to state objectives and policies in order to achieve the purpose of the RMA in relation to the coastal environment of New Zealand. The New Zealand Coastal Policy Statement 2010 (**NZCPS**) includes a number of objectives and policies of relevance to indigenous biodiversity in the coastal environment. Of most relevant is Objective 1 and Policy 11 of the NZCPS as set out below:

Objective 1

To safeguard the integrity, form, functioning and resilience of the coastal environment and sustain its ecosystems, including marine and intertidal areas, estuaries, dunes and land, by:

- *maintaining or enhancing natural biological and physical processes in the coastal environment and recognising their dynamic, complex and interdependent nature;*
- *protecting representative or significant natural ecosystems and sites of biological importance and maintaining the diversity of New Zealand's indigenous coastal flora and fauna; and*
- *maintaining coastal water quality, and enhancing it where it has deteriorated from what would otherwise be its natural condition, with significant adverse effects on ecology and habitat, because of discharges associated with human activity.*

Policy 11: Indigenous biological diversity (biodiversity)

To protect indigenous biological diversity in the coastal environment:

a. avoid adverse effects of activities on:

i. indigenous taxa that are listed as threatened or at risk in the New Zealand Threat Classification System lists;

ii. taxa that are listed by the International Union for Conservation of Nature and Natural Resources as threatened;

iii. indigenous ecosystems and vegetation types that are threatened in the coastal environment, or are naturally rare;

iv. *habitats of indigenous species where the species are at the limit of their natural range, or are naturally rare;*

v. *areas containing nationally significant examples of indigenous community types; and*

vi. *areas set aside for full or partial protection of indigenous biological diversity under other legislation; and*

b. *avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of activities on:*

i. *areas of predominantly indigenous vegetation in the coastal environment;*

ii. *habitats in the coastal environment that are important during the vulnerable life stages of indigenous species;*

iii. *indigenous ecosystems and habitats that are only found in the coastal environment and are particularly vulnerable to modification, including estuaries, lagoons, coastal wetlands, dune lands, intertidal zones, rocky reef systems, eelgrass and saltmarsh;*

iv. *habitats of indigenous species in the coastal environment that are important for recreational, commercial, traditional or cultural purposes;*

v. *habitats, including areas and routes, important to migratory species; and*

vi. *Ecological corridors, and areas important for linking or maintaining biological values identified under this policy**.***

The interaction and overlap between the NZCPS and the NPSIB are discussed in relation to the assessment of reasonably practicable options (**section 6.4**) and the integrated management provisions in the NPSIB (Objective 4, Policy 4 and Part 3.4). It is also understood that officials are working together to ensure these national instruments are aligned in relation to the management of indigenous biodiversity across all environments.

3.3.2 National Policy Statement for Freshwater Management 2014

The National Policy Statement for Freshwater Management 2014 (**NPSFM**) sets out the objectives and policies for freshwater management under the RMA. It came into effect on 1 August 2014 and amendments made in August 2017 took effect on 7 September 2017. The NPSFM directs regional councils, in consultation with their communities, to set objectives for the state of freshwater bodies in their regions and to set limits on resource use to meet these objectives.

The NPSFM includes a number of objectives and policies of relevance to indigenous biodiversity in freshwater bodies. Of particular relevance is are the objectives for water quality and quantity to safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems, of fresh water (Objective A1 and B1). The NPSM also includes water quality and quantity objectives to protect the significant values of wetlands (Objective A2 and B4) and ecosystem health is a compulsory national value in the National Objectives Framework (Part CA) which regional councils must use to set freshwater objectives, limits and targets.

The Government is considering amendments to the NPSFM and other initiatives to protect freshwater through the ***Essential Freshwater*** work programme. This includes stronger direction to protect wetlands and changes to better provide for ecosystem health. The interaction and overlap between the NPSFM and the NPSIB are discussed in relation to the assessment of reasonably practicable options and the scope of the NPSIB (**section 6.4**). It is understood that officials are working together to ensure these national instruments are aligned in relation to the management of indigenous biodiversity across all environments.

3.3.3 Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017

Plantation forestry can provide buffering for and connectivity with areas of significant indigenous vegetation and can assist in the natural development or reestablishment of additional indigenous vegetation areas along stream setbacks, non-productive and retired areas. Plantation forests also provide habitat for many indigenous species, including Threatened and At-Risk species, such as bats, lizards, invertebrates, and forest birds like kiwi and falcon. The forestry industry has protocols for managing adverse effects from plantation forestry activities on fauna, and there are over 1

million hectares of plantation forest certified by the Forest Stewardship Council (independent third-party certification).

The Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017 (**NES-PF**) came into force on 1 May 2018. It provides a comprehensive set of regulations and conditions to manage eight plantation forestry activities covering the full forestry cycle, and rules and conditions to manage ancillary activities, including indigenous vegetation clearance. The NESPF includes a range of rues and conditions aimed at managing the effects of plantation forestry activities on indigenous vegetation, including:

- Allowing plan rules to be more stringent to protect SNAs;
- Setbacks to SNAs for afforestation and setbacks to SNAs maintained when replanting;
- Requirements for earthworks and harvesting management plans to be prepared that set out practices to mitigate adverse effects on SNAs and minimise damage to indigenous vegetation;
- Permitted activity conditions that require foresters to develop and comply with procedures to protect nationally critical, or nationally endangered bird species within their forests; and
- Controls on indigenous vegetation clearance that limit this to specific circumstances and only allows for 'incidental damage' to adjacent SNAs (where it would not significant adversely affect the values of the SNAs).

There is strong overlap between the NES-PF and the NPSIB and this was considered by the BCG in their report and recommendations. There was concern from some BCG members that the NPSIB will result in the majority of plantation forests being identified as SNAs and this could prevent the productive use of forestry land and create significant uncertainty for forestry owners. The BCG proposed to address this issue through an exception for plantation forestry activities in the effects management policies within SNAs and through complementary measures relating to the indigenous vegetation clearance regulation in the NESPF[15].

The relationship between NES-PF and NPSIB is discussed further in relation to the assessment of Part 3.10 (managing adverse effects in plantation forests) in **section 7** of this report.

3.4 The Conservation Act 1987

The Conservation Act 1987 (**Conservation Act**) is the key piece of legislation guiding biodiversity management on public conservation land. The Conservation Act formed, and is administered by, DOC who is the lead central government agency for conservation.

The Conservation Act protects in perpetuity approximately a third of New Zealand's land area. The Conservation Act grants DOC several responsibilities, including management of public conservation land, preservation of indigenous freshwater fisheries and a conservation advocacy role. Section 4 of the Conservation Act also requires DOC to give effect to the principles of Te Tiriti o Waitangi/the Treaty of Waitangi. A range of statutory plans and strategies prepared under the Conservation Act set out how DOC intends to manage public conservation land. Other pieces of legislation which influence biodiversity management on public conservation land include the Reserves Act 1977 (discussed below), the National Parks Act 1980 and the RMA.

Land administered under the Conservation Act it is relevant for the NPSIB in terms of how the provisions apply to this land (particularly those relating to identification and protection of SNA) given there are already protections in place for indigenous biodiversity. This is discussed in more detail in the assessment of provisions in **section 7** of this report.

3.5 The Reserves Act 1977

The Reserves Act 1977 (**Reserves Act**) was established to acquire, preserve and manage areas for their conservation values or public recreational and educational values. The Reserves Act has three main functions. These are:

- To provide for the preservation and management, for the benefit and enjoyment of the public, areas possessing some special feature or values such as recreational use, wildlife, landscape amenity or scenic value.

[15] Report of the Biodiveristy Colloborative Group, pg.23.

- To ensure, as far as practicable, the preservation of representative natural ecosystems or landscapes and the survival of indigenous species of flora and fauna, both rare and commonplace.
- To ensure, as far as practicable, the preservation of access for the public to the coastline, islands, lakeshore and riverbanks and to encourage the protection and preservation of the natural character of these areas.

Reserves may be administered by DOC or by other ministers, boards, trustees, local authorities, societies and other organisations appointed to control and manage the reserve, or in whom reserves are vested.

There are eight categories of reserves under the Reserves Act including:

- **Scenic Reserves (Section 19):** These reserves are established to protect and preserve in perpetuity, for their intrinsic worth and for the public benefit, enjoyment and use, such qualities of scenic interest or beauty or natural features worthy of protection in the public interest.
- **Nature Reserves (Section 20)**: These reserves are established primarily to protect and preserve in perpetuity indigenous flora or fauna or natural features of rarity, scientific interest or importance so unique that their preservation is in the public interest.
- **Wilderness Areas (Section 47)**: Reserves or parts of reserves may be set apart as Wilderness Areas. They are maintained in a natural state.

Similar to the Conservation Act, the Reserves Act provides for a category of conservation land. It is relevant for the NPSIB in terms of how it applies to this land given there are already protections in place for indigenous biodiversity.

4 STATUS QUO AND PROBLEM STATEMENT

4.1 Problem statements

This section outlines the problems for New Zealand's terrestrial indigenous biodiversity under the status quo. It is largely based on the problem statements in the regulatory impact statement (**RIS**) for the NPSIB and information provided by DOC officials. The RIS should be referred to in addition to this section for a more detailed understanding of the problems facing New Zealand's terrestrial indigenous biodiversity that the NPSIB seeks to address. The expectation is that the problem statements in this section and the RIS will be tested through consultation and revised problem statements will be included in the final section 32 evaluation.

4.1.1 The core problem

The core problem is ongoing decline of indigenous biodiversity in New Zealand. The ongoing loss of indigenous biodiversity is a systemic issue that cannot be addressed through one action alone. It has been described as a 'wicked problem'[16] that:

- Is complex, poorly understood and resists clear definition;
- Has many causes (i.e. multiple threats) meaning there is no single solution but rather, multiple types of intervention are required;
- Is unlikely to be addressed by existing means, meaning that new tools are required;
- Is challenging because it requires changes in behaviour and attitudes across a range of agencies and individuals; and
- Requires interventions (regulatory and non-regulatory) with potential perverse or unwanted outcomes.

Addressing the core problem of ongoing loss of indigenous biodiversity is therefore a complex task and will require a "toolkit" of complementary measures, implemented over a number of years. This was recognised in the package of measures developed in the first New Zealand Biodiversity Strategy. The revised New Zealand Biodiversity Strategy will strategically look at a range of initiatives and actions to address the ongoing decline in indigenous biodiversity.

The focus of this section is the regulatory regime for indigenous biodiversity under the RMA. The RMA includes a range of provisions to protect and manage indigenous biodiversity. However, analysis by officials has identified that RMA provisions relating to indigenous biodiversity are unclear and this is contributing to the ongoing loss of New Zealand's indigenous biodiversity. This lack of clarity is resulting in a number of problems, including:

- Ongoing debate, litigation and associated costs and effort as RMA provisions relating to indigenous biodiversity are interpreted and implemented inconsistently between and within regions;
- Confusion around roles and functions and resulting inaction/duplication;
- A lack of clarity for industry, iwi and stakeholders undertaking activities affecting biodiversity;
- Indigenous biodiversity being undervalued in decision-making; and
- Inadequate regulatory protection for indigenous biodiversity resulting in indigenous biodiversity loss.

The lack of clarify under the RMA to manage indigenous biodiversity is discussed further below in relation to maintaining indigenous biodiversity, section 6(c) of the RMA, effects management, roles and functions of councils, indigenous biodiversity monitoring, and recognising and providing for the relationship of tangata whenua with indigenous biodiversity.

[16] Enfocus (2017), '*Addressing New Zealand's Biodiversity Challenge: A Regional Council thinkpiece on the future of biodiversity management in New Zealand*'.

4.1.2 Lack of clarity on how to maintain indigenous biodiversity

The RMA requires councils to maintain indigenous biodiversity and consider indigenous biodiversity in a wide range of decision-making contexts. There are differing views about the extent to which indigenous biodiversity can be adequately maintained by protecting significant indigenous biodiversity in accordance with section 6(c) of the RMA or whether a wider approach is required. Some plans only contain biodiversity provisions in relation to significant areas of indigenous biodiversity, but it is now increasingly recognised that the protection afforded by these areas is not sufficient to maintain indigenous biodiversity.

The lack of clarity around what the function of maintaining indigenous biodiversity entails has resulted in a highly variable approach to biodiversity management as well as uncertainty, debate and costly litigation. This lack of clarity can result in inadequate regulatory protection in some areas which is contributing to the continued loss of New Zealand's indigenous biodiversity.

4.1.3 Lack of clarity on the protection of significant indigenous vegetation and significant habitat of indigenous fauna

Section 6(c) of the RMA requires that all persons exercising functions and powers under the RMA recognise and provide for the "*protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna*" as a matter of national importance. These areas are often referred to as Significant Natural Areas (**SNAs**), although a range of terms are also used.

Meeting obligations under section 6(c) of the RMA requires an understanding of which areas of indigenous vegetation and habitats of indigenous fauna are 'significant' within a district or region. 'Significant' is not defined in the RMA but policy statements and plans often include ecological significance criteria to assist in the identification of SNAs both at the plan-making and consenting level. Common criteria used to assess ecological significance include rarity, distinctiveness, uniqueness and diversity, although a range of other criteria have also been used[17].

Despite growing consensus in the use of ecological significance criteria, there remains a degree of inconsistency and uncertainty on how 'significance' should be assessed in the context of section 6(c) of the RMA. Variation in criteria and the methodology used to assess ecological significance has implications for indigenous biodiversity management. It has also resulted in a large amount of debate and litigation over the years, with considerable cost, time and effort incurred for those involved.

Ambiguity around what ecological areas are 'significant' can favour development over environmental interests resulting in an underestimation of indigenous biodiversity values[18]. Local debates and variation as to what constitutes significance in the context of section 6(c) of the RMA can result in poor indigenous biodiversity outcomes and increased costs for those involved. For example, this can lead to the inability to compare sites, lack of transparency at a national level, and lack of strategic management.

There have also been a variety of methodologies and approaches used to spatially identify SNAs. This ranges from no spatial identification through to detailed spatial mapping and scheduling that articulates the attributes of the site which make it significant. A review of district plans undertaken in late 2018 found that 61% of district plans have SNA schedules[19]. However, the extent and quality of these schedules varies significantly. A subsequent assessment of district plan SNA schedules found that 11 (19%) were 'very complete' with the remainder assessed as being 'moderately complete' (15 or 25%) or 'limited in completeness' (10 or 17%)[20].

There are also 39% of district plans that have not scheduled/mapped any SNAs. In the absence of SNA mapping, the general approach is to assess ecological significance in an ad hoc manner through the resource consent process. The key limitation of this approach is that there is no comprehensive view of ecologically significant areas within the

[17] Beca and Wildlands (2016) '*Biodiversity Planning and Management Research*', prepared for Ministry for the Environment.

[18] Brown, M (2016) '*Pathways to prosperity: safeguarding biodiversity in development*' Environmental Defence Society Incorporated. Wellington, New Zealand.

[19] Myers, S C (2018). "*A Biodiversity Planning Snapshot - How Well Are Councils Protecting Biodiversity?"*, NZ Ecological Society Conference, Wellington 2018.

[20] Analysis and advice from officials and their ecologists.

district/region. This approach also often relies on stringent general indigenous vegetation clearance rules to impose consent requirements and require an ecological assessment to be undertaken through the consent process. This can create uncertainty for applicants and lead to additional work, costs and time delays through the resource consent process.

The spatial identification of SNAs can be very contentious among landowners and the community. Landowners are often concerned that identification of an SNA will constrain their ability to use and develop their land. There is also often concern from landowners about the accuracy of the data/mapping on their property. Some councils have chosen to focus on identification of SNAs on public land in response to opposition from landowners. Conversely, some councils report that the SNA identification process has been a positive one that has forged better relationships with landowners. This suggests that the quality of methodology to identify SNAs and engage with landowners is critical to get buy-in and reduce the risk of landowner and community opposition.

A district-wide exercise to identify SNAs takes considerable time, requires a high level of expert input and landowner engagement, and is resource-intensive. This is beyond the capacity of some councils, especially those that have a small ratings base and large land area. As a result, many districts have not identified SNAs despite earlier intentions to do so (as highlighted in the Westland and Southland case study examples). The actual time and costs required to identify SNAs will vary depending on a range of factors, including the size of the district, the nature and extent of indigenous biodiversity present, and methods used. The costs to identify SNAs are discussed further in relation to Policy 6 and associated provisions in **section 7** and **Appendix B**.

4.1.4 Lack of clarity and consistency in effects management

Section 5(2)(c) of the RMA requires that adverse effects of activities on the environment must be avoided, remedied or mitigated. The 2017 RMA amendments also now make it clear that consent authorities must have regard to measures proposed or agreed by applicants to provide positive effects on the environment that offset or compensate for any adverse effects on the environment from a proposed activity.

Best practice guidance promotes an 'effects management hierarchy' in how these effects management tools should apply - avoid, remedy, mitigate adverse effects (in that order) before offsetting and compensation can be considered (in that order). Stepping through this hierarchy in a robust manner is important to protect indigenous biodiversity as the impacts or loss of indigenous biodiversity increases the further you go down the hierarchy. Some councils provide for this effects management hierarchy in their plans and defined key terms such as biodiversity offsetting. However, the approach is inconsistently applied across the country as is the use of offsetting and compensation to address residual adverse effects of an activity on indigenous biodiversity. In some cases, these inconsistencies are contributing to the loss of indigenous biodiversity.

4.1.5 Lack of clarity on roles and functions for indigenous biodiversity

Both regional councils and territorial authorities have a statutory responsibility under the RMA to maintain indigenous biodiversity. This responsibility has been cited as problematic in that the objective of "maintenance" is embedded within the functions of councils and the means to achieving the objective are spread across various agencies. The fulfilment of the function is also dependent on the exercise of powers that are largely at the discretion of councils. There is a need for clarity around what ***must*** be done by councils and what ***could*** be done by councils in order to maintain indigenous biodiversity.

The responsibilities of regional councils and territorial authorities in relation to the maintenance of indigenous biodiversity under the RMA overlap and would benefit from further clarity. Riparian management and wetlands are key examples where councils have overlapping functions. Amendments to the RMA in 2003 sought to address this by requiring Regional Policy Statements (**RPS**) to specify which local authority is responsible for controlling the use of land to maintain indigenous biodiversity (section 62(1)(i)(iii)). Variable approaches have been adopted in allocating indigenous biodiversity responsibilities between councils. However, anecdotal evidence suggests there is still a lack of clarity in some cases which can lead to inaction or overlap.

4.1.6 Lack of clarity on monitoring indigenous biodiversity

Under section 35 of the RMA every council is required to monitor the state of the environment of its region or district in order to carry out its functions – maintenance of indigenous biodiversity being one of these functions. The extent to which this function is fulfilled and how is highly variable[21]. This makes it difficult to understand the state and threats to indigenous biodiversity and the effectiveness of management approaches to respond to those threats.

4.1.7 Lack of clarity on providing for the relationship of tangata whenua with indigenous biodiversity

There are a range of provisions in the RMA that recognise and give effect to relationships of tangata whenua with the environment and their taonga (in particular sections 6(e), 7(a) and 8). The implementation of these provisions has been inconsistent, unmonitored and in some cases is non-compliant with the requirements of the RMA. These outcomes were documented in the criticism and recommendations for change made by the Waitangi Tribunal in their report on the Wai 262 claim on indigenous flora and fauna and Māori cultural and intellectual property rights.

The BCG also recognised a number of barriers to incorporating mātauranga Māori into legislation and to ensuring effective and meaningful engagement that have been identified in Wai 262 and others reports. These barriers include:

- Mātauranga and tikanga Māori are not a defined part of the foundation of legislation, but rather additional considerations within the legislative framework;
- Decision-makers, including the judiciary, have struggled with understanding the meaning and importance of Māori interests, and also how to interpret evidence focused on Māori considerations;
- No process of identifying and then managing taonga has been developed;
- Existing mechanisms for Māori influence in environmental management and partnerships between kaitiaki and the Crown are underutilised; and
- There has been a failure to recognise the unique limitations that apply to Māori land[22].

4.2 The need for national direction

The problems outlined above highlight the need for greater national direction and an improved policy framework for the protection and management of indigenous biodiversity under the RMA. Greater national direction on indigenous biodiversity is warranted as:

- New Zealand's indigenous biodiversity continues to decline;
- The matter is of national significance;
- Practice is poor in some areas which is compromising indigenous biodiversity outcomes;
- There a likely to be ongoing inconsistency, debate and litigation costs in the absence of national direction;
- Local variation makes it harder to monitor and report biodiversity outcomes nationally;
- The issue is technically complex and requires additional resourcing and support from central government to address it; and
- The issue relates to the Government's obligations under Te Tiriti o Waitangi and international obligations.

[21] Brown, M., Stephens, R.T.T., Peart. R. and Fedder, B (2015) '*Vanishing Nature: facing New Zealand's biodiversity crisis*', Environmental Defence Society, Auckland, New Zealand

[22] Report of the Biodiveristy Colloborative Group, pg. 18.

5 EVALUATION OF OBJECTIVES

5.1 Introduction

Section 32(1)(a) of the RMA requires a section 32 evaluation to examine the extent to which the objectives of the proposal are the most appropriate to achieve the purpose of the RMA. This assessment of the NPSIB objectives focuses on three key aspects of appropriateness: relevance, feasibility and acceptability using some key criteria[23]. This assessment is informed by the assessment of the NPSIB provisions (i.e. policies and implementation requirements) as it is not possible to fully assess some criteria (e.g. feasibility) until after the provisions have been assessed. The NPSIB includes six objectives which are individually and collectively assessed below.

5.2 Objective 1 – Maintaining indigenous biodiversity

5.2.1 Policy intent

Objective 1 of the NPSIB is as follows:

Objective 1: to maintain indigenous biodiversity:

Objective 1 is supported by the explanation of maintaining indigenous biodiversity in Part 1.7 – fundamental concepts. This provides greater direction and specificity on what maintaining indigenous biodiversity means as follows:

> ***(3) Maintenance of indigenous biodiversity***
>
> *The maintenance of indigenous biodiversity requires at least no reduction, as from the commencement date, in the following:*
>
> *a) the size of populations of indigenous species:*
>
> *b) indigenous species occupancy across their natural range:*
>
> *c) the properties and function of ecosystems and habitats:*
>
> *d) the full range and extent of ecosystems and habitats:*
>
> *e) connectivity between and buffering around, ecosystems:*
>
> *f) the resilience and adaptability of ecosystems.*
>
> *The maintenance of indigenous biodiversity may also require the restoration or enhancement of ecosystems and habitats.*

The purpose of Objective 1 and the supporting explanation of maintenance of indigenous biodiversity is to set out the specific things that need to be achieved in order to maintain indigenous biodiversity. In doing so, the NPSIB effectively defines what "maintenance" means in relation to the management of New Zealand's terrestrial indigenous biodiversity. The description of maintenance of indigenous biodiversity in clauses 1(a)-(f) outline the key ecological attributes that contribute to indigenous biodiversity.

The NPSIB also includes definitions[24] to help understand these ecological attributes and clarify how Objective 1 is to be achieved in practice.

[23] Adapted from. Ministry for the Environment. 2017. *A guide to section 32 of the Resource Management Act: Incorporating changes as a result of the Resource Legislation Amendment Act 2017.* Wellington: Ministry for the Environment.

[24] For example, connectivity, ecological integrity, habitat, natural range, and resilience.

The ecological attributes referred to in the explanation of maintenance of indigenous biodiversity are based on ecological advice[25] and align with recent guidance from the Environment Court[26] on maintaining indigenous biodiversity. In this case, the Environment Court referred to maintenance as relating to an existing level or quality[27], which is consistent with the "no reduction" wording used in the explanation of maintenance of indigenous biodiversity. The Environment Court also referred to maintenance as being to "*cause or enable a condition or situation to continue"* and to "*provide the necessities for life or existence*[28]. This is what the NPSIB is intended to do – specify the things that must be kept at an existing level and enable that level to continue so that indigenous biodiversity is maintained.

The explanation of maintenance of indigenous biodiversity also recognises that maintaining New Zealand's indigenous may also require active restoration and enhancement of indigenous biodiversity in addition to active protection.

5.2.2 Assessment of relevance

Table 3: Objective 1 - assessment of relevance.

Criteria	Assessment
Directly related to a resource management issue	• Objective 1 is directly related to the core problem the NPSIB seeks to address – the ongoing decline in New Zealand's indigenous biodiversity. • While the maintenance of indigenous biodiversity is a mandatory function of regional councils and territorial authorities under the RMA, there is a lack of clarity on how to achieve this on the ground. There has been ongoing decline in New Zealand's indigenous biodiversity despite it being an explicit function in the RMA. A lack of clarity and direction from central government on how to maintain indigenous biodiversity is one of the key drivers for this ongoing decline. Objective 1 seeks to directly resolve this issue by providing greater clarity on what is needed to maintain indigenous biodiversity in practice.
Focused on achieving the purpose of the RMA	• Objective 1 is strongly focused on achieving the purpose of the RMA and is directly related to a number of Part 2 matters. In particular, Objective 1 is relevant to: ○ Section 5(2)(b) which requires the life-supporting capacity of ecosystems to be safeguarded; ○ Section 5(2)(c) which requires adverse effects on the environment (which includes ecosystems and their constituent parts) to be avoided, remedied and mitigated; ○ Section 6(c) which is to recognise and provide for the protection of areas of significant of indigenous vegetation and significant habitats of indigenous fauna as a matter of national importance; ○ Section 7(a) which is to have particular regard to kaitiakitanga; ○ Section 7(a) which is to have particular regard to the ethic of stewardship; ○ Section 7(d) which is to have particular regard to the intrinsic values of ecosystems; ○ Section 7(f) which is to have particular regard to the maintenance and enhancement of the quality of the environment; and

[25] This includes Walker, S., Lee, W., Bellingham, P., Kaine, G., Richardson, S., Brown, M., Greenhalgh S. and Simcock R. (2018), '*Critical factors to maintain biodiversity: what effects must be avoided, remediated or mitigated to halt biodiversity loss?*' Manaaki Whenua/Landcare Research Contract Report LC4001.

[26] *Oceana Gold New Zealand Limited & Ors V Otago Regional Council* [2019] NZEnvC41. Note this decision is currently under appeal to the High Court.

[27] At paragraph 63, citing *Ngati Kahungunu Iwi Inc v Hawke's Bay Regional Council* [2015] NZEnvC 50 (2015) 18 ELRNZ 565.

[28] Paragraph 63.

	○ Section 7(i) which is to have particular regard to the effects of climate change.
Assist councils to carry out their statutory functions	• Objective 1 is directly related to the functions of regional councils and territorial authorities under sections 30(1)(ga) and 31(1)(b)(iii) to maintain indigenous biodiversity. The objective, explanation in Part 1.7(3), and supporting provisions will assist councils to carry out these functions by providing clear national direction on what is required to maintain indigenous biodiversity in practice. • Achieving 'no reduction' in the ecological attributes outlined in the explanation of maintenance of indigenous biodiversity in in Part 1.7(3), places additional obligations on councils to maintain indigenous biodiversity and will be challenging in some areas. A transitional period will be needed for councils to understand what 'no reduction' means in practice and how this is best achieved within their district/region. Implementation guidance and support from central government is also recommended to assist councils achieve Objective 1. • The supporting explanation of maintenance of indigenous biodiversity in in Part 1.7(3) will help to reduce debate potential challenges (either through RMA plan preparation or resource consent processes) as to what is required to maintain indigenous biodiversity and give effect to Objective 1. An explicit list of ecological attributes coupled with clear direction that there needs to be 'no reduction' in these attributes will reduce the scope for different interpretations and debate and promote a consistent approach to maintaining indigenous biodiversity. This may also help assist councils in carrying out their section 30(1)(ga) and 31(1)(b)(iii) functions by enabling them to focus more effort on the actions and improvements that are needed to achieve Objective 1 (as opposed to understanding and debating what maintaining indigenous biodiversity means).

5.2.3 Assessment of feasibility

Table 4: Objective 1 – assessment of feasibility.

Criteria	Assessment
Acceptable level of uncertainty and risk	• The need to maintain, and halt the current loss of, indigenous biodiversity has long been recognised as an outcome that needs to be achieved in New Zealand. The explanation of maintaining indigenous biodiversity in Part 1.7(3) will provide greater certainty about what is needed to achieve Objective 1 and this is based on expert ecological advice. Objective 1 therefore provides an acceptable level of certainty about what is needed to maintain New Zealand's indigenous biodiversity. • The actions required to achieve Objective 1 will require a substantial improvement in indigenous biodiversity management practice and outcomes in some areas. It will also involve imposing some 'environmental bottom lines' on the adverse effects that can occur if the indigenous biodiversity is to be maintained. This will result in additional constraints and restrictions on certain activities that can have adverse effects on indigenous biodiversity. While the exact nature and impacts of these constraints are not yet known, in some situations these bottom lines will present risks to the operation and establishment of activities when these are located or proposed within SNAs. These risks are discussed further in **section 7** and **Appendix A.** • Objective 1 presents a particular risk to activities that have a functional and operational need to locate in an area that coincides with the presence of SNAs. In these circumstances, there will be a degree of uncertainty for certain sectors and Objective 1 and implementing provisions may therefore be seen as a risk to their future operations. However, some level of risk to new activities in the form of environmental bottom lines is necessary to maintain indigenous biodiversity. This

	has been a strong message from the BCG and is consistent with the ecological advice informing the NPSIB[29].
Able to be achieved within council's powers, skills and resources	• The maintenance of indigenous biodiversity is already a core function of regional councils and territorial authorities and they have the primary responsibility to implement the NPSIB provisions to achieve Objective 1. Objective 1 is therefore largely able to be achieved within the power of councils. For example, councils have the powers to develop regulatory and non-regulatory methods to ensure there is 'no reduction' in the ecological attributes listed in Part 1.7(3). • The resources of councils to achieve Objective 1 are highly variable. The implementation of certain provisions to achieve Objective 1 (e.g. spatially mapping SNAs) will be challenging to resource for some councils, particularly councils with a low rating base. Many councils will also not have the in-house technical expertise and resources to understand how to implement Objective 1 effectively and efficiency in practice. Central government support will be required to help councils achieve Objective 1 along with transitional arrangements to allow councils sufficient time to implement NPSIB provisions which require a substantial change in practice. • The maintenance of indigenous biodiversity cannot be achieved by councils alone – it will also require an active contribution from landowners, communities and tangata whenua as stewards and kaitiaki of New Zealand's environment. This is recognised through Objective 6 as discussed further below.

5.2.4 Assessment of acceptability

Table 5: Objective 1 – assessment of acceptability.

Criteria	Assessment
Consistent with identified community outcomes	• There is a general appreciation in New Zealand about the importance of nature and the range of benefits it provides, including scenic, recreational, tourism and amenity. Feedback from councils also suggests there is a growing appreciation within communities and from landowners about the benefits of protecting and maintaining indigenous biodiversity. Objective 1 is therefore broadly consistent with these community outcomes. • Conversely, there are likely to be some communities that are opposed to the methods that are needed to achieve Objective 1. In particular, there is likely to be some opposition to the spatial identification and regulatory protection of SNAs, particularly for communities that have non-regulatory approaches in place.
Consistent with identified tangata whenua outcomes	• Objective 1 is consistent with feedback from tangata whenua during hui on the draft NPSIB. That feedback emphasised the importance of retaining indigenous biodiversity and a need to restore Aotearoa's indigenous biodiversity to enable it to thrive.
Will not result in unjustifiably high costs on the community	• The need to maintain biodiversity is already an explicit function of councils under the RMA. The achievement of Objective 1 should therefore not result in unjustifiably high costs on the community compared to the status quo, particularly in those areas where practice is good. • However, Objective 1 and its supporting policies will require a substantial change in practice in some areas. This has the potential to result in high (and potentially unaffordable) costs to the community, particularly for districts with lower rating bases.

[29] For example, Landcare Research (2018), '*Critical factors to maintain biodiveristy: what effects must be avoided, remedied or mitigated to halt biodiveristy loss*?', prepared for Biodiversity Collorative Group.

	• A key aspect of achieving Objective 1 is the requirement to identify, map and protect SNAs in the NPSIB provisions. This will require significant time and effort (costs) for those councils who have not yet mapped SNA and councils with limited/dated SNA schedules. This work is likely to be resourced through rates, with costs passed onto the community. A transitional period and implementation support from central government is necessary to ensure these costs are not unjustifiably high, particularly in districts with large areas of indigenous biodiversity and small rating bases. • The upfront costs and effort to identify SNAs has the potential to provide ongoing benefits to the community in terms of protecting SNAs and providing greater certainty about the location and extent of SNA. Targeted central government support to help councils identify SNAs will help ensure these ongoing benefits for indigenous biodiversity outweigh the initial implementation costs. • The actions required to achieve Objective 1 will result in opportunity costs for landowners, particularly the provisions in the NPSIB to manage adverse effects of subdivision, use and development to protect SNAs. These opportunity costs are expected to vary significantly depending on the existing planning framework they operate in, their management practices, and future development intentions. The potential opportunity costs associated with the achievement of Objective 1 are discussed further in relation to NPSIB provisions in **section 7 section 9** of this report.

5.3 Objective 2 – Te Tiriti o Waitangi /Treaty of Waitangi

5.3.1 Policy intent

Objective 2 of the NPSIB is as follows:

to take into account the principles of the Treaty of Waitangi in the management of indigenous biodiversity

Objective 2 is to be (primarily) implemented by Policy 1 and the implementing provisions in Part 3.3 (tangata whenua as kaitiaki). Objective 2 is consistent with provisions in Part 2 of the RMA to recognise and provide for the relationship of tangata whenua with their ancestral lands, water, sites, wāhi tapu and taonga (section 6(e)), have particular regard to kaitiakitanga (7(a)), and take into account the principles of Te Tiriti o Waitangi/Treaty of Waitangi (section 8). Objective 2 and its implementing provisions provide greater clarity about how these obligations should be met in the management indigenous biodiversity. In particular, the overarching policy direction in in Objective 2, Policy 1 and Part 3.3 seek to ensure:

- Tangata whenua are actively involved in the management of indigenous biodiversity;
- There is greater recognition and provision for the role of tangata whenua as kaitiaki;
- Councils collaborate with tangata whenua to identify species and ecosystems that are taonga; and
- Councils take reasonable steps to:
  - Incorporate mātauranga Māori relating to indigenous biodiversity in planning and decision-making; and
  - Provide opportunities for tangata whenua to be involved in decision-making relating to indigenous biodiversity.

5.3.2 Assessment of relevance

Table 6: Objective 2 – assessment of relevance.

Criteria	Assessment
Directly related to a resource management issue	• Objective 2 is aimed at addressing the issue of a lack of clarity and inconsistent recognition and provision of tangata whenua values and interests in relation to the management of indigenous biodiversity. In particular, the implementing provisions seek to improve how councils consider and provide for the kaitiaki role of tangata whenua in relation to indigenous biodiversity.

	• Objective 2 and its implementing provisions seek to ensure mātauranga Māori and tikanga Māori are better incorporated into the management of indigenous biodiversity, where tangata whenua consider this appropriate. It will also encourage councils to take a more consistent approach to considering tangata whenua values and interests, through providing greater direction on how tangata whenua should be involved in the management of indigenous biodiversity. Achieving these outcomes will help address a key inconsistency in the status quo and improve practice where this is poor.
Focused on achieving the purpose of the RMA	• Objective 2 is focused on achieving the purpose of the RMA and directly relates to a number of Part 2 matters. In particular: ○ Section 5(2) to enable people and communities to provide for their cultural well-being when managing the use, development and protection of natural and physical resources; ○ Section 6(e) to recognise and provide for the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga as a matter of national importance; ○ Section 7(a) to have particular regard to kaitiakitanga; and ○ Section 8 to take into account the principles of Te Tiriti o Waitangi in relation to managing the use, development, and protection of natural and physical resources. Objective 2 and implementing provisions give greater specificity on how these Part 2 matters should be given effect to in the management of indigenous biodiversity, to help achieve the purpose of the RMA.
Assist councils to carry out their statutory functions	• Objective 2 and implementing provisions will assist councils to carry out their statutory functions to recognise tangata whenua values and interests under sections 6(e), 7(a) and 8 and to maintain indigenous biodiversity under sections 30(1)(ga) and 31(1)(b)(iii) of the RMA through: ○ Clarifying the role of tangata whenua as kaitiaki and how tangata whenua should be involved in the management of indigenous biodiversity; and ○ Working with tangata whenua to utilise mātauranga Māori to help inform and improve the management of indigenous biodiversity. • Objective 2 will assist councils to carry out their obligations to consult with tangata whenua when preparing policy statements and plans under Clause 3B, Schedule 1 by providing greater clarity about how this should be done in relation to the management of indigenous biodiversity. Importantly, the provisions to implement Objective 2 encourage a shift away from traditional approaches to consulting with tangata whenua, to providing tangata whenua with a more active role in indigenous biodiversity management consistent with their kaitiaki role.

5.3.3 Assessment of feasibility

Table 7: Objective 2 – assessment of feasibility.

Criteria	Assessment
Acceptable level of uncertainty and risk	• Objective 2 and implementing provisions build on current good practice in terms of providing for the kaitiaki role of tangata whenua under the RMA. These provisions are also consistent with objectives in the NZCPS and NPSFM that encourage a greater role for tangata whenua in the management of freshwater and the coastal environment. Accordingly, there is an acceptable level of certainty and risk associated with Objective 2.

	• The success of Objective 2 will be determined by the quality of the relationships and arrangements between councils and tangata whenua and their commitment to work to collaborate to implement the NPSIB. There are a range of existing relationships and arrangements with mixed levels of effectiveness. Objective 2 and implementing provisions seeks to build on, and improve, these relationships, which will help to reduce implementation risks. • Objective 2 and implementing provisions seek to better recognise the role of kaitiaki and incorporate mātauranga Māori into the management of indigenous biodiversity. There is a risk that ingrained western approaches to environmental management will be difficult to change and that there may be a reluctance to more proactively provide for mātauranga Māori. This risk is mitigated through the implementing provisions for Objective 2 which provide greater direction about what is required under the NPSIB to involve tangata whenua in the management of indigenous biodiversity. The NPSIB also makes it clear that incorporation of mātauranga Māori should only occur where appropriate and with the consent of tangata whenua. Councils will therefore need to work with tangata whenua to understand when and how it is appropriate to use mātauranga Māori in the management of indigenous biodiversity. • There is a risk that tangata whenua may lack the necessary capacity and resources to proactively exercise their kaitiaki role. This will require effective relationships and partnerships to be formed that maximise the input of tangata whenua and an efficient manner. It may also require capacity building of tangata whenua (and councils) in some areas. Objective 2 and implementing provisions help to mitigate this risk by providing flexibility in exactly how tangata whenua are involved in the management of indigenous biodiversity. Central government support is also recommended to build the capacity of tangata whenua and enable them to be proactively involved in the implementation of the NPSIB to mitigate this risk.
Able to be achieved within council's powers, skills and resources	• Councils already have obligations to recognise and provide for the relationship of tangata whenua with their ancestral lands, water, sites, wāhi tapu, and other taonga, have regard to kaitiakitanga, and engage with tangata whenua when preparing policy statements and plans. Objective 2 can therefore be achieved within the powers of councils – its implementing provisions simply provide greater direction on how these requirements should be met in the management of indigenous biodiversity. • Achieving some aspects of Objective 2 will require additional resourcing from councils. In particular, Policy 12 and Part 3.14 (identified taonga) will require regional councils to work with tangata whenua to identify and protect taonga species (if tangata whenua choose to). This could be a significant task for some councils and tangata whenua depending on their existing approach, the methods used to identify taonga, and extent of taonga within the district/region. These implementation costs and benefits for councils and tangata whenua in relation to Policy 12 are discussed further in **section 7**. • Councils have existing relationships with tangata whenua in their jurisdiction and will be able to draw on these existing relationships to build effective partnerships to give effect to Objective 2. However, the quality of these relationships varies considerably. In some areas, achieving Objective 2 is likely to require a substantial shift in practice and additional resourcing from councils to build meaningful relationships with tangata whenua. Support from central government is recommended to help ensure Objective 2 targeting areas where capacity is limited and existing practice is poor.

5.3.4 Assessment of acceptability

Table 8: Objective 2 – assessment of acceptability.

Criteria	Assessment

Consistent with identified tangata whenua outcomes	• The feedback from tangata whenua who have been involved in the BCG and the New Zealand Biodiversity Strategy processes has largely been positive. In particular, it is understood the Te Māori Reference Group support the focus on treating Māori worldview concepts on an equal footing with western approaches. However, it is also understood that this support from the Te Māori Reference Group came with the caveat that there needs to be recognition that Te Ao Māori concepts such as mātauranga Māori have deep significance to tangata whenua and are not to be appropriated by the Crown or councils. • Objective 2 is consistent with feedback from tangata whenua during hui on the draft NPSIB which emphasised the importance of mātauranga Māori and the need for this to be built on and applied locally in order to be grown, recorded and transmitted. Feedback from tangata whenua at the hui also emphasised the importance of tangata whenua being involved at every level of the decision-making process.
Will not result in unjustifiably high costs on the community	• As noted above, achieving Objective 2 will require an improvement in practice in many areas and additional resources from councils and tangata whenua, especially where existing practices and relationships are poor. However, these costs should not be unjustifiability high for the community as the requirements in Objective 2 are consistent with the existing provisions in Part 2 of the RMA to provide for the relationship of tangata whenua with the environment and their taonga. Further, the expectation is that councils and tangata whenua will build on their existing arrangements to achieve Objective 2 and the implementing provisions provide flexibility in how they work together to achieve Objective 2. This will help to reduce implementation costs and ensure these do not pose unjustifiably high costs on the community.

5.4 Objective 3 – Hutia Te Rito

5.4.1 Policy intent

Objective 3 is as follows:

> ***To recognise and provide for Hutia Te Rito in the management of indigenous biodiversity.***

Hutia Te Rito is an overarching concept which is described in the Part 1.7(1) of the NPSIB – Fundamental Concepts. Hutia Te Rito as a concept is focused on achieving the integrated and holistic wellbeing of indigenous biodiversity. It aims to achieve this through better recognition that the health of indigenous biodiversity, the health of the wider environment, and the health of people are all intrinsically linked and that stewards and kaitiaki have a role protect the mauri (life force) of the environment and indigenous biodiversity.

The explanation of Hutia Te Rito in the NPSIB (Fundamental Concepts) states:

> *"It (recognises we have a role, as stewards or kaitiaki of indigenous biodiversity. This requires that when we undertake activities, such as subdivision, use, and development, we have a responsibility to provide not only for te hauora o te tangata (the health of the people), but also for:*
>
> - *te hauora o te koiora (the health of indigenous biodiversity),*
> - *te hauora o ngā taonga (the health of taonga species and ecosystems) and*
> - *te hauora o te Taiao (the health of the wider environment).*
>
> *These elements are intrinsically linked. Any use and development which degrades the mauri and hauora of our indigenous biodiversity will also degrade the hauora of our people."*

The incorporation of Hutia Te Rito in the NPSIB is consistent with the recommendations of the BCG who developed this conceptual framework and included it in their draft NPS.

Objective 3 is to be implemented (primarily) through Policy 1 and Part 3.2 of the NPSIB which provide greater direction on what councils must do to achieve the objective. This will require ongoing work between councils and tangata

whenua to understand what the concept means within their particular context and develop targeted objectives and policies that incorporate the values of tangata whenua and the wider community in the management of indigenous biodiversity.

5.4.2 Assessment of relevance

Table 9: Objective 3 – assessment of relevance.

Criteria	Assessment
Directly related to a resource management issue	• The overarching concept of Hutia Te Rito is aimed at ensuring that the health and well-being of indigenous biodiversity is at the forefront of decision-making considerations under the RMA. This may assist to address the core problem of ongoing loss of indigenous biodiversity. • Objective 3 is recognises the role of tangata whenua as kaitiaki and seeks to better incorporate tangata whenua values in the management of indigenous biodiversity. This will help address the lack of clarity on how to take into account the principles of Te Tiriti o Waitangi/the Treaty of Waitangi in the management of indigenous biodiversity.
Focused on achieving the purpose of the RMA	• The outcomes sought through the overarching framework of Hutia Te Rito are consistent with the purpose of the RMA. This includes improved integrated management and a more holistic approach to manage indigenous biodiversity that recognises the interconnected nature of the health of people, the environment, and indigenous biodiversity. • Objective 3 seeks to incorporate the values of tangata whenua in the management of indigenous biodiversity. This is consistent with the provisions in sections 6(e), 7(a) and 8 of the RMA.
Assist councils to carry out their statutory functions	• Councils will need to work with tangata whenua to develop targeted objectives and policies to operationalise Hutia Te Rito within their region or district. This may assist councils meet their obligation to under sections 6(e), 7(a) and 8 of the RMA.

5.4.3 Assessment of feasibility

Table 10: Objective 3 - assessment of feasibility.

Criteria	Assessment
Acceptable level of uncertainty and risk	• It is not known how councils will respond to Hutia Te Rito and the associated implementation risks. Supporting guidance for Objective 3 will be important to help councils understand what the concept means in practice and reduce potential uncertainty and implementation risks.
Able to be achieved within council's powers, skills and resources	• It is unclear exactly what will be required to understand and operationalise Hutia Te Rito in practice. However, it essentially seeks to provide an overarching framework to achieve the holistic and integrated management of indigenous biodiversity. Therefore, it should be achievable within the statutory functions and powers of councils. • Understanding and operationalising Hutia Te Rito within each region and district will require resourcing and upskilling in some areas. The feasibility of achieving this needs to be tested further through public consultation. Guidance and support for councils and tangata whenua is also important to help operationalise Hutia Te Rito in practice.

5.4.4 Assessment of acceptability

Table 11: Objective 3 – assessment of feasibility.

Criteria	Assessment
Consistent with identified community outcomes	• Hutia Te Rito was developed by the BCG which includes representatives of key stakeholders in the management of New Zealand's indigenous biodiversity, including a representative from the Iwi Chairs Forum. It is understood that all members supported the concept noting in their report it is consistent with other emerging policy, like Te Mana o Te Wai in the NPSFM, which represent a convergence of Māori and non-Māori world views. This indicates Objective 3 is broadly consistent with stakeholder outcomes. • However, the concept will be new to many stakeholders and communities. Feedback through public consultation will help to better understand the extent to which the concept is consistent with community outcomes.
Consistent with identified tangata whenua outcomes	• Hutia Te Rito was developed by Kahu o te Taiao, the Mātauranga Māori rōpū of the Iwi Chairs Forum for the BCG[30] and subsequently refined by the BCG. It has also been tested with tangata whenua through regional hui. It is understood Hutia Te Rito as a concept is broadly supported by tangata whenua, but this needs to be further tested through engagement with tangata whenua on the NPSIB.
Will not result in unjustifiably high costs on the community	• It is not known how councils will respond to Hutia Te Rito and the associated implementation costs to the community. Achieving Objective 3 will require some additional resources for councils and tangata whenua to work together and operationalise the concept and these costs will vary based on the quality and effectiveness of existing relationships and processes. Overall, Objective 3 is not expected to result in unjustifiability high costs on the community. The concept is more intended to guide how councils, tangata whenua and the community work together to achieve the integrated and holistic management of indigenous biodiversity rather than create unjustifiably high obligations/requirements on councils and their communities.

5.5 Objective 4 – Integrated management

5.5.1 Policy intent

Objective 4 of the NPSIB is as follows:

> ***to improve the integrated management of indigenous biodiversity:***

Objective 4 is to be (primarily) implemented through Policy 4 and Part 3.4 of the NPSIB which provide greater direction on what councils must do to implement the objective.

The BCG emphasised in their report that improved alignment and integration between agencies is one of the key changes needed to support the successful implementation of the NPSIB. The BCG articulated the issue in as follows:

> *"…compartmental decision-making by territorial and regional authorities in relation to indigenous biodiversity is an issue, as both local authorities have functions relating to indigenous biodiversity. The undesirable outcomes of compartmentalised decision-making include impacts of activities on biodiversity not being fully recognised or not being addressed effectively"*[31].

[30] Refer: https://www.biodiversitynz.org/uploads/1/0/7/9/107923093/hutia_te_rito.pdf

[31] Report of Biodiveristy Colloborative Group, pg. 39.

The intent of Objective 4 and implementing provisions is consistent with the recommendations of the BCG. There is general recognition among agencies that integrated management is good practice and the NPSIB provides an opportunity to improve this to deliver better outcomes. Achieving a fit-for-purpose, integrated system to manage New Zealand's indigenous biodiversity is also being considered as part of the refresh of the New Zealand Biodiversity Strategy so the NPSIB provisions to improve integrated management should be considered within this wider context.

5.5.2 Assessment of relevance

Table 12: Objective 4 – assessment of relevance

Criteria	Assessment
Directly related to a resource management issue	▪ Improving integrated management in relation to indigenous biodiversity will help address the core problem – ongoing loss of New Zealand's biodiversity. One of the drivers of this problem is a lack of integration between agencies and regulation, which can lead to compartmentalised decision-making that does not consider the full range of impacts on indigenous biodiversity, including cumulative effects, leading to poorer outcome. ▪ Objective 4 and implementing provisions promote the integrated management of indigenous biodiversity across physical, biophysical, and jurisdictional boundaries. This will help achieve improved outcomes for indigenous biodiversity as councils will be required to take a more integrated approach to the management of indigenous biodiversityg, regardless of geographic location.
Focused on achieving the purpose of the RMA	▪ Improving the integrated management of New Zealand's indigenous biodiversity is consistent with section 5(2)(c) as it will enable decision-making to more effectively avoid, remedy or mitigate the adverse effects of activities on indigenous biodiversity.. ▪ Improving integrated management is also likely to lead to improved information and knowledge on the effects and pressures from activities on indigenous biodiversity. An improved information base will facilitate improved decision-making and help to better achieve the purpose of the RMA – the sustainable management of natural and physical resources.
Assist councils to carry out their statutory functions	▪ Councils have a function to maintain indigenous biodiversity and regional councils have the function of achieving integrated management of natural and physical resources within their region. Objective 4 and implementing provisions will help councils carry out these functions through improving the integrated management of indigenous biodiversity. ▪ Objective 4 highlights the importance of councils taking an integrated approach to meet their obligations under the NPSIB, which also extends to the implementation of other national instruments that can impact on indigenous biodiversity. This is particularly important in terms of how the NPSIB interacts with the NPSFM and NZCPS. The provisions that implement Objective 4 will ensure councils consider the interaction between these national instruments and improve the integrated management of indigenous biodiversity across the terrestrial environment, freshwater and the coastal environment.

5.5.3 Assessment of feasibility

Table 13: Objective 4 – assessment of feasibility.

Criteria	Assessment
Acceptable level of uncertainty and risk	▪ Integrated management of natural and physical resources is a core function of councils and recognised good practice to achieve better outcomes and promote the sharing of resources and knowledge. It is also a requirement of other national instruments,

	including the NPSFM and NZCPS. Therefore, there is limited risk in promoting improved integrated management through the NPSIB. ▪ Councils have existing systems and processes in place to achieve integrated management. The intent is that Objective 4 and implementing provisions build on these existing systems and provide greater clarity about what improved integrated management means in the context of indigenous biodiversity. This helps to increase certainty and minimise implementation risks. ▪ Read in isolation, Objective 4 does not provide any direction as to how councils should achieve integrated management. However, the implementing provisions for Objective 4 (in particular Part 3.4) provide more direction on how to manage indigenous biodiversity in a more integrated way. This minimises uncertainty and implementation risks. Guidance from central government is recommended to ensure Objective 4 is effectively implemented, focusing on practical initiatives and actions to achieve integrated management in practice.
Able to be achieved within council's powers, skills and resources	▪ Integrated management through the coordination with other councils on cross boundary issues is already an explicit or implicit function of councils through their planning documents: ▫ RPS **must** state the processes to be used to deal with issues that cross council boundaries, and issues between territorial authorities or between regions (s62(1)(h)); and ▫ Regional plans **may** state the processes used to deal with issues that cross council boundaries, arise between territorial authorities or between regions (s67(2)(f)); and ▫ District plans **may** state the processes for dealing with issues that cross territorial authority boundaries (s75(2)(f)). ▪ Councils therefore already have experience working with other councils with a common jurisdictional boundary. Objective 4 will simply encourage better practice in this area. This is particularly important in relation to indigenous biodiversity as the presence of species and ecosystems often crosses jurisdictional boundaries. ▪ Improving integrated management of indigenous biodiversity will be challenging for some councils where existing systems, processes and relationships are not well integrated/aligned. This is likely to require some up-front resourcing and effort to establish integrated systems and processes. Central government guidance, including examples of existing best practice, is recommended to assist councils and support the effective implementation of Objective 4. ▪ Working in a coordinated manner may assist councils that have fewer resources by working together and collaborating to give effect to the NPSIB requirements (e.g. SNA identification). Similarly, councils may decide to coordinate data collection processes and share information. As such, Objective 4 supports efficient use of council resources and encourages councils to build on existing relationships and systems to give effect to the NPSIB.

5.5.4 Assessment of acceptability

Table 14: Objective 4 – assessment of acceptability.

Criteria	Assessment
Consistent with identified community outcomes	▪ Integrated management of the environment is recognised as good practice by agencies and in the wider community. Improved integrated management is likely to benefit the community through better coordination between agencies helping to streamline and support community efforts in indigenous biodiversity protection, restoration and enhancement.

	▪ Improved integrated management of indigenous biodiversity was supported by BCG, indicating that Objective 4 is broadly consistent with key stakeholder outcomes.
Consistent with identified tangata whenua outcomes	• Improved integrated management is consistent with the holistic view tangata whenua have of the environment. Tangata whenua also often seek improved integration between agencies within their rohe. Objective 4 is therefore broadly consistent with tangata whenua outcomes.
Will not result in unjustifiably high costs on the community	▪ Objective 4 is not expected to result in unjustifiably high costs to the community as it relates to core functions of councils: ○ Integrated management of natural and physical resources; and ○ Monitoring the environment within its district or region (s35(2)(a)) and resource consents (s35(2)(e)). ▪ Objective 4 builds on existing good practice and it is expected that councils will utilise, and improve on, their existing systems to achieve integrated management. The actual costs to achieve Objective 4 will vary based on the existing processes each council has for integrated management of indigenous biodiversity within their region/district. ▪ While there may be some up-front costs to improve systems and processes to achieve Objective 4, it is not expected to result in unjustifiably high costs to the community. There will also be benefits to the community through improved decision-making and management of indigenous biodiversity. Guidance from central government on how to achieve integrated management of indigenous biodiversity in practice is recommended and will assist in reducing implementation costs for councils and their communities.

5.6 Objective 5 – Restoration and enhancement of indigenous biodiversity

5.6.1 Policy intent

Objective 5 is as follows:

to restore indigenous biodiversity and enhance the ecological integrity of ecosystems:

Objective 5 is to be implemented (primarily) through Policy 11, Part 3.16 (restoration and enhancement) and Part 3.17 (increasing indigenous biodiversity cover).

Objective 5 recognises that maintaining and improving New Zealand's indigenous biodiversity will require more than protection – it will also require the restoring and enhancing of areas of indigenous biodiversity and ecosystems. This is recognised in the explanation of 'maintenance of indigenous biodiversity' in Part 1.7 of the NPSIB which states "*the maintenance of indigenous biodiversity may also require the restoration or enhancement of ecosystems and habitats*".

5.6.2 Assessment of relevance

Table 15: Objective 5 – assessment of relevance

Criteria	Assessment
Directly related to a resource management issue	▪ Objective 5 is directly related to the core problem the NPSIB seeks to address – the ongoing decline in New Zealand's indigenous biodiversity. It recognised that maintaining New Zealand's indigenous biodiversity will require more than protection – it will require active restoration and enhancement given that many areas of indigenous biodiversity and ecosystems are highly degraded throughout New Zealand. ▪ The implementation provisions for Objective 5 are largely focused on promoting and incentivising restoration and enhancement actions rather than a solely regulatory focus. Past experience has demonstrated that a focus on regulatory solutions to protect indigenous biodiversity can lead to landowner resistance and opposition to indigenous

	biodiversity protection and enhancement efforts. Objective 5 will therefore help to address this issue by specifically recognising the need for both approaches.
Focused on achieving the purpose of the RMA	▪ Objective 5 is focused on achieving the purpose of the RMA and is directly related to a number of Part 2 matters. In particular, Objective 1 is relevant to: ○ Section 5(2)(b) which requires the life-supporting capacity of ecosystems to be safeguarded; ○ Section 5(2)(c) which requires adverse effects on the environment (which includes ecosystems and their constituent parts) to be avoided, **remedied** and mitigated; ○ Section 6(c) which is to recognise and provide for the protection of areas of significant of indigenous vegetation and significant habitats of indigenous fauna as a matter of national importance; ○ Section 7(a) which is to have particular regard to kaitiakitanga; ○ Section 7(a) which is to have particular regard to the ethic of stewardship; ○ Section 7(d) which is to have particular regard to the intrinsic values of ecosystems; and ○ Section 7(f) which is to have particular regard to the maintenance and enhancement of the quality of the environment.
Assist councils to carry out their statutory functions	▪ Objective 5 will help councils carry out their functions to maintain indigenous biodiversity but making it clear that this also requires active restoration and enhancement in some areas and environments. The implementing provisions provide direction on how is to occur in practice and prioritise restoration and enhancement efforts on specific areas and environments that are most important to maintain indigenous biodiversity (e.g. areas that provide important connectivity and buffering functions).

5.6.3 Assessment of feasibility

Table 16: Objective 5 – assessment of feasibility.

Criteria	Assessment
Acceptable level of uncertainty and risk	▪ The implementing provisions for Objective 5 (specifically Policy 11, Part 3.16, Part 3.17) provide some clear direction on where restoration and enhancement efforts should be focused and prioritised. However, they provide some flexibility to councils on how they undertake restoration and enhancement work, the timeframes to achieve restoration and enhancement objectives and targets, and how they incentivise landowners, communities and tangata whenua to undertake restoration and enhancement work. This helps to minimise implementation risks while also ensuring there is an acceptable level of certainty on how Objective 5 will be achieved.
Able to be achieved within council's powers, skills and resources	▪ The restoration and enhancement of certain areas of indigenous biodiversity is an important part of the function of councils to maintain indigenous biodiversity. The focus of the implementing provisions for Objective 5 is on promoting and incentivising restoration and enhancement actions. This recognises that planning instruments cannot require private landowners to undertake ecological restoration and enhancement actions in a general sense. However, such actions can be encouraged through incentives such as transferable development rights. Restoration and enhancement conditions can also be imposed through the resource consent process which is promoted in Part 3.14(6) in areas prioritised for restoration and enhancement. Objective 5 therefore can therefore largely be achieved within the powers and functions of councils.

	▪ Undertaking ecological restoration and enhancement actions will require resourcing from councils. These costs are potentially significant for some councils, particularly in regions/districts with large areas of degraded areas that are prioritised for restoration and enhancement (SNAs, wetlands etc.). The flexible nature of the implementing provisions in terms of timeframes to achieve targets/objectives, how incentives are provided, and a focus on promotion rather than regulation will help ensure that Objective 5 can be achieved within the resources of council's overtime.

5.6.4 Assessment of acceptability

Table 17: Objective 5 – assessment of acceptability.

Criteria	Assessment
Consistent with identified community outcomes	▪ The restoration and enhancements actions to give effect to Objective 5 are likely to be wide-ranging and diverse across New Zealand. The intent is that the requirements in the NPSIB to restore and enhancement indigenous biodiversity will support, and build on, existing community initiatives underway. In addition to the direct benefits to indigenous biodiversity, these initiatives can foster the connection of communities to nature and contribute to social well-being. Objective 5 is therefore expected to be consistent with community outcomes. ▪ Further, the implementation provisions for Objective 5 are focused on promoting and incentivising restoration and enhancement efforts from landowners and the community. This is consistent with feedback to the BCG from landowners and businesses that an unnecessarily heavy regulatory focus may actually damage buy-in and goodwill and incentivise poor behaviours and outcomes for indigenous biodiversity.
Consistent with identified tangata whenua outcomes	▪ Objective 5 is consistent with feedback from tangata whenua during hui on the draft NPSIB. That feedback emphasised the need to restore Aotearoa's indigenous biodiversity to enable it to thrive.
Will not result in unjustifiably high costs on the community	▪ Undertaking ecological restoration and enhancement actions will require resourcing and this likely to impose some costs on the community. However, the flexible nature of the implementing provisions for Objective 5 in terms of the timeframes to achieve objectives/targets and how restoration and enhancement actions are promoted will help ensure that this does not impose unjustifiably high costs on the community.

5.7 Objective 6 – People and partnerships

5.7.1 Policy intent

Objective 6 of the NPSIB is as follows:

> ***to recognise the role of landowners, communities and tangata whenua as stewards and kaitiaki of indigenous biodiversity by***
>
> ***a) allowing people and communities to provide for their social, economic, and cultural wellbeing now and in the future; and***
>
> ***b) supporting people and communities in their understanding o, and connection to, nature.***

Objective 6 is to be (primarily) implemented through policies 6, 7, 8 and 10 and a number of implementation requirements in Part 3 which provide greater direction on what councils must do to implement the objective.

Objective 6 is consistent with the overall purpose of the RMA to manage the use, development and protection of natural and physical resources in a manner that enables people and communities to provide for their social, economic and cultural wellbeing. Objective 6 aims to provide for these well-beings in the context of the management of

indigenous biodiversity now and in the future and recognise the important role of landowners, communities and tangata whenua as stewards and kaitiaki.

Objective 6 implicitly recognises that maintaining indigenous biodiversity will require more than regulatory tools and a focus on protection – it will require the collective effort of landowners, communities and tangata whenua as stewards and kaitiaki to maintain, protect, restore and enhance biodiversity on private and public land. As such, Objective 6 seeks to foster the efforts of stewards and kaitiaki to protect, enhance and restore indigenous biodiversity and support people and communities in their understanding of, and connections to, indigenous biodiversity. While Objective 6 is focused on enabling people and communities to provide for their social, economic, and cultural wellbeing through subdivision, use, and development of land, the implementing provisions seek to ensure this occurs in appropriate places and forms, and within appropriate limits.

5.7.2 Assessment of relevance

Table 18: Objective 6 – assessment of relevance.

Criteria	Assessment
Directly related to a resource management issue	▪ Objective 6 and implementing provisions relate to several resource management issues that contribute to the core problem of ongoing loss of indigenous biodiversity. These include: ▫ A lack of awareness of the benefits that maintenance and protection of indigenous biodiversity can provide to people and communities; ▫ A lack of, or ineffective, limits and constraints on resource use and development in RMA plans leading to adverse effects on, and loss of, indigenous biodiversity; and ▪ A lack of recognition of, and support for, the important role that landowners, communities and tangata whenua play in the management, protection and enhancement of indigenous biodiversity as stewards and kaitiaki. Objective 6 seeks to achieve improvements in all these areas through recognising the important role of landowners, communities and tangata whenua in the management of indigenous biodiversity and enabling people and communities to provide for their social, economic and cultural well-being through subdivision, use and development within appropriate limits.
Focused on achieving the purpose of the RMA	▪ Objective 6 is directly focused on achieving the purpose of the RMA – it seeks to enable people and communities to provide for their economic, social and cultural well-being now and into the future. In achieving this, Objective 6 and its implementing provisions recognise that the maintenance and protection of indigenous biodiversity also contributes to the well-being of people and communities and that the actions of people and communities are needed to maintain indigenous biodiversity. ▪ Objective 6 is focused on recognise the role of landowners and tangata whenua as stewards and kaitiaki which is consistent with the concept of kaitiakitanga and the ethic of stewardship, both of which are matters to have particular regard to under sections 7(a) and 7(aa) of the RMA.
Assist councils to carry out their statutory functions	▪ Objective 6 and implementing provisions will help councils carry out their functions by supporting the formation of partnerships within the community and with landowners to achieve improved outcomes for indigenous biodiversity. This recognises that managing indigenous biodiversity is not simply a local government issue and that there is great value in forming partnerships with landowners, the community and tangata whenua in the management, indigenous biodiversity. ▪ For example, early engagement and community buy-in to the SNA identification and mapping process is important to help reduce community resistance to regulatory protection and foster good working relationships. This, in turn, will support councils

	carrying out their statutory functions under the RMA to maintain indigenous biodiversity.

5.7.3 Assessment of feasibility

Table 19: Objective 6 – assessment of feasibility.

Criteria	Assessment
Acceptable level of uncertainty and risk	▪ Achieving Objective 6 will require more than the NPSIB can deliver through regulatory approaches and other non-regulatory initiatives will be required. As such, there is a risk that actions required to implement Objective 6 will not be effectively implemented by councils, or the uptake by people, communities and tangata whenua will be limited. However, Objective 6 and implementation provisions are intended to build on and improve existing landowner and community initiatives underway to manage indigenous biodiversity and encourage best practice in this area. This helps to reduce potential implementation risks. ▪ Enabling people and communities to provide for their social, economic and cultural well-being through subdivision, use and development while also ensuring that indigenous biodiversity is maintained is a complex and contentious area. The implementing provisions for Objective 6 seek to provide for this by ensuring subdivision, use and development occurs in appropriate places and forms, and within appropriate limits. There are likely to be mixed views on whether these 'limits' are indeed appropriate and whether the right balance is achieved between protection and enabling. There are significant risks both ways – limits that are excessively stringent may prevent viable economic development and limits that are too flexible may undermine the overall objective to maintain indigenous biodiversity. The NPSIB provisions seeks to strike the right balance through appropriate limits and ensure there is an acceptable level of certainty and risk for landowners, resource users and developers, as discussed further in **section 7**.
Able to be achieved within council's powers, skills and resources	▪ Objective 6 and implementing provisions seek to recognise the important role that landowners, communities and tangata whenua play in the management of indigenous biodiversity as stewards and kaitiaki. Implementing Objective 6 will require councils to work with landowners, communities and tangata whenua to promote voluntary efforts and help improve their understanding of, and connection to, nature. Consulting and working with landowners, communities and tangata whenua and facilitating their understanding and connection to indigenous biodiversity is well within the powers and skills of councils. ▪ Engaging with landowners and the community and forming partnerships requires resources. The capacity of councils to undertake engagement with landowners, the wider community and tangata whenua varies significantly across the country. Many councils have limited resources and will be reliant on proactive, voluntary efforts from landowners, the community and tangata whenua to achieve Objective 6. Objective 6 and implementing provisions seek to build on and improve existing initiatives which will help ensure Objective 6 can be achieved within the resources of councils. There is also flexibility in how council recognise and foster the efforts of stewards and kaitiaki in the management of indigenous biodiversity which will help ensure the implementation of Objective 6 is achievable and affordable for councils and their communities.

5.7.4 Assessment of acceptability

Table 20: Objective 6 – assessment of feasibility.

Criteria	Assessment
Consistent with identified community outcomes	▪ Objective 6 and implementing provisions is specifically aimed at supporting community outcomes through recognising the important role of landowners, communities and tangata whenua as stewards and kaitiaki of indigenous biodiversity and supporting communities understanding of, and connection to, nature. ▪ The implementing provisions for Objective 6 seek to encourage partnerships between tangata whenua, people and communities to maintain and enhance indigenous biodiversity. This recognises people and communities often respond better when they are encouraged and relationships are fostered, compared to approaches that have an overly regulatory focus. ▪ This is consistent with advice to the BCG from landowners and businesses who stated that they need to be engaged in ways that recognise their individual circumstances and which encourage them to understand the importance of indigenous biodiversity. This approach is more likely to generate positive actions to protect indigenous biodiversity[32]. Objective 6 is therefore consistent with identified community outcomes.
Consistent with identified tangata whenua outcomes	▪ Objective 6 is consistent with feedback from tangata whenua during hui on the draft NPSIB. The feedback emphasised the importance of local perspectives and empowerment in the management of indigenous biodiversity and the need for local priorities and knowledge to be applied, including mātauranga Māori. The focusing on recognising and supporting the role of tangata whenua as kaitiaki in Objective 6 is consistent with these outcomes.
Will not result in unjustifiably high costs on the community	▪ Objective 6 and implementing provisions will not result in unjustifiably high costs on the community – rather it seeks to recognise and support the role of landowners, communities and tangata whenua as stewards and kaitiaki.. It also seeks to ensure people and communities can provide for their social, economic and culture well-being. Implementing Objective 6 is will therefore likely focus on the encouragement of voluntary efforts to manage indigenous biodiversity and enabling subdivion, use and development within appropriate constraints rather than regulatory methods that impose substantial, unjustifiably high costs on the community. ▪ Objective 6 and implementation provisions clarify that the maintenance of indigenous biodiversity does not preclude subdivision, use and development in appropriate places and forms, and within appropriate limits. These limits are included in a range of the provisions that implement Objective 6 in terms of how adverse effects on indigenous biodiversity are to be avoided and managed. These limits will impose some costs on landowners and the community through restrictions on what they can do on their land in order to maintain indigenous biodiversity. The constraints to subdivision, use and development in the NPSIB provisions have been carefully considered and finely balanced to help ensure people and communities can continue to provide for their economic, social and cultural well-being, while also ensuring the overall goal of maintaining indigenous biodiversity is achieved. This is discussed further in **section 7**.

[32] Report of the Colloboative Group, pg 41.

6 ASSESSMENT OF REASONABLY PRACTICABLE OPTIONS FOR ACHIEVING OBJECTIVES

6.1 Introduction

As part of examining whether the NPSIB provisions are the most appropriate to achieve the objectives, section 32(1)(b)(i) of the RMA requires "*other reasonably practicable options to achieve the objectives*" to be identified. Case law on section 32 of the RMA has interpreted that the 'appropriate' option means a suitable but not necessarily the superior method[33]. This means the most appropriate option does not need to be the optimal or best option, but the section 32 evaluation must demonstrate that it will meet the objectives of the proposal in an efficient and effective way[34]. The following options have been identified to achieve the NPSIB objectives:

- Increased guidance, funding and targeted support;
- National Environmental Standards for indigenous biodiversity;
- A National Policy Statement focused on terrestrial indigenous biodiversity; and
- A National Policy Statement that comprehensively addresses indigenous biodiversity in all 'Environments' (terrestrial environment, freshwater, coastal marine area).

Sections 6.2 – 6.4 describe these options and provide a high-level assessment of the appropriateness of each option to achieve the NPSIB objectives. **Section 6.5** provides a summary assessment of each option against some key criteria.

While increased guidance, funding and support is identified as a separate option in this evaluation, non-regulatory support is critical to assist with the effective and efficient implementation of all regulatory options. The importance of comprehensive implementation support for national direction is increasingly recognised within central and local government, with recent national direction being supported by more comprehensive implementation programmes. Therefore, this evaluation assumes that all regulatory options (national direction) will be accompanied by implementation support. A comprehensive implementation programme for national direction on indigenous biodiversity is particularly important due to the complex nature of problems resulting in ongoing loss of New Zealand's indigenous biodiversity.

6.2 Increased guidance, funding and targeted support

There is already a range of guidance, funding and targeted support in place to assist councils and landowners to manage, restore and enhance indigenous biodiversity. This includes guidance on RMA provisions relating to indigenous biodiversity (e.g. Indigenous Biodiversity guidance note on the Quality Planning website), funding and support for indigenous biodiversity protection and enhancement (e.g. Community Conservation Fund), and support for voluntary tools such as covenants (e.g. QEII Trust and Ngā Whenua Rāhui).

This option would involve the expansion of these existing initiatives and the development and implementation of new non-regulatory initiatives. It would include consideration and prioritisation of the non-regulatory complementary and support measures for indigenous biodiversity recommended by the BCG. These recommendations include:

- **Recommendation 1.7** – MfE and DOC establish and maintain a contestable fund for councils to access for assistance with identification and mapping of SNAs.
- **Recommendation 1.9** – MfE and DOC ecological experts develop guidance with councils to support appropriate implementation of their policy recommendations (e.g. how to maintain indigenous biodiversity).
- **Recommendation 1.11** - DOC to assist councils by providing information regarding highly mobile fauna.

[33] *Rational Transport Soc Inc v New Zealand Transport Agency* HC Wellington CIV-2011-485-2259, 15 December 2011.

[34] As noted in section 3.2 of Ministry for the Environment. 2017. *A guide to section 32 of the Resource Management Act: Incorporating changes as a result of the Resource Legislation Amendment Act 2017.* Wellington: Ministry for the Environment.

- **Recommendation 3.2** – MfE and DOC, with the assistance of Treasury, to continue investigating new funding mechanisms to assist with the cost of indigenous biodiversity protection on private land.
- **Recommendation 3.3** - Funding for private landowners for enhancement works, including a review the Community Conservation Fund.
- **Recommendation 3.4** - Central government review the resourcing of covenanting bodies, including QEII National Trust and Ngā Whenua Rāhui to ensure they have sufficient resources.

This option would further develop, refine and prioritise these initiatives into an overall non-regulatory work programme that seeks to achieve the best outcome for indigenous biodiversity. The refreshed New Zealand Biodiversity Strategy would likely provide the vehicle to deliver the work programme. This work programme would require additional resourcing and funding from within central government that would need to be secured through future budget bids.

A comprehensive non-regulatory programme aimed at the protection, maintenance, restoration and enhancement of indigenous biodiversity would be effective to achieve the NPSIB objectives to some extent. In particular, it would help achieve aspects of Objective 6 provisions that seek to foster the role of landowners, communities and tangata whenua as stewards and kaitiaki of indigenous biodiversity.. This option is also likely to contribute to the achievement of Objective 1 (maintenance of indigenous biodiversity), particularly where there is high uptake from landowners and the wider community to protect, restore and enhance indigenous biodiversity. It is also an efficient option for councils as it does not directly impose any implementation costs or directly impose opportunity costs on landowners associated with regulatory protection. However, central government costs would be higher under this option compared to the status quo.

Despite these potential benefits, this option is not likely to be sufficient by itself to achieve the NPSIB objectives and address the identified problems. While a non-regulatory approach will help improve practice over time, these improvements are likely to be incremental and limited in certain areas, particularly where there is low voluntary uptake from landowners and the wider community for indigenous biodiversity protection, enhancement and restoration initiatives. This is evident through the status quo which has involved numerous non-regulatory efforts to halt the decline in indigenous biodiversity with variable effectiveness in practice. Further, this option could not provide nationally consistent bottom lines for indigenous biodiversity. Consistent, clear bottom lines are recognised as critical to maintain indigenous biodiversity.

Overall, a non-regulatory in itself is likely to have limited effectiveness to address the following problems under the status quo:

- Inconsistent (and often inadequate) regulatory protection for indigenous biodiversity and a lack of nationally consistent bottom lines resulting in continued loss of indigenous species, ecosystems and habitats;
- Continued litigation costs and effort over varying approaches to manage indigenous biodiversity (potentially reducing over time as best practice continues to develop, achieving growing consensus);
- A lack of clarity about roles and functions for maintaining indigenous biodiversity which can result in inaction, overlap, disjointed decision-making, and poor outcomes for indigenous biodiversity; and
- Indigenous biodiversity being undervalued in assessments and decision-making.

Accordingly, this option is not considered to be the most appropriate option to achieve the NPSIB objectives. Rather, it critical to support the preferred regulatory option. It is also understood that feedback from stakeholders firmly supports this non-regulatory option sitting alongside, and complementing, regulatory approaches.

6.3 National Environmental Standards

National Environmental Standards (**NES**) are regulations made under section 43 of the RMA. These standards prescribe environmental matters and can effectively operate as plan rules to provide greater consistency and certainty in resource consent requirements nationally. NES prevail over plan rules, except where a NES expressly states that plan rules can be more stringent or lenient.

NES for indigenous biodiversity could provide greater certainty, consistency and clarity in the protection and management of indigenous biodiversity. For example, NES for indigenous biodiversity could:

- Set out nationally consistent requirements and methods to identify SNAs (section 43(2)(c));
- Provide a nationally consistency set of resource consent requirements and conditions for proposed activities within SNAs (section 43A); and
- Set out requirements for monitoring indigenous biodiversity (section 43(1)(c));

NES for indigenous biodiversity could potentially provide an effective regulatory framework for the protection of SNAs through the use of a stringent activity status and conditions for activities that typically have adverse effects on SNAs (e.g. earthworks and vegetation clearance above a certain threshold). A key benefit of NES is that they can have immediate effect once gazetted and prevail over rules in regional and district plans to provide a high level of certainty and consistency in implementation. This could deliver immediate improvements for indigenous biodiversity, particularly where existing practice and plan provisions are poor. Up-front implementation costs for councils are also lower for NES (compared to a National Policy Statement for example) as there is no requirement for councils to go through a Schedule 1 plan change process to implement NES.

A key recognised limitation of NES is that they provide limited flexibility to respond to local issues, priorities and circumstances. While there is the ability for NES to allow plan rules to be more stringent or lenient and target NES to certain locations, this needs to be finely balanced if the consistency and certainty benefits of NES are to be achieved. Other limitations and potential risks associated with NES for indigenous biodiversity include:

- No clear guidance on the outcomes sought for New Zealand's indigenous biodiversity as NES cannot include objectives and policies (although the New Zealand Biodiversity Strategy could provide this to some extent).
- Risk that the regulatory focus of the NES undermines the goodwill of landowners and existing relationships and initiatives relating to indigenous biodiversity that are voluntary/non-regulatory in nature.
- The opportunity costs for landowners associated with nationwide regulatory protection of SNAs could be high and not always commensurate with the benefits of SNA protection.
- There are likely to be significant complexities, long timeframes and extensive costs to develop a NES that is fit-for-purpose with sufficient certainty it will not result in (potentially significant) unintended outcomes. This would result in further delay to the introduction of national intervention which poses further risk to, and loss of, New Zealand's declining indigenous biodiversity.

For these reasons, NES for indigenous biodiversity is not considered to be the most appropriate option to achieve the NPSIB objectives.

6.4 National Policy Statement

6.4.1 National Policy Statement for indigenous biodiversity

National Policy Statements (**NPS**) set out objectives and policies for matters of national significance that are relevant to achieving the purpose of the RMA. An NPS may also state objectives, policies and methods and other requirements that councils must include in their policy statements and plans. Councils must "give effect to" relevant NPS provisions through their regional policy statements, regional plans and district plans[35]. Consent authorities must also "have regard to" relevant provisions of an NPS when considering an application for resource consent[36].

The Government formed the BCG in 2017 to develop a draft NPS for indigenous biodiversity. The draft NPS and accompanying report prepared by the BCG involved considerable input and advice from key stakeholders and technical experts. The BCG's draft NPS is comprehensive, particularly for terrestrial biodiversity, and provides a solid foundation for effective national direction to improve the management of New Zealand's indigenous biodiversity.

The key benefits of an NPS for indigenous biodiversity are:

[35] Sections 62(3), 67(3)(a) and 75(3)(a) of the RMA.

[36] Section 104(1)(b)(iii) of the RMA.

- NPS can provide clear direction on the outcomes sought for indigenous biodiversity and clear requirements for councils to achieve those outcomes. This includes setting out constraints on subdivision, use and development where appropriate and the methods councils must use to identify SNAs.
- NPS can provide some flexibility for councils to respond to local pressures and priorities when giving effect to the NPS. This will help ensure the NPS does not undermine existing relationships and initiatives relating to indigenous biodiversity and recognises the importance of local context.
- NPS can provide greater clarity and consistency in how the existing provisions in the RMA relating to indigenous biodiversity are to be provided for and achieved (including sections 6(c), 30(1)(ga) and 31(1)(b)(iii)).
- NPS can provide greater clarity about the role of tangata whenua in the management of indigenous biodiversity while also providing flexibility to recognise the different tikanga, priorities and values of tangata whenua across Aotearoa.

Further, the BCG's draft NPS is well advanced, has significant buy-in from key stakeholders, and has been informed by considerable technical input and advice. For these reasons it is both efficient and effective to progress an NPS on indigenous biodiversity as the preferred option to achieve the objectives.

If carefully designed and worded, an NPS can also provide the right balance between flexibility and providing clear direction and certainty about the outcomes that need to be achieved. This is likely to require a combination of prescriptive provisions that provide clear 'environmental bottom lines' and leave little room for interpretation, and provisions which provide more discretion and flexibility to promote good outcomes. For these reasons, an NPS is the most appropriate option to achieve the objectives.

The BCG was not able to reach consensus on the scope of the NPS in relation to the terrestrial environment, freshwater and the coastal marine area. While the BCG reached consensus on most aspects of the draft NPS provisions that relate to terrestrial biodiversity and wetlands, the group only provided high-level policy intent for freshwater and coastal biodiversity along with some recommendations for further work.

The scope of the NPS is a fundamental consideration in its effectiveness and efficiency to achieve the objectives. Two key options for the scope of the NPS are identified and assessed below.

6.4.2 National Policy Statement focused on territorial indigenous biodiversity

This option is an NPS focused on the protection, maintenance, restoration and enhancement of terrestrial biodiversity. It would not extend to indigenous biodiversity in the coastal marine area or indigenous biodiversity in waterbodies and freshwater ecosystems. However, certain provisions in the NPS relating to restoration and enhancement and the preparation of regional biodiversity strategy would extend into these environments to some extent.

Limiting the scope of the NPS to terrestrial biodiversity recognises that:

- The methods to manage terrestrial biodiversity are better established, particularly in relation to the identification and protection of SNAs, which is key issue that the NPS seeks to address.
- There is a greater urgency to protect indigenous biodiversity on private land because the presumption in the RMA is that land uses are permitted unless otherwise restricted by a rule in a district plan. This contrasts to activities in beds of lakes and rivers and in the coastal marine area, which are restricted under the RMA unless expressly authorised by a regional rule.
- There is already directive, effective national policy direction in the NPSFM for freshwater biodiversity and in the NZCPS for indigenous biodiversity in the coastal environment.

The key benefits of this option are:

- It builds on the extensive work and consensus achieved by the BCG;
- It addresses key gaps and inconsistencies in New Zealand's current management system for indigenous biodiversity – namely SNA protection and the management of indigenous biodiversity on private land; and
- It enables national direction for indigenous biodiversity to be in place in a relatively short timeframe.

The main limitation of this option is that is does not integrate the management New Zealand's indigenous biodiversity under the RMA across the terrestrial environment, freshwater, and coastal marine area within one national instrument. Limiting the scope of the NPS to terrestrial biodiversity is therefore somewhat inconsistent with the NPSIB objective to improve the integrated management of indigenous biodiversity. This option is also inconsistent with the

holistic view of the environment held by tangata whenua and may not meet the aspirations of tangata whenua for fully integrated management of indigenous biodiversity management within their rohe.

These risks can be mitigated to some extent by retaining some policy direction to improve integrated management on indigenous biodiversity across the terrestrial environment, freshwater, and coastal marine area and ensuring there is close alignment between this NPS, the NPSFM, and the NZCPS. The *Essential Freshwater* work programme involves proposals for ecosystem health and to avoid the loss and degradation of wetlands. It is important that these national instruments are aligned and complementary in relation to the management of indigenous biodiversity. Similarly, the NPSIB provisions can and should be designed to align, and not conflict, with Policy 11 of the NZCPS.

6.4.3 National Policy Statement that addresses all environments (terrestrial, freshwater, coastal)

This option is an NPS that would address indigenous biodiversity across terrestrial, freshwater and coastal marine area environments in an integrated and comprehensive manner. It would adopt an approach to manage terrestrial biodiversity consistent with the NPS option above and extend this to cover freshwater and coastal marine area – providing a comprehensive approach to manage indigenous biodiversity in these environments. This would include a requirement to identify and protect SNAs in all environments supported by an appropriate effects management framework.

The key benefit of this option is that it has the potential to provide for the fully integrated management of New Zealand's indigenous biodiversity under one national instrument in a way that recognises the connections within and between ecosystems across all environments. It is also more consistent with Te Ao Māori and the view of tangata whenua that the environment is intrinsically linked, and indigenous biodiversity should be managed in an integrated and holistic manner across all domains.

The key limitation of this option is that it would take considerable time to develop the provisions in the NPS for the freshwater and coastal marine domains to ensure they are fit-for-purpose and to provide sufficient certainty that they would not result in any unintended consequences. The framework for terrestrial biodiversity recommended by the BCG would need extensive input from freshwater ecologists to test how it could be adapted for freshwater. Considerable work would also be required to ensure the freshwater provisions align with the NPSFM and do not result in any conflict or unnecessary duplication. Similarly, extensive work and technical input would be required to comprehensively address coastal indigenous biodiversity in the NPS and ensure it aligns with, and does not duplicate, requirements in the NZCPS. Given this existing national direction is already in place to manage indigenous biodiversity in the freshwater and coastal marine areas, this option would need to carefully assess where additional direction is needed and the merits in providing that through a separate instrument. As such, it is likely that there would be a substantial delay before a comprehensive and fit-for-purpose NPS covering all environments is in place.

Other key limitations of this NPS include:

- The (potentially significant) risks of acting under this option with insufficient information or certainty on the effectiveness of the provisions to manage freshwater and coastal marine indigenous biodiversity;
- There is likely to be considerable interest and contention with a range of stakeholders and agencies (resulting in further delays in development and enactment); and
- Potential inconsistencies and conflict with existing council approaches to give effect to the NPSFM and Policy 11 of the NZCPS (although this could be managed through careful design of the NPS provisions).

6.5 Overview assessment of reasonably practicable options for achieving objectives

The following criteria have been used to assess reasonably practicable options for achieving the NPSIB objectives to help determine whether the provisions are the most appropriate way to achieve the NPSIB objectives.

1. **Effectiveness –** effectiveness of the option to address the key problems identified and achieve the objectives (**key criteria**).
2. **Consistency and certainty –** provides an appropriate level of national consistency and certainty where this will result in the best outcomes for indigenous biodiversity.

3. **Flexibility –** provides for appropriate level of local flexibility in in management approaches where this will result in the best outcomes for indigenous biodiversity.
4. **Implementable –** able to be developed and implemented in a reasonable timeframe without placing undue requirements or costs on central government, councils, tangata whenua, landowners and communities.
5. **Acceptability –** consistent with stakeholder, community and tangata whenua expectations and outcomes.

Table 21: Overview assessment of reasonably practicable options.

Criteria	Non-regulatory support	NES	NPS – terrestrial biodiversity	NPS – all environments
Effectiveness (**key criteria**)	+	+	++	+
Consistency and certainty	-	+	++	++
Flexibility	+	-	+	+
Implementable	+	-	-	- -
Acceptability	-	-	+	-

Key:
++ much better than status quo
+ better than status quo
0 same as status quo
~ worse than status quo
~ ~ much worse than status quo

Based on the assessment outlined above, an NPS focused on terrestrial indigenous biodiversity is the most appropriate option to achieve the objectives and address the identified problems. This option the potential to provide considerable improvements in the protection, maintenance, restoration and enhancement of indigenous biodiversity. An NPS can also provide a higher degree of flexibility for councils to consider and respond to local circumstances when giving effect to the NPS, while still providing clear requirements and direction on the outcomes that need to be achieved to maintain indigenous biodiversity.

7 ASSESSMENT OF THE EFFICIENCY AND EFFECTIVENESS OF THE PROVISIONS

7.1 Introduction

7.1.1 Efficiency and effectiveness

Section 32(1)(b)(ii) of the RMA requires an assessment of the efficiency and effectiveness of the provisions in achieving the objectives of the proposal:

- ***Effectiveness*** assesses how successful the provisions are likely to be to achieve the objectives and address the identified problems.
- ***Efficiency*** measures whether the provisions will be likely to achieve the objectives at the lowest total cost or achieve the highest net benefit. The assessment of efficiency under the RMA involves the inclusion of a broad range of benefits and costs, many of which are non-monetary[37].

Section 32(2) of the RMA requires that the assessment of efficiency and effectiveness of the provisions must:

> *(a) identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for—*
>
> *(i) economic growth that are anticipated to be provided or reduced; and*
>
> *(ii) employment that are anticipated to be provided or reduced; and*
>
> *(b) if practicable, quantify the benefits and costs referred to in paragraph (a); and(c) assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions*

This section provides an assessment of efficiency and effectiveness of the NPSIB policies and associated provisions in Part 3 (implementation requirements). For each policy and associated provisions, this section provides an:

- An overview of the policy intent;
- An assessment of the effectiveness of the provisions to achieve the NPSIB objectives; and
- An assessment of the efficiency of the provisions focusing on the environmental, economic, social and cultural benefits and costs anticipated from the implementation of each policy (and associated provisions).

This section concludes with an assessment of the risks of acting and not acting where there a level of uncertainty about the likely impacts, benefits and costs of the NPSIB provisions.

7.1.2 Assessment of benefits and costs

The assessment of benefits and costs anticipated from the implementation of the NPSIB provisions in this draft section 32 evaluation and indicative CBA includes the following components:

- **Section 7** - an assessment of the environmental, economic, social and cultural benefits and costs anticipated from the implementation of specific NPSIB policies and provisions. This is largely a qualitative description of likely benefits and costs supported by quantitative information where practicable.
- **Section 8** - the indicative CBA, including a summary of **Appendix A** and further discussion on key costs and benefits (and the approaches and limitations of quantifying or monetising these).
- **Section 9** - key findings from the case study analysis (**Appendix C** contains the detailed spatial analysis for each case study council).
- **Appendix A** - a detailed indicative CBA for the 'With NPS' scenario.

Collectively, this analysis contributes to an overall assessment of the efficiency and effectiveness of the NPSIB provisions to achieve the objectives. These findings are indicative only and are based on available information at the time this draft evaluation and indicative CBA was prepared.

[37] This is reflected in the broad definition of benefits and costs in the RMA as including "*benefits and costs of any kind, whether monetary or non-monetary".* It is also recognised in Ministry for the Environment. 2017. *A guide to section 32 of the Resource Management Act: Incorporating changes as a result of the Resource Legislation Amendment Act 2017.* Wellington: Ministry for the Environment.

Section 32(2)(b) of the RMA states that the benefits and costs of provisions shall be quantified where practicable. As outlined in **section 2** and further expanded on in **section 8** of this report, it has not been possible to quantify a number of benefits and costs in this draft section 32 and indicative CBA.

Generally, implementation costs faced by councils have been monetised but are expressed as costs ranges per council (based on current estimates). These are described in **section 8** and **Appendix B** and summarised in this section in relation to specific policies where relevant. Some other costs have been quantified through the spatial analysis (not monetised), and the cost and benefits from the social, environmental and cultural effects anticipated from the NPSIB provisions have generally been qualified[38]. Where costs relating to specific NPSIB provisions have been able to be quantified and/or monetised, these are included in the summary of benefits and costs below.

7.2 Policy 1 – Te Tiriti o Waitangi/Treaty of Waitangi and Hutia e Rito

Policy 1 of the NPSIB is as follows:

> ***to recognise the role of tangata whenua as kaitiaki of indigenous biodiversity within their rohe, providing for tangata whenua involvement in the management of indigenous biodiversity, and ensuring that Hutia Te Rito is recognised and provided for***

Policy 1 is to be implemented (primarily) through Part 3.2 (Hutia Te Rito) and Part 3.3 (tangata whenua a kaitiaki) which set out the implementation requirements to give effect to the policy. The assessment of the effectiveness and efficiency of Policy 1 below provides a separate assessment of these two clauses. While they are closely interrelated and dependent in term of how they implement Policy 1, each clause has distinct impacts, benefits and costs that warrant a separate assessment.

7.2.1 Policy 1 and Part 3.2 - Policy intent

To give effect to Policy 1 and recognise and provide for Hutia Te Rito, Part 3.2 requires that decision-makers have Hutia Te Rito at the forefront of considerations when making decisions on subdivision, use and development. Part 3.2 states that, at a minimum, this requires decision-makers to:

a) *"recognise and provide for the interrelationships between te hauora o te tangata (the health of the people) and-*
   i. *te hauora o te koiora (the health of indigenous biodiversity); and*
   ii. *te hauora o te taonga (the health of species, populations, and ecosystems that are taonga); and*
   iii. *te hauora o te taiao (the health of the wider environment); and*

b) *recognise the maintenance of indigenous biodiversity requires kaitiakitanga and stewardship; and*

c) *take steps to ensure indigenous biodiversity is maintained and enhanced for the health, enjoyment, and use by all New Zealanders, now and in the future"*

Hutia Te Rito is intended to provide an overarching concept that incorporates the values of tangata whenua and the wider community in relation to the management of indigenous biodiversity. Including Hutia Te Rito as the underlying concept for managing indigenous biodiversity in the NPSIB t is intended that the health and well-being of our indigenous biodiversity is at the forefront of decision-making under the NPSIB. Hutia Te Rito also aims to ensure indigenous biodiversity is managed in a way that recognises the connections between the health of indigenous biodiversity, the health of the environment and the health of people.

[38] The practical difficulties of quantifying these latter categories in section 32 evaluations and CBAs is well recognised. For example, the Ministry for the Environment's section 32 guidance acknowledges it may be difficult to quantify impacts on indigenous biodiversity and tangata whenua values.

7.2.2 Policy 1 and Part 3.2 - Assessment of effectiveness

Policy 1 and Part 3.2 directly implement Objective 3 which is to recognise and provide for Hutia Te Rito in the management of indigenous biodiversity. It states that Hutia Te Rito must be at the forefront of considerations under the NPSIB and sets out some minimum requirements for how this should occur in practice. Consistent with the explanation of Hutia Te Rito in Part 1.7 (Fundamental Concepts), Part 3.2 emphasises that decision-makers must recognise and provide for the interrelationships between the health of people, the health of indigenous biodiversity, the health of the taonga species and ecosystems, and the health of the wider environment. It also requires decision-makers to recognise that the maintenance of indigenous biodiversity requires kaitiakitanga and stewardship and these considerations are fundamental to the overall Hutia Te Rito concept.

Policy 1 and Part 3.2 therefore has the potential to be effective to achieve Objective 3. However, there is still a degree of uncertainty on what Hutia Te Rito means in practice and how these provisions will be implemented. Stakeholders have expressed general support for the concept through the BCG process but feedback from councils has also emphasised that further clarity on what Hutia Te Rito means in practice is required. To reduce this uncertainty, the concept needs to be further tested with tangata whenua, councils and other stakeholders through public consultation to ensure there is an improved understanding about how the concept should work under the NPSIB. Guidance from central government to support the implementation of Objective 3, Policy 1 and Part 3.2 is also recommended.

7.2.3 Policy 1 and Part 3.2 - Assessment of efficiency

Table 22 provides a summary of benefits and costs anticipated from the implementation of Policy 1 and Part 3.2

Table 22: Policy 1 and Part 3.2 – assessment of efficiency.

	Benefits	Costs
Environmental	• The provisions seek to ensure that the connections between the health of people, the health of indigenous biodiversity, the health of taonga, and the health wider environment are better recognised and are at the forefront of decision-making considerations. This may help to improve indigenous biodiversity outcomes.	• N/A
Economic	• The provisions may help to improve how councils, tangata whenua and the community work together to improve the health of indigenous biodiversity. This may lead to efficiency gains over time as relationships, processes and systems develop.	• Time and costs for councils and tangata whenua to work together to operationalise Hutia Te Rito. • The costs to implement Policy 1 and Part 3.2 are uncertain as it is not known how councils will respond to Hutia Te Rito and operationalise this concept within their region and district. This needs to be further tested through consultation.
Social	• The provisions recognise the importance of stewardship and the connections between the health of people, the health of indigenous biodiversity, and the wider environment. This may indirectly contribute to increased support for landowner and community efforts to improve the health of indigenous biodiversity with associated social benefits.	• The resourcing needed to implement Policy 1 and Part 3.2 may result in less resourcing being given to other community initiatives.

Cultural	• The provisions seek to ensure tangata whenua values and concepts are incorporated into the implementation of the NPSIB and the management of indigenous biodiversity. This could have benefits for tangata whenua if implemented effectively.	• Time, resourcing and costs for tangata whenua to implement the provisions. The increased demand on tangata whenua capacity and resourcing may impact on their cultural well-being.

7.2.4 Policy 1 and Part 3.3 - Policy intent

To give effect to Policy 1, Part 3.3 (tangata whenua as kaitiaki) outlines how councils shall engage with tangata whenua in the implementation of the NPISB and involve tangata whenua in the management of indigenous biodiversity. Part 3.3(1) requires councils, when preparing policy statements and plans, to:

- Involve tangata whenua by undertaking early, meaningful engagement that is (as far as practicable) in accordance with tikanga Māori;
- Collaborate with tangata whenua to:
    - Identify indigenous species and ecosystems that are taonga, while recognising that tangata whenua have the right to choose not to identify taonga; and
    - Develop objectives, policies and methods to recognise and provide for Hutia Te Rito.

Part 3.3(2)-(4) requires councils take "all reasonable steps" to:

- Incorporate mātauranga Māori in relation to indigenous biodiversity into policy statements and plans, and in the consideration of resource consents, notice of requirements and private plan changes;
- Provide for tangata whenua to exercise kaitiakitanga over indigenous biodiversity, including through measures such as:
    - Bringing cultural understanding to monitoring;
    - Providing appropriate methods for managing, maintaining, and protecting identified taonga; and
    - Allowing for sustainable customary use of indigenous biodiversity.
- Provide for opportunities for tangata whenua to be involved in decision-making in relation to indigenous biodiversity the context of:
    - Policy statements and plans; and
    - Consideration of applications for resource consents, notices of requirements, and private plan changes.

The BCG explained the intent of their draft policy as follows:

> "*It is intended that local authorities will initiate consultation early to ensure that Māori perspectives are considered when pen is first put to paper to draft plans and policies; not as an afterthought. This will help to ensure that local authorities have the information and relationships to work with tangata whenua to incorporate mātauranga and tikanga Māori into the core of the planning framework, in environmental monitoring, effects management (for example through what effects are controlled, how they are assessed, and through tikanga tools like rāhui), and to ensure indigenous biodiversity management is through the lens of hutia te rito"*[39]

Policy 1 and Part 3.3 are consistent with the intent of the BCG and build on the existing requirements in the RMA to involve tangata whenua in RMA planning and decision-making processes to provide clearer direction about how this should occur in the management of indigenous biodiversity. Consistent with the outcomes sought in Objective 2, Part 3.3 has a focus on better incorporating mātauranga Māori into the management of indigenous biodiversity, while making it clear that this should only be with the consent of tangata whenua. The requirements to collaborate with tangata whenua in Part 3.3(1) are also strongly linked to Policies 1 and Part 3.2 (Hutia Te Rito) and to Policy 12 and

[39] Report of the Biodiverity Colloborative Group, pg 19.

Part 3.14 (identified taonga) emphasising that close involvement of tangata whenua will be essential to achieving those policies.

Part 3.3 also requires councils to take reasonable steps to provide opportunities for tangata whenua to be involved in decision-making relating to indigenous biodiversity and enable them to exercise their kaitiakitanga responsibilities more effectively. This is consistent with the intent of the BCG for the *"NPSIB to represent a significant shift in the role of tangata whenua in decision-making in respect of Aotearoa New Zealand's indigenous biodiversity"*[40].

7.2.5 Policy 1 and Part 3.3 - Assessment of effectiveness

Policy 1 and Part 3.3 are the key provisions to implement Objective 2 which seeks to *"to take into account the principles of the Treaty of Waitangi in the management of indigenous biodiversity*". Part 3.3 provides direction about how councils involve tangata whenua in planning and decision-making relating to indigenous biodiversity while still providing some flexibility for councils and tangata whenua to determine exactly how they work together to implement the NPSIB. This will enable councils and tangata whenua to build on their existing arrangements and partnerships and work together in a way that reflects the priorities and needs of tangata whenua.

Policy 1 and Part 3.3 will help achieve Objective 2 by requiring councils to take reasonable steps to incorporate mātauranga Māori into indigenous biodiversity decision-making and management, provide for tangata whenua to exercise kaitiakitanga over indigenous biodiversity, and to involve tangata whanau in decision-making relating to indigenous biodiversity.

Overall, Policy 1 and Part 3.3 impose more active obligations on councils to **involve** tangata whenua in the preparation of plans and policy statements, **collaborate** with tangata whenua, and take reasonable steps to **provide opportunities** for tangata whenua to be involved in indigenous biodiversity decision-making. This implies a move away from traditional forms of consultation towards a more active role for tangata whenua in all aspects of indigenous biodiversity management and decision-making. Collectively, this will help ensure Objective 2 is achieved over time.

7.2.6 Policy 1 and Part 3.3 - Assessment of efficiency

Table 21 provides a summary of the benefits and costs anticipated from the implementation of Policy 1 and Part 3.3.

Table 23: Policy 1 and Part 3.3 – assessment of efficiency.

	Benefits	Costs
Environmental	• More informed decisions through better incorporation of mātauranga Māori and tikanga Māori into indigenous biodiversity management alongside western approaches. This may result in improved outcomes for indigenous biodiversity. • Taonga (species and ecosystems) are more consistently identified and protected when tangata whenua choose to.	• N/A
Economic	• Provides greater specificity on how the provisions in Part 2 of the RMA relating to the relationship of tangata whenua with their taonga, kaitiakitanga and Te Tiriti o Waitangi/Treaty of Waitangi are to be met in relation to indigenous biodiversity. This may lead to increased certain and efficiency gains over time.	• Costs for councils and tangata whenua to work together to implement the provisions. The actual costs will vary significantly based on the existing relationships and arrangements between councils and tangata whenua across the country, and how they choose to work together to implement the provisions in practice.

[40] Report of the Biodiversity Collaborative Group, pg 18.

	Benefits	Costs
	• More effective, early engagement with tangata whenua in the management of indigenous biodiversity has the potential to reduce more costly opposition and contention in the latter stages of plan preparation. This may lead to efficiency gains over time. • Improved relationships and partnerships between councils and tangata whenua through clearer guidance on roles and how to work together on the management and protection of indigenous biodiversity. This may help to streamline processes and lead to efficiency gains over time.	• Costs for councils and tangata whenua to identify taonga species when tangata whenua choose to (discussed further in relation to Policy 12).
Social	• N/A	• N/A
Cultural	• Provides greater specificity and certainty on how the provisions in Part 2 of the RMA relating to the relationship of tangata whenua with their taonga, kaitiakitanga and Te Tiriti o Waitangi/Treaty of Waitangi are to be met in relation to indigenous biodiversity. This will help to improve practice with associated benefits to tangata whenua. • Encourages councils to provide opportunities for tangata whenua to exercise kaitiakitanga over indigenous biodiversity and their taonga and be more involved in decision-making. This will contribute to the cultural well-being of tangata whenua. • Encourages councils to take reasonable steps to provide opportunities for tangata whenua to be more proactively involved in decision-making relating to indigenous biodiversity. This will contribute to the cultural well-being of tangata whenua.	• Time, resourcing and costs for tangata whenua to implement the provisions. This increased demand on tangata whenua may impact on their cultural well-being. • The provisions provide councils considerable flexibility in how 'take reasonable steps' to provide opportunities for tangata whenua to exercise kaitiakitanga and be involved in decision-making. This presents a risk that some councils do not proactively provide for such opportunities and continue to rely on traditional forms of consultation with tangata whenua in their district/region.

7.3 Policy 2 – Precautionary approach

Policy 2 of the NPSIB is as follows:

> ***to ensure that local authorities adopt a precautionary approach towards proposed activities with effects on indigenous biodiversity that are uncertain, unknown or little understood but potentially significant***:

Policy 2 is to be implemented by Part 3.6 (precautionary approach) which sets out the implementation requirements for councils to give effect to the policy.

7.3.1 Policy intent

Policy 2 requires councils to adopt a precautionary approach towards "*proposed activities with effects on indigenous biodiversity that are uncertain, unknown, or are little understood, but potentially significant*". This is an overarching

consideration to ensure a precautionary approach is adopted under the NPSIB when there is uncertainty about effects on indigenous biodiversity.

In their report, the BCG outlined reasons to include, or not include, a precautionary approach policy in the NPSIB and recommended that central government make this decision. The BCG identified the following reasons to include the precautionary approach policy in the NPSIB:

- There are gaps in information about indigenous biodiversity pressures, states and trends;
- There is an acknowledged decline in many species despite management efforts; and
- To enable consistency in the management of effects in the coastal environment (where NZCPS Policy 3 (precautionary approach) applies) and international obligations under the Convention of Biological Diversity.

Conversely, the BCG identified the following reasons for not including a precautionary approach policy in the NPSIB:

- The approach is already inherent in the NPSIB; and
- Uncertainty as to how it would be implemented, particularly in a consenting context where it can result in unreasonable requirements for information and assessments[41].

DOC officials concluded that the effective implementation of the NPSIB and the sustainable management purpose of the RMA would best be supported by an explicit precautionary approach policy in the NPSIB. This will help ensure the precautionary approach is incorporated into the management of indigenous biodiversity where appropriate and clarify when it should be applied. The precautionary approach is considered to particularly relevant and important for the management of indigenous biodiversity because species (and populations and sub-species) are irreplaceable.

7.3.2 Assessment of effectiveness

Policy 2 will help achieve Objective 1 (maintenance of indigenous biodiversity) by requiring councils to adopt a precautionary approach where the adverse effects of a proposed activity on indigenous biodiversity are uncertain but potentially significantly adverse. This will help to reduce the likelihood of proposed activities resulting in significant adverse effects on indigenous biodiversity where the effects of the activity were uncertain at the time the application was assessed.

Policy 2 is consistent with the precautionary approach policy in the NZCPS (Policy 3(1)) and the key principles of the precautionary approach internationally. As outlined in the guidance for NZCPS Policy 3:

> "*The application of the precautionary approach is a risk management approach rather than a risk assessment approach. It is when the risk of potential significant adverse or irreversible environmental effects cannot be adequately assessed (because of uncertainty about the nature and consequences of human activities or other processes) that a precautionary approach to risk management becomes appropriate*"[42].

Effective implementation of Policy 2 and Part 3.6 will be reliant on council understanding of the precautionary approach and how this should be applied when assessing and managing the adverse effects of proposed activities on indigenous biodiversity. This is important to ensure it does not result in over regulation or unnecessary restrictions on subdivision, use and development. The core elements of the precautionary approach are that it should only be applied where:

- There is uncertainty; and
- There is threat of adverse effects; and
- The threat of adverse effects is potentially significant.

Application of the precautionary approach may include adoption of an adaptive management approach, or declining a resource consent application in certain circumstances. However, Policy 2 should not be used to impose stringent consent conditions or monitoring requirements, or as a basis to decline resource consent applications, where the potential adverse effects are unlikely to be significant. Clear guidance from central government is recommended to

[41] Report of the Biodiversity Collaborative Group, pg. 27.

[42] NZCPS 2010 Guidance note Policy 3: Precautionary Principle - https://www.doc.govt.nz/globalassets/documents/conservation/marine-and-coastal/coastal-management/guidance/policy-3.pdf

help ensure the precautionary approach is appropriately applied without imposing unnecessary constraints and costs on subdivision, use and development.

7.3.3 Assessment of efficiency

Table 24 provides a summary of the benefits and costs anticipated from the implementation of Policy 2 and Part 3.6. Overall, the benefits and costs of Policy 2 (if appropriately applied) are expected to be marginal compared to the status quo as it simply reinforces good practice that is recognised nationally and internationally.

Table 24: Policy 2 and Part 3.6 – assessment of efficiency.

	Benefits	Costs
Environmental	• Encourages councils to take a precautionary approach when the effects of a proposed activity on indigenous biodiversity are uncertain. This reduces the risk of unexpected and potentially significant adverse effects on indigenous biodiversity. This, in turn, will help to maintain indigenous biodiversity and help achieve the sustainable management purpose of the RMA.	• N/A
Economic	• N/A	• Potential for councils to use the policy as a basis to impose excessively stringent consent conditions or monitoring requirements. This could potentially result in significant compliance costs for landowners / developers. • Potential increase in opportunity costs for subdivision, use and development where the precautionary approach is used as basis to impose more stringent conditions that limits the extent of subdivision, use or development that can be undertaken. • Guidance from central government on the appropriate use of the precautionary approach is recommended to ensure the policy does not result in undue costs and constraints on subdivision, use and development.
Social	• N/A	• N/A
Cultural	• Encourages councils to take a precautionary approach when the effects of a proposed activity on indigenous biodiversity are uncertain, including taonga species and ecosystems. This reduces the risk of unexpected adverse effects on the taonga species or ecosystem.	• Excessively stringent consent conditions may increase opportunity costs associated with the utilisation of Māori land.

7.4 Policy 3 – Climate change

Policy 3 of the NPSIB is as follows:

> ***to support the resilience of indigenous biodiversity to the effects of climate change:***

Policy 3 is to be implemented by Part 3.5 (resilience to climate change) which sets out the implementation requirements for councils to give effect to the policy.

7.4.1 Policy intent

Policy 3 and Part 3.5 provide direction to councils, when preparing regional policy statements, plans, and regional biodiversity strategies, to manage indigenous biodiversity to promote its resilience to the effects of climate change. Part 3.5 states that, as a minimum, this should include:

> *a) Providing for the maintenance of ecological integrity through natural adjustments of habitats and ecosystems;*
>
> *b) Consideration of the effects of climate change when making decisions on:*
>
> *i. restoration and enhancement proposals; and*
>
> *ii. managing and reducing new and existing biosecurity risks; and*
>
> *d) maintaining and promoting the enhancement of, the connectivity between ecosystems, and between existing and potential habitats, to enable migrations so that species continue to find viable niches as the climate changes.*

The focus of Policy 3 and Part 3.5 is on promoting the resilience of indigenous biodiversity through planning instruments and strategies, i.e. regional policy statements, regional and district plans, and regional biodiversity strategies. This recognises that it is difficult to promote the resilience of indigenous biodiversity to climate change through a resource consent process given the longer timeframes and uncertainties associated with the effects of climate change on indigenous biodiversity.

Focusing the implementation of Policy 3 through planning instruments and strategies allows councils to take a strategic, longer term approach to promote the resilience of indigenous biodiversity. This will allow councils to consider cumulative impacts of climate change on indigenous biodiversity across their region/district and strategically plan actions to promote ecological resilience specific to their particular context. Initial feedback from councils on the draft NPSIB emphasised that climate change policy within the NPISB is best targeted at a strategic planning and policy level, rather than being applied to all forms of decision-making.

Policy 3 has also been deliberately framed to have a 'positive improvement' focus to **promote resilience** of indigenous biodiversity to climate change effects, as opposed to reducing the vulnerability of indigenous biodiversity to climate change effects. Promoting 'resilience' as a concept is more consistent with the RMA as the definition of intrinsic values in relation to ecosystems identifies resilience as a key constituent part and essential characteristic of ecosystems.

7.4.2 Assessment of effectiveness

Policy 3 and Part 3.5 will contribute to the achievement of Objective 1 to maintain indigenous biodiversity. Improving the resilience of New Zealand's indigenous biodiversity to the effects from climate change will help ensure the ecological integrity of habitats and ecosystems are maintained over time and not degraded or lost through the potential adverse effects of climate change.

Part 3.5 provides some direction to councils on the steps that must take to promote the resilience of indigenous biodiversity to climate change effects. At a minimum, councils must provide for the maintenance of ecological integrity, consider climate change in relation to restoration and enhancement proposals and the management and reduction of biosecurity risks, and maintain and enhance connectivity between ecosystems and habitats. There is flexibility around how these matters are provided for and councils may adopt additional provisions and methods to promote the resilience of indigenous biodiversity to climate change within their district/region.

This flexible will assist in the achievement of Objective 1 as each region/district is unique in terms of the mix and extent of ecosystems and habitats and the likely impacts of climate change on indigenous biodiversity. This will enable councils to choose the most appropriate methods to promote the resilience of indigenous biodiversity to the effects of climate change within their particular context.

Guidance from central government is important to support the effective implementation of Policy 3. This is important due to the uncertainties associated with climate change effects on indigenous biodiversity and the fact most councils do not explicitly address climate change effects on indigenous biodiversity through their planning instruments and strategies. This guidance should include practical examples of how to promote the resilience of indigenous biodiversity to the effects of climate change.

7.4.3 Assessment of efficiency

Table 25 provides a summary of the benefits and costs anticipated from the implementation of Policy 3 and Part 3.5.

Table 25: Policy 3 and Part 3.5 – assessment of efficiency.

	Benefits	Costs
Environmental	• Councils more proactively develop plan provisions to promote the overall resilience of indigenous ecosystems, species and habitats to climate change effects. • The resilience of indigenous biodiversity to climate change and biosecurity threats is improved over time.	• Policy 3 and Part 3.5 recognises that there will be natural adjustments to habitats and ecosystems over time as a result of climate change, so localised extinctions and losses of indigenous biodiversity are possible. The cumulative effect of this may also have aggregate effects on indigenous biodiversity if the rate of decline exceeds the rate or ability of indigenous biodiversity to adapt.
Economic	• The policy provides some flexibility to councils on how to promote resilience to climate change and encourages a long-term, strategic view. This will help to reduce the administrative effort required to implement the policy. • Taking a long-term strategic view to plan for resilience to climate change is likely to be more efficient than mitigating the impacts of climate change at a later date.	• Most councils do not explicitly address climate change effects on indigenous biodiversity through their plans[43]. There will be administrative effort and costs to councils to understand how to promote the resilience of indigenous biodiversity to climate change effects within their region/district, and to develop new provisions to respond to these potential effects. • The costs to councils to integrate climate change considerations into their policy statements and plans will vary depending on the size of the district/region, knowledge of climate changes effects and their nature (i.e. sudden v gradual change), and the existing plan provisions. • Central government guidance and information on climate change effects is recommended to mitigate the implementation costs for councils and to assist with the effective implementation of Policy 3. This is important as understanding the future effects of climate change on indigenous biodiversity and how to respond

[43] Advice and analysis from officials.

		to this is beyond the resourcing and capacity of some councils. As such, it would benefit from a joined-up or central government led approach.
Social	• Policy 3 and Part 3.5 recognise the importance of ecological maintenance, enhancement and restoration initiatives to improve the resilience of indigenous biodiversity. This may result in more support for community activities that seek to achieve these outcomes. This has the potential to positively contribute to social well-being in these communities.	• N/A
Cultural	• Indigenous biodiversity maintenance, enhancement and restoration initiatives to give effect to Policy 3may include taonga species and ecosystems, helping to improving their health and resilience. This has potential cultural benefits for tangata whenua.	• N/A

7.5 Policy 4 – Integrated management

Policy 4 of the NPSIB is as follows:

> ***to improve the integrated management of indigenous biodiversity within and between administrative boundaries:***

Policy 4 is to be implemented by Part 3.4 (integrated approach) which sets out the implementation requirements for councils to give effect to the policy. The definition of 'administrative boundaries' in the NPSIB is also particularly important in the understanding and implementation of Policy 4:

> ***"administrative boundaries** include all the following:*
>
> *a) regional and district jurisdictional boundaries and functions:*
>
> *b) land administered by central government and land administered by local authorities:*
>
> *c) boundaries between public land and private land:*
>
> *d) where tangata whenua boundaries of rohe cross local authority boundaries".*

7.5.1 Policy intent

Policy 4 aims to improve the integrated management of indigenous biodiversity across physical, jurisdictional, land administration and ownership boundaries, and the rohe of tangata whenua where this crosses council boundaries. To improve integrated management, Part 3.4 requires councils to:

- Recognise the interactions between terrestrial environment, freshwater, and the coastal environment. This is known as 'ki uta ki tai' (from mountains to the sea) and is particularly important from the perspective of tangata whenua.
- Provide for the co-ordinated management and control of subdivision, use and development as it affects indigenous biodiversity across administrative boundaries.
- Consider the requirements of other strategies and planning tools in other legislation relevant to indigenous biodiversity.

Also of relevance to Policy 4 is Part 1.6 which sets out the relationship of the NPSIB with the NZCPS. This states that the NZCPS prevails over the NPSIB in the event of conflict between the provisions in each instrument. This recognises the relationship, overlaps and potential conflict between the NPSIB and Policy 11 of the NZCPS (indigenous biological diversity). These overlaps mainly relate to the SNA criteria in Appendix 1 of the NPSIB and the effects management regime for 'high' and 'medium' SNAs. The SNA criteria in Appendix 1 of the NPSIB address a wider range of attributes, which may result in additional SNAs being identified in the coastal environment. It is important that the NPSIB does not conflict with the existing effects management framework under Policy 11 of the NZCPS which has a strong avoid adverse effects for certain species, ecosystems and areas in the coastal environment. Accordingly, the preferred approach is for the NPSIB to sit alongside and complement NZCPS Policy 11 with the NZCPS prevailing in the event of any conflict.

7.5.2 Assessment of effectiveness

Policy 4 is directly aimed at the achievement of Objective 4 to improve the integrated management of indigenous biodiversity. Policy 4 and Part 3.4 outlines the actions required to achieve Objective 4 with a focus on coordinated management and control of subdivision, use and development across 'administrative boundaries'. It is expected that regional policy statements will play a key role in implementing Policy 4 given their overarching purpose to set out policies and methods to achieve the integrated management of natural and physical resources in the region[44].

While integrated management is a core function of councils and recognised good practice, it is often very difficult to achieve effective integrated management of indigenous biodiversity, particularly where existing systems, processes and relationships are not well coordinated and aligned. Effective implementation of Policy 4 will likely require some up-front resourcing and effort to get these systems and processes established. Central government guidance, including examples of existing best practice, is recommended to support the effective implementation of Policy 4. The refresh of the New Zealand Biodiversity Strategy is also seeking to achieve well-coordinated, integrated system for New Zealand's indigenous biodiversity '*Shift 1 – Getting the System Right'*. This work is likely to complement the focus of the NPSIB to improve integrated management and the implementation of Policy 4.

Clarifying the relationship between the NPSIB and the NZCPS in the event of potential conflict in Part 1.6 is important to ensure that the NPSIB does not undermine or conflict with existing and future work to give effect to NZCPS Policy 11. Guidance from central government on the relationship between these two instruments is recommended to ensure alignment and assist with implementation.

7.5.3 Assessment of efficiency

Table 26 provides a summary of the benefits and costs anticipated from the implementation of Policy 4 and Part 3.4.

Table 26: Policy 18 – assessment of efficiency

	Benefits	Costs
Environmental	• Will promote integrated decision-making to reduce the frequency of disjointed planning and decision-making which can have adverse effects on indigenous biodiversity[45].	• Policy 4 and Part 3.4 do not specify how coordinated management and control of activities affecting indigenous biodiversity across administrative boundaries is to be achieved. As such, there is a risk that it achieves limited improvements in practice. It is recommended that this risk is mitigated through guidance on how to effectively achieve integrated management across administrative boundaries. • The policy is focused on achieving integrated management of indigenous biodiversity within

[44] Section 59 of the RMA.

[45] For example, such as highlighted in Henley Hutchings (2018), '*Mackenzie Basin: Opportunities for Agency Alignment'.*

		the terrestrial environment (although Part 3.4(a) does seek to recognise the interactions between the terrestrial environment, freshwater and the coastal marine area). This may limit its effectiveness in achieving fully integrated management of indigenous species and ecosystems that span beyond the terrestrial environment.
Economic	• Potential efficiency gains through councils and other agencies working together more to manage subdivision, use and development that affects indigenous biodiversity across administrative boundaries.	• Costs for regional councils to identify subdivision, use and development that affects indigenous biodiversity across administrative boundaries and develop plan provisions to achieve coordinated control and management of these activities. • Implementation costs for councils to work together across jurisdictional boundaries to implement the policy. These costs will vary depending on the existing processes and systems councils currently have to achieve integrated management. These costs are not expected to be significant as integrated management is already a core function of regional councils and recognised good practice.
Social	• The policy provides a direct link to other enactments and strategies that relate to indigenous biodiversity. This may result in increased recognition and support for community driven strategies and associated benefits to the community.	• N/A
Cultural	• The policy requires councils to manage subdivision, use and development that affect indigenous biodiversity in an integrated manner when these activities cross tangata whenua boundaries/ rohe. This will help to achieve greater consistency in how tangata whenua interests and values in relation to indigenous biodiversity are considered and managed within their rohe. • The policy recognises the concept of ki uta ki tai (from the mountains to the sea), which is also consistent with the wider concept of Hutia Te Rito as one of the guiding concepts for the NPSIB. This promotes better consideration of cultural concepts when councils are managing indigenous biodiversity with	• The policy is focused on achieving integrated management of indigenous biodiversity within the terrestrial environment (although Part 3.4(a) does seek to recognise the interactions between the terrestrial environment, freshwater and the coastal marine area)). This is inconsistent with view of tangata whenua that the environment is intrinsically linked, and indigenous biodiversity should be managed in an integrated and holistic manner across all environments.

	potential cultural benefits to tangata whenua.	

7.6 Policy 5 – Information on the effects of activities

Policy 5 of the NPSIB is as follows:

> ***to improve information on the effects of existing and proposed subdivision, use and development on indigenous biodiversity:***

Policy 5 is to be implemented through Part 3.19 (assessment of environment effects) which sets out the implementation requirements for councils to give effect to the policy.

7.6.1 Policy intent

Policy 5 and Part 3.19 aim to improve the information on the effects of existing and proposed subdivision, use and development on indigenous biodiversity. This is to be achieved through more specific and robust requirements for information on indigenous biodiversity in the assessment of environmental effects (**AEE**) submitted as part of the resource consent process. Part 3.19 gives greater specificity about the information required in AEEs under specific clauses in Schedule 4 of the RMA – specifically the site description (Schedule 4, Clause 2(1)(b)) and matters to be addressed in the assessment of environmental effects (Schedule 4, Clause 7(1)). This is consistent with Clause 6(2) of Schedule 4 to the RMA [46] which expressly anticipates that policy statements and plans may provide additional direction on what an AEE must include.

Part 3.19 states councils must change their policy statements and plans to include a requirement for specific information and assessments on indigenous biodiversity in AEEs when the site covered by the application is in, or affects:

- An SNA;
- An area of indigenous vegetation or habitat of indigenous fauna;
- An area identified as a 'highly mobile fauna area' (as described in Clause 3.13);
- An area providing buffering or connectivity; or
- An area containing identified taonga.

In these circumstances, councils must change their policy statements and plans to include a requirement for AEEs to:

- Address the effects of the proposal on the areas identified above (where relevant);
- Include sufficient information to demonstrate effective management of adverse effects required under the NPSIB provisions;
- Address effects of the proposal on identified taonga species;
- Address effects on ecosystem services associated with indigenous biodiversity at the site;
- Address effects on the sites role in maintaining the ecological integrity and connections between it and wider ecosystem;
- Use biodiversity methodologies consistent with best practice for the ecosystem type(s) present at the site; and
- Consider including mātauranga Māori and tikanga Māori assessment methodologies where relevant.

7.6.2 Assessment of effectiveness

Policy 5 and Part 3.19 are aimed at addressing poor assessments of effects on indigenous biodiversity through the resource consent process. This can result in less informed decision-making on the basis of inadequate information and contribute to the core problem the NPSIB seeks to address – the ongoing loss of indigenous biodiversity. Policy 5 and

[46] This states: *(2) A requirement to include information in the assessment of environmental effects is subject to the provisions of any policy statement or plan.*

Part 3.19 are directly aimed at addressing this problem through ensuring a better assessment of effects on indigenous biodiversity upfront in AEEs to support more informed decision-making. Improved AEEs will therefore help contribute to the achievement of Objective 1 to maintain indigenous biodiversity.

Part 3.19 provides greater specificity on what information and assessments should be provided under key clauses in Schedule 4 of the RMA in relation to indigenous biodiversity but cannot limit the requirements of Schedule 4 in anyway. In this respect, Policy 5 and Part 3.19 builds on the existing provisions in the RMA and aim to improve practice rather than placing new obligations on applicants or consent authorities. As such, these provisions are s not expected to materially increase the workload of applicants and consent authorities that currently adhere to good practice. However, they will require more robust assessments where practice is poor, including more detailed ecological assessments to adequately address the effects and assessment matters referred to Part 3.19.

Part 3.19 complements the policies the effects management provisions in the NPSIB, particularly those that require the effects management hierarchy to be followed. Specifically, Part 3.19 requires AEEs to include sufficient information to demonstrate effective management of adverse effects required under the NPSIB provisions. This will require applicants to provide sufficient information to demonstrate how the relevant avoidance, remediation, and mitigation adverse effects requirements in the NPSIB will be achieved and how any positive outcomes proposed through environmental offsetting and environmental compensation will be secured, including compliance with Appendix 3 and 4 (where relevant). The rigour imposed by this requirement will encourage robust AEEs that clearly follow the effects management hierarchy and mitigate the risk of unsuccessful biodiversity offsetting and biodiversity compensation. This will also contribute to the achievement of Objective 1 – maintenance of indigenous biodiversity.

7.6.3 Assessment of efficiency

Table 27 provides a summary of the benefits and costs anticipated from the implementation of Policy 5 and Part 3.19.

Table 27: Policy 5 and Part 3.19 – assessment of efficiency.

	Benefits	Costs
Environmental	• Will encourage improved assessment of effects on indigenous biodiversity in AEEs to support more informed decision-making. This may lead to good outcomes for indigenous biodiversity. • Requiring applicants to demonstrate effective implementation of the effects management hierarchy will encourage well designed proposals and promote good outcomes for indigenous biodiversity. • Minimum standards for assessments of adverse effects on indigenous biodiversity will help ensure that any necessary work (e.g. biodiversity surveys) will be completed up-front. This will reduce the likelihood that assessments will be incomplete and potentially miss key threatened species, ecosystems or habitats.	• N/A
Economic	• Increased certainty about the information and assessments of effects on indigenous biodiversity required in AEEs will help to ensure the necessary assessments are undertaken up-front. This may provide efficiency gains at the latter stages of the consent process by reducing further	• Costs to applicants associated with more detailed information and assessments of effects on indigenous biodiversity. These costs are likely to be substantial in some cases (e.g. assessing effects on highly mobile fauna areas) and it is likely that landowners will be more reliant on

	information requests and associated delays. • Potential reduction in debate (and associated costs) between applicants and consent authorities through the consent process as both parties will have a clearer understanding of the information required on indigenous biodiversity within AEEs.	ecological experts to undertake specialist assessments with associated costs. • Uncertainty and complexities associated with assessing certain effects that are not typically included in AEEs. For example, the effects of proposed activities on ecosystem services and the role of the site in maintaining the ecological integrity of the site and the wider ecosystem. This has time and cost implications for applicants and councils and will require additional work, more technical input, and upskilling in some areas. • Risk that the level of information and assessments required on indigenous biodiversity (and associated costs) may not correspond to the scale and significance of the adverse effects (as required under Schedule 4 of the RMA). • Guidance from central government is recommended to support the implementation of Policy 5 and Part 3.19 and reduce the risk that these information requirements result in undue compliance costs for applicants.
Social	• More detailed assessments of effects on indigenous biodiversity and ecosystem services will help ensure the wider benefits to the community are better assessed and provided for through the resource consent process. This may have flow on benefits to communities.	• N/A
Cultural	• The policy encourages the use of mātauranga Māori and tikanga Māori assessment methodologies where relevant. This will promote better engagement between applicant, councils and tangata whenua. A better understanding of mātauranga Māori and tikanga Māori through the consent process will enable a more holistic assessment of effects on indigenous biodiversity and a more robust assessment of cultural effect. • Part 3.19 makes it clear that effects on identified taonga should be assessed where relevant. This will help to ensure the values of the taonga specie or ecosystems to tangata whenua are better assessed and protected through the	• N/A

	resource consent process with associated cultural benefits.	

7.7 Policy 6: Identify and protect significant natural areas

Policy 6 of the NPSIB is as follows:

> ***to identify and protect area of significant indigenous vegetation or significant habitat of indigenous fauna by identifying them as SNAs:***[47]

Policy 6 is to be implemented (primarily) by Part 3.8 (identifying SNAs) and Part 3.9 (managing adverse effect on SNAs) which set out the implementation requirements for councils to give effect to the policy. The assessment of the effectiveness and efficiency of Policy 6 provides a separate assessment of these two clauses. While they are closely interrelated and dependent in term of how they give effect to Policy 6, each clause has distinct impacts, benefits and costs that warrant a separate assessment.

The assessment of the effectiveness and efficiency of Part 3.9 to manage adverse effects on SNAs below is limited to Part 3.9(1) which sets out certain adverse effects on SNAs that must be avoided. Part 3.8(2)-(4) are also relevant to the implementation of Policy 6 but they are more directly relevant to Policy 8 and therefore these provisions are assessed in relation to that policy.

7.7.1 Policy 6 and Part 3.8 - policy intent

Policy 6 and Part 3.8 form a key part of the NPSIB and are an important precursor to the effects management provisions that apply within identified SNAs The identification and protection of SNAs is a critical part of meeting obligations under section 6(c) of the RMA and maintaining indigenous biodiversity. It has long been a challenging and contentious issue and improving consistency in this area is one of the key drivers for the NPSIB.

Policy 6 and Part 3.8 require territorial authorities to identify SNAs within their districts using nationally consistent ecological significance criteria (Appendix 1) and by adopting a set of nationally consistent principles and approaches when undertaking the assessment (Part 3.8(2)). The ecological significance criteria outlined in Appendix 1 reflect best practice as do the principles and approaches promoted through Part 3.8(2) which are focused on partnership, transparency, quality, access, consistency and (natural) boundaries.

Appendix 1 of the NPSIB includes four criteria to identify SNAs (A - representativeness, B - diversity and pattern, C - rarity and distinctiveness, D - ecological context) which are supported by guidance to assist with the assessment of ecological significance. Any site that meets one of the four criteria is to be identified as a SNA and identified SNAs must also be classified as High (H) or Medium (M) in accordance with Appendix 2 (tool for managing effects on SNAs). The assessments of SNAs must include (at least) a map of the area, a description of significant attributes, a description of vegetation, habitats, fauna and ecosystems present, and additional information such key threats. These se assessments must be conducted by a suitably qualified ecologist. Once SNAs have been assessed and classified as H or M, territorial authorities are required to amend their plans as necessary to map the identified areas. Requiring the spatial identification of SNAs, the rating in accordance with Appendix 2, and the identification of relevant attributes for each SNA will provide greater certainty on the location and extent of each SNA and their values.

The criteria and supporting guidance in Appendix 1 have been informed by growing consensus from ecologists in this area and ongoing technical advice and feedback from ecologists as part of the development of the NPSIB[48]. Consistent

[47] SNAs or significant natural areas are defined in the NPSIB as "*means: a) an area identified as an SNA in a district plan or proposed plan in accordance with clause 3.8; or: b) an area identified, before the commencement date, in a policy statement or plan, or proposed policy statement or plan, as an area of significant indigenous vegetation or significant habitat of indigenous fauna, regardless of whether the area is referred to as a significant natural area or in any other way; or c) an area identified as an area of significant indigenous vegetation or significant habitat of indigenous fauna as part of assessment of environmental effects".*

[48] This includes DOC (2016), '*Department of Conservation guidelines for assessing significant ecological values'* By Davis, N.J. Head, S.C. Myers and S.H. Moore 2016, and draft position of Environment Institute of Australia and New Zealand on assessing significant ecological values in New Zealand: https://www.eianz.org/eianznews/assessing-significant-ecological-values-in-new-zealand The criteria prepared by Mike

with the recommendations of the BCG, the provisions in the NPSIB treat SNA identification and SNA management as distinct steps. Identification of SNAs through Part 3.8 is the first step to give effect to Policy 6 and this is a technical, scientific assessment to assess and rank the ecological attributes of an area.

Timeframes

Implementing Policy 6 in accordance with Part 3.8 will be a significant task for councils that have not yet identified SNAs and councils that have limited/dated SNA schedules. It will require considerable resources and will take some time to complete. Implementation timeframes for Policy 6 and Part 3.8 need to recognise and accommodate the significance of this task. It is also important that the NPSIB does not create unnecessary work and compliance costs for councils that have recently completed a SNA mapping exercise, particularly where this is well aligned with the NPSIB requirements.

To manage these implementation issues, Part 3.8 sets out the following timeframes:

- Territorial authorities must identify and assess SNAs in accordance with Appendix 1 and 2 within five years after commencement date;
- When territorial authorities (through a suitably qualified ecologist) can demonstrate that SNAs identified in their plan "substantially conform" with Appendix 1 within three years of commencement, then they must classify these areas as H or M in accordance with Appendix 2 within five years after commencement date; and
- Territorial authorities must notify plan changes to map identified SNAs (and their ranking) within six years after commencement.

Part 3.8 also requires territorial authorities to:

- Update their district plans as necessary every 10 years in accordance with the process set out in Part 3.8(1) and (2), Appendix 1 and Appendix 2; and
- Notify a plan change at least every two years, where practicable, to add any area that has being identified as SNA in accordance with Appendix A of the NPSIB as a result of an assessment in a resource consent application, notice of requirement in a designation, or other means.

Tenure

The BCG recommended a "tenure neutral" approach to identifying and mapping SNAs, i.e. the requirements would apply equally to both private land (including Māori land) and public land. However, the BCG also recognised resource constraints to map SNAs in districts with large geographical areas and/or a small ratepayer base and recommended that the cost of SNA identification on Crown land should be borne primarily by central government[49].

The NPSIB provisions to identify SNA are consistent with the BCG's recommendations for a "tenure neutral" approach. In particular, the 'consistency' principle in Part 3.8 states that identification of SNAs should be based on the consistent application of the criteria in Appendix 1 regardless of who owns the land. However, officials are still considering how Part 3.8 should apply to Crown Land and public conservation land, including who should be primarily responsible and whether a field assessment should be required. As these options are still uncertain at this stage, they have not been assessed in this draft evaluation but will be assessed in detail following consultation.

However, a different approach is in the NPSIB the identification of DOC administered land is recommended given the significant costs this could impose on councils. This also reflects the fact there are existing protections in place for indigenous biodiversity on land administered by DOC under the Conservation Act and Reserves Act, so the urgency and benefits of SNA identification and protection are comparatively less than on privately-owned (general) land. For these reasons, costs to identify SNAs on DOC administered land have not been included in the indicative cost ranges outlined in **Appendix B** and summary of benefits and costs anticipated from Policy 6 and Part 3.7 below.

Part 3.8 - assessment of effectiveness

Harding for the BCG were also tested with other ecologists: https://www.biodiversitynz.org/uploads/1/0/7/9/107923093/harding-nps-criteria-rma-section-6_c_-assessments-2018.pdf DOC ecologists also provided ongoing advice into the development of the criteria.

[49] Report of the Biodiversity Collaborative Group (2018), pg. 23.

Policy 6 and Part 3.8 is critical to achieve Objective 1 – the maintenance of indigenous biodiversity. Policy 6, Part 3.8 and Appendix 1 of the NPSIB build on current best practice in terms of how councils meet their obligations under section 6(c) of the RMA, both in terms of the criteria used to assess ecological significance and principles and approaches used to assess ecological significance, including physical inspection where practicable.

Identifying SNAs using ecological significance criteria and mapping these areas in district plans is the predominant approach taken by councils to meet their obligations under section 6(c) of the RMA, with over 61% of district plans including a SNA schedule in some form[50]. SNA mapping has proven to be an effective method to protect SNA and preferable to more reactive approaches that rely on an assessment of ecological significance at the resource consent stage. This latter approach can result in uncertainty for landowners and less protection of SNAs, particularly where there is a lack of compliance monitoring.

Requiring a nationally consistent approach to assess, identify and map SNAs is therefore likely to be the most effective approach to protect SNAs and contribute to the achievement of Objective 1. The criteria in Appendix 1 of the NPSIB build on existing best practice and growing consensus between experts on ecological significance criteria. Applying these criteria through the NPSIB will help ensure that areas of indigenous vegetation and habitats are assessed in a nationally consistent and robust manner that reflects best practice.

Part 3.8 also promotes best practice in terms of the principles and approaches that must be adopted when assessing areas of indigenous vegetation and habitats. This requires territorial authorities to work in partnership with landowners when identifying SNA and ensure the process is accurate (including physical inspection where practicable). Not only will this ensure robust and accurate identification of SNAs, but it will help build relationships between councils and landowners through a better understanding of the values of SNAs and the benefits of their protection. This will help to achieve Objective 1 through better identification and protection of SNAs (which is an important part of maintaining indigenous biodiversity).

A limitation of Policy 6 and Part 3.8 is that it will require all territorial authorities to map SNA when some councils have chosen not to map SNAs for various reasons. Recognised barriers and costs associated with SNA mapping include:

- The cost and expertise required to identify SNAs and in particular to undertake physical surveys;
- Reliance on incomplete and dated information or desktop techniques;
- Issues gaining access to private properties for field surveys;
- Lack of landowner willingness to engage;
- Frequent litigation over site boundaries limiting confidence in SNA maps; and
- Mapping based on politics and vested interests rather than ecological evidence[51].

The requirements in the NPSIB to identify and map SNAs therefore have the potential to undermine alternative approaches to identify SNAs. This includes the 'habitat-type' approach in the Horizons One Plan, which has been found to be a valid method to identify SNAs and support regulatory protection[52].

Despite these potential risks, the requirement to spatially identify SNAs in accordance with Policy 6, Part 3.7 and Appendix 1 is considered to be the most effective option at a national level to achieve Objective 1. These provisions build on current best practice and will provide a more certain, nationally consistent approach to identify SNAs. Greater certainty about the location and extent of SNAs will enable better protection of SNAs consistent with section 6(c) of the RMA and help to maintain indigenous biodiversity.

[50] Analysis and advice from officials and their ecologists.

[51] Maseyk, F and Gerbeax, P (2014), '*Advances in the identification and assessment of ecologically significant habitats in two areas of contrasting biodiversity loss in New Zealand*' New Zealand Journal of Ecology (2015) 39(1): 116-127.

[52] *Day v Manawatu Whanganui Regional Council* Interim decision [2012] NZEnvC 182, cited in Maseyk, F and Gerbeax, P (2014), '*Advances in the identification and assessment of ecologically significant habitats in two areas of contrasting biodiversity loss in New Zealand*' New Zealand Journal of Ecology (2015) 39(1): 116-127.

7.7.2 Policy 6 and Part 3.8 - assessment of efficiency

District wide SNA mapping

The benefits and costs of the provisions in the NPSIB to identify SNAs will vary significantly across New Zealand based on a range of factors. The most significant of these is the current approach each territorial authority has (or has not) undertaken to identify SNAs in their district plan. A recent review of district plans found that 61% include a SNA schedule but only 19% of these were assessed as being 'very complete'. The remainder of the SNA schedules were assessed as being 'moderately complete' (25%) or 'limited in completeness' (17%)[53]. This indicates that most territorial authorities have a substantial amount of work to do to identify and map SNAs in accordance with the NPSIB provisions and this will result in substantial implementation costs in these districts. The indicative cost ranges to identify SNA are summarised below and detailed further in **section 8** and **Appendix C**.

While these implementation costs may be significant for some districts in the short to medium term, the ongoing benefits are also potentially significant. These benefits extend beyond the protection of SNAs and include greater certainty and consistency in resource management practice and reduced litigation over time. The NPSIB ecological significance criteria are also based on current best practice and align quite well with more recent second generation RPS and plans[54]. This suggests that future plan changes to identify SNAs would adopt similar approach and criteria to Part 3.8 and Appendix 1 even in the absence of the NPSIB.

Part 3.8(8) – updating SNA schedules

Part 3.8(8) requires territorial authorities to notify a plan change at least every two years, where practicable, to add any area that has been identified as SNA in accordance with Appendix 1 of the NPSIB as a result of an assessment in a resource consent application, notice of requirement in a designation, or other means.

DOC officials considered whether SNAs schedules should be updated as part of regular district plan reviews (required every ten years), or a shorter timeframe. A two-year timeframe to update SNA schedules was identified as the preferred option by DOC officials as this means information is fresh and reliable, landowner understanding of values is current (reducing potential opposition to the plan change), the number of new SNAs areas every two year is small (reducing time, effort, cost, and opposition), and there is continued council awareness and focus on SNAs[55].

However, the requirement to notify a plan change (at least) every two years[56] to update SNA schedule will impose some clear costs on territorial authorities, and these costs may not be commensurate with the benefits identified above. While the plan change may be relatively discrete (and potentially limited notified rather than publicly notified), any RMA Schedule 1 plan change process involves administrative effort, time and costs and the potential for opposition and litigation. The requirement to only notify plan changes every two years 'where practicable' mitigates these risks to some extent, particularly for council with limited resources to progress regular plan changes.

The indicative cost range is for plan changes under Part 3.8(8) in **Appendix C** of this report is estimated at between $15,000 and $30,000. This is the lower end of plan change costs from the National Monitoring Systems (**NMS**) dataset but recognises that any plan change through the Schedule 1 process has a range of administrative tasks and the potential for litigation. Feedback from public consultation is important to test whether this cost range is reasonable and whether the compliance costs associated with Part 3.8(8) is likely to be commensurate with the benefits in terms of updated knowledge on SNAs.

Table 28 provides a summary of the benefits and costs anticipated from the implementation of Policy 6, Part 3.8, Appendix 1 and Appendix 2.

[53] Analysis and advice from officials and their ecologists.

[54] Analysis and advice from officials and their ecologists.

[55] Analysis and advice from officials and their ecologists.

[56] The expectation is that councils will 'group' SNA updates through a single plan change every two years rather than initiate a single plan change for each SNA update. There is also likely to be a large number of districts where limited plan changes are required in accordance with Part 3.7(3) and at a greater duration than two years.

Table 28: Policy 6 and Part 3.8 – assessment of efficiency.

	Benefits	Costs
Environmental	• An improved understanding of the location and extent of SNAs enables more strategic oversight and proactive protection of SNAs. • Provides a more robust, nationally consistent process to identify SNAs which will help improve their protection. Greater protection of SNAs will help to maintain New Zealand's indigenous biodiversity.	• Potential risk of 'gold rush' effect when landowners clear indigenous vegetation on their land due to concern this may be identified as a SNA through the mapping process when the NPSIB comes into force. • Potential risk that the NPSIB criteria capture fewer sites that currently scheduled in district plans when these sites are reassessed. This could result in less protection being afforded to these sites and some loss of indigenous biodiversity. This risk is considered to be low as the NPSIB criteria based on existing good practice. • Potential to undermine existing approaches to identify SNA using criteria only, which has been found to be a valid method to support regulatory protection (e.g. Horizons OnePlan approach).
Economic	• Reduced debate and litigation about the criteria used to assess ecological significance and methodology used to identify SNAs. • Reduced debate and litigation through consenting processes as to whether a site is a SNA or not. • Provides greater certainty to landowners and developers as to the location and extent of SNAs. • SNAs are identified in a consistent manner at district scale rather than in an ad hoc manner through resource consent process. This may provide efficiencies over time and reduced costs/uncertainty for landowners through the resource consent process. • Nationally consistent criteria and requirements will depoliticise the process at the local level. This will help to reduce debate and litigation over time.	• Resourcing costs (internal and external) for territorial authorities assess and maps SNAs in the time specified. Indicative costs may range from an estimated $700,000 for a council with a relatively small amount of indigenous cover and adopting a collaborative / cost sharing approach, to $1,300,000 for a council with a large area of indigenous cover, a non-collaborative process and excluding any ground-truthing on DOC administered land. These costs are anticipated to be spread over five years and in present value terms (6% discount rate) equates to $590,000-$1,095,000. • Time cost to landowners to provide/facilitate access to council staff/ecologists or attend public engagement meetings to confirm SNA boundaries and attributes. • Time and costs for landowners to make submissions, participate in hearing process, potential appeals etc. where a SNA or its boundaries remains in contention.
Social	• A clear, transparent process to work in partnership with landowners to identify	• Potential damage to existing community relationships, particularly where NPSIB requirements change and/or undermine

	SNAs may help to build or improve relationships. • Greater awareness in the community about the location and extent of SNA in their area and the ecological values of those SNAs. • The values New Zealand's indigenous biodiversity are better understood. Improved levels of social responsibility towards indigenous biodiversity, including for future generations.	existing work/approaches that are supported by the community. • The costs to complete SNA mapping are likely to be largely funded through rates reducing the amount of funding for other community initiatives.
Cultural	• Some SNAs identified in accordance with Policy 6, Part 3.8and Appendix 1 will also be taonga to tangata whenua. Identification of taonga as SNA will provide greater protection with associated benefits to tangata whenua.	• N/A

7.7.3 Policy 6 and Part 3.9(1) - policy intent

To 'protect' SNAs in accordance with Policy, Part 3.9(1) sets out requirements for councils to manage any new subdivision, use and development in a way that avoids certain adverse effects on SNAs. Part 3.9(2)-(4) provides specific exemptions to Part 3.9(1) which are discussed below in relation to Policy 8.

Part 3.9(1)(a) states that the following adverse effects in SNAs must be 'avoided':

> *i. loss of ecosystem representation and extent;*
>
> *ii. disruption to sequences, mosaics or ecosystem function;*
>
> *iii. fragmentation or loss of buffering or connectivity within the SNA and between other indigenous habitats and ecosystems; or*
>
> *iv. a reduction in population size or occupancy of threatened species using the SNA for any part of their life cycle*[57].

The adverse effects on SNA above that must be 'avoided' in Part 3.9(1)(a) will effectively operate as "environmental bottom lines"– an approach that has been recognised by the Courts to achieve the purpose of the RMA[58]. The NPSIB includes definitions of a number of ecological terms used in Part 3.9(1)(a) to assist with interpretation and understand what these adverse effects are in practice[59].

Consistent with direction from the Courts[60], the requirement to "avoid" the adverse effects listed in Part 3.9(1)(a) provides a clear statement that these adverse effects "must not be allowed" when council give effect to Policy 6 and Part 3.9(1)(a). Giving effect to Policy 6 and Part 3.8(1)(a) will require the development of plan provisions that

[57] Threatended or at risk species are defined in the NPSIB as follows: *"**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 M. 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."*

[58] For example, in *Environmental Defence Society Inc v New Zealand King Salmon Company Ltd* [2014] NZSC 38, (2014) 17 ELRNZ 442, [2014] 1 NZLR 593, [2014] NZRMA 195 , the Court concluded that Policy 13 and 15 of the NZCPS that use the word "avoid" are effectively environmental bottom lines and that "avoid" means "not allow" or "prevent the occurrence of".

[59] For example, connectivity, ecosystem function, and fragmentation.

[60] *Environmental Defence Society Inc v New Zealand King Salmon Company Ltd* [2014] NZSC 38, (2014) 17 ELRNZ 442, [2014] 1 NZLR 593, [2014] NZRMA 195.

effectively "prevent the occurrence" of the listed adverse effects within SNAs, except where the specific exemptions apply under Part 3.9(2)-(4).

Part 3.9(1)(b) also clarifies that the 'effect management hierarchy' applies to "all other adverse effects". The effects management hierarchy is defined in the NPSIB as follows:

> ***effects management hierarchy*** *means an approach to managing the adverse effects of subdivision, use, and development that requires that-*
>
> *a) adverse effects are avoided where possible; and*
>
> *b) adverse effects that cannot be demonstrably avoided are remedied where possible; and*
>
> *c) adverse effects that cannot be demonstrably remedied are mitigated; and*
>
> *d) in relation to adverse effects that cannot be avoided, remedied, or mitigated, biodiversity offsetting is considered; and*
>
> *e) if biodiversity offsetting is not demonstrably achievable for any indigenous biodiversity attribute on which there are residual adverse effects, biodiversity compensation is considered.*

This hierarchy is based on the 'effects mitigation hierarchy' or 'mitigation hierarchy' promoted in DOC's guidance on biodiversity[61] and the Business and Biodiversity Offsets Programme (**BBOP**)[62]. The definition in the NPSIB makes it clear that applicants must clearly follow this hierarchy and demonstrate each step is not possible before moving to the next.

Biodiversity offsetting and biodiversity compensation are important concepts in the management of effects in the NPSIB definitions are provided below. Appendix 3 and 4 of the NPSIB also set out detailed principles for biodiversity offsetting and biodiversity compensation which ***must*** or ***should*** be complied with for an action to qualify as a form of biodiversity offsetting or compensation. These principles are very prescriptive with a number of requirements and tests that must be met..

> ***biodiversity compensation*** *means a conservation outcome resulting from actions that comply with the principles in Appendix 4 and compensate for [more than minor] residual adverse biodiversity effects arising from subdivision, use, or development after all appropriate avoidance, remediation, mitigation, and biodiversity offset measures have been sequentially applied*
>
> ***biodiversity offset*** *means a measurable conservation outcome resulting from actions that comply with the principles in Appendix 3 and are designed to*
>
> a) *compensate for [more than minor] residual adverse biodiversity effects arising from subdivision, use, or development after appropriate avoidance, remediation, and mitigation measures have been sequentially applied; and*
>
> b) *achieve a no net loss of and preferably a net gain to, indigenous biodiversity values.*

Figure 1: NPSIB definitions of biodiversity offsetting and biodiversity compensation.

7.7.4 Policy 6 and Part 3.9(1) - assessment of effectiveness

Policy 6 and Part 3.9(1) is directly related to the achievement of Objective 1 – the maintenance of indigenous biodiversity. It is based on ecological advice about what adverse effects need to be avoided to maintain indigenous

[61] Department of Conservation (2014), '*Guidance on Good Practice Biodiversity Offsetting in New Zealand*'.

[62] The Business and Biodiversity Offsets Programme (BBOP) is a collaboration of more than 80 leading organisations and individuals who are testing and developing best practice on biodiversity offsets and conservation banking worldwide: http://bbop.forest-trends.org/pages/about_bbop

biodiversity[63]. This advice from Landcare Research concluded that maintaining indigenous biodiversity entails halting its decline and, to achieve this, it is necessary to:

a) *Avoid adverse effects that are irreversible, and adverse effects that cannot be practically reversed within a human generation (25 years); and*

b) *Fully remediate, within 25 years, adverse effects that can be reversed within that timeframe.*

The report lists the adverse effects that Landcare Research consider should be (unconditionally) avoided in order to halt indigenous biodiversity decline[64]. This list of adverse effects to be avoided was subsequently refined for the purposes of the NPSIB to help ensure these bottom lines are workable in practice and do not inappropriately constrain activities within SNAs.

The fundamental premise of Policy 6 and Part 3.9(1) is that "environmental bottom lines" are necessary to protect SNAs and maintain indigenous biodiversity. This will require a significant change from current practice in many parts of New Zealand and presents both significant opportunities (benefits) and significant risks (costs). Hard environmental bottom lines that are applied too broadly risk unduly constraining viable economic opportunities and social benefits. Bottom lines that are too narrowly applied may fail to protect SNAs and result in the continuing loss of indigenous biodiversity. The NPSIB seeks to 'strike the right balance' by providing clear direction on the adverse effects that need to be avoided and the effects management hierarchy that must be followed for other adverse effects within SNA, while still allowing for a limited range of exceptions with clearly defined parameters. These exceptions are discussed further in relation to Policy 8 below.

The list of adverse effects in Part 3.9(1)(a) provides a stringent management regime within SNAs which would effectively prevent any activity with a more than minor adverse effect on the SNA. Ecological advice from DOC indicates that only very small-scale activities with minor adverse effects will be able to occur within SNAs while avoiding the adverse effects referred to in Part 3.9(1)(a).

For example, this may provide for activities such as low impact walking tracks, interpretation signs, and activities associated with ecological maintenance (e.g. weed control) but most forms of subdivision, use and development would be unable occur within SNAs. Guidance on Policy 6 and Part 3.9(1)(a) is recommended to provide practical examples of what each of the "avoid" bottom lines mean in practice to support the interpretation and implementation of these provisions. While these bottom lines may constrain subdivision, use and development within SNAs, it is also important to recognise that SNA coverage often makes up a small portion of the district a given property. This means that most landowners will not be impacted by Part 3.9(1)(a) either because there is no SNA on their property or there is opportunity to develop their property while avoiding the part with SNA coverage.

The four 'environmental bottom lines' in Part 3.9(1)(a) will result in restrictions on new subdivision, use and development located in SNAs. In some cases, this may be contrary to Objective 6 which seeks to enable people and communities to provide for their social, economic, and cultural wellbeing. However, Part 3.7 (social, economic and cultural wellbeing) also recognises that the maintenance of indigenous biodiversity requires subdivision, use and development to occur in appropriate places and forms, and within appropriate limits. That is the exact function of the environmental bottom lines in Part 3.9(1)(a) – to set out the (effects based) constraints on subdivision, use and development within SNAs to protect SNAs in accordance with section 6(c) of the RMA.

Overall, Policy 6 and Part 3.9(1)(a) are expected to be effective in providing clear, nationally consistent direction on adverse effects to "avoid" within SNAs. This will help ensure adverse effects on SNAs are assessed and managed in a more considered, robust and consistent manner, leading to better protection of SNAs and contributing to the maintenance of indigenous biodiversity.

[63] Walker, S., Lee, W., Bellingham, P., Kaine, G., Richardson, S., Brown, M., Greenhalgh S. and Simcock R. (2018), '*Critical factors to maintain biodiversity: what effects must be avoided, remediated or mitigated to halt biodiversity loss?*' Manaaki Whenua/Landcare Research Contract Report LC4001.

[64] Ibid – see Tables A and B.

Part 3.9(1)(b) also provides clear guidance to councils and applicants about the effects management hierarchy that needs to be followed for all "other adverse effects". This is based on established good practice where biodiversity offsetting and biodiversity compensation are only available as options when appropriate steps have been taken to:

1. Avoid adverse effect where possible;
2. Remedy adverse effects that cannot be demonstrably avoided; or
3. Mitigate adverse effects that cannot be demonstrably remedied.

The definition of effects management hierarchy outlined above makes it clear that each step of the hierarchy must be demonstrated before moving to the next. Implementation of the effects management hierarchy is supported by Part 3.19 (assessing environmental effects) which requires applicants to provide sufficient information to demonstrate effective management of adverse effects as required under the NPSIB provisions. This will help ensure proposed activities within a SNA are carefully designed to achieve good indigenous biodiversity outcomes with adverse effects avoided, remedied or mitigated to the extent practicable before biodiversity offsetting or compensation is considered.

7.7.5 Policy 6 and Part 3.9(1) - assessment of efficiency

Table 29 provides a summary of the benefits and costs anticipated from the implementation of Policy 6 and Part 3.9(1).

Table 29: Policy 6 and Part 3.9(1) – assessment of efficiency.

	Benefits	Costs
Environmental	• Improved protection of SNAs through clearly setting out the adverse effects that must be avoided and the effects management regime that applies for "other adverse effects". • The 'environmental bottom lines' in Part 3.9(1)(a) are based on ecological advice about effects that must be avoided to maintain indigenous biodiversity. The provisions are therefore likely to be effective to achieve that outcome. • Reduced loss of threatened and at-risk species, including internationally significant species/taxa. • Loss of ecosystem representation and extent, disruption to ecosystem functions, and further fragmentation or loss of buffering or connectivity within SNAs is avoided. • The effects management hierarchy that will apply to "all other adverse effects" within SNAs is based on good practice recognised nationally and internationally. This will help achieve more consistent practice across New Zealand and improved outcomes for indigenous biodiversity. • The requirements for biodiversity offsetting and biodiversity compensation are based on good	• Risk of a 'goldrush' effect where landowners clear/remove an area of indigenous vegetation/habitat on their property before Policy 6 and Part 3.9 is implemented through changes to district plans to avoid potential restrictions on the use of their land.

	practice recognised nationally and internationally. This will help achieve more consistent practice across New Zealand and improved outcomes for indigenous biodiversity.	
Economic	• Reduced litigation as a result of clear requirements for what adverse effects within SNAs must be avoided. Guidance with practical examples of what each of the "avoid" adverse effect requirements mean in practice is recommended to assist with implementation and ensure these benefits are realised. • Clear direction and understanding about what adverse effects must be avoided within SNAs and how other adverse effects must be managed. This improved clarity and understanding may lead to efficiency gains over time.	• Opportunity costs for new subdivision, use and development on land containing SNAs where that SNA precludes these activities in total or limits the extent of what could otherwise be achieved (over and above operative rules). For example, this may mean less potential to subdivide if avoiding indigenous vegetation or other land clearance would preclude a building site, or the need to relocate a building site or planned infrastructure to avoid SNAs. It may also require consideration of alternate methods such as undergrounding pipes or cables. • The spatial analysis from the six case study districts indicates that the percentage of general land[65] properties that contain an area of Indicative 'High SNAs' is between 0% (Westland) and 8% (Waikato) of the total number of general land properties in each district. The percentage that have very high coverage of Indicative High SNAs (i.e. >80% of property area) is between 0% (Westland) and 1% (Far North and Tasman). • The percentage of Māori land properties that contain an area of Indicative 'High SNAs' is between 0% (Westland[66]) and 18% (Waikato) of the total number of Māori land properties in each district. The percentage that have very high coverage of Indicative High SNAs (i.e. >80% of property area) is between 0% (Westland) and 4% (Tasman and Southland). In most cases, these are moderately large properties (2-10ha) or large properties (>10ha) so the probability of there being no clear land available for development is likely to be low. However, high coverage of SNAs on these properties is likely to result in some constraints on the use of that land and may effectively preclude some forms of subdivision, use and

[65] As detailed further in section 8, general land is a catch all tenure category for all land that is not Crown land, DOC administered land, Treaty Settlement Land or Māori Land Court Land.

[66] Note that the spatial analysis of Westland indicated that there is no Indicative High SNAs within the entire Westland district as there is no indigenous land cover with less than 20% coverage remaining.

		development on smaller sites with very high coverage of High SNAs. • Overall, the number of properties likely to be prevented from development because of a presence of High SNAs on their property is considered to be relatively low when evaluated in the context of the district. Further detail on these potential impacts is provided in **section 9** and **Appendix C**. • Potential for increased consent costs for applicants/landowners for more detailed information and assessments of adverse effects on indigenous biodiversity to demonstrate compliance with the effects management hierarchy and greater details on any biodiversity offsetting and/or biodiversity compensation proposal. • Landowners who are unable to avoid "other adverse effects" on SNAs will need to spend time and money to remedy, mitigate, offset or compensate lost, damaged or disturbed indigenous biodiversity.
Social	• Current and future communities can continue to access and experience SNAs (to the extent that these sites are better protected and not lost over time). This may provide wider social benefits (e.g. recreation, amenity) in terms of the how people and communities connect to, enjoy and benefit from nature.	• Constraints on new subdivision, use and development may limit the ability of people and communities to provide for their social well-being (e.g. loss of recreational and employment opportunities).
Cultural	• Potential to contribute to cultural well-being through better protection of indigenous ecosystems, species and habitats, including those that are taonga to tangata whenua.	• Potential impacts on cultural wellbeing where there are opportunity costs for new subdivision, use and development on Māori land containing high SNAs where the SNA precludes these activities in total, or limits the extent of what could otherwise be achieved (over and above operative rules). • As noted above, the percentage of Māori land properties in the six case study districts that contain an area of Indicative High SNAs is between 0% (Westland) and 18% (Waikato) of the total number of Māori land properties in each district. The percentage that have very high coverage of Indicative High SNAs (i.e. >80% of property area) is between 0% (Westland) and 4% (Tasman and Southland). These were generally moderately large (2ha-10ha) to large properties (>10ha) which reduces the potential for development to be totally

		precluded. However, in some districts, the presence of 'High SNAs' are likely to prevent development of a small number of Māori owned properties. This is mitigated to an extent through the exemption to Part 3.9(1) provided in Part 3.9(2) for subdivision, use and development associated with the utilisation of Māori land.

7.8 Policy 7: Managing effects outside significant natural areas

Policy 7 of the NPSIB is as follows:

> ***to manage subdivision, use and development outside SNAs as necessary to ensure indigenous biodiversity is maintained:***

Policy 7 is to be implemented (primarily) through Part 3.13 (general rules applying outside SNAs) which sets out the implementation requirements for councils to give effect to the policy.

7.8.1 Policy intent

Policy 7 sets out the effects management regime for indigenous biodiversity outside SNAs. The inclusion of Policy 7 in the NPSIB makes it clear that maintaining indigenous biodiversity requires more than protecting SNAs. To give effect to Policy 7, Part 3.13 requires councils to take steps to maintain indigenous biodiversity outside SNAs, including by making changes to their policy statements and plans, to do all of the following:

a) *"specify where, how, and when controls on subdivision, use, and development in areas outside SNAs are necessary to maintain indigenous biodiversity:*

b) *apply the effects management hierarchy to adverse effects, except that biodiversity compensation may be considered as an alternative to biodiversity offsetting (and not only when biodiversity offsetting is not demonstrably achievable):*

c) *specify where, how, and when, for any area outside an SNA, the assessment and classification required by clause 3.8(1) is required."*

Part 3.13(1)(a) gives councils flexibility as to **where, how and when** they impose controls on indigenous biodiversity outside SNAs while making it clear this should be limited to circumstances when it is **necessary to maintain indigenous biodiversity**.

Once councils identify when controls outside SNAs are necessary to maintain indigenous biodiversity, Part 3.13 requires councils to apply the effects management hierarchy to adverse effects. The key difference is that Part 3.13 gives no priority to biodiversity offsetting over biodiversity compensation. This absence of prioritisation is intended to provide applicants more flexibility when managing the adverse effects on indigenous biodiversity outside SNAs.

Part 3.13(1)(c) links back to Part 3.8(1) (identification of SNAs) to recognise that the location and extent of SNAs can change over time and there may be situations where an area not originally assessed as a SNA may subsequently qualify as being a SNA. As such, it requires councils to specify "**where, how, and when**" an assessment of ecological significance is required outside SNAs to determine whether an areas of indigenous vegetation or habitat may be an SNA. If this assessment determines that this area is a SNA, then adverse effects are to be managed as if the area is an SNA (i.e. in accordance with Part 3.8).

7.8.2 Assessment of effectiveness

Policy 7 and Part 3.13 will contribute to the achievement of Objective 1 as maintaining indigenous biodiversity requires more than protecting SNAs. Policy 7 and Part 3.13 seeks to strike a balance between providing for flexibility and certainty through:

- Providing flexibility for councils to set out the circumstances "where, how and when" controls on subdivision, use and development outside SNAs are required to maintain indigenous biodiversity. This should be based on an assessment of the state of indigenous biodiversity in the region, key pressures, and an assessment of activities that commonly have adverse effects on indigenous biodiversity outside SNAs.
- Specifying the effects management hierarchy that applies to adverse effects outside SNAs.
- Requiring councils to specify through their policy statements and plan when assessments of ecological significance are required outside SNAs. This will help to provide certainty to applicants and decision-makers and, over time, help to avoid potential debate and delays through the resource consent process.

Policy 7 and Part 3.13 are consistent with existing practice as plans generally include some controls on non-significant indigenous biodiversity through general controls such as indigenous vegetation clearance rules[67]. The key difference is that there will be a nationally consistent effects management regime for indigenous biodiversity outside SNAs based on existing good practice. It will also place a more direct obligation on councils to identify where, how and when controls outside SNAs are necessary to maintain indigenous biodiversity to increase certainty and encourage proactive management. This will contribute to the achievement of Objective 1.

Policy 7 and Part 3.13 will also assist in the achievement of Objective 6 by:

- Providing certainty to landowners about when, where and how adverse effects on indigenous biodiversity are to be managed outside SNAs; and
- Providing direction to councils that controls on subdivision, use and development outside SNAs should be limited to when this is necessary to maintain indigenous biodiversity.

This clarity will help to ensure the adverse effects of subdivision, use and development on indigenous biodiversity outside of SNAs is managed in a way that enables people and communities to provide for their social, economic, and cultural well-being.

Guidance from central government is also recommended to support the effective implementation of Policy 7 including practical examples of when controls on subdivision, use and development outside SNA may be necessary (or unnecessary) to maintain indigenous biodiversity.

7.8.3 Assessment of efficiency

Table 30 provides a summary of the benefits and costs anticipated from the implementation of Policy 7 and Part 3.13.

Table 30: Policy 7 and Part 3.13 – assessment of efficiency.

	Benefits	Costs
Environmental	• Greater recognition that controls outside SNAs are necessary to maintain indigenous biodiversity in certain circumstances. This should lead to targeted controls on subdivision, use and development outside SNAs and improved outcomes for indigenous biodiversity over time. • More consistent effects management regime outside SNAs based on established good practice. This should lead to improved outcomes for indigenous biodiversity over time.	• The flexible nature of the policy means that councils may have very limited controls on subdivision, use and development outside SNAs. This risk can be mitigated through guidance and practical examples of where controls outside SNAs are necessary to maintain indigenous biodiversity and appropriate forms of controls. • The flexible nature of the policy means that councils may limit when ecological assessment must be undertaken outside of SNAs, meaning potential SNAs may not be identified and less protection afforded to these areas.

[67] Analysis and advice from officials and their ecologists. Beca and Wildlands (2016) '*Biodiversity Planning and Management Research*' prepared for Ministry for the Environment.

	• Increased certainty on when ecological significance assessments outside SNAs are required. This will help ensure new areas of identified SNAs are also protected.	
Economic	• Greater clarity about when, where and how adverse effects on indigenous biodiversity are to be managed outside SNAs. This may lead to efficiency gains. • Increased certainty about when ecological significance assessments outside SNAs are required (rather than identifying this in an ad hoc manner through the resource consent process). This may lead to efficiency gains in impact assessment and consenting processes.	• Opportunity costs for subdivision, use and development on land containing indigenous biodiversity that is not a SNA where controls imposed under Policy 7 and Part 3.13 preclude these activities in total or limit the extent of what could otherwise be achieved (over and above operative provisions). • Landowners who cause adverse effects on indigenous biodiversity outside of SNAs will need to spend time and money to remedy, mitigate, offset or compensate those adverse effects on indigenous biodiversity. • Potential increase in costs for applicants to undertake ecological significance assessments outside of SNAs. Actual costs will vary depending on the extent of circumstances when councils determine ecological significance assessments are required outside SNAs.
Social	• The adverse effects of subdivision, use and development on indigenous biodiversity outside SNAs are better understood and appreciated by the community. • Current and future generations are able to better experience and enjoy indigenous biodiversity outside SNAs. • Protects indigenous biodiversity across the landscape (not just in SNAs) enabling current and future generations to access, enjoy and value indigenous biodiversity.	• Opportunity costs associated with controls on subdivision, use and development outside SNAs may limit the social benefits these activities can provide.
Cultural	• Tangata whenua, including future generations, are able to experience and enjoy indigenous biodiversity outside SNAs.	• Opportunity costs associated with controls on subdivision, use and development on Māori land outside SNAs may limit the cultural benefits these activities can provide.

7.9 Policy 8 – Specific subdivisions, uses and developments with locational constraints

Policy 8 of the NPSIB is as follows:

to recognise the locational constraints that apply to specific subdivisions, uses and developments:

Policy 8 is implemented (primarily) by Part 3.9(2) and (3) (managing adverse effects on SNAs) and Part 3.10 (managing adverse effects within plantation forests) which set out the implementation requirements for councils to give effect to the policy.

7.9.1 Policy intent

Part 3.9(2)-(4) – managing adverse effect on SNAs

To give effect to Policy 8, Part 3.9(2)-(4) provide exemptions for specific subdivisions, uses and developments from the bottom lines in Part 3.9(1)(a) to avoid certain adverse effects on SNAs. These exemptions recognise the locational constraints of specific subdivisions, uses, and developments and importance of these activities to the social, cultural and economic well-being of people and communities. Part 3.9(2)-(3)therefore provide for specific subdivisions, uses and developments to be managed using the effects management hierarchy as follows:

Part 3.9(2):

- The specific subdivision, use and development is within, or affects, a SNA classified as M;
- There is a functional or operational need for the subdivision, use, or development to be in that particular location; and
- There are no practicable alternative locations for the subdivision, use, or development; and
- The subdivision, use, or development is associated with:
  - Nationally significant infrastructure;
  - Mineral and aggregate extraction;
  - The provision of papakainga, marae, and ancillary community facilities associated with customary activities on Māori land; and
  - The use of Māori land in a way that will make a significant contribution to enhancing the social, cultural, or economic wellbeing of tangata whenua.

Part 3.3(3)

- The use or development is associated with a single dwelling on an allotment created before the commencement date; and
- The specific subdivision, use and development is within, or affects, a SNA classified as M;
- There is no location within the existing allotment where a single residential dwelling and essential associated on-site infrastructure can be constructed in a manner that avoids the adverse effects specified in subclause 3.9(1)(a).

The activities listed in Part 3.9(2) and (3) are locationally constrained activities (i.e. they have a functional and operational need to be in a particular area and cannot practicably be located elsewhere) that are recognised as having a critically important purpose. Part 3.9(5) defines functional and operational need as follows:

> ***functional need*** *means the need for a proposed activity to traverse, locate, or operate in a particular environment because the activity can only occur in that environment*
>
> ***operational need*** *means the need for a proposed activity to traverse, locate, or operate in a particular environment because of technical, logistical, operational characteristics or constraints.*

Part 3.9(4) also states that that Part 3.9(1)(a) does not apply to managing adverse effects on SNAs in the following circumstances:

- Use and development for the purpose of protecting, restoring, or enhancing a SNA;
- Use and development that addresses a severe risk to public health and safety;
- The area comprises kānuka or mānuka and is identified as an SNA solely because it is at risk from myrtle rust; and
- Where the indigenous vegetation or habitat of indigenous fauna was established and managed for a purpose other than maintenance, restoration, or enhancement of indigenous biodiversity, and the use and development that is necessary to meet that purpose.

The activities listed in Part 3.9(4) are either essential to the SNA (i.e. restoration activities) or necessary to address a risk to public health and safety and are generally low impact. The requirement to avoid certain adverse effects on SNAs in Part 3.9(1)(a) do not apply to these activities regardless of whether the SNA is classified as H or M.

Part 3.10 – managing adverse effect on plantation forests

Part 3.10 sets out how adverse effects on indigenous biodiversity are to be managed within "plantation forest biodiversity areas" which are defined in the NPSIB as follows:

> ***"plantation forest biodiversity areas*** *are deliberately established plantation forests which have been identified as containing significant indigenous vegetation and significant habitat of indigenous fauna using Appendix 1".*

Part 3.10 requires adverse effects within these areas to be managed as follows:

- **The area is a significant habitat for threatened or at-risk indigenous fauna** - plantation forestry activities must be managed over the course of consecutive rotations to maintain long-term populations of indigenous fauna species present; and
- **The area contains threatened or at-risk fauna** - the adverse effects to these flora from plantation forestry activities must be managed.

This SNA management approach for plantation forest biodiversity areas in Part 3.10 is distinct from Part 3.9(1)(a) as the requirement to avoid the adverse effects listed in that clause would effectively prevent forestry harvesting in many parts of the country. It also recognises that the National Environment Standards for Plantation Forestry (**NESPF**) include provisions to manage the adverse effects of plantation forestry activities on indigenous biodiversity. The provisions in Part 3.10 are intended to align the NPSIB with the NES-PF and ensure that long-term populations of threatened or at-risk indigenous fauna within plantation forests are maintained over the course of consecutive rotations and adverse effects on threatened or at-risk flora are appropriately managed.

7.9.2 Assessment of effectiveness

Part 3.9(2)-(4)

To give effect to Policy 6 and Policy 8, Part 3.9 sets out how effects on SNAs associated with specific subdivisions, uses and developments are to be managed. Part 3.9(2)-(4) effectively provide exemptions for specific subdivisions, uses and developments with locational constraints to the requirements in Part 3.9(1)(a) to "avoid" certain adverse effects on SNAs within clearly defined parameters.

Providing exemptions to the "environmental bottom lines" for SNAs is a complex and contentious part of the NPSIB. It requires the right balance to be achieved that ensures the protection of SNAs without imposing undue constraints on activities that provide an important contribution to economic, social and cultural well-being. The BCG spent considerable time and effort to agree on an appropriate list of exemptions that provided for the core interests of key stakeholders while also including workable environmental bottom lines. Ultimately, the BCG members were unable to agree on a final list of exemptions to the 'avoid' adverse effects regime within SNAs[68].

The specific subdivisions uses and developments listed in Part 3.9(2)-(3) are broadly consistent with the intent of the BCG to provide a tightly defined list of exemptions from 'avoid' adverse effect regime for SNAs in Part 3.9(1). However, there has been considerable refinement by officials in some areas.

The specific subdivisions, uses and developments listed in Part 3.9(2) and (3) are locationally constrained activities – i.e. activities that have a functional or operational need to be in a certain location. These activities are recognised as being critically important to economic, social and cultural well-being (at a local and/or a national level). In certain circumstances, these activities may need to be located within a SNA and there will generally be unavoidable adverse effects on the SNA. This is a particular risk for nationally significant infrastructure and mineral extraction as these activities are typically high impact in nature and can result in unavoidable, irreversible (potentially significant) adverse effects on SNAs. Where these activities are located in SNAs classified as 'Medium' (M), adverse effects are to be

[68] Areas that were unresolved in the final report of the BCG include: forestry, electricity transmission and generation, improved pasture, and geothermal areas.

managed according to the effects management hierarchy. This provides an opportunity to remedy, mitigate, offset or compensate adverse effects that cannot be avoided.

Allowing for adverse effects from locationally constrained activities to occur within a SNA has the potential to undermine the key objective of the NPSIB to maintain indigenous biodiversity. However, this risk is mitigated by:

- Part 3.9(2) and (3) only applying in SNAs classified as M – Part 3.9(1)(a) applies in SNAs classified as High (H);
- The requirement to demonstrate that the subdivision, use or development has a 'functional need' or 'operational need' to operate in a particular location and that there are no practicable alternative locations for the activity;
- The requirement for adverse effects of the subdivision, use or development to managed in accordance with effects management hierarchy, with biodiversity offsetting and biodiversity compensation only available when it has been demonstrated that adverse effects cannot be avoided, remedied or mitigated (in that order); and
- The requirement for any proposed biodiversity offsetting and biodiversity compensation to comply with the principles in Appendix 3 and 4, which set out number of requirements and tests that must be met. Any biodiversity offsetting and biodiversity compensation proposed for an activity listed in Part 3.9(2) and (3) will therefore need to be reasonably robust and comprehensive.

There is uncertainty as to the extent to which SNAs will be ranked as 'High'(H) or 'Medium' (M)in accordance with Appendix 2 of the NPSIB and this has significant implications for the activities listed in Part 3.8(2)-(3). An assessment of SNAs in seven district plans was undertaken by ecologists to provide a high-level indication of how SNAs will fall into the High and Medium SNA rankings[69]. This assessment found that there is a mixture of SNAs that would meet each ranking. However, most of the SNAs in these selected districts would be ranked as High, particularly in those districts that have less than 20% remaining indigenous vegetation or which contain ecosystem types that are severely depleted.

The spatial analysis uses a proxy approach to identify 'Indicative High SNAs' and 'Indicative Medium SNAs' based on whether the SNA falls within the <20% indigenous biodiversity coverage area of the Threatened Environment Classification (**TEC**) dataset (refer to **section 9.1.3** for further details). This analysis indicates that there is likely to be a higher proportion of High SNAs on general (private) land and a higher proportion of Medium SNAs on DOC administered land (these are less threatened as many of ecosystem types are already protected) . While these findings are indicative only, they do suggest that the activities listed in Part 3.9(2) and (3) will often be managed under Part 3.9(1)(a). Where High SNA coverage is large portion of properties, these activities are likely to be severely restricted or effectively precluded by the requirements in Part 3.9(1)(a) to "avoid" certain adverse effects on SNAs .

However, it important to consider both the number and extent of properties affected by SNA coverage. The spatial analysis in **section 9** and **Appendix C** indicates that only a small proportion of total properties in any district will have High SNA coverage that will result in the specific subdivision, use and developments listed in Part 3.9(2) and (3) being managed under Part 3.9(1)(a). This spatial analysis of the six case studies (using actual and Indicative SNAs) found that between 0% and 8% of all general owned properties contained an area of Indicative High SNA and, for a significant majority, the actual SNA coverage of the property was low. This highlights that the actual opportunity costs anticipated from Policy 6, Policy 8 and Part 3.9 need to be evaluated in context of a broader range of considerations, and that the size of the property containing SNAs and extent of SNA coverage are particularly relevant to the outcome.

Nationally significant infrastructure

Nationally significant infrastructure[70] provides a range of benefits to people and communities and often has a functional and operational need to be located in specific areas, with limited ability to avoid adverse effects. There are

[69] Analysis and advice from officials and their ecologists.

[70] Nationally significant infrastructure is defined in NPSIB as follows: "*means any of the following: a) State highways: b) the national grid electricity transmission network; c) national renewable electricity generation facilities that connect with the national grid; d) major gas or oil pipeline services (such as the pipeline from Marsden Point to Wiri, and high pressure gas transmission pipelines from Taranaki); e) any railway (as defined in the Railways Act 2005): f) rapid transit; g) airports that have a runway that is used for regular air transport services by aeroplanes that have a seating configuration of more than 30 passenger seats); h) commercial ports (as defined in Part A(6) of Schedule 1 of the Civil Defence Emergency Management Act 2002).*"

potentially significant economic and social costs if nationally significant infrastructure is required to avoid the adverse effects on SNAs listed in Part 3.9(1). The specific provision nationally significant infrastructure in Part 3.9(2) is effective as it recognises the significant benefits of nationally significant infrastructure, aligns the NPSIB with the national policy statements on electricity transmission and renewable energy generation, while also ensuring adverse effects on High and Medium SNAs from national significant infrastructure are appropriately managed (or avoided). This will help ensure the objective to maintain indigenous biodiversity (Objective 1) is not compromised and nationally significant infrastructure continues contribute to social, economic and cultural well-being (Objective 6).

The CBA spatial analysis in **Appendix C** was able to map a proposed gas pipeline in the Waikato District relative to defined SNAs. This route, already designated in the district plan, intersects with some Indicative High and Medium SNAs which suggests some tension for future development. However, the exact method of construction has not been investigated, so the extent to which the NPSIB will impact on future development plans for this nationally significant infrastructure is not known. A key outcome of the NPSIB is that future planning for the location or route of nationally significant infrastructure is likely to be more cognisant of the location of High SNAs, particularly as these will be clearly mapped in district plans.

Mineral and aggregate extraction

Mineral and aggregate resources are essential inputs for a range of economic sectors, and it is important that local supply is available to maximise development efficiencies. This is recognised through the inclusion of mineral and aggregate extraction in Part 3.9(2). Councils often recognise the importance of quarry or mining resources through district plan zones or overlays and this is reflected in the case studies in **Appendix C**. Where these mineral or aggregate zones/overlays were not explicit, the spatial analysis for the case studies has assessed the location of mining activity based on LINZ data.

The spatial analysis found that the incidence of mapped (actual) or Indicative SNAs within mining or quarry areas ranged between 1% and 42% in the case study districts. The overlap was almost entirely associated with Indicative Medium SNAs, where effects can be managed in accordance with the effects management hierarchy under Part 3.9(2). The overlap with Indicative High SNAs equated to between 0% and 2% coverage of the mining/quarry area. This low coverage indicates that High SNA are unlikely to materially impacting on existing mining or quarry operations under Part 3.9 of the NPSIB in the six case study councils.

Use of Māori land

Part 3.9(2) provides specific provision for subdivision, use and development associated with:

- Papakāinga, marae, ancillary community facilities and associated customary activities on Māori land; and
- The utilisation of Māori land that makes a significant contribution to enhancing the social, cultural and economic well-being of tangata whenua.

The specific provision for these activities will help Objective 2 to take into account Te Tiriti o Waitangi/Treaty of Waitangi and Objective 6 to manage subdivision, use and development in a way that enables people and communities to provide for their economic, social and cultural well-being. The provision for these activities on Māori land also recognises that the NPSIB has the potential to disproportionately restrict activities on Māori land, given the higher proportion of indigenous forest cover on Māori land. There is also a higher proportion of indigenous forest that is chronically threatened (10–20 per cent remaining vegetation cover) and at risk (20–30 per cent remaining cover) on Māori land (approximately 1.8 per cent and 3.1 per cent of total land area respectively) compared to general private land (0.6% and 1.1% of total land area respectively)[71]. This means that there is a high likelihood that there will be a higher proportion of SNAs on Māori land compared to other private land and therefore potential for greater opportunity costs for Māori landowners.

This was evident in the spatial analysis of all case studies to a varying degree. This analysis found that between 25% and 79% of estimated Māori land properties within each district contain an area of actual or Indicative SNA coverage. Further, between 14% (Auckland) and 73% (Southland) of estimated Māori land properties contain an area of

[71] Refer: http://www.biodiversitynz.org/uploads/1/0/7/9/107923093/mfe-analysis-from-data-on-land-ownership-land-cover-and-threatened-environments-classification-2018.pdf

Indicative Medium SNA and between 0% (Westland) and 18% (Waikato) contain an area of Indicative High SNA. The utilisation of Māori land is already subject to a range of unique constraints, so it is important that the NPSIB does not add further constraints. This exemption in Part 3.9(2) helps to recognise these constraints to some extent. This needs to be test further through consultation to ensure the NPSIB does not prevent the use of Māori land to contribute to the social, cultural and economic well-being of tangata whenua.

New dwellings

The exemption in Part 3.9(3) for a new single dwelling on an existing allotment will help ensure that the use of a lot already created for a particular purpose is not unfairly constrained requirements in Part 3.9(1)(a) to avoid certain adverse effects on SNAs. It provides for the construction of a single dwelling within a Medium SNA where there are no other locations on the site to build the house and associated infrastructure that would avoid the adverse effects listed in Part 3.9(1)(a).

In practice, it is likely to be very rare for the construction of a dwelling to result in the adverse effects listed in Part 3.9(1) such as fragmentation and a reduction in population size of threatened species. Ecological experts have advised that loss of ecosystem extent will generally be the only adverse effect listed in Part 3.9(1) that would result from the construction of a single residential dwelling that might be unavoidable, and then possibly only to a minor degree (depending on the characteristics of the SNA). The provision for single dwellings to be managed in accordance the effects management hierarchy in Medium SNAs is therefore likely to be effective to allow people to provide for their economic, social and cultural well-being (Objective 6) while also helping to maintain indigenous biodiversity (Objective 1).

This is confirmed in the spatial analysis of general owned properties in the six case study districts. For example, the spatial analysis found that between 0 and 155 properties in each council area were smaller than 1ha in size and contained greater than 90% of Indicative High SNA coverage of the property. These are the properties that are highly likely to be constrained by requirements in the NPSIB to avoid certain adverse effects on High SNAs where construction of a dwelling is proposed. These constraints will generally increase as the property size decreases and the proportion of the site affected by the SNA coverage increases.. It is not known how many of these properties already contain dwellings. The opportunity cost only applies to the portion of these properties that have not already been developed (which is not known but is expected to represent a small share).

Part 3.9(2) and (3) - providing for specific subdivisions, uses and developments

Overall, the exemptions for specific subdivisions, uses and developments set out in Part 3.9(2) and (3) is an effective approach that 'strikes the right balance' between avoiding certain adverse effects on SNAs and enabling specific subdivisions, uses and developments with locational constraints to be managed in accordance with the effect management hierarchy in a clearly defined set of circumstances to contribute to New Zealand's economic, social and cultural well-being. Policy 8 and Part 3.9 will therefore contribute to the achievement of Objectives 1 and 6 of the NPSIB. Guidance from central government is recommended to support the implementation of these provisions with practical examples of how the specific subdivisions, uses and developments provided for in Part 3.9(2) and (3) can be managed in a way that contributes to the achievement of the NPSIB objectives.

Part 3.9(4) activities and areas

The activities listed in Part 3.9(4) are generally low impact and/or necessary to achieve the purpose of the SNA. Therefore, it is effective (and efficient) to manage these activities through a slightly different effects management regime than make these activities subject to Part 3.9(1). The activities are still required to adhere to the effects management hierarchy which requires adverse effects on SNAs to be avoided where possible. This will help ensure good indigenous biodiversity outcomes are achieved and enable people and communities to provide for their social, economic and cultural well-being to contribute to the achievement of Objective 1 and Objective 6.

Part 3.10 – Managing adverse effects in plantation forests

Part 3.10 sets out specific requirements for managing adverse effects in plantation forests that have been identified as a SNA in accordance with Appendix 1 of the NPSIB – which are defined as 'plantation forest biodiversity areas' for the purposes of the NPSIB. The specific provision for plantation forests in the NPSIB recognises that:

- Plantation forests provide a stable forest environment for long periods of time meaning that they can provide suitable places and habitats for indigenous fauna and flora to use and become established (including threatened and at-risk fauna and flora). In some cases, this may lead to productive plantation forests being identified as SNAs in accordance with Appendix 1 as any area that meets one of the criteria in Appendix 1 is deemed to be SNA (regardless of its purpose).
- Applying the requirements in Part 3.9(1)(a) to avoid certain adverse effects to plantation forests that have been identified as SNAs would significantly impact on the economic viability of those forests, and effectively prevent them from being harvested in many circumstances.
- The NES-PF provides a nationally consistent framework to manage the adverse effects of plantation forestry activities, and this includes specific provisions to manage adverse effects on indigenous biodiversity. In particular the NES-PF includes provisions relating to damage to SNAs adjacent to plantation forest, and to manage adverse effects on bird species that are nationally critical, endangered or vulnerable. The forestry industry also has voluntary guidelines and protocols in place to manage the adverse effects of plantation forestry activities on indigenous biodiversity.

A such, Part 3.10 provides a broad effects management regime for plantation forest biodiversity areas. This is intended to make it clear that adverse effects of plantation forestry activities on threatened and at-risk fauna and flora species need to be carefully managed while providing a higher degree of flexibility to ensure the operation and economic viability of plantation forests are not unduly constrained. This likely to an effective approach to assist in the achievement of Objective 1 to maintain indigenous biodiversity and Objective 6 to allow people and communities to provide for their economic, social and cultural well-being.

There is limited direction in Part 3.10 on how adverse effects of plantation forest activities on threatened and at-risk fauna and flora species are to be "managed" within plantation forest biodiversity areas. Guidance from central government is recommended to assist in the understanding and implementation of this requirement and to ensure Part 3.10 will help to achieve Objective 1 in practice. It is also noted that the NES-PF is currently being reviewed and the biodiversity protections in the NESPF, including protections for indigenous flora and fauna, are one of the specific matters for review. This may provide an opportunity to strengthen the NES-PF provision relating to indigenous biodiversity and ensure the NES-PF and NPSIB are well aligned.

7.9.3 Assessment of efficiency

Table 26 provides a provides a summary of the benefits and costs anticipated from the implementation of Policy 8, Part 3.9(2)-(4) and Part 3.10.

Table 31: Policy 8, Part 3.9(2)-(4) and Part 3.10 – assessment of efficiency.

	Benefits	Costs
Environmental	• Provides a clearly defined list of specific subdivisions, uses and developments that are not subject to requirement to avoid certain adverse effects on SNAs in Part 3.9(1) but are required to adhere to an effects management hierarchy that reflects best practice nationally and internationally. This will ensure a consistent national approach and improved outcomes for indigenous biodiversity. • The exemptions to Part 3.9(1) for nationally significant infrastructure, mineral extraction, development of Māori owned land and dwelling construction where there is no alternate building site are limited to 'Medium' SNAs. This ensures that there are limits to the adverse effects these activities	• Indigenous biodiversity in all SNAs may be subject to short-term disturbance/damage/loss as a result of new use and development arising from activities provided for in Part 3.9(2)-(4). However, any residual adverse effects on indigenous biodiversity would generally be addressed by positive outcomes through biodiversity offsetting or biodiversity compensation. • Uncertainty on how adverse effects of plantation forest activities on threatened and at-risk fauna and flora species are to be 'managed' within plantation forest biodiversity areas, which may result in loss of these

	can have on 'High' SNAs, which can be significant. This will provide greater protection of SNAs classified as high. • Reduced loss of at risk and threatened species/taxa within plantation forestry areas that are identified as SNAs.	species. This risk can be mitigated through clear, practical guidance on how to manage adverse effects on these species when undertaking plantation forestry activities.
Economic	• Economic benefits associated with certain new activities, subdivision and development are recognised (including national infrastructure and mining activities) by not precluding these activities within Medium SNAs (while still ensuring adverse effects are managed in accordance with the effects management hierarchy). • Reduced litigation as a result of clear requirements and outcomes for managing the adverse effects of the activities provided for in Part 3.9(2)-(4). • Potential efficiency gains and improved operational certainty through clear direction about how adverse effects of the activities provided for in Part 3.9(2)-(4) must be managed within SNAs. • Protecting the ability of Māori to develop their lands without the imposition of additional constraints, given the existing barriers that already exist on Māori land. • Provides a more flexible effect management regime within plantation forest biodiversity areas to ensure the efficient operation and economic viability of these forests is not compromised.	• Opportunity costs for new nationally significant infrastructure, mineral extraction, Māori land development and dwelling development where they have a functional or operational need to be located in a 'High' SNA and there are no practicable alternative locations. Where SNA coverage on the property is high, these activities are likely to severely restricted or effectively precluded by the strict 'avoidance' regime in Part 3.9(1) which only enables small scale activities with limited effects. • Landowners who cause minor adverse effects on SNAs will need to spend time and money to remedy, mitigate, offset or compensate for adverse effects on SNAs that cannot be avoided. • Potential for increased consent costs for applicants/landowners for more detailed information and assessments of adverse effects on indigenous biodiversity to demonstrate compliance with the effects management hierarchy and greater details on any biodiversity offsetting and/or biodiversity compensation proposal. • National infrastructure providers, mining enterprises, Māori landowners and private property owners will need to demonstrate that they are locationally constrained and have a functional and operational need to locate in areas with 'Medium' SNAs. Likely to be increased assessments required in consent applications to demonstrate this with associated costs. • Costs for foresters to 'manage' adverse effects on threatened and at-risk species within plantation forest biodiversity areas. However, these costs are likely to be marginal compared to status quo as there is already national regulation (NES-PF) and industry guidelines in place to

		manage effects of plantation forestry activities in these species.
Social	• Social benefits associated with certain new activities, subdivision and development are recognised by not precluding these activities within SNAs (while still ensuring adverse effects are managed in accordance with the effects management framework). • Actions which avoid risks to public safety and health within SNAs are not restricted.	• There may be costs to the community where new national infrastructure, mineral extraction, Māori land development and dwelling development have a functional or operational need to be located in a 'High' SNA and there are no practicable alternative locations. Where SNA coverage on the property is high, these activities will effectively be precluded or substantially constrained.
Cultural	• Cultural benefits associated with the provision of papakāinga, marae, customary activities and the utilisation of Māori land by not precluding these activities from within 'Medium' category SNAs. • Better protection of taonga species and ecosystems that are identified as SNAs, particularly where these are ranked as High SNAs.	• Potential impacts on cultural wellbeing where there are opportunity costs for new use and development on Māori land containing SNAs. In particular, where Māori land includes 'High' SNAs that cover a high proportion of the property, utilisation of Māori land will effectively be precluded or substantially constrained.

7.10 Policy 10 - Existing activities

Policy 10 of the NPSIB is as follows:

> ***to provide for appropriate existing activities that have already modified indigenous vegetation and habitats of indigenous fauna***

Policy 10 is to be implemented through Part 3.12 (existing activities in SNAs) which sets out implementation requirements for councils to give effect to the policy.

7.10.1 Policy intent

Policy 10 and Part 3.12 recognise that existing activities[72] have already modified New Zealand's indigenous vegetation and habitats of indigenous fauna, and many existing activities provide an important contribution to the social, cultural, and economic wellbeing of people and communities. Policy 10 seeks to provide for 'appropriate existing activities' that have already modified indigenous vegetation and habitats of indigenous fauna. Part 3.12 sets out how councils are to provide for appropriate existing activities and requires regional councils to make or change their RPS to specify '**where, how and when'** plans must provide for existing activities that may adversely affect indigenous biodiversity.

There is provides considerable flexibility in how regional councils determine 'where, how and when' regional and plans must provide for existing activities. This should be based on an assessment of the benefits that existing activities provide within the context of that region, and the ongoing effects of those activities on indigenous biodiversity. Once regional councils have identified the existing activities that should be provided for, Part 3.12(3) sets out some more specific requirements for how the adverse effects of these activities shall be managed in plans and policy statements:

- Ensuring the continuation of activity does not lead to the loss, including through cumulative loss, of the extent or degradation of the ecological integrity of any SNA; and

[72] Existing activity is defined in the NPSIB as follows: "***existing activity*** *in this National Policy Statement means a subdivision, use, or development that is- a) lawfully established at the commencement date; but b) not a land use covered by section 10 of the Act".*

- Ensuring the adverse effects of the existing activity are no greater in character, intensity and scale than they were before the commencement date.

The intent of Part 3.12(3) is to set the outcomes that need to be achieved when providing for existing activities that may adversely affect indigenous biodiversity. This allows councils to determine the rule regime to provide for the continuation of existing activities that will work best within their jurisdiction, provided they meet the requirements set out in Part 3.12(3).

Improved pasture

Part 3.12(4) sets out additional considerations when providing for pastoral farming as an existing activity. It requires councils to ensure their policy statements and plans recognise that:

a) indigenous vegetation may regenerate in areas that have previously been cleared of indigenous vegetation and converted to improved pasture; and

b) as long as the regenerating indigenous vegetation has not itself become an SNA in the time since the last clearance event, the periodic clearance of indigenous vegetation as part of a regular cycle to maintain improved pasture is unlikely to compromise the protection of SNAs or the maintenance of indigenous biodiversity; and

c) consideration of effects (under Schedule 1 of the Act, or through a resource consent application) may be required in the following circumstances, in order to ensure that the outcomes in subclause (2) are met:

i) a proposed clearance is likely to have adverse effects that are greater in character, intensity, or scale than the adverse effects of clearance that has previously been undertaken as part of a regular cycle to maintain improved pasture on the farm:

ii) there is inadequate information to demonstrate that a proposed clearance of regenerating indigenous vegetation is part of a regular cycle of clearances to maintain improved pasture:

iii) a clearance is proposed in an area that supports any threatened or at-risk species:

iv) a clearance is proposed in an area that supports alluvial landforms that have not been cultivated (ie, the land as not been disturbed for the purpose of sowing, growing, or harvesting pasture or crops).

Part 3.12(5) sets out some key definitions for interpreting and implementing Part 3.12(4) as follows:

clearance *refers to the removal of indigenous vegetation by cutting, crushing, application of chemicals, drainage, burning, cultivation, over-planting, application of seed of exotic pasture species, mobstocking, and/or changes to soils, hydrology or landforms*

improved pasture *means an area of land where exotic pasture species have been deliberately sown or maintained for the purpose of pasture production, and species composition and growth has been modified and is being managed, for livestock grazing*

regular cycle *means the periodic clearance of regenerating indigenous vegetation that is demonstrated to be part of a consistent management regime in place for the purpose of maintaining improved pasture.*

Essentially, the provisions in Part 3.12(4) are intended to ensure periodic clearance of indigenous vegetation on areas of improved pasture is generally provided for as a permitted activity. It also sets out circumstances when an assessment of effects of the clearance of regenerating indigenous vegetation to maintain improved pasture may be required through a resource consent or plan change process.

It is understood that Part 3.12 of the NPSIB is based on ongoing discussions between officials and representatives from Federated Farmers, Forest and Bird and associated ecologists. This follows on from the work of the BCG which gave specific consideration to how the NPSIB should provide for the maintenance of improved pasture and recommended further work be undertake on this issue prior to public consultation.

7.10.2 Assessment of effectiveness

To give effect to Policy 10, Part 3.12 requires regional councils to identify when, where and when it is appropriate to provide for the continuation of existing activities that have the potential to adversely affect indigenous biodiversity. This is particularly important to clarify where existing activities located within a SNA will be managed in accordance Policy 10 and Part 3.12 rather than under Part 3.9(1). .

Specifically providing for the continuation of existing activities will generally be through permitted activity rules, subject to suitable conditions. This can be important for activities that may not be able to rely on the existing use rights provisions in the RMA. For example, land use activities that are periodic in nature (e.g. farm track maintenance, improved pasture clearance cycles) that may not have existing use rights under section 10 of the RMA because they are discontinued for a period of 12 months. Councils may also want to consider providing for the continuation of existing activities that may require resource consent under a regional rule as section 20A of the RMA provides limited existing use rights for these activities (effectively six months until they must comply with the rule or apply for resource consent).

Policy 10 and Part 3.12 provides regional councils with considerable flexibility in determining 'where, how and when' plans must provide for existing activities, while also setting some clear requirements to manage the adverse effects of existing activities when they are provided for. This is expected to assist in achieving the following NPSIB objectives:

- **Objective 1** – to maintain indigenous biodiversity as Part 3.10 provides clear direction that existing activities located should not lead to loss of extent or degradation of the ecological integrity of any SNA.
- **Objective 6 -** Policy 10 is intended to ensure councils specifically provide for the continuation of existing activities in appropriate circumstances. This is directly related to the achievement of Objective 6 to allow people and communities to provide for their social, economic, and cultural wellbeing.

It is recommended that central government develops guidance to support the effective implementation of Policy 10 and Part 3.12, including practical examples on when it is appropriate to provide for the continuation of existing activities and the appropriate constraints that should apply to those activities to maintain indigenous biodiversity.

Improved pasture

Part 3.12(4) sets out additional considerations for providing for pastoral farming as an existing activity. This recognises that:

- Farming is significant existing activity throughout New Zealand which provides a range of economic, social and cultural benefits; and
- The periodic clearance of regenerating indigenous vegetation on improved pasture is often a standard, regular part of farming operations.

Part 3.12(4) provides clear direction that the periodic clearance of indigenous vegetation on improved pasture should generally be provided for as an existing activity (i.e. as a permitted activity), while also outlining circumstances when it may be appropriate to assess the effects of this clearance through a resource consent or plan change process. This will help ensure councils continue to provide for pastoral farming while also managing the adverse effects of periodic clearance of indigenous vegetation as necessary to ensure indigenous biodiversity is maintained.

There is insufficient data to identify regenerating indigenous vegetation and the incidence of this with pastoral farming properties in the case study areas. While not directly relevant to provisions around periodic clearance of indigenous vegetation on improved pasture under Part 3.12(4), the spatial analysis in **section 9** and **Appendix C** considered the overlap of defined SNAs with general, Māori land and Treaty Settlement properties that contained an area of 'producing' grassland land cover (as defined in the Land Cover Database) in Auckland and Waikato. This provides some context on how the NPSIB may impact on pastoral landowners.

In Waikato District there are approximately 16,000 properties that potentially maintain improved pasture and in Auckland there are approximately 39,840 properties that potentially maintain improved pasture. The results were very consistent in both areas with only 1% of all pastoral properties having 50% or greater SNA coverage. Most properties (89-90%) have no or less than 1% SNA coverage and the balance of pastoral properties (9-10%) generally had SNA coverage of between 1% and 20%. These results are not unexpected given that indigenous land cover has already been cleared to enable pastoral farming. This indicates that these properties are likely to be able to continue

their pastoral farming activities without affecting the SNA on their property and it may be appropriate to provide for the continued clearance of regenerating indigenous vegetation outside these areas in accordance with Policy 10 and Part 3.12.

7.10.3 Assessment of efficiency

Table 27 provides a summary of the benefits and costs anticipated from the implementation of Policy 10 and Part 3.12.

Table 32: Policy 10 and Part 3.12 – assessment of efficiency.

	Benefits	Costs
Environmental	• The provisions set out how the adverse effects of existing activities are to be managed when councils provide for their continuation. These requirements help to provide for the protection of SNAs, no cumulative loss of any ecosystem, and to reduce or remove adverse effects of existing activities when necessary to maintain indigenous biodiversity.	• Indigenous biodiversity within and outside SNAs may potentially be degraded, reduced or lost as a result of the continuation of existing activities if these are not effectively managed by the relevant council.
Economic	• Reduced litigation as a result of clearer requirements for managing the adverse effects of existing activities on indigenous biodiversity and the outcomes that need to be achieved nationally. • Economic benefits associated with existing activities are recognised and potentially provided for (where councils choose to provide for their continuation). • Provides clear direction that pastoral farming should generally be provided for as an existing activity, including periodic clearance of indigenous vegetation within certain parameters.	• Potential opportunity costs and compliance costs for existing activities (including pastoral farming) where councils choose not to specifically provide for their continuation.
Social	• Social benefits associated with existing activities are recognised and provided for (where councils choose to provide for their continuation).	• The ability of existing activities to contribute to social wellbeing may be compromised when councils choose not to provide for their continuation.
Cultural	• Cultural benefits associated with existing activities are recognised and provided for (where councils choose to provide for their continuation).	• The ability of existing activities to contribute to cultural wellbeing may be compromised when councils choose not to provide for their continuation. This may include existing activities, such as pastoral farming, on Māori land.

7.11 Policy 11 – Restoration and enhancement of indigenous biodiversity

Policy 11 of the NPSIB is as follows:

> ***to provide for the restoration and enhancement of specific areas and environments that are important for maintaining indigenous biodiversity:***

Policy 11 is to be implemented primarily through Part 3.16 (restoration and enhancement) and Part 3.17 (increasing indigenous vegetation cover) which set out the implementation requirements for councils to give effect to the policy. The assessment of the effectiveness and efficiency of Policy 11 below provides a separate assessment of these two clauses. While they are closely interrelated and dependent in term of how they give effect to Policy 11, each clause has distinct impacts, benefits and costs that warrant a separate assessment.

7.11.1 Policy 11 and Part 3.16 - Policy intent

To give effect to Policy 11, Part 3.16 requires councils, through policy statements and plans, to promote the restoration and enhancement (including through reconstruction) of:

- Wetlands;
- SNAs whose ecological integrity is degraded;
- Areas that provide important connectivity or buffering functions; and
- Former wetlands.

The word "promote" in Part 3.14(3) is important as it clarifies that these provisions are focused on providing incentives and encouraging voluntary restoration and enhancement actions. This recognises that planning instruments cannot require private landowners to undertake ecological restoration and enhancement actions in a general sense. However, such actions can be encouraged in plan provisions through incentives such as transferable development rights. Restoration and enhancement conditions can also be imposed through the resource consent process and this outcome is promoted in Part 3.16(6) in areas prioritised for restoration and enhancement.

Part 3.14 states that councils, through objectives, policies and methods in their policy statements and plans, shall identify opportunities for restoration and enhancement, prioritising the all of the following over other indigenous biodiversity restoration projects:

a) *wetlands whose ecological integrity is degraded or where the presence of indigenous species is reduced:*

b) *SNAs whose ecological integrity is degraded;*

c) *areas that provide important connectivity or buffering functions;*

d) *former wetlands that no longer retain their habitat for indigenous fauna, but where reconstruction is likely to result in that habitat being regained:*

e) *any national priorities for indigenous biodiversity protection.*

Part 3.15(5) and (6) provide some direction on how to promote and achieve restoration and enhancement of the priority areas identified above:

- Councils may provide incentives for restoration and enhancement, and in particular on Māori land, in recognition of the opportunity cost of maintaining indigenous biodiversity on that land; and
- Councils may impose or review restoration or enhancement conditions on resource consents and designations relating to activities in areas prioritised for restoration and enhancement.

7.11.2 Policy 11 and Part 3.16 - Assessment of effectiveness

Policy 11 and Part 3.16 is directly aimed at achieving Objective 5 which seeks to '*restore and enhance the ecological integrity of ecosystems*'. These provisions recognise that restoration and enhancement is needed in addition to protection in some areas in order to maintain New Zealand's indigenous biodiversity.

Part 3.16 requires councils to proactively identify specific areas for restoration and enhancement that are important to maintain indigenous biodiversity. This will ensure restoration and enhancement efforts are clearly focused on those areas that need it most and provide the most benefit to maintain indigenous biodiversity. .

While Part 3.16 is specific on the areas that must be prioritised for restoration and enhancement, it provides councils with flexibility on how they achieve this. This recognises that a range of incentives and methods are likely to be needed to gain landowner, community and tangata whenua support for ecological enhancement and restoration actions. For example, this may involve methods that provide greater development rights for restoring or enhancing indigenous

biodiversity on private land, practical guidance to landowners on effective enhancement and restoration initiatives, and/or financial incentives. It may also involve considering, imposing or reviewing restoration and enhancement conditions on resource consents and designations when practicable and appropriate to do so.

The requirements in Part 3.16, including clear direction on areas to prioritise, is likely to lead to increased focus on restoration and enhancement overtime. This will contribute to the achievement of Objectives 1 and 6.. The largely voluntary 'promotion' focus of Part 3.16 may limit its effectiveness in some areas where there is a lack of up-take and support for voluntary methods and/or limited capacity and resourcing for restoration and enhancement work. However, past experience demonstrates that voluntary methods can be effective to incentivise and foster the contribution of landowners, communities and tangata whenua to ecological restoration and enhancement initiatives compared to an unnecessarily heavy focus on regulatory approaches.

7.11.3 Policy 11 and Part 3.16 - Assessment of efficiency

Table 33 provides a summary of the benefits and costs anticipated from the implementation of Policy 11 and Part 3.16.

Table 33: Policy 11 and Part 3.16 – assessment of efficiency.

	Benefits	Costs
Environmental	• Councils more proactively identify opportunities and locations for ecological restoration and enhancement and related incentives. This may lead to improved outcomes for indigenous biodiversity, prioritising those areas which would benefit most from restoration and enhancement (e.g. degraded SNAs). • The ecological integrity of wetlands degraded SNAs, and areas that provide important connectivity and buffering functions are restored and enhanced. • Prioritises areas for restoration and enhancement efforts, leading to focused action and effort and improved outcomes. • Recognises that proactive restoration and enhancement efforts are needed in addition to protection in order to maintain New Zealand's indigenous biodiversity.	• Flexibility afforded to councils in the implementation of the policy means there is a risk that restoration and enhancement work is not prioritised and/or there is poor uptake of restoration and enhancement opportunities. • Requirement to promote restoration and enhancement initiatives may divert focus away from the protection of indigenous biodiversity.
Economic	• The flexibility in the policy means that councils can promote restoration and enhancement efforts that are cost-effective to deliver the desired outcomes within their region/district.	• Potential increased costs for councils, landowners, NGOs and the community to undertake ecological restoration and enhancement actions (time commitment and financial costs). • The actual time, costs and effort required to achieve the restoration and enhancement of identified areas is potentially significant, particularly in regions/districts with large areas of degraded SNAs and wetlands. The flexible nature of the policy in terms of if/how incentives are provided and a focus on promotion (rather than

		regulation) mitigates the risk of significant compliance costs. • Potential costs to applicants and existing activities through the imposition of restoration and enhancement conditions on resource consents.
Social	• Greater awareness in the community of the importance of restoration and enhancement efforts and increased buy-in to these initiatives (increased social connections). This may help improve the connection of communities with nature and contribute to social well-being. • Clarifies priorities for enhancement and restoration, helping to promote focused action from the community with wider social benefits.	• Some of the costs to undertake and support restoration and enhancement are likely to be funded through rates, reducing the amount of funding for other community initiatives.
Cultural	• Restoration and enhancement efforts may include SNAs, wetlands and other areas that contain species and ecosystems that are taonga to tangata whenua with associated cultural benefits.	• Potential increased costs for tangata whenua to undertake ecological restoration and enhancement actions (time commitment and financial costs).

7.11.4 Policy 11 and Part 3.17 - Policy intent

To give effect to Policy 11, Part 3.17 requires regional councils to assess the percentage of the urban and rural areas in its region that have indigenous vegetation cover, which may be done via a desk-top exercise, ground-truthing or both. Prior to undertaking this assessment, regional councils must specify what areas it will treat as urban or rural for the purposes of this clause (based on the predominate character of the area).

Part 3.17then states that, if the assessment indicates that an area has less than 10% indigenous vegetation cover, regional councils **must** include a target (expressed as a percentage figure within a specified time) in the RPS for:

- Urban areas - increasing indigenous vegetation cover in that area to **at least** 10% of the area.
- Non-urban areas – increasing indigenous vegetation cover in the area.

Regional councils **may** also include targets for increasing indigenous cover in areas that have greater than 10% indigenous vegetation cover.

Once the areas above have been identified and targets set, Part 3.15 requires regional councils to develop objectives, policies and methods to increase indigenous vegetation cover in region and achieve targets set, with priority given to all of the following:

a) areas to which clause 3.16 applies (i.e. wetlands, degraded SNAs, areas that provide buffering or connectivity functions):

b) areas representative of ecosystems naturally and formerly present:

c) ensuring species richness:

d) restoration and enhancement at a landscape scale across the region.

Policy 11 and Part 3.17 recognises that indigenous biodiversity in many of New Zealand's urban and rural areas is depleted to below 10% and it is very difficult for indigenous populations to survive below this level. The BCG received advice that critical thresholds mark the line between decline or persistence of an ecosystem and its species. From an

ecological perspective, it is generally accepted that when ecosystems persist at 10% or less of their original extent, a decline in many species may be triggered, with severe fragmentation effects[73].

Policy 11 and Part 3.17 seeks to address this issue though requiring regional councils to set targets to increase indigenous vegetation cover to at least 10% in urban areas and to increase indigenous vegetation cover in rural areas where this is below 10%. While Part 3.17 is specific on the minimum target that must be set for urban areas, it provides flexibility to regional councils to set the timeframe to achieve the targets and the methods they use to achieve these. This flexibility is important as there is significant variation in the current state of indigenous vegetation cover in urban and non-urban areas across New Zealand. For some areas a 10% indigenous biodiversity cover target may be achieved relatively easily, whereas in other areas it will be difficult to achieve in the foreseeable future (e.g. Christchurch currently has less than 1% indigenous vegetation cover).

7.11.5 Policy 11 and Part 3.17 - Assessment of effectiveness

Policy 11 and Part 3.17 are directly aimed at achieving Objective 5 which seeks to '*restore and enhance the ecological integrity of ecosystems'.* Part 3.17 set out the specific steps for regional councils to give effect to Objective 5 and Policy 11 which involves assessing indigenous vegetation cover in the region, setting targets to increase indigenous cover when it below 10% in certain areas, and developing objectives, and policies and methods to achieve the targets and increase indigenous vegetation in the region. This clear, sequential approach is likely to be effective in achieving Objective 5 over time.

The minimum target for 10% indigenous vegetation cover in urban areas will be very difficult to achieve in some regions and will only be achievable over a number of years. It is likely to require a range of regulatory and non-regulatory methods and initiatives aimed at restoration, reconstruction, and enhancement depending on the characteristics and existing indigenous vegetation cover of urban areas within each region. Methods and actions to help achieve the indigenous vegetation cover targets set in accordance with Part 3.17 may include (for example):

- Transferable development rights when restoration and enhancement is undertaken;
- Bonus development rights – i.e. increased development rights to landowners for part of their land when indigenous vegetation planting and enhancement is undertaken on another part;
- Coordinating and/or supporting community group indigenous vegetation planting and enhancement efforts; and
- Funding and financial incentives for indigenous vegetation planting and enhancement on private and public land.

Councils, landowners and communities may seek funding support through wider government initiatives to support these efforts (e.g. One Billion Tree Fund).

7.11.6 Policy 11 and Part 3.17 - Assessment of efficiency

Table 34 provides a summary of the benefits and costs anticipated from the implementation of Policy 11 and Part 3.17.

Table 34: Policy 11 and Part 3.17 – assessment of efficiency.

	Benefits	Costs
Environmental	• Indigenous vegetation cover in urban and rural areas I increased. Indigenous vegetation cover in urban areas will be increased to achieve a minimum of 10% coverage over time. • Recognises that proactive restoration and enhancement efforts are needed in addition to protection in order to	• Flexibility afforded to councils in setting timeframes to achieve targets and associated methods creates a risk that long timeframes are set, and that this work is not prioritised. • If the timing of achieving the targets is too slow relative to development, the opportunity will be lost as urban areas will fully develop. Councils experiencing limited

[73] Report of the Biodiversity Collaborative Group, pg 34. Clarkson, B., Kirby C. and Wallace, K. (2018). *Restoration targets for biodiversity depleted environments in New Zealand*. The Environmental Research Institute, University of Waikato.

	maintain and enhance New Zealand's indigenous biodiversity • Sets clear priorities to guide indigenous vegetation planting and enhancement work in areas that have lost their former indigenous vegetation cover.	or no growth will have few opportunities to leverage indigenous vegetation planting and enhancement outcomes from development. • Requirement to promote indigenous vegetation planting rand enhancement may divert focus away from the protection of SNAs.
Economic	• The flexibility in the policy means that councils can promote indigenous vegetation planting and enhancement efforts that are cost-effective to deliver the desired outcomes in their region/ district.	• Costs for regional councils to assess indigenous vegetation cover in their region. Part 3.17 makes it clear that this can be a desk-top exercise drawing on existing datasets which will help ensure the costs are not significant for regional councils. • Costs for councils, landowners, NGOs and the community to undertake work to achieve indigenous vegetation cover targets (time commitment and financial costs). • The actual time, costs and effort required to achieve the targets is potentially significant, particularly in urban areas that currently have low levels of indigenous vegetation cover. The flexibility provided to councils in terms of the timeframes set for targets may help to ensure that the targets, timeframes and methods set do not impose unjustifiably high costs on the community.
Social	• Greater awareness in the community of the importance of increasing indigenous vegetation cover in urban and rural areas and increased buy-in to these initiatives. This may help improve the connection of communities with nature and contribute to social well-being. • The amenity of urban and rural areas may increase as restoration and enhancement work progresses and indigenous vegetation cover increases with associated benefits to communities.	• Some of the costs to undertake indigenous vegetation planting to increase coverage are likely to be funded through rates. This could potentially reduce the amount of funding for other community initiatives.
Cultural	• Restoration and enhancement efforts may include areas that contain species and ecosystems that are taonga to tangata whenua, with associated cultural benefits.	• N/A

7.12 Policy 12 – Identifying and protecting taonga

Policy 12 of the NPSIB is as follows:

to identify and protect indigenous species and ecosystems that are taonga:

Policy 12 is to be implemented by Part 3.14 (identified taonga) which sets out the implementation requirements for councils to give effect to the policy.

7.12.1 Policy intent

Policy 12 and Part 3.14 set out a requirement for councils to work with tangata whenua (in the manner specified in Part 3.3) to protect taonga species and ecosystems. This work is to be led by regional councils who must work with the relevant territorial authorities and tangata whenua to agree on a process for:

a) identifying indigenous species and ecosystems that are taonga; and

b) describing the taonga; and

c) mapping or describing the location of the taonga; and

d) describing the values of each taonga

Part 3.14(2) makes it clear that councils must recognise that tangata whenua have the right to choose not to identify taonga, and choose the level of detail at which identified taonga and their location and values are described. This recognises that tangata whenua may not want to disclose the location of their taonga for various reasons or they may only want to identify and describe their taonga at a higher-level.

Where taonga have been identified, territorial authorities must change their district plan (to the extent agreed to by tangata whenua) to include a description of the taonga and their values and a description or map of the location of the taonga . Part 3.14 also sets out how identified taonga are to be managed as follows:

- **Taonga in SNAs** – councils must manage identified taonga in accordance with Part 3.9; and
- **Taonga outside SNAs** – councils must:
  - Manage them as necessary to protect the identified taonga and their values; and
  - Provide opportunities to restore and enhance taonga and their values.

7.12.2 Assessment of effectiveness

Policy 12 and Part 3.14 are consistent with the requirements in sections 6(e),7(a) and 8 of the RMA to recognise and provide for the relationship of tangata whenua with their taonga, have regard to kaitiakitanga, and take into account the principles of the Te Tiriti o Waitangi /Treaty of Waitangi. It is directly related to the achievement of Objective 2 which seeks to "*take into account the principles of the Treaty of Waitangi in the management of indigenous biodiversity*". It requires councils to work with tangata whenua to agree on and implement a process to identify, describe and protect indigenous species and ecosystems that are taonga. Importantly, Policy 12 and Part 3.14 provides flexibility in how councils and tangata whenua implement the policy and make it clear it is up to tangata whenua to determine whether they identify their taonga and, if so, the level of detail and approach to do this. However, once taonga have been identified, Part 3.16 provides clear direction that taonga shall be managed to protect them and their values.

Giving effect to Policy 12 through Part 3.14 will require resourcing, commitment and time from tangata whenua and councils. This could be a significant task and cost for some councils and tangata whenua depending on the extent to which they have already identified taonga/sites of significance, the methods they used to identify taonga, and the extent of taonga within their rohe. Policy 12 and Part 3.14 enable councils and tangata whenua to draw and build on existing work and information on taonga within their rohe and some provides flexibility in the overall implementation approach. This will allow tangata whenua and councils to work together to implement Policy 11 and Part 3.12 in a way that best meets their needs and preferences. This is likely to be an effective approach to achieve Objective 1 over time.

7.12.3 Assessment of efficiency

Table 30 provides a summary of the benefits and costs anticipated from the implementation of Policy 12 and Part 3.14.

Table 35: Policy 12 and Part 3.14 – assessment of efficiency.

	Benefits	Costs
Environmental	• Taonga (species and ecosystems) are (more consistently) identified and protected leading to improved indigenous biodiversity outcomes.	• N/A.
Economic	• Improved relationships and partnerships between councils and tangata whenua through clearer guidance on roles and requirements for the identification and protection of taonga. This may lead to efficiency gains over time. • Greater certainty about the location of taonga and their values and how these are to be protected (depending if and how tangata whenua choose to identify their taonga). This may lead to efficiency gains in the design of proposals and through the resource consent process.	• Resourcing costs (internal and external) for councils to carry out identification/mapping of taonga (where not already mapped and tangata whenua choose to identify taonga). • Resourcing costs for tangata whenua to work with councils to identify taonga (if they choose to). This is may impose potential time and financial opportunity costs, and potential costs to increase capability in this area. • Potential opportunity costs for landowners when taonga species and ecosystems are located on their land.
Social	• N/A	• N/A
Cultural	• Taonga species are better protected for current and future generations with associated cultural benefits to tangata whenua. • Tangata whenua are able to exercise their kaitiakitanga role through enabling them to identify their taonga in accordance with their preferred method and process and work with councils to protect the values of the identified taonga.	• Time, resourcing and costs for tangata whenua to implement the policy. This increased demand on tangata whenua capacity and resourcing may impact on their cultural well-being.

7.13 Policy 13 – Protecting highly mobile fauna

Policy 13 of the NPSIB is as follows:

to identify possible presence of, and manage highly mobile fauna;

Policy 13 is to be implemented through Part 3.15 (highly mobile fauna) which set out the information requirements for councils to give effect to the policy.

7.13.1 Policy intent

Policy 13 seeks to identify the presence of, and manage, 'highly mobile fauna'. 'Highly mobile fauna' are defined in the NPSIB as follows:

highly mobile fauna *means species that -*

a) *are highly mobile; and*

b) *where some individuals move between different environments during their life cycle for reasons such as feeding, mating, nesting, moulting, or in response to climatic conditions; and*

c) *for the purposes of this national policy statement, include only threatened or at risk species*

In order to identify the presence of and manage highly mobile fauna and give effect to Policy 13, Part 3.15 sets out the following requirements for councils:

- Regional councils must work together with territorial authorities to survey and record areas outside SNAs where highly mobile fauna have been, or are likely to be, sometimes present ('highly mobile fauna areas').
- Territorial authorities must (where possible) include in their district plan a map or description of the location of highly mobile fauna areas if it will help to manage highly mobile fauna;
- Councils must provide information to their communities on:
  - Highly mobile fauna and their habitats; and
  - Best practice techniques for managing adverse effects on highly mobile species and their habitats.
- Councils must include objectives, policies, or methods in their policy statements and plans for managing the adverse effects of subdivision, use, and development in highly mobile fauna areas, as necessary to maintain viable populations of highly mobile fauna across their natural range.

7.13.2 Assessment of effectiveness

Policy 13 and Part 3.15 will help to achieve Objective 1 (maintaining indigenous biodiversity). These provisions seek to address a gap in how fauna species are managed under the RMA. Councils have an obligation to manage adverse effects on indigenous fauna as part of the requirement to maintain indigenous biodiversity as the RMA definition of biological diversity includes individual species. However, the lack of monitoring and information available on the presence of individual indigenous fauna species (and the costs associated with this have limited active management of such species under the RMA. Uncertainty about the respective roles of DOC and councils in this area has also led to limited action in some areas. Policy 13 and 3.15 will help to improve practice in this area through clarifying roles and improved identification of, information about, and management of highly mobile fauna.

The natural ranges of highly mobile fauna are frequently greater than regional scales and many species move across district boundaries at different times during their annual cycle. Highly mobile fauna include:

- **Migratory species** that leave their breeding areas to go somewhere else for a range of reasons. For example, banded dotterels, black-fronted terns and wrybill.
- **Mobile species** that use the landscape less predictably, generally moving around habitat patches that vary in their suitability and resources (e.g. food supplies) over time. For example, forest kaka, matuku/Australasian bittern using wetland networks, and pekapeka/bats across complex habitat mosaics[74].

Existing data on the presence of highly mobile fauna species does not currently exist for many species across their natural ranges. Giving effect to Policy 13 through Part 3.15 will therefore impose additional implementation costs for councils to work together to identify the presence of highly mobile fauna within their region/district. The likely costs to undertake such surveys is not known but the capacity and resourcing of councils to undertake such surveys is highly variable and external expert assistance will often be required.

Part 3.15 encourages regional councils and territorial authorities to work together to undertake surveys and identify 'highly mobile fauna areas' within the region. This will help to promote sharing of resources and information by councils to assist with implementation effort and costs. Part 3.15 also provides a degree of flexibility in:

- When territorial authorities must include highly mobile fauna in their plans (when it will assist with their management);
- How information on highly mobile fauna is provided to people and communities;
- How councils encourage best practice techniques for managing adverse effects on highly mobile fauna; and

[74] Analysis and advice from officials and their ecologists.

- The objectives, policies and methods councils adopt in their policy statement plans to manage adverse effects of subdivision, use and development in highly mobile fauna areas.

Part 3.15 does set a minimum requirement for adverse effects on highly mobile fauna to be managed as necessary to *"in order to maintain viable populations of highly mobile fauna across their natural range".* This requirement will ensure Policy 13 achieved in practice over time and contribute to the achievement of Objective 1.

Some councils have raised concerns that Policy 13 is more related to DOC's functions under the Wildlife Act 1953 and DOC should be taking a lead/support role managing highly mobile fauna given their conservation advocacy role. As noted above, the management of indigenous fauna falls within the function of region and district councils to maintain indigenous biodiversity under section 30(ga) and 31(b)(ii) of the RMA. However, it is recognised that many councils do not currently have the resources or expertise necessary to implement Policy 13. Guidance, information and expert support from central government is therefore essential to ensure Policy 13 and Part 3.15 can be effectively achieved over time.

7.13.3 Assessment of efficiency

Table 31 provides a summary of the benefits and costs anticipated from the implementation of Policy 13 and Part 3.15.

Table 36: Policy 13 and Part 3.15 – assessment of efficiency.

	Benefits	Costs
Environmental	• Highly mobile fauna are better identified and protected over time. • Reduced loss of At Risk and Threatened species.	• N/A
Economic	• Greater certainty on the presence of highly mobile fauna and how effects on these fauna species are to be managed.	• Resourcing costs (internal and external) for councils to carry out mapping/surveys (where not already mapped) of areas likely to include the presence of highly mobile fauna and provide information to the public on the presence of these species. Part 3.15 provides some flexibility to councils on how they meet these requirements which may help to mitigate the implementation costs and burden on councils. • Potential opportunity/consenting costs for landowners where survey work identifies the presence of highly mobile fauna on their land and councils introduce controls on subdivision, use and development to protect those species.
Social	• Greater awareness in the community of the presence and values of highly mobile fauna. This may help to improve public understanding of, and connection to, indigenous biodiversity.	• The costs to complete undertake surveys and give effect to the policy are likely to be largely funded through rates reducing the amount of funding for other community initiatives.
Cultural	• Highly mobile fauna that are identified and protected may also be taonga species, with associated cultural benefits to tangata whenua.	• N/A

7.14 Policy 14 – Regional biodiversity strategies

Policy 14 of the NPSIB is as follows:

> ***to require the development of regional biodiversity strategies:***

Policy 14 is to be implemented through Part 3.18 (regional biodiversity strategies) which sets out the implementation requirements for councils to give effect to the policy.

7.14.1 Policy intent

Policy 14 and Part 3.18 requires regional councils to prepare a regional biodiversity strategy in **collaboration** with territorial authorities, tangata whenua, communities and other stakeholders. The use of 'collaborating' emphasises the importance of regional biodiversity strategies being developed in a collaborative manner to achieve buy-in to deliver the desired outcomes.

Regional biodiversity strategies are intended to provide a comprehensive record of all indigenous biodiversity protection, restoration and enhancement areas and actions within regions and be the overarching strategic document within each region to deliver improved indigenous biodiversity outcomes. Part 3.18(2) require councils to have regard to relevant regional biodiversity strategies when developing restoration and enhancement objectives, policies and methods in their policy statements and plans.

Part 3.18 states that regional biodiversity strategies must be prepared in accordance with Appendix 5 which sets out the purposes of these strategies as follows:

> *"to promote landscape-scale restoration and enhancement vision for the region's indigenous biodiversity".*

Appendix 5 also sets out more detailed requirements for what regional biodiversity strategies must provide for and what they must do/include to achieve that purpose (e.g. spatially identify indigenous biodiversity areas, record actions and methods for restoration and enhancement, milestones and how progress is to be monitored and reported etc.). Part 3.18(3) and (4) also set out the timeframes to prepare or update regional biodiversity strategies as follows:

- Where regional councils do not have a strategy, preparation must be initiated within three years and completed within five years of commencement date; and

Where regional councils have an existing strategy, it must be updated to comply with Appendix 5 within six years of commencement date. Policy 14, Part 3.18 and Appendix 5 are consistent with the recommendation of the BCG for the preparation of regional biodiversity strategies who stated in their report:

> *'achievement of enhancement and restoration objectives will require a whole-of-community approach that must be incentivised and supported by local authorities but cannot be required of people. In that light, the Strategy is primarily about:*
>
> - *aligning the community behind a shared vision and set of priorities*
> - *ensuring that careful consideration is given to how enhancement actions will be supported or encouraged and resourced*
> - *providing a place to consider how co-benefits from existing or proposed actions to achieve other objectives (such as freshwater management, carbon sequestration) can be used to also achieve biodiversity objectives.'*[75]*.*

7.14.2 Assessment of effectiveness

Policy 14, Part 3.18 and Appendix 5 will contribute to the achievement of Objective 1 to maintain indigenous biodiversity and Objective 6 to restore indigenous biodiversity and enhance the ecological integrity of ecosystems. Specifically, these provisions will ensure each region has an overarching biodiversity strategy to articulate and deliver all indigenous biodiversity protection, restoration and enhancement actions, methods and efforts in the region. While there is flexibility in the content and form of regional biodiversity strategies, the guiding principles set out in Appendix

[75] Report of the Biodiversity Collaborative Group, pg. 36.

5 will help ensure that these are the key strategic documents to achieve regional-scale indigenous biodiversity restoration and enhancement in a broadly consistent manner. Particularly relevant principles in Appendix 5 that will assist in the achievement of Objective 1 and Objective 5 include requirements to:

- Spatially identify the components of the region's restoration and enhancement vision, including all SNAs, taonga, and priority areas for restoration and enhancement;
- Record actions and methods for restoration and enhancement of identified areas, who will take those actions, and how those actions will be resourced; and
- Specify milestones to achieve the purpose of the strategy and how progress will be monitored and reported.

Policy 14, Part 3.18 and Appendix 5 will also assist in the achievement of Objective 4 (integrated management) as these provisions promote an integrated, collaborative approach between agencies, tangata whenua, the community and other stakeholders to prepare and implement regional biodiversity strategies and deliver restoration and enhancement efforts. The requirement to prepare a regional biodiversity strategy will also help to ensure indigenous biodiversity protection, restoration and enhancement are better co-ordinated and aligned. While most regions (11 out of 16) have a regional biodiversity strategy of some form, the NPSIB requirements put a clear emphasis on the importance of collaboration in the preparation and implementation of these strategies. This emphasis will help improve the coordination of indigenous biodiversity restoration efforts and help empower tangata whenua, communities and landowners to restore and enhance indigenous biodiversity.

7.14.3 Assessment of efficiency

Table 35 provides a summary of the benefits and costs anticipated from the implementation of Policy 14, Part 3.18 and Appendix 5.

Table 37: Policy 14 and Part 3.18 – assessment of efficiency

	Benefits	Costs
Environmental	• Promotes a shared vision for indigenous biodiversity objectives and actions, coordinated effort, and empowering stakeholders which will help to deliver good environmental outcomes. • Will help provide a consistent link with actions in the New Zealand Biodiversity Strategy to assist with implementation and to deliver good environmental outcomes for indigenous biodiversity. Will ensure national priorities for indigenous biodiversity are also prioritised at the regional level. • Places a clear focus on indigenous biodiversity restoration and enhancement in addition to protection which is needed to achieve the overall goal of maintaining indigenous biodiversity.	• May shift effort and focus away from protection which should be the priority (recognising that protection also forms part of regional biodiversity strategies).
Economic	• A clearly defined strategy developed in a collaborative manner may provide efficiencies through greater clarity about priority areas, actions and milestones, joined up efforts and sharing of resources.	• Implementation costs for regional councils to prepare/update regional biodiversity strategies and to do this in a collaborative manner. Costs will vary based on whether there is an existing strategy in the region and how aligned existing strategies are with Appendix 5.

	• Strengthened relationships with tangata whenua, communities and other stakeholders through the collaborative development of the strategy may improve efficiency in the protection, restoration and enhancement of indigenous biodiversity.	• Costs expected to range from $80,000 to amend an existing strategy to $150,000 to produce a new strategy. These costs exclude any implementation programmes identified in the strategy and also exclude any costs for mapping required by other policies that would be reported in the strategy. In present value terms (6% discount rate), these costs range from $60,000 to$112,000 based on the assumption that they would be prepared five years after commencement date. • Costs for tangata whenua, stakeholders and the community to engage in the preparation and implementation of regional biodiversity strategies (time and potential financial costs). •
Social	• Using regional biodiversity strategies as a key tool to implement the enhancement and restoration objectives of the NPSIB elevates the importance of community engagement as part of indigenous biodiversity management. • Policy 14, Part 3.18 and Appendix 5 increases the likelihood that the community and stakeholders will 'buy in' to a shared vision and provides a specific vehicle for the community to get involved in enhancing and restoring indigenous biodiversity in their region. • Greater awareness in the community of the importance of restoration and enhancement efforts and increased buy-in to these initiatives. This may help improve the connection of communities with nature and contribute to social well-being.	• Costs and time for the community to engage in the preparation and implementation of regional biodiversity strategies. • Some of the costs to undertake and support restoration and enhancement are likely to be funded through rates, reducing the amount of funding for other community initiatives.
Cultural	• The collaborative process to develop regional biodiversity strategies will allow for Māori worldviews on indigenous biodiversity to be considered alongside agency, stakeholder and wider community perspectives. • Regional biodiversity strategies may include actions for the protection, restoration and enhancement of identified taonga with associated cultural benefits to tangata whenua.	• Costs and time for tangata whenua to engage in the preparation and implementation of regional biodiversity strategies.

7.14.4 Other options considered – non-mandatory regional biodiversity strategies

An alternative option is to not require regional biodiversity strategies through a NPSIB but encourage these through the New Zealand Biodiversity Strategy. Feedback from regional councils has indicated a preference for this option. This will allow regional councils to prepare and update regional biodiversity strategies when they consider that benefits of doing so are worth the up-front effort and implementation costs. This alternative option is potentially a more efficient approach in terms of implementation costs.

As the New Zealand Biodiversity Strategy is a non-statutory document, it cannot require regional biodiversity strategies to be prepared by councils but simply encourage these. This presents a risk that these strategies will not be developed by those councils that have not already a strategy in place and the benefits outlined above would not be achieved. It would also not help link regional biodiversity strategies and the implementation of NPSIB provisions focused on restoration and enhancement (in particular Policy 11, Part 3.16 and Part 3.17) and is therefore likely to be less effective to assist in the achievement of Objectives 1 and 5. For these reasons, the requirement to prepare regional biodiversity strategies through the NPSIB is the preferred option.

7.15 Policy 15 – Monitoring and assessment of indigenous biodiversity

Policy 15 of the NPSIB is as follows:

> ***to require the monitoring and assessment of indigenous biodiversity.***

Policy 15 is supported (primarily) by Part 3.20 (monitoring by regional councils) and Part 4.1 (Ministry for the Environment monitoring and review) which set out the implementation requirements for councils and the Ministry for the Environment to give effect to the policy. The assessment of the effectiveness and efficiency of Policy 15 below provides a separate assessment of these two clauses. While they are closely interrelated and dependent in term of how they give effect to Policy 15, each clause has distinct impacts, benefits and costs that warrant a separate assessment.

7.15.1 Policy 15 and Part 3.20 - Policy intent

To give effect to Policy 15, Part 3.20 sets out specific requirements for regional councils to monitor indigenous biodiversity within each region. It requires regional councils to work with territorial authorities, relevant agencies, and tangata whenua to develop a monitoring plan that must:

a) *establish methods and timeframes for monitoring the maintenance of indigenous biodiversity in, and the ecological integrity and physical extent of, SNAs, taonga outside SNAs, and other areas outside SNAs; and*

b) *include methods and timeframes for monitoring progress towards, and achievement of, restoration and enhancement objectives established under clauses 3.16 and 3.17; and*

c) *use best practice methods, or nationally agreed standards or methods, for monitoring areas that allow for comparability; and*

d) *to the extent possible, where tangata whenua agree, use scientific monitoring methods and mātauranga Māori and tikanga Māori monitoring methods equally; and*

e) *recognise the importance of long-term trends in monitoring results, and the relationship between results and the overall state of indigenous biodiversity; and*

f) *establish methods, such as action plans, for responding to monitoring that indicates that the objectives of this National Policy Statement will not be met.*

Part 3.20 also states that the monitoring plan may include different method and timeframes for monitoring relating to SNAs, taonga outside SNAs, and other indigenous biodiversity outside SNAs.

These monitoring requirements are comprehensive and are intended to lead to a substantial improvement in the monitoring of the state, trends and pressures on indigenous biodiversity within regions throughout New Zealand. This recognises that current practice to monitor indigenous biodiversity is variable and very limited in some areas. This often relates to limited capacity and resources within councils to proactively monitor the state of indigenous biodiversity and other priorities taking precedent.

Improved monitoring of indigenous biodiversity was a key component of the BCG's recommendations stating in their report that:

> *"Decision-makers, as well as researchers, need better access to a national picture of the state of our indigenous biodiversity. A comprehensive national picture will enable improved decision-making, more efficient operational processes, opportunities for increased collaboration between organisations and new research opportunities that will further inform policy development"*[76].

7.15.2 Policy 15 and Part 3.20 - Assessment of effectiveness

Policy 15 and Part 3.20 will assist in the achievement of Objective 1 to maintain indigenous biodiversity and Objective 5 to restore indigenous biodiversity and enhance the ecological integrity of ecosystems. While the focus of Policy 15 and Part 3.20 is focused on monitoring rather than management, enhancement and restoration, information collected through improved monitoring will lead to more informed decision-making and management of indigenous biodiversity. Part 3.20 also requires monitoring plans to establish methods to respond to monitoring that indicates the NPSIB objectives will not be met to further assist in the achievement of Objectives 1 and 5.

Part 3.20 sets out comprehensive monitoring requirements focused on the extent to which indigenous biodiversity is being maintained and the extent to which restoration and enhancement objectives and targets set in accordance with Part 3.16 and 3.17 are being achieved. This will enable councils (and central government) to assess the extent to which Objectives 1 and 5 are being achieved in regions and where improvements may be needed to ensure these objectives are achieved over time.

Implementation of Part 3.20 is to be led by regional councils who are tasked with the responsibility to prepare a regional monitoring plan in collaboration with territorial authorities, relevant agencies, and tangata whenua. While there is some flexibility in the nature and content of the monitoring plan, Part 3.20 sets out reasonably extensive minimum requirements for the monitoring plan (e.g. monitoring ecological integrity of all SNAs, use of best practice methods) and will require a substantial improvement in practice and increased resourcing in many areas. Guidance and support from central government is important to assist in the implementation of Policy 15 and Part 3.20. This should provide practical guidance to assist regional councils in developing regional monitoring plans and outline the best practice monitoring methods and nationally agreed standards that are envisaged by central government to give effect to the policy.

7.15.3 Policy 15 and Part 3.20 - Assessment of efficiency

Table 38 provides a summary of the benefits and costs anticipated from the implementation of Policy 15 and Part 3.20.

Table 38: Policy 15 and Part 3.20 – assessment of efficiency

	Benefits	Costs
Environmental	• Improved understanding of indigenous biodiversity states, trends and pressures will inform and improve decision-making. This will help improve indigenous biodiversity outcomes. • Part 3.20 provides clear direction to councils to monitor the extent to which indigenous biodiversity is being maintained within their region or district and, if not, establish new methods to meet this objective. This will help to ensure indigenous biodiversity is maintained.	• N/A

[76] Report of the Biodiversity Collaborative Group, pg. 39.

Economic	• Over time, improved knowledge of indigenous biodiversity states, trends and pressures within regions and districts may help to streamline decisions (compared to decision-making based on incomplete information). This may lead to efficiency gains. • Part 3.20 promotes a collaborative approach to monitoring within regions. This will encourage sharing of resources and may provide some efficiency gains over time.	• The development and implementation of regional monitoring plan required under Part 3.20 will have time and cost implications for councils (particularly regional councils). While councils have a function to monitor the state of the environment under section 35 of the RMA, effective implementation of Part 3.20 will require a substantial improvement in practice in many areas and increased resourcing for monitoring. • Indicative costs to develop and implement a monitoring plan under the NPSIB is estimated at between $100,000 per annum for a council that already has reasonably comprehensive state of the environment monitoring for indigenous biodiversity, and $400,000 per annum for those councils with limited or no existing monitoring of indigenous biodiversity. In present value terms (6% discount rate) this equates to an aggregate cost of between $955,000 and $3,820,000 by 2050 per regional council (assuming a start year six years after commencement date).
Social	• Improved understanding of indigenous biodiversity states, trends and pressures will help councils to make decisions that maximise the benefits of indigenous biodiversity for communities. • Communities may become more involved in indigenous biodiversity monitoring helping to improve their connection and appreciation of nature. Sense of achievement in the community where monitoring demonstrates positive change.	• Some of the costs to undertake increased monitoring are likely to be funded through rates, reducing the amount of funding for other community initiatives.
Cultural	• Part 3.20 requires that regional councils monitor the maintenance of identified taonga. This may help to ensure the mauri and ecological integrity of identified taonga is maintained with associated cultural benefits. • Part 3.20 promotes the equal use of mātauranga Māori and tikanga Māori monitoring methods to the extent possible. This will ensure cultural concepts are better incorporated into	• N/A

	indigenous biodiversity monitoring and management with associated cultural benefits.	

7.15.4 Policy 15 and Part 4.1 - Policy intent

To give effect to Policy 15, Part 4.1 sets out requirements for the Ministry for the Environment to monitor and review the effectiveness and implementation of the NPSIB. It states that the Minister for the Environment shall ensure that the Ministry for the Environment:

a) *collects data for a nationally consistent monitoring and reporting programme that, as far as practicable, incorporates regional and district monitoring information; and*

b) *undertakes other information gathering or monitoring that assists in providing a national perspective on indigenous biodiversity management trends, emerging issues, and outcomes; and*

c) *within 10 years of the National Policy Statement commencement date, undertakes a first assessment of its effect on regional policy statements and regional and district plans, resource consents, designation, and other decision-making.*

d) *publishes a report and conclusion on the matters in (a) to (c) and specifies a new timeframe in which a further assessment must be undertaken.*

7.15.5 Policy 15 and Part 4.1 - Assessment of effectiveness

Part 4.1 does not directly relate to the achievement of the NPSIB objectives – rather its purpose is to ensure the Ministry for Environment monitors and reviews the effect and implementation of the NPSIB. This relates to the functions of the Minister for the Environment under section 24(f) of the RMA to monitor the effect and implementation of the RMA and any national policy statements prepared under it.

Part 4.1 is therefore not effective in itself to achieve the NPSIB objectives but simply provides clarification that the Ministry for the Environment will perform its monitoring and review functions in relation to the NPSIB and the timeframes for the first formal assessment of the effect of the NPSIB. This is useful clarification to emphasise the importance of reviewing the implementation and effect of the NPSIB to ensure it is being implemented as intended. It is also important to ensure the NPSIB is helping to achieve the purpose of the RMA in accordance with the purpose of national policy statements in section 45 of the RMA.

Part 4.1 also states that the Ministry for Environment shall collect data for nationally consistent monitoring and reporting that (as far as practicable) incorporates regional and district monitoring information. Collaboration and support from central government will assist with the monitoring requirements for regional councils in Part 3.20 and ensure consistent monitoring methods, data and reporting. A collaborative approach to monitoring and reporting on indigenous biodiversity is also expected to be the most effective and efficient approach to give effect to Policy 15 and provide a better local and national understanding of the state of New Zealand's indigenous biodiversity.

7.15.6 Policy 15 and Part 4.1 - Assessment of efficiency

There will be some costs for the Ministry for Environment to monitor and review the effectiveness of the NPSIB. However, this is a core function of the Minister for the Environment (and Ministry) under section 24(f) of the RMA so Part 4.1 does not impose any additional costs above what should be done as standard practice. The benefit of Part 4.1 is that it provides added assurance the NPSIB will be monitored and reviewed within a specific timeframe to ensure the NPSIB objectives are being achieved and it is helping to achieve the purpose of RMA. This is important to ensure the NPSIB is amended in the future as necessary to ensure it is effective in delivering these outcomes.

7.16 Risks of not acting if there is uncertain or insufficient information

Section 32(2)(c) of the RMA states that the assessment of the efficiency and effectiveness of provisions shall include an assessment of the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions. This assessment has identified a number of areas where there is a level of uncertainty about

how certain provisions will be implemented in practice and the associated benefits and costs. The indicative CBA in **section 8**, case studies in **section 9**, and the monetised cost analysis in **Appendix B** also highlight areas where there is insufficient or uncertain information about the NPSIB provisions.

Some of the key areas where there is uncertain or insufficient information about the NPSIB provisions include:

- **Hutia Te Rito** - there is a degree of uncertainty about what Hutia Te Rito means and how this conceptual framework will be operationalised in practice. Stakeholders have expressed general support for the concept but requested further clarity about what it means. It is expected that this concept will be further tested with tangata whenua, councils and other stakeholders through public consultation to ensure there is an improved understanding about how the concept will work in practice under the NPSIB.
- **Identification of SNAs** - there is uncertainty (and potential risks) in terms of the extent of the indigenous vegetation and habitats that will be identified as SNAs under the NPSIB. Ecological advice has been that NPSIB criteria are consistent with more recent plans and policy statements and are not unduly wide, and this was noted in the report of the BCG[77]. It is important that this assumption is thoroughly tested through public consultation as are the potential impacts, benefits and costs of the requirement in the NPSIB to identify, assess and map SNAs. This is needed to reduce this uncertainty and ensure the NPSIB does not capture an unduly wide range of areas as SNAs. On the other hand, it is also recognised that, over time, the requirement to identify and map SNAs will reduce uncertainty about the location and extent of SNAs over time.
- **Adverse effects to be avoided in SNAs –** there is a degree of uncertainty about what the requirements to "avoid" certain adverse effects on SNAs in the NPSIB will mean in practice for different forms of subdivision, use and development within SNAs. Ecological advice suggests only very small-scale activities will be able to occur while avoiding the adverse effects referred to in Part 3.9(1)(a) of the NPSIB and that most new subdivision, use and development that are managed under this clause will therefore be precluded (or heavily restricted).
- **Impacts on specific subdivisions, uses and development** - there is a degree of uncertainty about the extent to which SNAs will be ranked 'high' (H) and 'medium' (M) in accordance with Appendix 2 of the NPSIB. This has significant implications for certain subdivision, use and development provided for in Part 3.9(2)-(3) in terms of whether certain adverse must be avoided and/or managed in accordance with the effects management hierarchy.
- **Existing activities –** there is a degree of uncertainty about how councils will choose to 'provide for' existing activities under the NPSIB, including pastoral farming. There may also be some uncertainties and challenges in practice identifying/confirming existing activities within regions and districts and ensuring the adverse effects of these existing activities are no greater in character, intensity and scale.

As this is a draft section 32 evaluation of the NPSIB to inform public consultation, the expectation is that more detailed information and feedback on the likely impacts, benefits and costs of NPSIB provisions will be collected and analysed through public consultation to address these (and other) uncertainties and potential implementation risks. This additional information will help ensure there is sufficient certainty about the implementation of the NPSIB provisions and the associated benefits and costs. This information will inform a final section 32 evaluation of the NPSIB to allow the Minister for the Environment to make a recommendation on the NPSIB in accordance with section 52 of the RMA.

[77] Analysis and advice from officials, **report** of the Biodiversity Collaborative Group, pg. 23.

8 INDICATIVE COST BENEFIT ANALYSIS

8.1 Introduction

The indicative CBA adopts, as the baseline, the Treasury guidance for CBA, notably social CBA[78]. The social perspective is important because of the ubiquitous nature of indigenous biodiversity in all regions of New Zealand, and the wide range of economic, social, cultural and environmental benefits and costs anticipated from the NPSIB. The Treasury social CBA guide states:

> *Cost benefit analysis is first and foremost an organising principle. It is a way of organising information in a consistent and systematic way. It is about making best use of whatever information is available.*
>
> *It is about evidence-based policy development.*
>
> *This guide is called 'social' cost benefit analysis because at its most basic, a cost benefit analysis that the Government is interested in must identify all the economic (including social and environmental) impacts of decisions on people, whether or not they can be quantified*[79].

Treasury's social CBA guideline identifies specific steps:

1) Define policy and counterfactual.
2) Identify who gains and who loses.
3) Identify the costs and benefits - including negative costs and 'dis-benefits', externalities, induced behaviour, and the deadweight cost of taxation.
4) Value the costs and benefits - including willingness to pay, opportunity cost, market and non-market values, revealed and stated preference, sunk costs, option values, taxes and subsidies, optimism bias, evaluation period, and nominal vs real.
5) Discount and compare costs and benefits – including present values, discounting and discount rate, and calculation of present value (**PV**) and benefit cost ratio (**BCR**).

This indicative CBA has focussed on steps 1-3 with the detail provided in **Appendix A**. It partially achieves steps 4 and 5 but does not quantify a number of benefits and costs and therefore does not provide a BCR.

The limitations on valuing (quantifying or monetising) some costs and benefits anticipated from the NPSIB are explained further in **Section 2.1**. Namely, these include:

- The uncertainty on how councils will translate NPSIB policies into provisions in RMA plans and policy statements;
- The variability of status quo approaches and provisions to manage effects on terrestrial indigenous biodiversity in operative and proposed plans across the country relative to the requirements under the NPSIB;
- The uncertainty around landowner intentions to subdivide, develop or use their land (which directly impacts on the likelihood and significance of opportunity costs); and
- The complexities of monetising non-market values, and particularly the values of indigenous biodiversity.

As a result, only a limited number of identified costs of the NPSIB have been monetised at this stage (council and central government implementation costs), and these are expressed as cost ranges per council rather than estimated national totals (i.e. these are not aggregate costs). In accordance with Step 5 of the Treasury guidance on social CBA, these have been expressed in present value terms in anticipation that further work (following public consultation) will provide a more comprehensive analysis of monetised costs and benefits (where practicable), that may allow a BCR to be calculated (and tested for sensitivity). This further work will rely on feedback provided through public consultation

[78] https://treasury.govt.nz/publications/guide/guide-social-cost-benefit-analysis

[79] Page 3, https://treasury.govt.nz/sites/default/files/2015-07/cba-guide-jul15.pdf

to validate assumptions on implementation cost ranges and fill gaps on quantitative costs and benefits. It will also require an agreed approach to be developed to extrapolate costs across New Zealand.

In the meantime, indicative costs and benefits are reported using a mix of qualitative, quantitative and monetised approaches. This is discussed in **Section 2.3**, including the adopted case study approach which has been helpful for the purpose of the draft section 32 evaluation and the indicative CBA to test and examine the potential impacts of the NPSIB policies on a range of councils and land uses within the selected districts.

8.1.1 Indicative CBA approach to costs and benefits

Identifying the relevant costs and benefits in **Appendix A** involved consideration of the NPSIB provisions (version 7), the BCG report, discussions with officials on changes to the BCG NPS provisions, draft RIS report, analysis by officials, and feedback from interviews with case study councils, along with general input from the NPSIB project team.

The assessment of indicative benefits and costs has also involved some high-level assumptions and approaches:

- The qualitative costs and benefits below are worded to reflect aggregate outcomes for total New Zealand. Subsequent analysis of selected costs and benefits is limited to specified case study areas and not national outcomes, unless otherwise stated.
- Where able to be specified, the CBA identifies impacted parties (who bear costs or benefits). Those parties impacted by the NPSIB include district councils, regional councils, unitary authorities, central government, landowners (of any tenure), private sector businesses (selling goods or services) and non-government organisations (**NGOs**) which may include (for example) restoration trusts, or umbrella organisations advocating for particular economic sectors.
- Costs to councils are ultimately borne by rate payers.
- Costs to central government are ultimately borne by taxpayers.
- Some costs and benefits are borne/received by the community as a whole – and may be intergenerational with costs borne now (or in the short-term) while benefits are received in the future. The costs and benefits tables below are not time specific but talk about the future in more general terms.
- In some instances, an effect can result in both a cost and a benefit (usually to different affected parties).
- Costs and benefits take account of direct and consequent effects.
- The scale of each cost and benefit is not explicitly identified, although in identifying who bears a cost or benefit, it infers the group that is affected (i.e. regional councils, district councils, landowners in certain locations, consent or plan change applicants, the total community). This gives a sense of scale in relative terms.
- The significance of each cost and benefit is estimated and included in **Appendix A**. These should be considered in a relative sense. They are not the intended to reflect the significance to an individual, rather the significance across the economy or society as a whole, taking into account the scale of the cost or benefit. For example, while an inability to develop general land or Māori land defined as an SNA may be significant to that landowner(s), this might only affect a small number of properties relative to the total within a particular district. As such, the indicative CBA utilises a three-point assessment scale for costs and benefits:
  - High significance – when the scale is large/widespread, and the significance to individuals is high.
  - Moderate significance – when the scale is medium/moderate, and the significance to individuals is moderate.
  - Low significance - when the scale is small/limited, and the significance to individuals is low, but also where the scale is large/widespread, but the significance is low and vice versa.
- Not all costs and benefits can be quantified, and fewer can practicably be monetised. Efforts have been focussed on quantifying/monetising selected costs where data and time has allowed. Case study councils were able to advise on some existing or potential monetised implementation costs relating to their approach to manage indigenous biodiversity under the RMA and how these would be impacted by the NPSIB. These are discussed further in **Appendix B**. Monetised costs therefore focussed on implementation costs to wider government. However, there are a number of requirements in the NPSIB that would be new for councils (e.g. protecting highly mobile fauna species) and these proved impracticable for councils to estimate with any certainty (and gaps remain).

- While care has been given to identify all key and relevant costs and benefits, **Appendix A** is unlikely to capture every potential cost and benefit.
- Implementation timing for the NPSIB overall and specific provisions (e.g. identifying SNAs) is factored into assumptions around the present value of monetised costs in **Appendix B**.

The full assessment of indicative costs and benefits of the NPSIB is contained in **Appendix A**. This considers all NPSIB provisions as a bundle. Those same costs and benefits have been drawn upon throughout **Section 7** to assess the effectiveness and efficiency of individual NPSIB policies and associated provisions as part of the draft section 32 evaluation. The following sub-sections provide a summary of the indicative CBA with associated discussion.

8.1.2 Discount rate

In presenting all values in the same time period (i.e. current), the choice of discount rate(s) is important. The choice of discount rate(s) is essentially subjective, with a smaller rate implying future generations enjoy more equal value with the current. Using a lower discount rate usually has a positive impact on the cost benefit ratio (**CBR**) for projects with relatively high upfront costs and long-term payback of benefits, while high discount rates tend to show lower benefits. This is often the case for projects with upfront expenditure or opportunity cost which generate outcomes that take time to become established.

The standard discount rates that are used for CBA range between 4% and 8%. But lower rates are often applied to projects with large environmental outcomes or inter-generational policies. Six percent is the default rate as suggested by the Treasury[80]. For the purpose of this indicative CBA, a 6% discount rate has been applied (**Appendix B**). Future updates of the CBA will likely include (for comparative purposes) a lower discount rate as well given the intergenerational environmental benefits achieved from greater protection of indigenous biodiversity today.

8.2 The counterfactual / status quo scenario

Section 4 (status quo and problem statement) provides a high-level overview of the issues and problems that are expected to continue in the future under the status quo scenario (i.e. without the NPSIB). In the absence of the NPSIB there will be ongoing decline of indigenous biodiversity in New Zealand. A key driver for this problem is that the provisions in the RMA relating to indigenous biodiversity are unclear. Without national guidance and improved national policy on this issue, it is likely that councils will continue to manage indigenous biodiversity inconsistently, practice will continue to vary, and indigenous biodiversity will continue to decline.

Key costs of the status quo scenario include (but are not limited to):

- Continued loss of indigenous biodiversity (including taonga species) with associated loss of ecosystem services. Reduction in natural capital.
- The mauri of the land is reduced. Reduced opportunities for tangata whenua to exercise customary practices over time.
- Direct and indirect use values of indigenous habitats (including recreational, scientific, educational and amenity values) will diminish. Loss of tourism value. Loss of intrinsic, existence and bequest values associated with indigenous biodiversity.
- Ongoing debate, litigation and associated costs and effort as RMA provisions relating to indigenous biodiversity are interpreted and implemented inconsistently between and within regions. Ongoing advocacy costs for those operators that work across regions.
- Inefficiencies will continue as a result of the uncertainty about council roles for managing indigenous biodiversity.
- Lack of strategic approach to restoration efforts with potentially reduced effectiveness.
- Highly mobile fauna and threatened/at risk species will continue to be poorly addressed in regulatory frameworks.

Key benefits of the status quo scenario include (but are not limited to):

[80] https://treasury.govt.nz/information-and-services/state-sector-leadership/guidance/financial-reporting-policies-and-guidance/discount-rates

- No mandate to change existing approaches in regional policy statements and district plans (net additional costs avoided).
- Councils will continue to set their own criteria to define SNAs and identify SNAs using their preferred process. Approaches will be developed that match council resources, priorities and available funding (and community sentiment), minimising additional costs to ratepayers.
- The effects of existing activities, new use, development and subdivision will continue to be managed in a way considered appropriate by each council.
- Biodiversity strategies will remain optional (avoided costs).
- The costs of development and subdivision (including opportunity costs) are limited only to those imposed by existing provisions or locally developed regulation regarding effects on indigenous biodiversity.

8.2.1 Is there market failure?

In light of the status quo scenario, the key question that arises is whether there a clear need for national direction to protect indigenous biodiversity? For this, a base question is whether the outcomes sought from the NPSIB are likely to be achieved in the absence of a national level "intervention" like the NPSIB, or through alternative options for intervention (as discussed in **Section 6** of this report).

In theory, the starting point is whether it is a situation of likely 'market failure', where the outcomes sought through the NPSIB are unable or unlikely to be achieved through the operation of commercial markets. In this circumstance, the "market failure" is quite clear. First, there is evidence of continuing decline in indigenous biodiversity under current market and planning conditions. Second, there are no mechanisms through which the outcomes and benefits sought from the NPSIB would be protected and preserved for current and future generations. Nor is there any mechanism to restore that resource in certain locations once lost, including restoring species that are lost altogether. That is because the value of indigenous biodiversity to the community at large is not captured in the price signals in the commercial market. In most instances, commercial markets do not place a high enough value on the indigenous biodiversity resource to influence land use or land development decisions.

An important consideration is that negative outcomes (adverse effects) from reduction or loss of terrestrial indigenous biodiversity arise largely at the macro-level as a consequence of changes in land use patterns, whereas the commercial market functions primarily at the micro-level (individual land holdings). This is a common issue faced by regional or territorial authorities, where adverse effects of land use and land use change are evident and significant at the aggregate level but appear insignificant at the micro-level (especially in relation to individual land use decisions or consents). In order to reduce or minimise adverse effects on indigenous biodiversity at the aggregate level, land use outcomes need to be influenced at the micro-level (individual land holdings), so that the aggregate outcome from many small-scale and minor adverse effects can be avoided (to achieve the objectives / purpose of the RMA). As a consequence, commercial markets by themselves are highly unlikely to deliver the outcomes sought by the community to achieve the benefits of indigenous biodiversity.

8.3 Summary of benefits of the NPSIB

The main benefits of the NPSIB are those to New Zealand's natural capital – the biophysical benefits of achieving the objectives of the NPSIB are significant and the flow-on effects will be felt by current and future generations in terms of the ecosystem services and wider direct and indirect use values and non-use values provided by, and associated with, indigenous biodiversity.

The main beneficiaries of implementing the NPSIB as a planning instrument are the community at large, councils, central government, landowners and tangata whenua. The community will benefit to the extent that protection and enhancement of natural capital will be improved by the NPSIB. Councils will benefit from clear policy direction which will allow them to manage indigenous biodiversity and other land use activities more effectively and efficiently, which is likely to translate to cost savings over time and reduced litigation. Central government will benefit from a better flow of targeted, up-to-date information on the state of indigenous biodiversity from the regions. This will build a more robust and accurate evidence base that will allow for more effective investment and future planning. Similarly, regional councils will be better placed to evaluate the effectiveness of their regulatory framework as a result of developing and implementing a regional monitoring plan and biodiversity strategy.

Achieving greater consistency in the management of indigenous biodiversity across the regional policy statements and district plans will lead to a more effective and efficient national resource management system. Landowners, including Māori landowners, and owners of forestry, mining and extractive industries, and providers of national infrastructure will all benefit from greater certainty on the location and value of SNAs and indigenous biodiversity generally while maintaining their ability to carry out existing and new activities where the effects on indigenous biodiversity are minor and can be avoided, remedied, mitigated, offset, and in certain cases, compensated. Tangata whenua will benefit from greater involvement in resource management and decision making that impacts on indigenous biodiversity through better incorporation of the concepts of Te Ao Māori, matauranga Māori and tikanga Māori in council practices.

8.3.1 Environmental Benefits

A core objective of the NPSIB is to help reverse the trend of declining indigenous biodiversity, acknowledging that achieving this objective will require a multi-pronged approach (and a change in attitude and actions across the whole of society and the economy). Specifically, the NPSIB is focussed on the protection, management and enhancement of terrestrial indigenous biodiversity, with some provisions that relate to the restoration of wetlands – achievable through more consistent and effective regional and local government regulation. Achieving this objective is essential because of the critical role indigenous biodiversity has in "*providing food and feed, energy, medicines and genetic resources and a variety of materials fundamental for people's physical well-being and for maintaining culture*"[81])

The latest research from the IPBES states that "*Nature, through its ecological and evolutionary processes, sustains the quality of the air, fresh water and soils on which humanity depends, distributes fresh water, regulates the climate, provides pollination and pest control and reduces the impact of natural hazards*"[82]. This highlights the fundamental importance of biodiversity for human livelihoods – the biophysical benefits flow on to (and sustain) economic, social and cultural benefits (wellbeing). Indigenous biodiversity is a public good. Protecting and enhancing terrestrial indigenous biodiversity benefits all New Zealanders (and in fact all life, as it contributes to the wellbeing of the biosphere).

The environmental benefits attributable to the NPSIB can be broken down into the avoided further loss of indigenous biodiversity across New Zealand, and the marginal benefits achieved from enhancements/improvements to the status quo (including greater resilience to the effects of climate change and biosecurity threats). These benefits will take time to be realised but are long-term, cumulative effects that are critical for the wellbeing of future generations.

Quantifying and monetising the environmental benefits anticipated from the implementation of the NPSIB is challenging and has not been attempted for this indicative CBA. While there is research which attempts to value indigenous biodiversity[83], it is necessary to account for the marginal effect of the NPSIB over and above the status quo. This requires estimates of the rate of net change that may be achieved (in aggregate across all districts/regions) and an understanding of the dynamics between incremental improvements and non-linear benefits. These are complex issues with significant uncertainty.

8.4 Summary of Costs of the NPSIB

The majority of the costs generated by the NPSIB fall on councils and to a lesser extent central government and tangata whenua to implement the proposed policies and associated provisions. Councils are required to carry out extensive, resource intensive and costly processes to identify and map SNAs, including undertaking physical inspections where practicable and engagement with landowners. Council will also need to undertake extensive work to identify possible habitats of highly mobile fauna, taonga species, degraded and depleted environments, and areas targeted for restoration and enhancement. Giving effect to the NPSIB will also require councils to develop new/revised provisions

[81] Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) (2019), refer: https://www.ipbes.net/global-assessment-report-biodiversity-ecosystem-services

[82] Ibid.

[83] Including for example, Patterson MG, Cole AO (2013) "*Total economic value" of New Zealand's land-based ecosystems and their services'.* In Dymond JR ed. Ecosystem services in New Zealand – conditions and trends. Manaaki Whenua Press, Lincoln, New Zealand

to manage indigenous biodiversity and progress these changes to regional policy statements and district plans through the Schedule 1 process (including engagement, notification, public submissions, hearings and potential litigation and appeals).

Tangata whenua and other stakeholders will face costs (time and financial) to resource their involvement in these processes although this may be supported to an extent by councils and central government. Lastly, landowners and infrastructure providers may face increased costs to manage the effects of their activities on indigenous biodiversity as well as opportunity costs to subdivide, use and develop land (over and above the status quo) where planned activities need to be moved, scaled-down or modified, and in some cases prevented altogether, to ensure that certain adverse effects on High SNAs are avoided or are appropriately avoided, remedied, mitigated, offset, or compensated where the NPSIB effects management policies and provisions allow for this.

8.4.1 Implementation Costs

Implementation costs for councils and (to a lesser extent) central government are a key consequence of the NPSIB provisions. Many of the NPSIB provisions require specific changes to be made to regional policy statements and district plans and councils will need to prepare these changes and progress the proposed provisions through the Schedule 1 process in order to "give effect to" the NPSIB.

In order to provide indicative implementation costs for councils under the NPSIB, semi-structured interviews were carried out with six case study councils to develop an understanding of costs recently or currently incurred undertaking work similar to that required under the NPSIB. The interviews also sought estimates of what net additional costs might be incurred under the NPSIB. The latter is challenging as the councils interviewed do not yet have a detailed knowledge of what the NPSIB provisions will require (although some case study councils have a good level of understanding, based on their involvement as part of the Territorial Authority Reference Group on the Regional Biomanager's Group). Therefore, only limited weight can be given to those estimates. This CBA also sought relevant cost data from central government.

Key implementations cost sought from case study councils included:

1. **Costs to identify and map SNAs:** Actual cost estimates based on past work were limited to Auckland and Waikato. However, Far North District and Tasman District are part way through an SNA mapping process (early stages and mid-way respectively) so provided some indicative costs.
2. **Costs to develop a Regional Biodiversity Strategy**: Tasman District (as a unitary authority) was able to provide an estimate of this. Environment Southland (via Southland District) was also able to provide a range of estimated costs which was based on updating their existing work to develop a strategy rather than starting a fresh.
3. **Costs for regional state of environment monitoring**: Auckland, Tasman and Environment Southland were able to provide an indication of either existing costs or potential costs that would be incurred under the NPSIB.

The NPSIB provisions require that councils engage with tangata whenua, the community and other relevant stakeholders as part of the process to implement the NPSIB. This assessment does not attempt to estimate or quantify implementation costs to parties other than council at this time but rather acknowledge that there are both costs (including time, travel and resource costs for example) and benefits from the involvement of other parties in the implementation of the NPSIB. Further information on these costs and benefits to other parties will be sought through public consultation and incorporated in the updated CBA.

To inform **plan change costs for both regional policy statements and district plans**, data from the National Monitoring System (**NMS**) was sourced and evaluated. Last, implementation costs to central government were sourced directly from MfE and DOC.

Challenges and Limitations

With six case study councils, only two of which are unitary authorities, and not all NPSIB costs are applicable to each council (as a number of NPSIB provisions are directed at different councils). The implication is that limited cost data was able to be collected to inform the indicative CBA at this time. Dealing with such small samples makes it challenging to identify representative costs with any certainty. Further, there was little consistency between the cost estimates

provided (i.e. they ranged significantly). This highlights that implementation costs to manage indigenous biodiversity under the RMA vary significantly between councils, and the same can be expected under the NPSIB.

A further challenge is determining what work has already been completed (such as SNA mapping, an existing Biodiversity Strategy or existing state of environment monitoring) and therefore the net additional costs that can be attributed to give effect to the NPSIB provisions. For some councils, they would need to start from scratch for certain NPSIB provisions because they have not mapped SNAs or do not have a Biodiversity Strategy (for example). In these cases, council would be expected to face the full implementation cost of certain NPSIB provisions. However, for others, it will be a marginal cost to update or modify existing work, particularly those that are undertaking or have recently completed work that is well aligned with the NPSIB requirements (SNA mapping in Waikato and Auckland, for example).

This is an additional challenge that needs to be taken into account when estimating implementation costs for the NPSIB. DOC has undertaken a national review of district plans to determine how many have completed SNA mapping and the approximate status of that work when compared with the NPSIB requirements. This complemented the information gathered from Auckland Council and Waikato District Council on their SNA mapping process to guide assumptions on how representative their recent SNA mapping costs are for implementing the NPSIB provisions to identify and map SNAs. However, recent costs combined with an understanding of potential gaps under the NPSIB provides only limited assistance for estimating net additional costs under the NPSIB for those councils – high-level estimates are still required.

The case study councils have also provided a broad indication of how comprehensive their current state of environment monitoring is in relation to indigenous biodiversity (and where there are gaps in best practice). Their feedback confirmed that practice in this area is highly variable and a full spectrum exists between very limited monitoring of indigenous biodiversity and limited capacity to do this effectively and a reasonable, but still not comprehensive, level of monitoring and reporting.

Overall, the data able to be obtained at this time are either very small samples of either existing costs that may not be representative of costs under the NPSIB or speculative costs that may not reflect a full understanding of the NPSIB requirements. Therefore, it was agreed with DOC that the indicative CBA will report a range of cost estimates that may apply to any individual district, regional or unitary authority (including the case study councils). There is too much uncertainty to estimate costs specifically for each case study council (individually and in aggregate), and significantly more uncertainty attempting to extrapolate costs beyond the case study councils at this point in time. This would require a more comprehensive evaluation of status quo provisions (and non-statutory approaches) relative to the full range of NPSIB provisions to understand the marginal implementation costs.

The estimated ranges of implementation costs still require broad assumptions to be made. The methodology and assumptions applied are discussed in **Appendix B** in relation to the key implementation cost categories. While there are still some uncertainties in these estimated ranges (due to insufficient and uncertain information), this is balanced against the understanding that the CBA is 'indicative' only and its purpose is to help inform public consultation and feedback – including the accuracy and representativeness of these estimated cost ranges. The resulting cost ranges are reported where relevant in **Section 7** (against relevant provisions) and **Appendix A** (against relevant costs), in full in **Appendix B**, and are summarised further below.

8.4.2 Opportunity costs for landowners, businesses and infrastructure providers – approach and assumptions

Assessing opportunity costs for selected existing activities and new subdivision, use and development on land containing SNAs (particularly High SNAs) is an important consideration to understand the impacts and costs of the NPSIB. The NPSIB requires councils to make provisions to avoid certain effects on SNAs, including avoiding adverse effects 'where possible' on Medium SNAs. Therefore, the presence of the SNA on a property may preclude these activities in total or limit the extent of what could otherwise be achieved (over and above operative provisions).

Opportunity costs are most relevant to general, Māori land and Treaty Settlement land and combined these tenures account for 62% of the country with 20% of that with indigenous land cover (making up 30% of all indigenous land cover). Opportunity costs are less relevant to Crown and DOC administered land which combined account for 38% of the country with 76% of that with indigenous land cover (making up 70% of all indigenous land cover). Despite the relatively higher indigenous coverage of DOC and Crown land, this land is often protected through other legislation,

and is less subject to pressure and change of use, subdivision or development. The Crown (through taxpayer revenue) pays the cost of that protection and given that DOC's rationale is to protect public conservation land there is no real opportunity loss (other than perhaps concessions). As such, the focus of this assessment of opportunity costs is on general and Māori land[84], with Māori land the tenure most likely to have above average coverage of indigenous biodiversity.

While opportunity costs to landowners arising from the protection of SNAs (or the presence of indigenous biodiversity generally) are relevant to the NPSIB, these costs are difficult to quantify. This is particularly challenging in terms of the potential opportunity cost for landowners of foregone farming production and revenue if provisions to achieve indigenous biodiversity outcomes may impose limits on the land use. That is because landowners commonly have a number of options for farming or similar activity, which may mean that indigenous biodiversity provisions which apply to particular parts of a landholding will not necessarily impact on operations or output simply according to the share of the holding which is affected. Accordingly, while say 10% of a holding may be included in an SNA, that does not mean 10% of the operation or output would necessarily be impacted. Quantifying opportunity costs with any level of certainty requires a more detailed understanding of how the provisions in the NPSIB relating to SNA identification and protection, for example, will constrain a particular operation and the landowner intentions for the future development of that operation/property. This cannot be predicted with any real level of confidence through a desk-top spatial analysis and was outside the scope of this indicative CBA.

The spatial analysis is therefore limited to analysing the coverage of SNAs relative to property area to give a sense of how constraining that coverage might potentially be, in relation to the land that is not covered by the SNA. This is calculated for general land and Māori land properties. This is relevant for the provisions in the NPSIB relating to protection and management of adverse effects in SNAs and the specific provisions for a single dwelling or papakainga (or associated facilities) in Medium SNAs.

The analysis does not go as far as determining whether that property already contains a dwelling or papakainga (or associated facility) or whether the property qualifies for subdivision under the district plan rules. This was not possible in the scope of this assessment. It is also not possible to predict how each property owner would respond to particular levels of SNA coverage (relative to total property land area), or what their aspirations for that land would have been without the NPSIB. As such, it is not practicable for this indicative CBA to provide any additional quantification of opportunity costs, or to provide any monetisation of opportunity costs.

SNAs on general land are often expected to be relatively small and discrete pockets limited to land less suitable for land clearance, farming and development. The chances that SNA coverage is *so* extensive that it totally precludes use and development (i.e. a relatively small property (say less than 1ha) with greater than 80% of the property area covered in High SNA) is considered to be very low on general land. These probabilities are examined further in **Section 9** and **Appendix C**. Therefore, opportunity costs on general land are most likely to arise from **limitations** on the subdivision, use and development on such properties from the NPSIB effects management provisions, rather than **precluding** subdivision, use and development altogether to avoid the adverse effects on SNAs listed in Part 3.9(1)(a) of the NPSIB. Most limitations are likely to be dealt with by general landowners with modifications and adaptions to the next best outcome. On that basis, the consequence of the NPSIB effects management provisions for SNAs for most activities is estimated to be low.

Examples of opportunity costs on general land could include:

- Less potential to subdivide if avoiding indigenous vegetation clearance would preclude a building site or if there were rules that meant SNAs could not be subdivided (resulting in lower lot yields, or at worst, no subdivision potential);
- The need to shift a proposed building site, access track, driveway, or road to avoid vegetation clearance;
- The need to develop available land more intensively if the ability to spread activities (such as a house design or commercial building) would have required some removal of vegetation; and
- An inability to clear a portion of land for pasture if that land is defined as an SNA.

[84] Māori land is defined in the NPSIB as "***Māori land*** *means Māori customary land and Māori freehold land as defined in Te Ture Whenua Māori Act 1993".*

Given that the location of SNAs is most often rural or peri-urban, landowners in these locations are most likely to be impacted by SNAs, with urban landowners (who make up the majority) most likely unaffected by opportunity costs. Understanding the scale of potential opportunity costs is important. Across the six case study areas, between 6% and 37% of general properties contained an area of defined or potential SNA. Importantly, the lower range is based on actual defined SNAs and the upper range is based on a proxy of SNAs ('Indicative SNAs'). This indicative SNA coverage has been established (through comparative analysis) to provide an indication of land that may be identified as SNA under the NPSIB based on the Land Cover Database. However, this Indicative SNA coverage is likely to over-represent the likely scale and distribution of SNAs on general land (as discussed further in **section 9**). As such, a lower range is considered more realistic and should be given more weight.

The spatial analysis of general land in the six case studies does show that a very small share of properties containing an area of defined (or indicative) SNA have a high risk of precluding new subdivision, use and development as a result of the requirement to "avoid" certain adverse effects on SNAs in the NPSIB (i.e. smaller properties with widespread High SNA coverage). By way of context, across the six case studies an estimated 0-1% of general owned properties (of any size) had indicative High SNA coverage of greater than 80%. The opportunity costs for that relatively small group of general landowners will be significant *if* the site has not already been developed and the operative provisions don't already preclude development. This important caveat requires a more fine-grained (site specific) analysis, which is outside the scope of this indicative CBA.

SNAs on Māori land are expected to have more extensive coverage of the property area. The chances that SNA coverage is *so* extensive that it totally precludes use and development are therefore higher than on general land. Across the six case study areas, between 25% and 79% of Māori land properties contained an area of defined or indicative SNA. The lower range is based on actual defined SNAs and the upper range is based on a proxy of SNAs. As discussed above, this proxy is likely to over-represent the likely scale and distribution of SNAs identified under the NPSIB. As such, a lower range is considered more reliable and should be given more weight. However, in the case of Māori land, a higher range should not be discounted as the scale and nature of Māori land is more variable across the case study councils compared to the land use of general land. In Southland District for example, Māori land is often within the national parks.

The probabilities of SNAs precluding any form of development on Māori land (through a combination of property size and SNA coverage) are examined further in **Section 9** and **Appendix C**. While SNA coverage is higher than on general land, the size distribution of Māori land parcels is different, with a greater share of properties being larger in size. This is relevant because even a small percentage share of property area free of SNAs could be a relatively large area that may be suitable for some form of development (i.e. for papakainga, marae or associated facilities).

The spatial analysis of Māori land in the six case studies does show that a very small share of properties containing an area of defined (or indicative) SNA have a high risk of precluding new use and development as a result of the provisions in the NPSIB to avoid certain adverse effects on SNAs (i.e. smaller properties with widespread High SNA coverage). By way of context, across the six case studies an estimated 0-4% of Māori owned properties (of any size) had indicative High SNA coverage of greater than 80%. The significance of the opportunity costs for that relatively small group of Māori landowners will be high *if* the site has not already been developed. Again, this important caveat requires a more fine-grained (site specific) analysis, which is outside the scope of this indicative CBA.

Both Waikato and Far North District Councils indicated (anecdotally) that tangata whenua often expressed a desire to protect the indigenous land cover on Māori land. The aspirations for development of Māori land (and how these may differ from the aspirations of general landowners) will be discussed further during public consultation of the NPSIB.

Opportunities to subdivide, use or develop land are also constrained by other factors and these factors do not apply equally across a district. These include instances whether a property falls within policy areas/overlays that protect the values of the land (i.e. Outstanding Natural Landscapes or Features or heritage area overlays), policy areas that constrain the land (i.e. hazard zones) or features that constrain activities on the land (i.e. sites of significance to Māori). Where these constraints coincide with the presence of high or medium SNAs, the opportunities for new use, subdivision and development may already have been reduced relative to other land, and so any opportunity cost attributable to the SNA is likely to be marginal. The case study analysis considers this issue at a high-level to provide additional context on the scale and significance of potential opportunity costs associated with SNA protection under the NPSIB.

There is also potential for opportunity costs for businesses operating mining or extractive activities (particularly if located in High SNAs as they will be managed in accordance with the provisions in the NSPIB that require certain adverse effects on SNAs to be avoided). Applications for new mining activities (in areas not already designated or zoned for mining) are likely to be limited and infrequent. Some high-level consideration is given to the potential for opportunity costs for existing mining and extractive sites in the case study analysis. This is based on the estimated coverage of defined or indicative SNAs (and particularly estimated High SNAs) relative to the zoned or identified resource area. In most cases, the defined or indicative coverage of estimated High SNAs is very minor in the areas assessed. The potential impact of estimated High SNA coverage on those business has not been investigated and is an area where further feedback is needed through public consultation. Every site is however unique, and this will make it difficult to quantify or monetise effects on this industry with any certainty.

In terms of potential opportunity costs on nationally significant infrastructure, opportunity costs may take the form of needing to relocate planned infrastructure to avoid SNAs (if in fact there are alternatives) or considering alternate methods of development such as undergrounding pipes or cables. Because of the significant capital costs of national infrastructure, any modifications or adaptions (outside the preferred location, route or method) will potentially result in significant costs in dollar terms (but not necessarily significant in % terms relative to total costs). The case study analyses provide limited spatial context on potential impacts on existing and proposed national infrastructure, where this information was able to be sourced. Again, this analysis is limited to identifying the spatial incidence of these activities with the incidence of estimated high and medium SNAs (defined or indicative). How infrastructure companies might respond where there is a potential conflict under the NPSIB has not been investigated further, and so there are no estimates of opportunity costs in monetary terms. This is an area that will be explored further in the update of the CBA following public consultation.

8.5 Summary of costs and benefits by impacted party

Table 39 provides a high-level summary of costs and benefits by impacted party. Full detail is provided in **Appendix A**.

Table 39: Summary of Indicative Costs and Benefits by Impacted Party.

	Benefits	Costs
Community at large	• The current state of New Zealand's terrestrial indigenous biodiversity (and the ecosystem services that provides) is maintained (future loss and decline is avoided) and enhanced for current and future generations, including the state of species populations and occupancy, indigenous character, ecosystem representation, ecosystem connectivity, buffering, resilience and adaptability as a consequent effect of improved management and decision making, including consideration of cumulative effects. • The current and future community at large, and local communities can continue to access and experience indigenous biodiversity (to the extent that this resource is not diminishing over time). Recreational, educational, scientific, historical, amenity, landscape and natural character values associated with areas of indigenous biodiversity are maintained (and potentially enhanced).	• Indigenous biodiversity in Medium SNAs and outside of SNAs may be subject to minor short-term disturbance/ damage/ loss as a result of new use, development and subdivision arising from nationally significant infrastructure, mineral extraction, development of Māori land and dwelling construction where there is no alternate building site. However, there must be no net loss of indigenous biodiversity as a consequence of the NPSIB (when remedial/ mitigating/ offsetting actions have established to an equivalent pre-impact state) and the positive effects of any proposed compensation must be proportionate to the adverse effects on indigenous biodiversity. • Potential rates increase required to fund council activities required to implement the NPSIB where existing funding is not adequate to cover costs. • Potential opportunity costs for alternative uses of land in areas to be

	• Greater evidence and understanding (awareness) of the status of indigenous biodiversity (in aggregate and in specific areas of New Zealand) as a result of regional and district council monitoring requirements and the sharing of this information. Will support more targeted research, investment and restoration. • Greater certainty for landowners of areas identified for protection, enhancement, restoration and the actions being undertaken regarding those areas and the methods available.	restored/enhanced as a consequence of the NPSIB due to targets set in regional policy statements to increase vegetation cover. • Time, travel and resource costs for community participation in council activities that implement the NPSIB.
Tangata whenua	• The concepts of Te Ao Māori, matauranga Māori and tikanga Māori are better incorporated into indigenous biodiversity management and decision-making. • The connection between nature and cultural wellbeing is maintained. The mauri of the land is enhanced and protected. • Relationships and partnerships between tangata whenua and councils are strengthened through clearer guidance on roles. • The cultural and economic benefits associated with the development of Māori land are recognised and provided for, including where development effects Medium SNAs.	• There will be a cost for tangata whenua to resource engagement and consultation in the development of provisions and to be involved in indigenous biodiversity management, strategies, monitoring plans and decision-making. Includes the opportunity cost of time. • Potential impacts on cultural wellbeing where there are opportunity costs for new subdivision, use and development on Māori land. Loss in ability to connect with customary land.
Landowners (including Māori landowners)	• Greater certainty for landowners on the location of SNAs, taonga, highly mobile fauna, threatened or at-risk species and degraded and depleted environments, as well as what effects must be avoided in and out of SNAs. • The impacts of activities, including subdivision, use and development, on indigenous biodiversity are better understood. Greater stewardship/kaitiaki of natural resources. • A share of the wider benefits to the community of enhanced indigenous biodiversity, including a greater than per capita share of location-specific benefits accruing to land-holdings. • Greater certainty about potential for new use, development and subdivision associated with locationally constrained Māori land as well as development of dwellings where there is no alternative house site, can occur in 'Medium' SNAs	• Time and other costs to landowners to provide/facilitate access to council staff/representatives to confirm SNA boundaries and description. Potential time and monetary costs to participate in plan changes that relate to contested SNAs. • Potentially greater costs for landowners to manage pest and animal incursions, and manage disruption of indigenous biodiversity by people, pets and livestock where required by regional and district council provisions to better protect SNAs and maintain indigenous biodiversity. • Opportunity costs in terms of potential constraints on new subdivision, use and development on land containing SNAs where that SNA effectively precludes these activities in total or limits the extent of what could otherwise be achieved (over and above operative rules) as a consequent effect of the

	provided adverse effects are remedied or mitigated or can be offset or compensated. • Existing activities will not be adversely affected by provisions that manage indigenous biodiversity as a consequence of the NPSIB if they are no greater in scale, character and intensity and will not reduce or degrade the ecological integrity of an SNA and are provided for by councils in accordance the provisions for existing activities in the NPSIB. This is in effect consent to continue activities which in the past may have adversely affected indigenous biodiversity, provided no additional adverse effects arise.	NPSIB policies. Opportunity costs are expected to be higher when SNA coverage of properties is widespread, particularly when that SNA cover relates to High SNAs. The percentage of properties that potentially fall into this category is estimated to be small based on the case study findings. • Potential opportunity costs as constraints on existing activities that would otherwise continue to degrade or reduce ecological integrity in SNAs and that are no longer provided for by Councils under the NPSIB.
Industry	• Greater certainty for farmers, forestry owners, mining operators and national infrastructure providers on the location of SNAs, taonga, highly mobile fauna, threatened or at-risk species and degraded and depleted environments, as well as what effects must be avoided in and out of SNAs. Includes greater certainty for those parties that operate over multiple regions (savings in advocacy costs). • Greater certainty about potential for new use, development and subdivision associated with locationally constrained national infrastructure and mineral extraction can occur in 'Medium' SNAs provided adverse effects are remedied or mitigated or can be offset or compensated. • Existing activities will not be adversely affected by provisions that manage indigenous biodiversity as a consequence of the NPSIB if they are no greater in scale, character and intensity and will not reduce or degrade the ecological integrity of an SNA and are provided for by councils in accordance the provisions for existing activities s in the NPSIB. This is in effect consent to continue activities which in the past may have adversely affected indigenous biodiversity, provided no additional adverse effects arise. • Potential increases in the tourism value of New Zealand's natural areas as a consequence of an enhanced state of the country's indigenous biodiversity, and/or, avoided loss of tourism value as a result of maintaining current levels of indigenous	• Potential for increased costs to manage effects on indigenous biodiversity where the NPSIB results in tighter constraints on existing activities and new use and development than the status quo. • Opportunity costs for new subdivision, use and development on land containing SNAs where that SNA effectively precludes these activities in total or limits the extent of what could otherwise be achieved (over and above operative rules) as a consequent effect of the NPSIB policies.

	biodiversity. Arises through better local and aggregate outcomes.	
NGOs	• Greater certainty for NGOs of areas identified for protection, enhancement, restoration and the actions being undertaken regarding those areas and the methods available. Will allow greater coordination of operations and more effective prioritisation of. • Greater certainty of progress being made through monitoring reports, including the positive collective impact (or not) of their actions and effectiveness.	
Councils	• Greater certainty on the location and attributes of SNAs. The complexity and sensitivity of identifying SNAs is reduced through clear policy direction to ignore tenure and property boundaries. • Greater consistency and efficiency in how councils manage indigenous biodiversity under the RMA, including a clearer understanding of the roles of district and regional councils. Reduced litigation costs for councils in plan making and resource consents over time. • Better (and more integrated) decision making through clear policy guidance on what adverse effects on indigenous biodiversity are to be considered. Greater attention/detail provided that is specific to indigenous biodiversity in AEEs. • Relationships and partnerships between councils, tangata whenua and landowners are potentially strengthened.	• District Councils – implementation costs for SNA mapping and a plan change to develop provisions to manage effects on indigenous biodiversity and two-yearly plan changes to update SNAs. Costs per council range from an estimated $795,000 - $1,400,000 each (2020-2050, DR 6%). • Regional Councils – implementation costs for plan change to develop provisions to manage effects on indigenous biodiversity, produce a Regional Biodiversity Strategy and deliver a comprehensive monitoring plan. Costs per council range from an estimated $1,086,000 - $4,039,000 each (2020-2050, DR 6%). • Unitary Authorities – implementation costs for SNA mapping and plan change to develop provisions to manage effects on indigenous biodiversity, 2 yearly plan changes to update SNAs, Biodiversity Strategy and deliver a comprehensive monitoring plan. Costs per council range from an estimated $1,816,000 - $5,275,000 each (2020-2050, DR 6%). • Costs to councils (not captured above) to work with tangata whenua to map taonga species and ecosystems (where approved), map/survey the likely presence of highly mobile fauna, identify locations and opportunities for restoration and enhancement. • Costs for councils to develop (where required) arrangements and processes to more effectively involve tangata whenua in indigenous biodiversity management and decision-making.

		• Potential additional consent processing costs for councils where the number of consents impacting on indigenous biodiversity increases.
Central Government	• Greater consistency in the way that indigenous biodiversity is managed across New Zealand through resource management systems and processes. Management of indigenous biodiversity it brought "up to date" in terms of current research and best practice. Improved integrated management outcomes (consistency and linkages between planning instruments). • Greater evidence and understanding of the status of indigenous biodiversity (in aggregate and in specific areas of New Zealand) as a result of regional and district council monitoring requirements and the sharing of this information with central government, as well as Ministry for the Environment's own information gathering and monitoring. Will lead to more effective and efficient national direction and investment as a consequence of the NPSIB.	• NPSIB support and guidance costs. Costs estimated at $1,77m-$2.65m (2020-2050, DR 6%). • NPSIB monitoring, review and reporting costs.

8.6 Indicative CBA conclusions

Overall, the long-term environmental benefits of achieving the objectives of the NPSIB will be wide-spread and will be felt by current and future generations. The indigenous biodiversity loss avoided, and the enhancements to indigenous biodiversity achieved in any one district or region does not just benefit communities in that district or region but will benefit the wellbeing of wider New Zealand (and beyond). This is because indigenous biodiversity is a public good that delivers multiple benefits.

The environmental benefits achieved from greater protection and enhancement of indigenous biodiversity are unlikely to be spread evenly across districts and regions. The NPSIB policies will have a greater marginal effect on indigenous biodiversity on land outside DOC administered land (which is already protected by other legislation). General land is where the greatest decline in indigenous biodiversity has occurred and continues to occur as a result of existing activities, land use change and continued development pressures.

Notwithstanding that any improvements to the state of indigenous biodiversity on general land will be a positive outcome that generates benefits, councils where the majority of remaining indigenous biodiversity occurs on DOC land will have fewer opportunities (in a relative sense) to have a positive impact on that indigenous biodiversity. Otherwise, they can have a positive impact through restoration and enhancement of indigenous biodiversity on general land. Those same councils may not realise the potential benefits of greater regulatory efficiency and reduced litigation costs as strongly, because under the status quo, managing the effects on indigenous biodiversity may be a relatively minor issue.

Conversely, councils where a large share of indigenous biodiversity occurs on general land will have greater opportunities (in a relative sense) to have a positive impact on that indigenous biodiversity, in addition to potential gains made through restoration and enhancement activities. Those councils may also be more likely to realise the benefits achieved by greater national direction in terms of clearer definition of roles, integrated management, input from tangata whenua and reduced litigation due to uncertainty and inconsistency.

Other costs and benefits (with the exception of those benefits for central government, national infrastructure providers and businesses that operate at a national level) will be borne more locally - at the district and regional level. A key cost is associated with implementing a more spatially explicit and stringent planning framework to protect SNAs and maintain indigenous biodiversity. These costs are potentially significant for some councils although actual costs will depend on the level of change required relative to NPSIB requirements and/or their ability to fund the implementation of the NPSIB. However, these costs are mostly faced in the short-term and it is expected that the ongoing implementation costs of the NPSIB will reduce substantially over time.

There is uncertainty at present around what level of guidance and support central government will provide to councils to help implement the NPSIB. Estimated guidance costs have been included within central government's implementation cost estimates summarised above. Strong guidance and support from central government is considered critical to support the efficient and effective implementation of the NPSIB given that some of the requirements will be new for councils, some provisions (such as those around climate change) are more complex, and the capacity of councils and tangata whenua to effectively implement the NPSIB requirements (e.g. map SNAs) is highly varied. This is likely to require a comprehensive implementation programme from central government.

The NPSIB also requires that councils be specific about identifying locations for restoration and enhancement, as well as setting targets for restoration in Regional Biodiversity Strategies. It is uncertain yet if there is any expectation of additional funding provided by councils to help realise these targets, but some financial contribution is expected to be required to implement the relevant policies. There are costs and benefits associated with additional funding for restoration projects which are not summarised here but are identified in the detailed CBA (**Appendix A**).

The consequent effect of strengthened, more consistent and effective regulation for indigenous biodiversity at the local and regional level is that this may (depending on the status quo) impose greater costs on landowners, particularly landowners whose properties contain SNAs. These landowners will be concentrated in peri-urban and rural areas. This is an important point as the protection of indigenous biodiversity on private land (a public good) is borne by a small share of property owners, though according to the size of the landholding and the amount of indigenous biodiversity on that land. There may also be opportunity costs to a small portion of those landowners (including Māori landowners) as the requirements in the NPSIB provisions to "avoid" certain adverse effects on SNAs may constrain or prevent new subdivision, use and development. While these would be significant effects on those landowners, the spatial analysis in this indicative CBA indicates that these account for a very small share of total landowners (context is important). Those costs, including those potentially borne by aggregate extraction businesses and national infrastructure developers, must be balanced against the wider public good delivered by the aggregate effect of protecting and restoring indigenous biodiversity.

A key finding of the indicative CBA is that there is a high level of variability in how the NPSIB will impact each council area. The type, scale, geography and tenure of indigenous biodiversity is highly varied throughout New Zealand, as is the extent to which councils already provide for indigenous biodiversity protection, maintenance, restoration and enhancement in their plans, consenting and monitoring (in both scope and effectiveness). This presents challenges for estimating costs for any one council area, and in aggregate across New Zealand. Hence, extrapolating costs and benefits to the whole country has not been done in the indicative CBA but will be considered further in an update of the CBA following public consultation on the NPSIB.

The value of protecting indigenous biodiversity to the community at large is not captured in the price signals in the commercial market. Under the status quo, continued decline of indigenous biodiversity is projected. The NPSIB therefore seeks to address a clear market failure. "*Nature is essential for human existence and good quality of life. Most of nature's contributions to people are not fully replaceable, and some are irreplaceable*"[85]. This means that preventing the further loss indigenous biodiversity is critical and enhancing indigenous biodiversity will contribute directly to social, cultural and economic wellbeing. While further work is needed to quantify and monetise the costs and benefits identified in this indicative CBA (where practicable), the analysis completed to date (including the six case studies) supports the *preliminary* conclusion that the aggregate, long-term and cumulative benefits of implementing the NPSIB will, on balance, outweigh the expected aggregate and generally short-term costs.

[85] Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) (2019), refer: https://www.ipbes.net/global-assessment-report-biodiversity-ecosystem-services

9 CASE STUDIES – SUMMARY OF KEY FINDINGS

As discussed in **Section 2.3**, a case study approach has been adopted for this draft section 32 report and indicative CBA to help understand the potential scale and significance of impacts anticipated from the NPSIB in a selection of districts. This section provides a summary of the key findings from the case studies. **Appendix C** provides the detailed spatial analysis for each of the six case studies and should be referred to in addition to this section. The executive summary also provides a synthesis of case study findings.

9.1 Overview of approach for case studies with councils

The case studies involved semi-structured interviews with staff from each of the six case study councils and a desktop analysis of spatial data within each district to understand the potential impact of the NPSIB for different land uses and activities. The spatial analysis focussed on the NPSIB provisions relating to SNA identification) and related effects management policies for activities within SNAs. The interviews with council staff included but were not limited to these provisions, and they provided information on the potential impacts, benefits and costs of the NPSIB provisions more broadly.

9.1.1 Council staff interviews

The interviews involved a high-level discussion on current issues and pressures facing indigenous biodiversity in the district as well as current approaches to protecting, managing and enhancing indigenous biodiversity (statutory and non-statutory), including the preparation of a regional biodiversity strategy (or similar). Where the council was currently undertaking a district or unitary plan review, the approach being developed or proposed was also discussed.

A key objective of the interviews was to understand the councils approaches to undertaking SNA mapping (if applicable) including data inputs, methods, resourcing, timing and costs. All councils were asked what they considered to be the main advantages and disadvantages (costs and benefits) of the proposed NPSIB for their district, and what the main impacts would be for the district in terms of implementation effort and outcomes for indigenous biodiversity. Interviewees were asked about anticipated implementation costs under the NPSIB for key tasks (e.g. SNA mapping, monitoring) and interviewees were generally only able to provide rough order estimates rather than accurate cost data.

9.1.2 Spatial analysis

The spatial analysis for each case study focused on the provisions in the NPSIB relating to SNA identification and managing adverse effects on SNAs from new subdivision, use and development and existing activities (Part 3.8 – 3.12). It is not possible to predict exactly how individual councils will give effect to these NPSIB provisions through objectives, policies, rules (and other methods). However, it is possible to provide a baseline assessment of the current geography of relevant land uses and land ownership structures and how this intersects with the presence of actual (or indicative) SNAs. This helps us to understand the way in which local planning approaches that give effect to the NPSIB might impact different land use and activities 'on the ground'.

The spatial analysis (carried out using GIS) is based on a set of national datasets as follows:

- Threatened Environment Classification (**TEC**);
- Land Cover Database (**LCDB**);
- National Grid (transmission lines and structures);
- Land tenure; and
- Open Cast Mines.

The land tenure categories are based on those produced by the Ministry for the Environment in their analysis of data on land ownership, land cover, and the TEC that was provided to the BCG[86]. These categories are DOC land (land

[86] Refer: https://www.biodiversitynz.org/uploads/1/0/7/9/107923093/mfe-analysis-from-data-on-land-ownership-land-cover-and-threatened-environments-classification-2018.pdf

administered by DOC), Crown Land (administered by LINZ), Māori Land Court land (**Māori land**[87]), Treaty Settlement Land, and everything else classed as 'General' land.

The spatial analysis also utilises datasets supplied by each of the case study councils. While these vary in applicability for each council, they broadly included the following:

- Significant Natural Areas (however named) if mapped;
- District plan zones;
- Property boundaries;
- Outstanding Natural Landscapes and Features overlays;
- Natural hazard areas overlays;
- Natural and cultural heritage area/site overlays;
- Proposed national infrastructure designations/routes; and
- Other relevant management/protection/conservation/control overlay areas.

Combined, these layers allow the spatial analysis to describe the number, size and distribution of actual and indicative SNAs as well as the incidence of actual and indicative SNAs relative to land tenure, existing land uses and specific activities, and other forms of land use restrictions.

9.1.3 Approach to identify potential SNAs and Indicative High SNAs and Indicative Medium SNAs

Where a council has mapped SNAs these have been used for the spatial analysis. This applies to Waikato and Auckland, and they are called "existing SNAs" in the report. Where a case study council has not carried out SNA mapping, a 'proxy' for SNAs in that district has been developed to allow for consistent analysis. This applies for Far North, Tasman, Westland and Southland districts. These are called "indicative SNAs" in the report.

There is no accurate way to estimate what areas will be identified as SNAs under the NPSIB without following the approach outlined in Part 3.8 and Appendix 1 of the NPSIB (including physical surveys where practicable). There is also limited information or spatial datasets that indicate indigenous biodiversity or indigenous vegetation nationally. In consultation with DOC, the current indigenous land cover in each district based on the LCDB (discussed further in **Appendix C**) has been adopted as a proxy for SNA identification. This indicative SNA coverage is likely to overestimate the actual SNA coverage that will be identified under the NPSIB. Ground-truthing would be expected to remove a portion of this area and add in other areas not captured by the indigenous land cover alone. The indicative SNAs produced through the spatial analysis therefore simply indicate the potential order of magnitude of impacts under the NPSIB in the selected case studies rather than serve as a robust SNA identification process that will be required under the NPSIB.

The NPSIB manages adverse effects of certain subdivision, use and development on SNAs based on whether the SNAs has have a 'High' or 'Medium' rating in accordance with Appendix 2 of the NPSIB. Councils that have mapped SNAs have not categorised their SNAs in this way, and this would be a new requirement under the NPSIB[88]. To capture this distinction for the purpose of the spatial analysis, the approach has been to categorise all SNAs (both existing and indicative) that fall within the <20% indigenous biodiversity coverage area of the TEC dataset as indicative 'High' SNAs, which is consistent with the 'rarity and distinctiveness' attribute in the NPSIB. The balance default to indicative 'Medium' SNAs. This is a simplified approach and does not capture all of the indicators that would qualify an SNA as having a 'High' rating in accordance with Appendix 2 of the NPSIB. Rarity (an indicator that can be informed by the TEC dataset) is just one of four criteria for determining High and Medium SNAs with the other three criteria relating to representativeness, diversity and pattern, and ecological context. Given better desktop data and actual physical inspections, it is likely that more SNAs will have a High SNA ranking than identified in this indicative CBA.

The analysis of indigenous biodiversity outside of SNAs is also excluded from the spatial analysis. Any costs and benefits associated with areas outside of SNAs is qualified in **section 7** and **Appendix A.**

[87] Māori land is defined in the NPSIB as *"**Māori land** means Māori customary land and Māori freehold land as defined in Te Ture Whenua Māori Act 1993*".

[88] Advice and analysis from officials and their ecologists.

9.2 Waikato District Council

This section provides an overview of the case study findings for Waikato District. The summary of key issues, current planning approach, and key impacts expected from the NPSIB is based on feedback from interviewees – it does not represent 4Sight's or M.E's views on these matters. Waikato District Council was also provided with the opportunity to provide feedback on this section.

9.2.1 Overview of district and key issues

Waikato District has seen considerable modification of its indigenous habitat which, along with the introduction of invasive pest plants and animals, has contributed to significant indigenous biodiversity decline. This trend is continuing despite an increase in effort to restore indigenous ecosystems in more recent times. While some indigenous vegetation and the habitat of indigenous species is protected by private covenant and public ownership/ management, much of what exists today is unprotected on private land, including on the fringes of public land.

Stock grazing is a significant issue in remote areas of the district as is firewood clearance and clearance of regenerating manuka/kanuka to improve grazing areas. Wetland drainage is another issue in the district. Overall, Waikato District Council has limited knowledge of recent and ongoing losses of indigenous vegetation, but Waikato Regional Council is more actively involved in this, particularly because of recent work that has contributed to SNA identification.

Waikato District Council provides a small conservation fund of just over $30,000 per year. Knowledge of, and applications to, this fund has been increasing and more landowners are applying for funding, particularly for fencing to protect areas of indigenous vegetation/habitat and carrying out pest control and restoration planting. There is also support and funds available through Waikato Regional Council which have been implemented alongside the Waikato District Council conservation fund.

9.2.2 Overview of current planning approach

Waikato District Council has recently notified stage one of their proposed district plan (**PDP**)[89] following a staged district plan review. The PDP is currently at the public submission phase and hearings have yet to be scheduled. It is therefore relevant to consider the Operative District Plan (**ODP**) approach for managing indigenous biodiversity and the approach proposed under the PDP.

Operative Plan Approach

The ODP is in two sections reflecting the legacy council boundaries of Waikato District and former Franklin District (now split between Auckland, Waikato District and Hauraki District). Indigenous biodiversity is recognised as an important resource management issue in the ODP (Waikato and Franklin sections). Both sections identify similar 'threats' to indigenous biodiversity and provide similar incentives to protect and enhance significant indigenous vegetation/habitat through the use of non-regulatory methods and by enabling 'bonus' lot subdivision entitlements.

The ODP provisions rely almost entirely upon blanket protection of indigenous vegetation to require resource consent and the assessment of ecological significance is done at that stage. Importantly, when resource consent is required for indigenous vegetation, the onus (and cost) is on the landowner to determine the significance/value of the indigenous vegetation or habitat through expert analysis. However, there is provision for Waikato District Council to meet the cost of providing an ecological assessment in some instances. Non-regulatory methods (such as contestable funds and rate remissions) are listed as ways to assist in funding fencing to exclude stock and ongoing pest management measures in both sections of the ODP.

The ODP (both sections) do not identify SNAs. In the Franklin section there are some SNA equivalents identified through the use of criteria in Schedule 5A (referred to as landscape overlays). Indigenous vegetation/habitat is protected through blanket regulation and regulation applied through the landscape overlays in the Rural Zone. The landscape overlays of both sections of the ODP are focused on natural character and landscape values rather than

[89] Note the district plan must give effect to the 'Vision and Strategy for the Waikato River' which is incorporated into the The Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, the Ngaati Tuwharetoa, Raukawa and Te Arawa River Iwi Waikato River Act 2010 and the Nga Wai o Maniapoto (Waipa River) Act 2012. This requirement is unique to the districts where these rivers are located and may have implications for the NPSIB.

ecological significance. However, it is noted that with the Landscape Policy Area, discretion is restricted to matters that seek a range of ecological and landscape outcomes.

The ODP is now somewhat inconsistent with the approach of the Waikato Regional Policy Statement (**RPS**) as the provisions rely almost entirely upon blanket protection of indigenous vegetation. The district plan review required a standardised approach across the district and one that is consistent with the RPS, and in particular the strategic direction of the RPS to achieve "no net loss" of biodiversity at a regional scale.

Waikato Regional Policy Statement

The Waikato RPS was developed to be consistent with the guidance provided by the Proposed NPS on Indigenous Biodiversity released for public consultation in 2011, even though it has no legal status. A key focus of the RPS is to recognise the need to identify and protect SNAs and to provide better certainty for landowners and Council alike.

A number of RPS objectives require the promotion of positive indigenous biodiversity outcomes or the maintenance and enhancement of indigenous biodiversity. This includes Objective 3.12 (Built Environment), Objective 3.16 (Riparian Areas and Wetlands), and Objective 3.19 (Ecological Integrity and Indigenous Biodiversity). Waikato District Council considered RPS Objectives 3.8 (Ecosystem Services) and 3.9 (Relationship of Tangata Whenua with the Environment) to be of particular importance for the PDP. The RPS also states that the Regional Council will establish a biodiversity inventory for use in advocacy, education, policy development and decision-making (Method 11.1.6), which will be implemented through regional and district plans.

Proposed Plan[90] Approach

One of the key changes introduced in the PDP is mapping SNAs using the criteria in the RPS[91], including identifying SNAs in both urban and rural zones (whereas the ODP considered only landscape overlays in the Rural Zone). There are new policies and rules in the Rural Zone and Country Living Zone relating to the management of indigenous vegetation and habitat of indigenous fauna outside of the SNA areas. These provisions strengthen the level of protection offered by existing blanket provisions of the Waikato section of the ODP in those zones.

The PDP also provides a regulatory framework that recognises the significance of SNAs in the decision-making process. Policy 3.2.3 of the PDP establishes a "Management Hierarchy" for SNA. This is not as stringent as the requirements in the NPSIB to "avoid" certain adverse effects within SNAs. The PDP has retained conservation subdivision rules but removes transferable development rights as this was compromising the desired growth hierarchy which focuses growth within urban areas.

Approach to SNA mapping

The SNA mapping was a collaborative process that Council said ran relatively smoothly. To ensure consistency across the region, Waikato Regional Council had responsibility for initially identifying SNAs for protection by applying the assessment criteria in the RPS. This was a tenure neutral approach. That dataset was then supplied to each district council for refinement (through ground-truthing, local knowledge and expert input) and community engagement.

In late 2015, Waikato District Council staff engaged with landowners with identified SNAs on their land. This was done through letters inviting feedback by contacting Council staff, providing written feedback on the accuracy of the mapping and landowners were also invited to meetings with Council staff, consultant ecologists and, when available, the support of Waikato Biodiversity Coordinator and Waikato Regional Council staff. During the meetings with landowners, an overview was presented of the direction of the RPS and SNA mapping. Information was also shared on available funding streams and pest control. Over 200 people met with staff during 10 days of one-on-one meetings. An additional drop-in session was also held which was attended by over 70 people.

Over 350 landowners provided written feedback and over 400 people contacted council via phone to provide feedback on the areas identified as SNAs. Landowner feedback on identified SNAs were reviewed by the consultant ecologists

[91] Refer to method 11A of the Waikato RPS: https://www.waikatoregion.govt.nz/council/policy-and-plans/regional-policy-statement/rps2016/part-b/11/a/

and integrated into the revised SNA data set. 50 site visits were carried out to refine the SNA mapping and a desktop review was undertaken which considered all initial feedback.

A second round of letters were sent to landowners seeking further feedback by June 2018. Approximately 300 landowners attended drop-in sessions. At these, one-on-one discussions were held with landowners to discuss what the draft PDP provisions relating to SNAs would mean for them. This also provided the opportunity for landowners to further describe the areas identified as SNAs on their land and suggest mapping changes. A further 16 site visits were carried out at this point by ecologists.

The main issues raised by landowners included why Waikato District Council was mapping SNAs, and requests for mapping changes. There were also numerous requests to undertake certain activities as a permitted activity within SNAs, including removing Manuka and Kanuka for firewood, arts and crafts, clearing vegetation to establish or re-instate pasture, maintaining areas of existing pasture by clearing vegetation in open areas, creating small walking tracks and vehicular access through SNAs and maintain existing tracks and fences etc. There were also some requests for more restrictive rules and not to permit the clearance of SNAs, requests for funding and assistance or enhancement and restoration projects, and requests for rates relief or for council to purchase land.

9.2.3 Key impacts expected from the NPSIB

The provisions in the NPSIB relating to highly mobile fauna would be new for the district and require additional work.

The provisions in the NPSIB relating to the protection of SNAs and avoidance of certain adverse effects on SNAs are likely to be a key difference in terms of how strong the effects management regime is. The ranking of High and Medium SNAs in the NPSIB is also different from their current approach and would need to be applied to identified SNAs in the district as would the requirement to schedule the SNAs. However, the interviewee noted that the need for this may yet arise as a result of hearings on the PDP.

The NPSIB also requires SNAs to be ground-truthed (i.e. undertake a physical inspection where practicable). While Waikato District Council has ground-truthed a number of SNAs in response to landowner requests (and where not resolved through desktop based drop-in sessions), considerably more time and money would be needed to ground truth all of the SNAs in the district.

Another potentially big change in direction in the NPSIB for council would be transferable development rights if the NPSIB actively encouraged these as indicated in the BCG recommendations (although it is understood this is no longer proposed). This has been problematic for Waikato which led to them removing transferable development rights from the PDP.

The NPSIB would also require council to refine their approach to indigenous biodiversity compensation and offsetting. While the PDP has biodiversity offsetting in the policy framework, this is not clear in the rule framework and the NPSIB would likely require changes to better incorporate biodiversity offsetting and biodiversity compensation throughout the PDP. A shift towards this would require time/training for staff to get their heads around that approach (what it means in a legal context). This will be the same for all councils.

9.2.4 Findings from spatial analysis

The key parameters of the spatial analysis for Waikato District are summarised in Table 40 below (with full details contained in **Appendix C**).

Waikato District has a highly modified landscape with just 15% of its land area containing indigenous land cover according to the LCDB (66,883ha). About 33% of indigenous cover in the district is classified in the TEC as at risk or threatened (i.e. having less than 30% of original cover remaining). Terrestrial SNAs in the PDP cover an estimated 79% of indigenous land cover identified in the LCDB. Indigenous land cover in the LCDB makes up approximately 76% of SNAs hectares identified in the PDP and most of these are Indicative Medium SNAs based on the proxy approach outlined in section 9.1.2.

Waikato's SNA are shown in Figure 2. There are 697 defined SNAs covering an estimated 70,693ha. They have been categorised into 22 different ecosystem types including coastal, sand dunes, terrestrial and wetlands (and combinations of these). The majority of SNAs fall on general owned land – this tenure makes up 52% of total SNA

hectares in the district and 58% of Indicative High SNAs on the district. Overall, SNAs cover 9% of total general owned land area in the district.

DOC administered land (also shown in Figure 2) makes up 33% of SNA coverage in the district, with all but 13% of DOC's land included in the defined SNAs. There is 103ha of Crown owned land in SNAs (13% of total Crown land area), but this makes up less than 1% of the total area of SNAs in the district. Treaty Settlement land is a very minor component of defined SNAs (less than 1% of SNA coverage), although the SNAs capture 47% of the total area of Treaty Settlement land. This is equal to the share of Māori land in the district covered by SNAs. Māori Land makes up 13% of the SNA coverage in the district, including 10% of Indicative High SNA coverage.

In terms of potential opportunity costs on developing Māori land, Waikato has the second highest count of estimated Māori land properties in the six case studies (659). Therefore, the provisions in the NPSIB relating to managing adverse effects on SNAs and the utilisation of Māori land with SNA coverage are of key relevance to Waikato District Council and tangata whenua in the district. A large portion of Māori land properties (66%) have no SNA coverage, so would not be impacted by any SNA effects management provisions but may still be impacted by other provisions that manage indigenous biodiversity outside of SNAs. Waikato District has the smallest share of Māori land properties that contain an area of Indicative Medium SNA (16%) but a relatively high portion of these properties have extensive coverage by SNAs. In total, 9% of total Māori land properties contain an area of Indicative Medium SNA that makes up greater than 80% property cover (60 properties). These tend to be large size land parcels (greater than 10ha) which may mean there is some flexibility for development that avoids SNAs. However, with many of these properties having greater than 90% SNA coverage, this means that the NPSIB provisions to manage adverse effects of subdivision, use and development on Māori land with SNA coverage are likely to impose some additional costs (and potentially opportunity costs) to develop a sufficient area of land (if not already) and manage effects on indigenous biodiversity in accordance with the effects management hierarchy.

Table 40: Waikato District Summary of Key Parameters.

High Level Paramaters	Waikato District
SNA (Terrestrial) Count (n)	697
SNA (Terrestrial) Area (ha)	70,693
Total Land Area (ha)	435,289
SNA Coverage of Total Land Area (%)	16%
Indigenous Land Cover (LCDB) (ha)	66,883
Indigenous Land Cover (LCDB) as Share of Total Land Area (%)	15%
SNA Coverage of Indigenous Land Cover (%)	79%
DOC Administered Land Area (ha)	26,283
SNA Coverage of DOC Land (%)	87%
Maori Land Court Tenure Land Area (ha)	19,573
SNA Coverage of Maori Land Area (%)	47%
Estimated Number of Maori Land Properties (n)	659
Percentage of Maori Land Properties Containing Indicative Medium SNA (%)	16%
Percentage of Maori Land Properties Containing >80% Indicative Medium SNA Coverage (%)	9%
Percentage of Maori Land Properties Containing Indicative High SNA (%)	18%
Percentage of Maori Land Properties Containing >80% Indicative High SNA Coverage (%)	3%
General Land Tenure Land Area (ha)	387,992
SNA Coverage of General Land (%)	9%
Estimated Number of General Land Properties (n)	29,475
Percentage of General Land Properties Containing Indicative Medium SNA (%)	4%
Percentage of General Land Properties Containing >80% Indicative Medium SNA Coverage (%)	0.4%
Percentage of General Land Properties Containing Indicative High SNA (%)	8%
Percentage of General Land Properties Containing >80% Indicative High SNA Coverage (%)	0.4%
Exotic Forestry Land Area (LCDB) (ha)	25,571
SNA Coverage of Exotic Forestry Land Area (%)	3%
Properties Containing Pastoral Land Area (LCDB) (n)	15,907
Percentage of Pastoral Land Properties Containing <1% SNA Cover (%)	89%
* Due to Proxy SNA being based on Indigenous Land Cover.	

Waikato District has the highest share (of the case study councils) of Māori land properties containing Indicative High SNAs (18% of the total). An estimated 3% of the total have Indicative High SNA coverage of greater than 80% of property area (23 properties). Most of these properties are large (greater than 10ha), with just one less than 1ha. It is anticipated that smaller sized properties with very high coverage will be more likely to have opportunity costs under the NPSIB provisions to avoid certain adverse effects on SNAs, although all properties, irrespective of the amount of coverage may be constrained in some way. When considered in context, the very high SNA coverage affects only a small portion of total Māori land properties in the district (that is, only a small share will potentially be significantly impacted). Of key importance, Waikato's SNAs have been identified in the absence of the NPSIB, so any opportunity costs attributable to the NPSIB will only come about if the NPSIB provisions to manage adverse effects on SNAs are more stringent that the PDP provisions relating to SNAs (which is likely for properties with High SNA coverage) and/or the NPSIB SNA criteria results in an increase in SNA coverage in the district.

The spatial analysis shows 88% of general owned properties have no SNA coverage. This means that the clear majority of households will not face any opportunity costs under the NPSIB specifically related to protecting SNAs (but may still be impacted by indigenous biodiversity protection outside of SNAs). Just 4% (1,039) of general owned properties include an area of Indicative Medium SNA. An estimated 0.4% of total general properties (123) have 80% or greater Indicative Medium SNA coverage. Most of these are large sized properties (greater than 10ha) and many are moderately large properties (2-10ha). Therefore, for the purpose of locating a dwelling for example, there would still be a potentially large area of land free of SNAs that may be appropriate for that dwelling. The same applies to the

estimated 111 general owned properties that have greater than 80% of Indicative High SNA coverage (this equates to 0.4% of all general owned properties).

Exotic forestry cover is relatively minor land use in Waikato District (an estimated 25,571ha). 3% of forestry area in the district contains an SNA (mostly likely a remnant area) and SNAs on forestry land make up just 1% of total SNA area in the district. There are a few larger (i.e. commercial) forestry areas. Most discrete forestry areas (of any size) have zero or less than 1% SNA coverage (82%), and a few (11%) have between 1% and 20% SNA coverage. An estimated 77% of discrete forestry land cover areas are less than 5ha in size and 52% are less than 2ha in size.

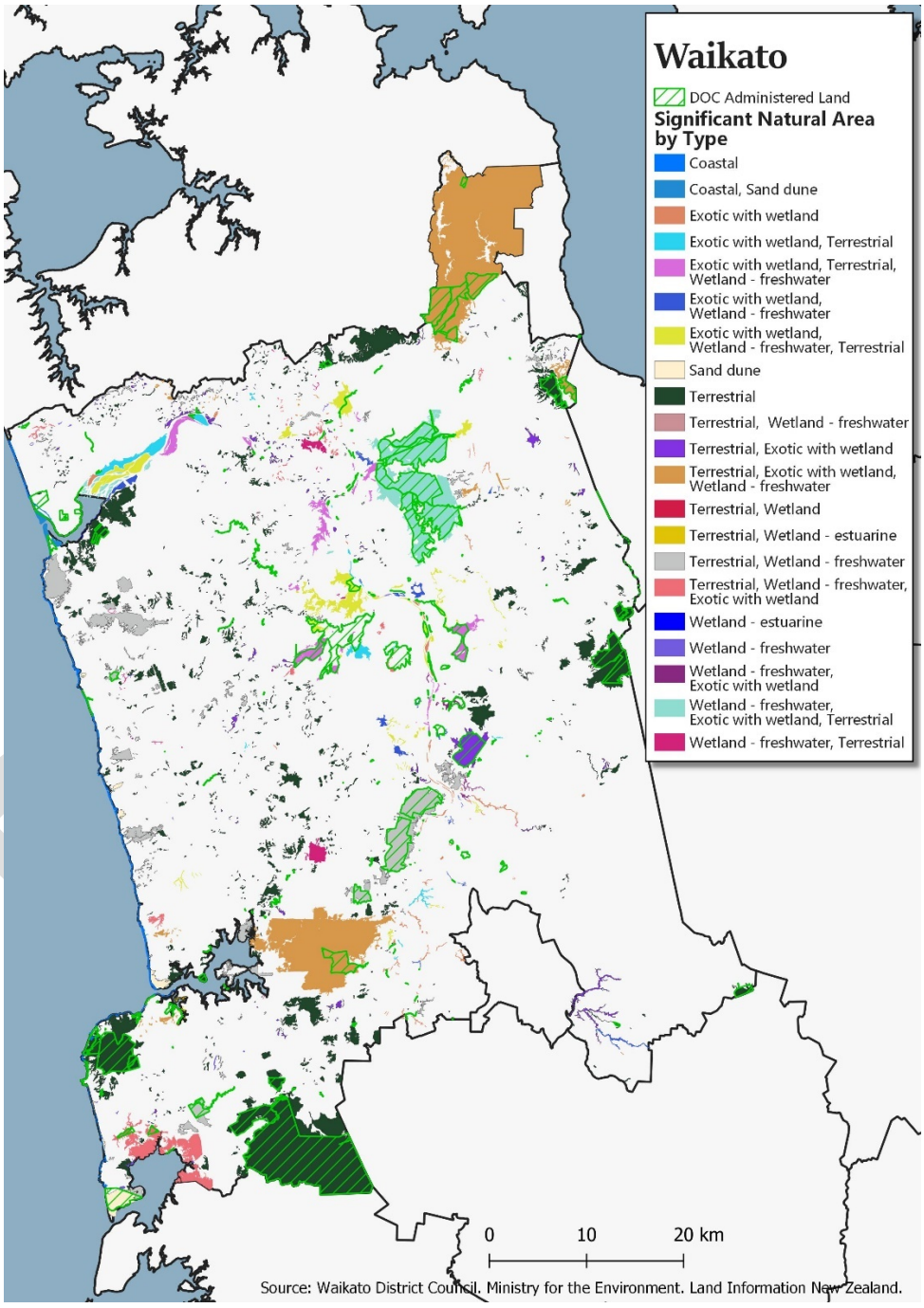

Figure 2: Significant Natural Areas by Type – Waikato.

The NPSIB provisions relating to existing activities and periodic vegetation clearance to maintain improved pasture have particular relevance to Waikato District. Farming (including dairy farming) is central to the Waikato economy.

While there is no data that can inform the prevalence of regenerating indigenous cover on pasture land (to inform the assessment of the NPSIB provisions relating to improved pasture), the analysis shows that 89% of properties containing low or high producing grassland have zero or less than 1% SNA coverage. A further 8% have between 1% and 20% SNA coverage. This indicates that there is the ability to undertake pastoral farming on these properties without being materially constrained by the presence of a SNA in most cases. Those that have higher SNA coverage on their property tend to be smaller lifestyle blocks.

9.3 Auckland

This section provides an overview of the case study findings for Auckland. The summary of key issues, current planning approach, and key impacts expected from the NPSIB is based on feedback from interviewees – it does not represent 4Sight's or M.E's views on these matters. Auckland Council was also provided with the opportunity to provide feedback on this section.

9.3.1 Overview of region and key issues

The ongoing effects of past habitat destruction (including edge effects) is a key issue for Auckland in addressing indigenous biodiversity loss. There is high pressure for urban and rural growth throughout the district both in terms of demand for lifestyle properties as well as urban expansion and intensification, which is leading to further habitat destruction and degradation. Pests and weeds are also a key threat to indigenous biodiversity in the district.

While Auckland Council has been actively managing indigenous biodiversity, there has continued to be an overall trend of decline. Council has limited understanding on the actual cumulative impact of the consenting process on indigenous biodiversity throughout the district. Resource consent decision-making is generally done on a site by site basis which generally does not allow for cumulative or aggregate effects to be factored in, or a wider view of indigenous biodiversity in the district to be taken. This limitation is likely to affect all councils to some degree. The cumulative loss of stream health in Auckland, for example, is indicative of this issue.

Loss of SNAs is more likely to occur with new use/development on existing lots rather than subdivision itself. Developers often utilise a bonus subdivision approach provided for under the Auckland Unitary Plan to achieve greater development rights. There is often a tension within Auckland Council between pushing for maximum yield from subdivision and development and the protection of SNAs when subdividing in rural and urban environments. Auckland Council notes that they face the same pressures as other district in trying to get natural areas/indigenous biodiversity recognised as an integral part of urban quality.

9.3.2 Overview of current planning approach

The approach to managing indigenous biodiversity under the Auckland Unitary Plan has resulted in improved and more consistent provisions. The Unitary Plan introduced a comprehensive SNA layer (called Significant Ecological Areas) and the provisions in the plan mostly target the SNAs. There are some general provisions for indigenous biodiversity for areas outside of SNAs, but if a significant site is not mapped, there are no provisions to support them any differently from other indigenous habitats. The key provisions that manage indigenous biodiversity fall under the topics of vegetation clearance, earthworks, urban subdivision and rural subdivision.

In terms of the effectiveness of current provisions, having SNAs spatially identified has led to some improvements but these still get challenged on quality/accuracy. The SNA related provisions have had some success already, particularly in those parts of the district where there was little or no protection prior to the Auckland Unitary Plan (e.g. Franklin and south Auckland). In other places where there were already developed provisions (e.g. Waitakere) the consensus is that the current provisions are similar and potentially slightly less stringent than before. There are some implementation challenges, but overall there is still a high level of protection for SNAs and provisions work reasonably well as an integrated package to manage indigenous biodiversity.

In addition, Council has a range of non-regulatory methods and incentives in place. These include a Natural Environment Targeted Rate, which is used for indigenous biodiversity and biosecurity actions. Biodiversity Focus Areas have been defined which are prioritised for active management with associated support. Regional and local level grants are available for restoration and enhancement and the Council provides technical advice and support to the

community. There is a big push at the moment on stream health (particularly in reserves) and 'pest free'. Extra funding is being made available for the latter.

Auckland Council has a biodiversity strategy in place (finalised 2012) which was prepared in-house. Despite its purpose to direct council actions, it is non-spatial and lacks an overall vision on where the opportunities are and where the Council needs to do more to protect indigenous biodiversity. Council staff consider that a spatial strategy would be preferable to support urban and rural planning and the current biodiversity strategy is in the early stages of review. The timing of the NPSIB and development of the National Biodiversity Strategy will align with that review process.

Council does have a terrestrial biodiversity monitoring programme which they report through their state of environment (**SOE**) reporting (most recently in 2015). This commenced in 2009 and has since been expanded to cover pest monitoring (biosecurity) and more place-based species monitoring. The SOE monitoring uses a grid network of plots across the region for forest and wetland ecosystems. The plots generally fall within SNAs identified in the Unitary Plan but cover only a small share of SNAs. The plots are however considered to be reasonably representative of the SNA network. The monitoring considers five indicators:

1. Landcover from LCDB (2008);
2. Native plants – averaged from four sub-indicators reflecting diversity, biomass, regeneration of native saplings and seedlings;
3. Birds – average of three sub-indicators reflecting average diversity, conspicuousness and total numbers of birds;
4. Weeds – average of three sub indicators reflecting abundance and relative dominance of weeds; and
5. Pests – average of four sub-indicators which indicate the number of pest free sites and presence of rats, mice and possums in the landscape.

Auckland Council does not monitor permitted activities. However, there are few permitted activities for SNAs, and those essentially provide for maintenance of existing uses. The council does undertake compliance monitoring of consents that relate to indigenous biodiversity, according to the conditions of the consent – often this involves monitoring until canopy closure of mitigation/offset actions are achieved.

Approach to SNA mapping

Auckland Council used surveys/documents and threatened species records (as many as they could) to start the SNA mapping process. There were some confidentiality issues that had to be dealt with in terms of accessing and using information. Some data was found to be old which resulted in some quality control issues. All the data was consolidated and used in conjunction with aerial photos. Consideration was given to other values they might want to investigate.

The Waitakere Ranges had a comprehensive overlay already (good information), but elsewhere in the region it was mixed. Council used the Singers and Rogers classification approach. This included establishing an original extent estimate for each ecosystem to inform the significance assessments. External assistance was used to complete that approach for the region. Significance criteria for SNAs were also developed which are well aligned with the NPSIB.

Council targeted the places for further investigation using site visits. A combination of external and in-house ecologists was used, at an estimated ratio of 10:1. Once complete, a draft overlay was prepared after contacting landowners (using a non-statutory approach). This triggered more field visits (as a courtesy) where practical. After notification, there was more checking as a result of submissions and the independent hearings panel for the proposed Unitary Plan made recommendations to Council on those submissions, which Council accepted.

Overall, the original number of potential SNAs identified reduced (in the order of a quarter) through the process of ground-truthing, particularly as many separate polygons ended up being treated as a single SNA. The extent of the SNAs though did not change much between the draft and operative versions. The process was spread over four years and formed one of the more extensive parts of the Unitary Plan (being one of the few areas where a comprehensive new piece of research was undertaken).

9.3.3 Key impacts expected from the NPSIB

Council's SNA criteria are broadly aligned with the NPSIB but Auckland does not make a distinction between 'high' and 'medium' SNAs. Council staff are concerned that the 'medium' SNA ranking may lessen the protection given to their existing SNAs under the NPISB and they are very keen to avoid this. The differentiation between medium and high for SNAs under the NPSIB would, in Council's assessment, often be very subjective. 'Highly typical' vs 'typical' for example is ambiguous. As is 'high diversity' vs 'moderate diversity'. Council query what 'moderate' size means in the context of Auckland compared to the South Island's West Coast. Without clear parameters Council is concerned that these won't be applied consistently or probably objectively.

The NPSIB might also require Auckland Council to consider a new approach to effects management, around offsets and a strict "avoid" adverse effects regime for SNAs. The NPSIB provisions to "avoid" certain adverse effects regime in SNAs is more stringent than the provisions in the Unitary Plan which is to "avoid where practicable". Having absolute avoidance would be advantageous from an indigenous biodiversity perspective but differs from their current approach and will require some changes and a strengthening of the overall approach in the Auckland Unitary Plan, which the NPSIB could enable. For example, vegetation clearance in SNAs is a discretionary activity in the Unitary Plan. The NPSIB may help with consent processes and outcomes. While they have an 'avoid where practicable' policy framework, having a discretionary activity status means it is often seen by applicants and others as able to be 'balanced' with other things.

Identifying and protecting taonga species would be new under the NPSIB, although Council already has an overlay of sites of significance to tangata whenua in the Auckland Unitary Plan. Last, the NPSIB would require Council to complete the SNA mapping to include the Hauraki Gulf Islands. This was excluded as the islands sit outside the scope of the Unitary Plan (i.e. a separate plan that has yet to be integrated).

9.3.4 Findings from spatial analysis

The key parameters of the spatial analysis for Auckland Region are summarised in Table 41 below (with full details contained in **Appendix C**).

Table 41: Auckland Summary of Key Parameters

High Level Paramaters	Auckland Region
SNA (Terrestrial) Count (n)	3,637
SNA (Terrestrial) Area (ha)	79,093
Total Land Area (ha)	489,228
SNA Coverage of Total Land Area (%)	16%
Indigenous Land Cover (LCDB) (ha)	126,028
Indigenous Land Cover (LCDB) as Share of Total Land Area (%)	26%
SNA Coverage of Indigenous Land Cover (%)	51%
DOC Administered Land Area (ha)	29,176
SNA Coverage of DOC Land (%)	19%
Maori Land Court Tenure Land Area (ha)	6,967
SNA Coverage of Maori Land Area (%)	18%
Estimated Number of Maori Land Properties (n)	227
Percentage of Maori Land Properties Containing Indicative Medium SNA (%)	14%
Percentage of Maori Land Properties Containing >80% Indicative Medium SNA Coverage (%)	4%
Percentage of Maori Land Properties Containing Indicative High SNA (%)	11%
Percentage of Maori Land Properties Containing >80% Indicative High SNA Coverage (%)	1%
General Land Tenure Land Area (ha)	433,112
SNA Coverage of General Land (%)	16%
Estimated Number of General Land Properties (n)	419,049
Percentage of General Land Properties Containing Indicative Medium SNA (%)	5%
Percentage of General Land Properties Containing >80% Indicative Medium SNA Coverage (%)	1%
Percentage of General Land Properties Containing Indicative High SNA (%)	1%
Percentage of General Land Properties Containing >80% Indicative High SNA Coverage (%)	0.04%
Exotic Forestry Land Area (LCDB) (ha)	52,824
SNA Coverage of Exotic Forestry Land Area (%)	3%
Properties Containing Pastoral Land Area (LCDB) (n)	39,839
Percentage of Pastoral Land Properties Containing <1% SNA Cover (%)	90%
* Due to Proxy SNA being based on Indigenous Land Cover.	

Approximately 37% of the indigenous land cover in Auckland is classified in the TEC as having less than 30% of original coverage remaining. Indigenous vegetation cover in the region is very fragmented with the exception of the Waitakere Ranges, Hunua Ranges and the Hauraki Gulf Islands. This is not surprising given that Auckland is New Zealand's largest urban centre and has grown and continues to grow rapidly with considerable pressure for urban and rural lifestyle development. In total, there is an estimated 126,028ha of indigenous land cover left in Auckland and just under 89,000ha on the mainland (i.e. excluding the Hauraki Gulf Islands).

Auckland Council's terrestrial SNAs (which include wetlands, streams and lakes) cover 79,093ha of land area on the mainland – about 73% of the mainland indigenous land cover according to the LCDB (and 51% of total regional indigenous land cover). The geography of the identified SNAs within the Auckland Unitary Plan is shown in Figure 3. DOC land makes up a very small share of land tenure on the mainland, although dominates Hauraki Gulf Islands which have yet to be assessed by Auckland Council for the identification of SNAs. Similarly, Crown land is not a key feature of the region.

Auckland has a moderate count of Māori land properties relative to the other case study areas, with an estimated 227 properties. In terms of hectares, 18% of Māori land falls within defined SNAs (a relatively low portion). This translates to 75% of Māori land properties that have no SNA coverage. 14% of Māori land properties have some Indicative Medium SNA coverage and approximately 4% have greater than 80% Medium SNA coverage. This indicates that a very low portion of the total would be likely to face material opportunity costs for development under the NPSIB provisions relating to the utilisation of Māori land with Medium SNA coverage. An estimated 11% of Māori land properties

contain an area of Indicative High SNA coverage and 1% have indicative High SNA coverage of greater than 80% - this affects two properties and both of which are greater than 10ha in size. This means that for most Māori land properties with Indicative High SNAs, there is likely to be an area clear of SNA that may be suitable (and sufficient) for some form of development. The likelihood of development on Māori land in Auckland being totally precluded by the NPSIB provisions that require certain adverse effects on SNAs to be avoided is considered to be low but would need to be assessed in more detail (on a site by site basis).

General land makes up 87% of Auckland's terrestrial SNAs (by area), although SNAs impact only 16% of the total area of general land and 6% of the count of general land properties. There are approximately 5% of general land properties that contain an area of Indicative Medium SNA and an estimated 1% have greater than 80% property coverage. An estimated 780 properties have 90% or greater Indicative Medium SNA coverage and are less than 1ha in size. It is not known how many of these properties have yet to be developed to include a dwelling (for example). However, this analysis suggests that the effects-based provisions of the NPSIB could impose some additional costs to develop and avoid, remediate, mitigate then offset and compensate any effects on the SNA, particularly where the coverage is high and the section is small and not currently developed.

Only 1% of general land properties in Auckland include an area of Indicative High SNA. Note, where those properties also included an area of Indicative Medium SNA, this assessment has combined the coverage. There are 170 properties with an area of Indicative High SNA that is greater than 80% of property coverage (0.04% of the total). Just under 70 of these are moderately large sized properties or larger (i.e. greater than 2ha), so for the purpose of locating a dwelling (for example) it is likely that there would be a potentially large area not subject to SNA coverage which may provide a suitable building site. Overall though, the NPSIB provisions that require certain adverse effects on SNAs to be avoided may still result in opportunity costs for all landowners with Indicative High SNAs, to a varying extent.

The Unitary Plan has a specific quarry zone. An estimated 19% of the total zone area is captured by SNAs - mainly Indicative Medium SNAs. On average less than 1% of the quarry zones (4ha out of 1,671ha in total) contain Indicative High SNAs. The quarry zone has been tightly defined to reflect the areas that are likely to be quarried in the future. As such, it is likely that future quarry activities within these zone areas would impact on the Indicative Medium SNAs (under the provisions in the NPSIB that apply to mineral and aggregate extraction in Medium SNAs) and be impacted by the Indicative High SNAs (under NPSIB provisions that require certain adverse effects on SNAs to be avoided). Future operation and expansion of quarries within the zone is likely to be constrained (and increase the costs of aggregate extraction) where they coincide with SNAs but the significant impact of the requirements in the NPSIB to avoid certain adverse effects on SNAs is potentially limited to a small geographic area within the zone.

There is an estimated 52,824ha of exotic forestry cover in Auckland. Defined SNAs overlap with 3% of the total area of forestry cover or 1,784ha in total. This is likely to be remnants of indigenous vegetation within the plantation extent. This forestry land accounts for 2% of total SNA coverage in Auckland. All the large forestry blocks (most likely to be commercial plantations) have zero or less than 20% SNA coverage. It is not known what additional costs might be faced by the owners of those forests to manage adverse effects on those SNAs under the provisions in the NPSIB that specifically relate to plantation forestry.

Understanding current land use is a key indicator of existing activities on properties containing SNAs which is relevant to understand the likely costs and benefits of the NPSIB provisions relating to existing activities. Just over half of SNAs fall within the combined rural zones in the Auckland Unitary Plan. Dairy and farming properties therefore have a high incidence of SNAs as do lifestyle blocks. However, other land uses in general ownership that have a high propensity to contain SNAs include defence properties, recreational properties, parks, water supply properties and cemeteries and crematoria. As such, a number of these existing uses are unlikely to pose significant risk to the SNAs on those properties, although farming properties may in terms of stock incursions if SNAs are not already fenced.

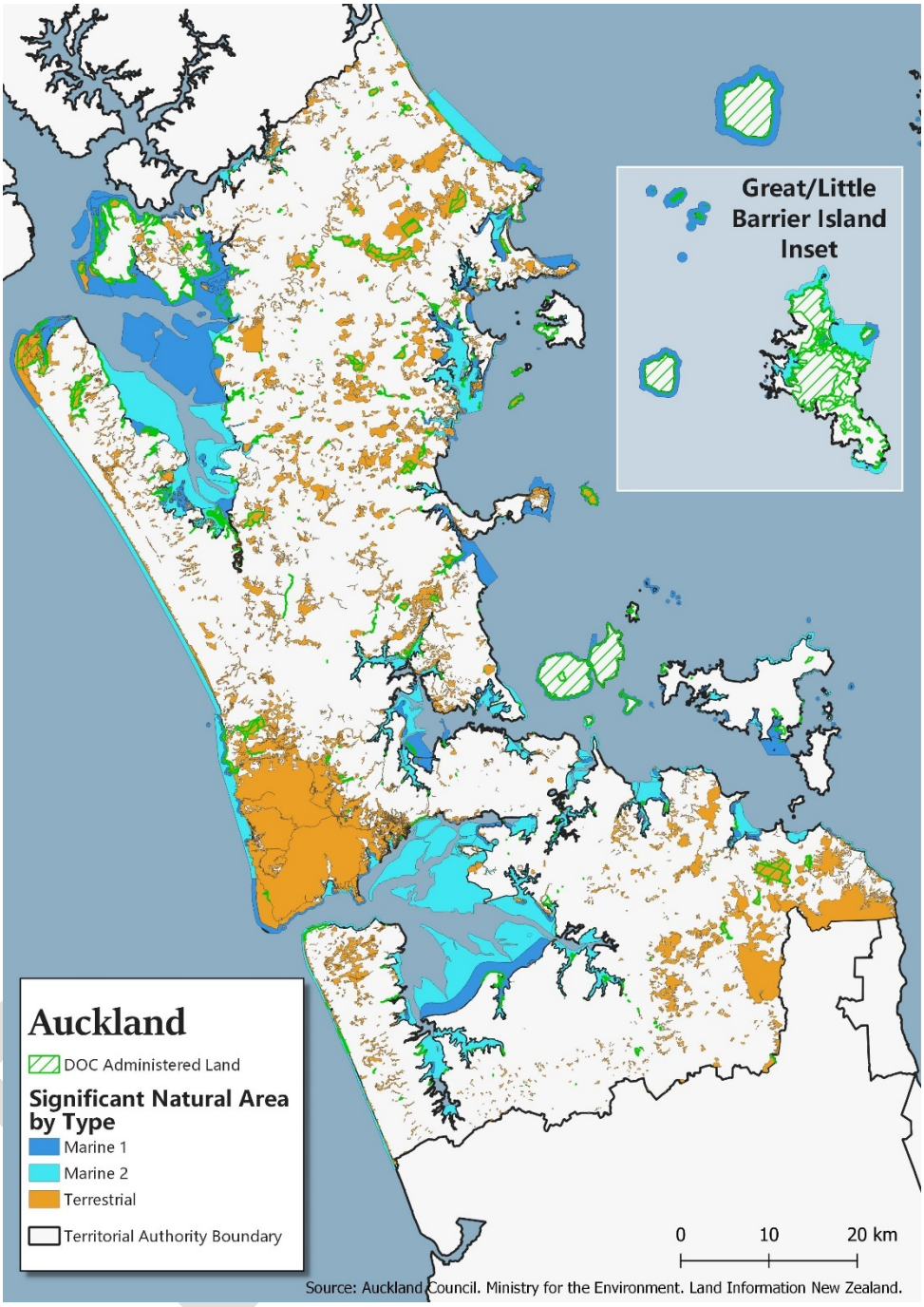

Figure 3: Significant Natural Areas by Type – Auckland.

With an estimated 39,839 properties containing some form of pasture cover in Auckland, the specific provision for periodic clearance of regenerating indigenous vegetation as an existing activity in the NPSIB may help to reduce the impact of the NPSIB on these pastoral farms in Auckland but this cannot be quantified.

9.4 Far North District

This section provides an overview of the case study findings for Far North District. The summary of key issues, current planning approach, and key impacts expected from the NPSIB is based on feedback from interviewees – it does not represent 4Sight's or M.E's views on these matters. Far North District Council was also provided with the opportunity to provide feedback on this section.

9.4.1 Overview of district and key issues

Similar to other districts in New Zealand, Far North District has experienced a significant amount of indigenous biodiversity loss. Since 1850, approximately 80% of Northland's indigenous vegetation has been cleared for pasture, horticulture, pine plantations or urban areas. Many of the remaining areas of indigenous vegetation and habitats are small and fragmented. Exotic pests and weeds are a key threat to indigenous biodiversity in the district. Roaming dogs are also having a detrimental impact of kiwi populations in the district.

Development pressures are highly diverse throughout the district. There is strong pressure for development in some towns in the east experiencing growth (e.g. Kerikeri, Coopers Beach, Paihia, and including lifestyle block demand in the rural areas near those towns) whereas the rest of the district has a more stable or declining population. Some residential development is occurring in or adjacent to kiwi habitat and this results in additional predators, i.e. cats and dogs. To address this risk, where subdivision is located in areas mapped by DOC as being high kiwi concentration, Council generally applies consent notices on subdivision stating there shall be no dogs or cats. However, Council acknowledges that these are generally poorly enforced.

The operative district plan (**ODP**) has a very permissive subdivision regime and facilitates all forms of growth. Development contributions were also removed to encourage growth. However, the position of council has changed in recent years and the intention is that the proposed district plan will manage growth in a more strategic manner.

9.4.2 Overview of current planning approach

The ODP is a first-generation plan and Council is currently in the process of developing their proposed district plan and undertaking a SNA mapping exercise in collaboration with the other district councils in Northland (Whangarei and Kaipara).

Operative District Plan and Approach

SNAs are not mapped under the ODP. This was attempted as a plan change in 1996 but was strongly opposed by the community leading to the plan change ultimately being withdrawn. The process was based on Protected Natural Areas Programme (**PNAP**) reports completed by DOC with no consultation undertaken with affected landowners. The proposed plan change was also outsourced to consultants. These factors contributed to strong opposition from the community to the plan change. There was also a concern that SNA mapping through the plan change could have negative economic impacts and there was an economic downturn for farmers during that period.

The current approach in the ODP is for 'significance' to be assessed in an ad hoc manner through resource consent processes using the criteria in the Northland RPS which are largely consistent with the NPSIB. The ODP includes rules that control (to some extent) subdivision and activities that could adversely affect significant indigenous vegetation and significant habitats of indigenous fauna. This includes rules that apply to the clearance of indigenous vegetation in all zones with resource consent required when the clearance exceeds the permitted activity thresholds.

The backlash to the 1996 plan change means there is currently more of a focus on voluntary/non-regulatory measures in the district. In the past, there was an SNA committee whose role included education and advocacy for indigenous biodiversity. The role of the committee also included management of a fund (approx. $50,000 contestable fund) to act as incentivisation to protect and enhance indigenous habitat. A change in council saw this funding stop and the committee becoming defunct. Council now has no active role in indigenous biodiversity restoration and enhancement other than offering advice to landowners as to where to seek funding and support.

Other non-regulatory methods and incentives to protect and enhance indigenous biodiversity in the district include:

- The subdivision consent process is used to protect areas of significant indigenous vegetation and significant habitat of indigenous fauna through covenants and conditions. This is done on a case by case basis and has resulted a reasonable number of covenants in the district. However, the number and location of these are not recorded well and these are not actively monitored or enforced.
- Rates remission for areas that are formally protected.
- Waiving of fees for consents where the applicant offers 'significant' legal protection of indigenous biodiversity.

The effectiveness of the current approach is not clear and there is a lack of compliance monitoring or monitoring of the state of indigenous biodiversity/trends in the district. Some monitoring is undertaken when landowners seek rates relief for biodiversity protection.

There is currently no regional biodiversity strategy in place but council considers that there would be a benefit in the development of such a strategy for the region (either through the NPSIB or the New Zealand Biodiversity Strategy) to get a more coordinated response to landscape scale conservation efforts.

Proposed District Plan

The second generation Far North District Plan is currently being developed with the intention to notify this in the second half of 2020. The draft district plan includes a chapter on indigenous biodiversity in the district wide topics which states that *"Approximately 40% of our District is covered in indigenous vegetation, around 50% of which is on private land. Vegetation clearance, fragmentation, and the introduction of pest plants and species that have the potential to be pests can diminish the quality and extent of indigenous ecosystems".* It includes objectives and policies aimed at:

- Identifying SNA;
- Avoiding adverse effects on SNAs in the coastal environment;
- Avoiding, remedying or mitigating adverse effects on SNA outside the coastal environment;
- Avoiding, remedying or mitigating adverse effects of land use and subdivision on indigenous biodiversity;
- Providing for offsetting outside the coastal environment and SNAs where adverse effects cannot reasonably be avoided, remedied or mitigated.

This responds to the Northland RPS which has a more stringent effects management framework for indigenous biodiversity in the coastal environment.

The draft plan provides high level direction and an indicative rule framework and does not include any maps. There has been limited public feedback on the draft plan to date which is a reflection of the high-level content, and the fact that there are no maps. It is expected that landowners will be more engaged once maps are developed.

SNA mapping approach

Far North, Kaipara and Whangarei District Councils are taking a collaborative approach to mapping SNAs based on significance criteria detailed in Appendix 5 of the Northland RPS. This responds to a directive in the RPS for district councils to identify SNAs within two years of the RPS becoming operative. Far North is taking the lead on this project due to the timing of their proposed district plan.

The approach taken to identify SNAs has been modelled off the approach taken by Waikato District Council in their proposed district plan[92]. As a collective, the three councils have engaged Wildlands Consultants to undertake the following steps:

- Desktop assessment: Literature review (draft complete), methodology (draft complete), preliminary mapping and significance assessment (underway);
- Ground-truthing based on prioritisation process and at request of affected landowners;
- Technical support for tangata whenua specialist engagement throughout process;
- Technical support for community and affected landowner engagement; and
- Technical support for development of Indigenous Biodiversity chapter framework.

The outputs of this process will be a GIS dataset, literature review and report to support the development of the provisions/maps in the proposed district plan and section 32.

The initial assessment is based on existing information, mapping and high resolution recent aerial imagery.

There is some awareness in the community of this work and the intention is that affected landowners will be engaged prior to consultation. Physical surveys will be undertaken where landowners contest the significance and/or extent of areas and where further information is required to make a robust assessment.

Council is aware that there is the potential to disproportionately affect Māori landowners as a lot of their land is undeveloped and will include SNA coverage. The proposed district plan is seeking to be enabling of Māori land and will seek to ensure there is no conflict with the SNA mapping process. Specifically, the proposed District Plan has a Māori Purpose zone to be applied to Māori freehold land, Māori Customary land and general land owned by Māori as defined in the Te Ture Whenua Māori Act. The intent of the zone is to provide for the use and development of Māori land so to support the social, cultural and economic aspirations of tangata whenua and enable a wide range of activities such as marae, papakainga, economic activities which reflect Māori customs and values whilst enabling the exercise of kaitiakitanga.

Initial engagement with the tangata whenua reference group indicated it is likely there will be aspirations to develop Māori owned land but in general it won't require clearance of whole blocks. They also indicated Māori landowners have aspirations to protect indigenous biodiversity on their land. These aspirations are relevant in the context of estimating opportunity costs to develop Māori Land where there is high SNA coverage (and how significant these will be in reality). Nonetheless, Council considers that it is appropriate and important that the NPSIB recognises the unique issues and constraints on Māori land.

The SNA mapping work is being funded by the three district councils with Northland Regional Council providing 'in-kind' support in terms of technical input and the provision of information. The indicative cost for Far North District's SNA mapping is between $400,000 and $450,000 based on what fixed prices the Council was able to secure from their provider and CBA assumptions about the number of open days, SNA boundary adjustments and site visits required. However, this does not cover all costs associated with the planned SNA mapping approach and the final cost won't be known until the process is complete. There have been some efficiency gains through this collaborative approach (e.g. methodologies and data collection), but it has also caused some delays getting agreements (and funding) in place.

The outcomes from the SNA mapping process are not yet known. It is thought many SNAs will likely be in areas of land that cannot be farmed anyway and there is growing awareness in the community of the benefits of protecting indigenous biodiversity. Initial reports indicate approximately 980 sites meeting the significance criteria in the Far North District and 2,142 sites across the Northland Region. PNAP reports currently indicate approximately 1,400 sites across the Region. Whilst there is an overall increase in the numbers of potential sites, some sites previously mapped as PNAPS have been significantly diminished, and some have been completely cleared – hence the importance of ground-truthing the data.

Feedback to date has generally been positive around SNAs - farmers are generally more concerned about wetland protection and what constitutes a wetland. It is expected that attitudes may change when affected landowners are contacted with maps of SNAs on their land.

9.4.3 Key impacts expected from the NPSIB

Overall, the timing of NPSIB is good for Far North District Council in terms of where they are at with their proposed district plan and their SNA mapping. Council has been seeking to align their approach with the direction in the NPSIB. In particular, their approach to identify SNAs is consistent with the NPSIB, including the ecological significance criteria used from the Northland RPS which are aligned with the criteria in Appendix 1 of the NPSIB. This is expected to help reduce (but not eliminate) costs to implement the NPSIB when it comes into force.

There are some differences for the effects management regime for SNAs as the RPS sets a more stringent approach for SNAs in the coastal environment.

Additional costs/impacts expected by Council from the NPSIB include (but are not limited to):

- Requirement for greater ground-truthing of SNAs;
- Requirement to develop regional biodiversity strategy; and
- Requirement to identify taonga species but some iwi management plans have aspirations to list/identify taonga species so may not be a huge additional cost. It is important that the NPSIB provides flexibility on how this is done as iwi/hapū in the district are variable in terms of their capacity and likely aspirations to identify/map taonga species and ecosystems (or collaborate with Council).
- Costs associated with increased administration and potential need for in-house ecological expertise.

9.4.4 Findings from spatial analysis

The key parameters of the spatial analysis for Far North District are summarised in Table 42 below (with full details contained in **Appendix C**).

Table 42: Far North District Summary of Key Parameters (Based on Proxy SNA)

High Level Paramaters	Far North District
SNA (Terrestrial) Count (n)	N/A
SNA (Terrestrial) Area (ha)	263,885 *
Total Land Area (ha)	662,466
SNA Coverage of Total Land Area (%)	40%
Indigenous Land Cover (LCDB) (ha)	263,620
Indigenous Land Cover (LCDB) as Share of Total Land Area (%)	40%
SNA Coverage of Indigenous Land Cover (%)	100% *
DOC Administered Land Area (ha)	109,341
SNA Coverage of DOC Land (%)	89%
Maori Land Court Tenure Land Area (ha)	102,613
SNA Coverage of Maori Land Area (%)	50%
Estimated Number of Maori Land Properties (n)	3,688
Percentage of Maori Land Properties Containing Indicative Medium SNA (%)	48%
Percentage of Maori Land Properties Containing >80% Indicative Medium SNA Coverage (%)	17%
Percentage of Maori Land Properties Containing Indicative High SNA (%)	15%
Percentage of Maori Land Properties Containing >80% Indicative High SNA Coverage (%)	3%
General Land Tenure Land Area (ha)	403,171
SNA Coverage of General Land (%)	26%
Estimated Number of General Land Properties (n)	32,198
Percentage of General Land Properties Containing Indicative Medium SNA (%)	25%
Percentage of General Land Properties Containing >80% Indicative Medium SNA Coverage (%)	7%
Percentage of General Land Properties Containing Indicative High SNA (%)	6%
Percentage of General Land Properties Containing >80% Indicative High SNA Coverage (%)	1%
Exotic Forestry Land Area (LCDB) (ha)	105,080
SNA Coverage of Exotic Forestry Land Area (%)	N/A
Properties Containing Pastoral Land Area (LCDB) (n)	2,502 **
Percentage of Pastoral Land Properties Containing <1% SNA Cover (%)	27% **

* Due to Proxy SNA being based on Indigenous Land Cover.

** Based on property land use codes (farming) and not LCDB coverage of producing grasslands. Also relates to just general land, and excludes Maori Land and Treaty Land.

The Far North District has total indigenous land cover estimated at 263,620ha. This same extent is used as the proxy of Indicative Far North SNAs (as discussed in **Section 9.1.3**) and is shown in Figure 4.

Half (50%) of Māori land (by area) in the Far North District falls within Indicative SNAs (particularly Indicative Medium SNAs). Māori land accounts for 20% of the Indicative SNA coverage in the district. The Far North has more Māori land properties than any other case study council examined (an estimated 3,688[93]). Only 37% of these properties have no Indicative SNA coverage (only Southland District has a lower share in the case study councils). Just under half of Māori land properties (48%) have some Indicative Medium SNA coverage, although 17% have very high Indicative Medium SNA coverage (i.e. >80% of property area). This is an estimated 626 properties. Most of these tend to be large size land parcels (greater than 10ha) with many moderately large (2-10ha), but with many facing greater than 90%

[93] Based on matching the central point of properties to the Māori Land Court tenure layer. This may vary from the count identified in the rating database.

Indicative SNA coverage, this is likely to mean some additional costs to develop a sufficient area of Māori land (if not already) under the NPSIB provisions that apply to utilisation of Māori land with Medium SNA coverage.

Part 3.9(1)(a) may apply to a maximum of 15% of Māori land properties which have Indicative High SNA coverage (only Waikato District has a higher share with Indicative High SNA coverage in the case study councils). Specifically, 3% of the total (an estimated 103 properties) have very high (>80%) Indicative High SNA coverage. Again, these are generally large properties (greater than 10ha), with a few small properties (less than 1ha). In contrast, only 18% of Treaty Settlement land is captured by the indicative SNAs (and this accounts for 3% of potential SNA area).

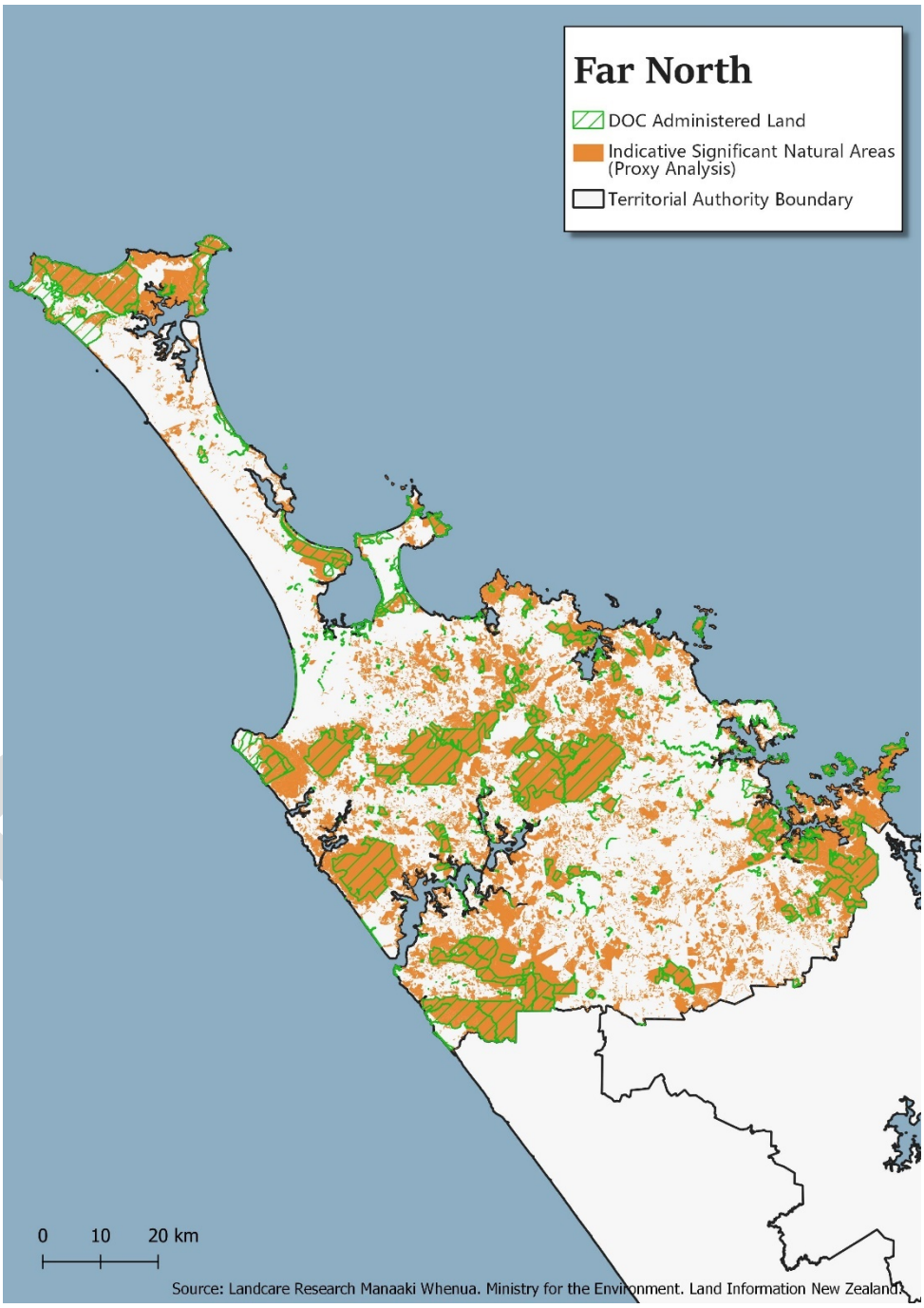

Figure 4: Indicative Significant Natural Areas (Proxy Analysis) – Far North.

The greatest share of Indicative SNA land is in general ownership (although only marginally greater than DOC land). This makes up 39% of total Indicative SNA area in the district and a slightly higher share of Indicative High SNA coverage

(47%). However, relative to all general tenure land area, Indicative SNAs cover 26% of the total land area. This highlights that general landowners will be most impacted (in quantum terms) by the protection of SNAs (all else being equal), but that only a moderate share of general landowners will be potentially affected. An estimated 69% of general land properties in the district have no SNA coverage (based on the proxy SNA coverage).

A further 25% of general land properties have some Indicative Medium SNA coverage and 7% have Indicative Medium SNA coverage of greater than 80%. The remaining 6% of general owned properties have a share of Indicative High SNA coverage (and 1% have Indicative High SNA coverage of greater than 80%). Many of the general owned properties most at risk of being impacted by the provisions in the NPSIB to avoid and manage adverse effects on SNAs (Part 3.9(1(a) in particular) through Indicative SNA coverage on their properties are small (<1ha). These are expected to be dominated by bush blocks subdivided in coastal areas such as those close to Kerikeri. To the extent that these Indicative High SNA properties have not already been developed with dwellings, then there is potential for significant opportunity costs for some of those landowners, although the number of landowners ultimately impacted is expected to be small when considered in the context of the district.

In Far North District, the NPSIB provisions to provide for periodic indigenous vegetation clearance to maintain improved pasture outside of SNAs is likely to be highly relevant for farmers. This spatial analysis is not able to assess the degree of likely clearance of regenerating indigenous cover outside of Indicative SNAs on the estimated 2,502 properties estimated to maintain improved pasture. However, the analysis has identified that an estimated 18% of all pastoral properties have 50% or greater Indicative SNA coverage. 27% of pastoral properties in the district have no or less than 1% Indicative SNA coverage and 61% of pastoral properties in the district have less than 20% Indicative SNA coverage. This indicates that there is the ability to undertake pastoral farming on these properties without being materially constrained by the presence of a SNA.

There are several large areas of exotic forestry in the Far North. These are generally dispersed with the largest areas primarily north of Awanui and often on Treaty Settlement land. In total, there is an estimated 105,080ha of exotic forestry land cover in Far North District. 69% of exotic forestry areas in the district (cohesive polygons) are less than 5ha in size so are not the big 'commercial' forestry blocks. However, 82 discrete areas are greater than 250ha and 14 areas are greater than 1,000ha. This indicates a large number of forests in the district are 'woodlot' forests associated with a wider farming operation. It is not possible to identify which forestry areas contain an overlap with Indicative SNAs because of the limitations of using the proxy SNA approach.

9.5 Tasman District

This section provides an overview of the case study findings for Tasman District. The summary of key issues, current planning approach, and key impacts expected from the NPSIB is based on feedback from interviewees – it does not represent 4Sight's or M.E's views on these matters. Tasman District Council was also provided with the opportunity to provide feedback on this section.

9.5.1 Overview of district and key issues

Tasman district contains a mix of coastal and inland areas of indigenous vegetation/habitat, as well as remote and established areas. The district is not a high-income area and as a large land area with a small population Council has high rural servicing costs and limited funding through rates so there is limited ability to source funding for indigenous biodiversity protection and management. The lion's share of rates revenue is allocated to territorial functions like water, waste and roading.

Key threats to indigenous biodiversity in the district are pests and weeds, and also climate change. Other pressures relate to forestry management. Land use change is not a significant issue in most parts of the district except for some localised areas where there is a proliferation of lifestyle blocks.

More recently, Council has noticed that SNAs on some lifestyle blocks are being increasingly treated by landowners as an asset and not an impediment. Some landowners are buying properties that contain SNAs (or potential SNAs) and are increasingly expressing a desire to protect and enhance them. Opportunity costs may not therefore be such a big issue in Tasman in the more developed areas and those areas seen as desirable for lifestyle development. However, near the west coast and along the northwest coastline, many landowners are still seeking to clear indigenous vegetation for pastoral farming. Different parts of the district therefore present different issues and challenges.

9.5.2 Overview of current planning approach

The origin of the approach started 20 years ago when the Tasman Resource Management Plan (**TRMP**) was being developed. There was a lack of information and clarity on SNA location and extent in the proposed plan which lead to a lot of contention and litigation through the Schedule 1 process. The outcome was a consent order agreed through Environment Court mediation and a memorandum of understanding (**MOU**) between key parties including Forest and Bird, Federated Farmers, DOC etc. The MOU established a voluntary programme for Council to survey SNAs, work closely with willing landowners, and provide comprehensive reports back to the landowners on SNA findings.

Approach to SNA mapping

The surveying started about ten years ago following the MOU agreement noted above. An initial 1,300 sites were identified using desktop approaches and knowledge of local DOC staff and ecologists. To date, 600 out of 1,300 potential SNA sites have been visited/surveyed and 550 property reports issued.

The site verification has been very important to correct misclassifications of SNAs through the desktop approach. The approach to undertake site visits/ground-truthing has been to try and cover one ecological district at time. Sites where access has been granted have also been prioritised. SNAs on Council and forestry land were completed first as this was the easiest to access. Following this, the approach to undertake site surveys prioritised those areas with the most development pressure– i.e. the sites most at risk.

Efficiency of travel to do the site visits has also been a consideration to help minimise costs. One ecologist has done most of the work over the years (which has been helpful in terms of consistency). More recently, a second ecologist (previously with an oversight role) has been included in the fieldwork. Landowner feedback has been excellent, particularly on the reporting that has been provided to them. About 70% of landowners have agreed to be surveyed. For those that have not, Council will need to rely on desktop analysis. It is not known exactly how long it will take to complete the process given that it has taken around 10 years to get halfway through. This may be an issue in terms of timing required under the NPSIB to implement the SNA identification process. Completing the process more quickly will require more resourcing than currently exists and would place an added burden on rate payers.

The TRMP has no rules attached to the surveyed SNAs. They essentially sit separately from the TRMP. The TRMP contains 20 mapped sites but these have no resemblance to the 1,300 sites now known. The TRMP provisions relating to indigenous biodiversity carry little weight in practice. The rules in the TRMP are limited to general vegetation clearance and riparian areas. The vegetation clearance rules allow for a reasonable amount of clearance as a permitted activity. As a result, there are not many consents each year that relate to indigenous biodiversity. Compliance monitoring is also limited. The significance criteria in the TRMP are dated. However, the criteria that has been used to assess SNAs outside the TRMP is aligned with the NPSIB and has been undertaken by the ecologist that was involved in NPSIB SNA criteria development.

The next Regional policy statement and resource management plan reviews will seek to strengthen the approach to protecting indigenous biodiversity, including provisions relating to the protection and identification of SNAs. The full reviews are at the early stages and notification is some years away.

Council is also in the process of developing a regional biodiversity strategy. Council supports restoration efforts, usually on public land. Council often provides the material and the community supplies the labour and runs the projects. About $55,000 is spend each year in cash and in kind towards indigenous biodiversity efforts in the district.

9.5.3 Key impacts expected from the NPSIB

The regulatory approach required through the NPSIB will be the key difference, particularly in relation to SNA protection given the voluntary approach currently taken in the district. In the absence of new national direction Council would not necessarily seek a stronger rule framework to protect indigenous biodiversity in Tasman district (although there is pressure to do so from some conservation advocates). Without a national mandate, developing a stronger rule framework to effectively protect indigenous biodiversity would be very contentious and costly to introduce. The NPSIB would provide this mandate and give Council no choice but to put a rule regime in place for SNAs. This will be incorporated into the full plan review currently underway if the NPSIB comes into force. Even though attitudes to protecting indigenous biodiversity have improved over the years, some litigation would still be anticipated based on past attempts and community/landowner responses to regulatory approaches.

Council considers the NPSIB is likely to have limited effectiveness in addressing the biggest issue they face – pests and weeds. They consider that other strategies and initiatives will need to be relied on to make progress on these issues and helping to improve indigenous biodiversity outcomes in the district. Many of the initiatives required by the NPSIB are already underway to some extent (i.e. SNA mapping and the biodiversity strategy), so this will help reduce some of the implementation costs of the NPSIB. However, Council may struggle with capacity to implement all aspects of the NPSIB effectively, with monitoring being a particular challenge and likely to impose substantial costs on council that will require additional funding/FTEs.

9.5.4 Findings from spatial analysis

The key parameters of the spatial analysis for Tasman District are summarised in Table 43 below (with full details contained in **Appendix C**).

Tasman District contains extensive areas of national parks and has the highest share of indigenous land cover out of the six case study councils (69%), although this is only slightly higher than Westland (66%). Tasman District Council is approximately halfway through mapping SNAs, so for the purpose of this spatial analysis indigenous land cover has been used as a proxy of Indicative SNAs (as discussed in **section 9.1.3**). Comparison of this proxy with SNA mapping confirmed to date indicates that outside of DOC land, there is some reasonable overlap, but the proxy over-represents potential SNAs on general (mainly rural) land. This means that the Council's own SNAs would likely impact on fewer property owners than indicated in the spatial analysis (and discussed below).

Tasman District has the second highest share of Indicative SNAs comprised of DOC land (89%) which is the same as Southland but lower than Westland (94%). The extensive nature of DOC managed national parks is evident in Figure 5 which shows Indicative SNAs in Tasman. Indigenous land cover has been extensively cleared on general owned land, leaving just fragments that equate to less than 10% of the original coverage (i.e. they are highly threatened). This is relevant for the 'rarity' characteristic in Appendix 1 and 2 of the NPSIB which is one of four to be evaluated to inform the split between High and Medium SNAs. This means that the significant majority of Indicative SNAs on general owned land are Indicative High SNAs (73% of SNA area) compared to Indicative Medium SNAs (11%).

However, as a portion of the total general land properties in the district, 79% have no Indicative SNA coverage. This means that the vast majority of landowners are not likely to face any opportunity costs specifically related to protecting SNAs under the NPSIB. However, they may still be impacted by the provisions in the NPSIB to manage indigenous biodiversity outside of SNAs, and particularly if they are located in the Rural 2 Zone, as this is where the major share of Indicative SNAs/indigenous land cover on general land is located.

An estimated 15% of general tenure properties include an area of Indicative Medium SNA. A 4% share of the total (1,791) have 80% or greater property coverage of Indicative Medium SNAs. Many of these are large sized properties (greater than 10ha) or moderately large (2-10ha), so for the purpose of locating a dwelling, for example, there would still be a potentially large area of land free of Indicative SNAs that may be appropriate for development. However, an estimated 767 properties are less than 1ha in size and have 90% or greater Indicative SNA coverage. If such properties already contain a dwelling, they will generally appear as bush blocks with a house site and driveway added. There are good examples of these around Kaiteriteri. Where these lots do not have existing dwellings, effects on indigenous biodiversity from the construction of a single dwelling could be demonstrated to be managed under Policies 6 and 8 and Part 3.9 of the NPSIB, but at a cost to the landowner. Other forms of development would be managed under NPSIB provisions that require certain adverse effects on SNAs to be avoided may result in opportunity costs for these properties under the NPSIB.

Table 43: Tasman District Summary of Key Parameters (Based on Indicative SNA).

High Level Paramaters	Tasman District
SNA (Terrestrial) Count (n)	N/A
SNA (Terrestrial) Area (ha)	658,806*
Total Land Area (ha)	956,381
SNA Coverage of Total Land Area (%)	69%
Indigenous Land Cover (LCDB) (ha)	658,798
Indigenous Land Cover (LCDB) as Share of Total Land Area (%)	69%
SNA Coverage of Indigenous Land Cover (%)	100% *
DOC Administered Land Area (ha)	625,669
SNA Coverage of DOC Land (%)	92%
Maori Land Court Tenure Land Area (ha)	107
SNA Coverage of Maori Land Area (%)	4%
Estimated Number of Maori Land Properties (n)	24
Percentage of Maori Land Properties Containing Indicative Medium SNA (%)	29%
Percentage of Maori Land Properties Containing >80% Indicative Medium SNA Coverage (%)	4%
Percentage of Maori Land Properties Containing Indicative High SNA (%)	8%
Percentage of Maori Land Properties Containing >80% Indicative High SNA Coverage (%)	4%
General Land Tenure Land Area (ha)	284,707
SNA Coverage of General Land (%)	28%
Estimated Number of General Land Properties (n)	40,667
Percentage of General Land Properties Containing Indicative Medium SNA (%)	15%
Percentage of General Land Properties Containing >80% Indicative Medium SNA Coverage (%)	4%
Percentage of General Land Properties Containing Indicative High SNA (%)	6%
Percentage of General Land Properties Containing >80% Indicative High SNA Coverage (%)	1%
Exotic Forestry Land Area (LCDB) (ha)	103,912
SNA Coverage of Exotic Forestry Land Area (%)	N/A
Properties Containing Pastoral Land Area (LCDB) (n)	N/A
Percentage of Pastoral Land Properties Containing <1% SNA Cover (%)	N/A
* Due to Proxy SNA being based on Indigenous Land Cover.	

The remaining 6% of general owned properties include an area of Indicative High SNA. This is slightly less than Waikato District (8%) and the same share as in Far North District. Note, where those properties also included an area of Indicative Medium SNA, the coverage has been combined. An estimated 1% (288) of general owned properties with Indicative High SNAs have 80% or greater property coverage. The majority of properties with 90% of greater Indicative SNA coverage are less than 1ha in size. It is not known how many of these lots have yet to be developed but if there is no room for a house site (for example) without vegetation or other land clearance, then development would effectively be precluded by the NPSIB provision that require certain adverse effects on SNAs to be avoided. This would be a significant opportunity cost for those property owners. The exact number of landowners with development aspirations that may fall into this category is not known (and would require additional site-specific analysis).

In total, there is an estimated 103,912ha of exotic forestry land cover in Tasman District. Just over 90 discrete areas are greater than 250ha and 24 areas are greater than 1,000ha. Some of these are on Treaty Settlement land. It is not possible to identify which forestry areas contain an overlap with Indicative SNAs. However, the different effects management regime for plantation forestry activities in the NPSIB is likely to be highly relevant for Tasman District.

Pastoral farming is a minor component of Tasman's land use and contributes less to the economy than horticulture. The extent of high producing grassland land cover in the LCDB is not extensive and limited to the valley floors. The significance of the specific improved pasture provisions of the NPSIB is therefore likely to be less for Taman than other districts such as Waikato. Similarly, Tasman District has very few Māori land properties, so the NPSIB provisions relating to utilisation of Māori land with SNA coverage will have less importance in Tasman District. Potential for

opportunity costs on those properties is analysed in detail in **Appendix C** – only an estimated two properties contain Indicative High SNAs and only seven contain Indicative Medium SNAs.

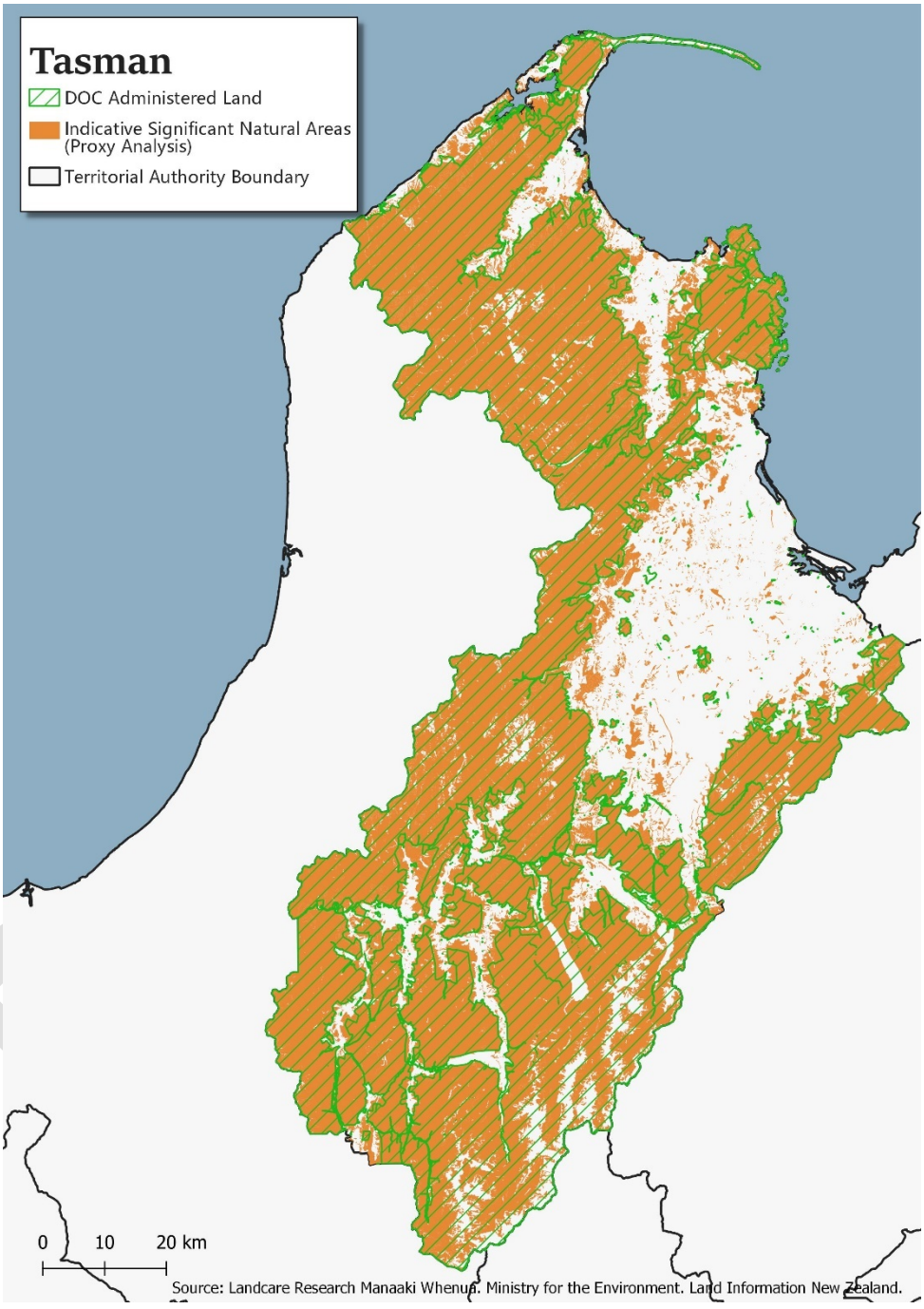

Figure 5: Indicative Significant Natural Areas (Proxy Analysis) – Tasman District.

9.6 Westland District

This section provides an overview of the case study findings for Westland District. The summary of key issues, current planning approach, and key impacts expected from the NPSIB is based on feedback from interviewees – it does not represent 4Sight's or M.E's views on these matters. Westland District Council was also provided with the opportunity to provide feedback on this section.

9.6.1 Overview of district and key issues

Westland district has a significant amount of DOC administered land (between 85-90% of the total district land area) and a very small portion of indigenous cover in the district is on private land. Currently, there is limited pressures on indigenous biodiversity in the district which relates to the limited or stagnant growth throughout the district. There is very limited pressure for new development and dairy farming has also taken a down-turn in recent years. Council is not expecting there to be any material increase in development pressures or growth in the foreseeable future. Landowners and residents in the district generally have a good appreciation of indigenous biodiversity and the benefits this provides. This further contributes to the limited pressures on indigenous biodiversity in the district.

9.6.2 Overview of current planning approach

The Westland District Plan is a first-generation plan that was made operative in 2002. The provisions relating to indigenous biodiversity are relatively generic and are located within the natural environment and natural habitats and ecosystems sections of the district plan. The district plan includes a policy stating SNAs will be protected and lists criteria to assess significance. Where resource consent is required for clearance or damage to areas of indigenous vegetation or habitat, applicants need to undertake an ecological assessment to determine whether a site is significant or not. The number of resource consents required each year is low, particularly since councils transferred it functions in relation to mining applications to the regional council 18 months ago.

The Westland District Plan states an intention to identify SNAs but this work has not progressed for primarily due to financial and political reasons. Further, as there are limited pressures on indigenous biodiversity in the district, this is not seen as a priority piece of work for council. There is also a lack of direction in the West Coast RPS on indigenous biodiversity and the general direction in the RPS is flexible and enabling of development.

Overall, the operative approach is considered to be working reasonably well. The district plan allows for site by site assessment for any development of a reasonable size that can adversely affect indigenous biodiversity through the consent process which enables adverse effects on indigenous biodiversity to be managed.

The Local Government Commission investigated whether the West Coast councils should be amalgamated into a unitary authority. The commission concluded that amalgamation was not necessary, but it requires the three district councils to prepare a single combined district plan. There is a five-year timeframe for the combined plan to be operative. This is considered to be very tight given work involved, resource constraints and likely litigation. However, the three councils already have good working relationships they can build on to develop the plan. The timing of the NPSIB works well with their timeframes to develop the combined plan.

Currently, there is no regional biodiversity strategy. It is likely to be very difficult to get the support and resourcing to develop and implement a regional biodiversity strategy (with or without the NPSIB). There is currently very limited work being done on weed and pest controls and a general reluctance to interfere in private land development.

Monitoring of indigenous biodiversity in the region is very reactive and often in response to complaints. Generally, the public are very quick to tell council if there is something going on that shouldn't be, which often relates to indigenous vegetation clearance. There is currently no resourcing available for council to be more proactive in the monitoring of indigenous biodiversity in the district and this not seen as high priority. Councils is also not involved in restoration activities and there is no funding available for landowners to assist with indigenous biodiversity restoration work.

9.6.3 Key impacts expected from the NPSIB

The NPSIB will fundamentally change the current approach in the district to manage indigenous biodiversity. The biggest impact will be the requirement to map SNAs and this is likely to face a high level of political and landowner opposition. Only 15% of indigenous vegetation cover is on private land and many landowners feel the district is already playing its part to protect indigenous biodiversity through the large Conservation Estate. Many residents/landowners consider that indigenous biodiversity within the Conservation Estate should be managed, but this does not need to extend to private land. The interviewee noted that implementing the NPSIB is likely to be contentious in the district,

as landowners' rates will contribute to SNA mapping work on their land that may, in turn, result in protections/restrictions on the ability to use and develop their land.

A requirement to ground truth and map SNAs within DOC administered land would be extremely problematic for the district. The interviewee noted that such a requirement would either use a significant proportion of the Council's budget or lead to a significant rate increase. Council do not get rates revenue from DOC for the Conservation Estate land in the district and residents are likely to be strongly opposed to paying for SNA mapping work on this land. The interviewee stated that an alternative process is required in the NPSIB and the staged approach to SNA identification may assist in the short-medium term.

Overall, the national approach required under the NPSIB is likely to have a disproportionately high negative impact on the West Coast compared to the rest of New Zealand. Limited benefits are also expected from the NPSIB as there is limited growth/development pressures and this is unlikely to change in the near future. The interviewee notes these issues are also just as relevant for the other two district councils on the West Coast (Grey and Buller).

9.6.4 Findings from spatial analysis

The key parameters of the spatial analysis for Westland District are summarised in Table 44 below (with full details contained in **Appendix C**).

Table 44: Westland District Summary of Key Parameters (Based on Proxy SNA).

High Level Paramaters	Westland Dsitrict
SNA (Terrestrial) Count (n)	N/A
SNA (Terrestrial) Area (ha)	762,868*
Total Land Area (ha)	1,164,466
SNA Coverage of Total Land Area (%)	66%
Indigenous Land Cover (LCDB) (ha)	762,868
Indigenous Land Cover (LCDB) as Share of Total Land Area (%)	66%
SNA Coverage of Indigenous Land Cover (%)	100% *
DOC Administered Land Area (ha)	1,036,484
SNA Coverage of DOC Land (%)	69%
Maori Land Court Tenure Land Area (ha)	3,841
SNA Coverage of Maori Land Area (%)	47%
Estimated Number of Maori Land Properties (n)	105
Percentage of Maori Land Properties Containing Indicative Medium SNA (%)	62%
Percentage of Maori Land Properties Containing >80% Indicative Medium SNA Coverage (%)	25%
Percentage of Maori Land Properties Containing Indicative High SNA (%)	-
Percentage of Maori Land Properties Containing >80% Indicative High SNA Coverage (%)	-
General Land Tenure Land Area (ha)	119,140
SNA Coverage of General Land (%)	30%
Estimated Number of General Land Properties (n)	7,727
Percentage of General Land Properties Containing Indicative Medium SNA (%)	37%
Percentage of General Land Properties Containing >80% Indicative Medium SNA Coverage (%)	10%
Percentage of General Land Properties Containing Indicative High SNA (%)	-
Percentage of General Land Properties Containing >80% Indicative High SNA Coverage (%)	-
Exotic Forestry Land Area (LCDB) (ha)	17,111
SNA Coverage of Exotic Forestry Land Area (%)	N/A
Properties Containing Pastoral Land Area (LCDB) (n)	N/A
Percentage of Pastoral Land Properties Containing <1% SNA Cover (%)	N/A

* Due to Proxy SNA being based on Indigenous Land Cover.

Westland District Council has total indigenous land cover estimated at 762,868ha. This extent is adopted as the proxy for Indicative SNAs in Westland (Figure 6, as discussed in **section 9.1.3**).

The approach applied for this spatial analysis to categorise Indicative SNA cover into Indicative High SNAs and Indicative Medium SNAs, results in no Indicative High SNAs in Westland District. This is because there is no indigenous land cover for which there is less than 20% of coverage remaining. The significant majority of indigenous cover in the district has greater than 30% coverage remaining (the level of remaining indigenous cover (compared to the original extent) is estimated at 67%) meaning it would not become an SNA under the rarity and distinctiveness criteria of the NPSIB. This indigenous cover is also largely DOC administered land and subject to existing protections under other legislation. While this may not be the case if SNAs were assessed in accordance with the NPSIB SNA criteria - which are based on more that rarity - for the purpose of this indicative analysis, it means that there would be no opportunity costs associated with the NPSIB requirements to avoid certain adverse effects on High SNAs. This is important for mining, infrastructure, Māori land development, and development of general land. This analysis indicates that the NPSIB provisions that relate to management of certain activities within Medium SNAs in Part 3.2 would be most applicable for these activities in the district. This indicates that the potential opportunity costs for new use, subdivision and development in Westland would be lower than in those districts that have High SNAs.

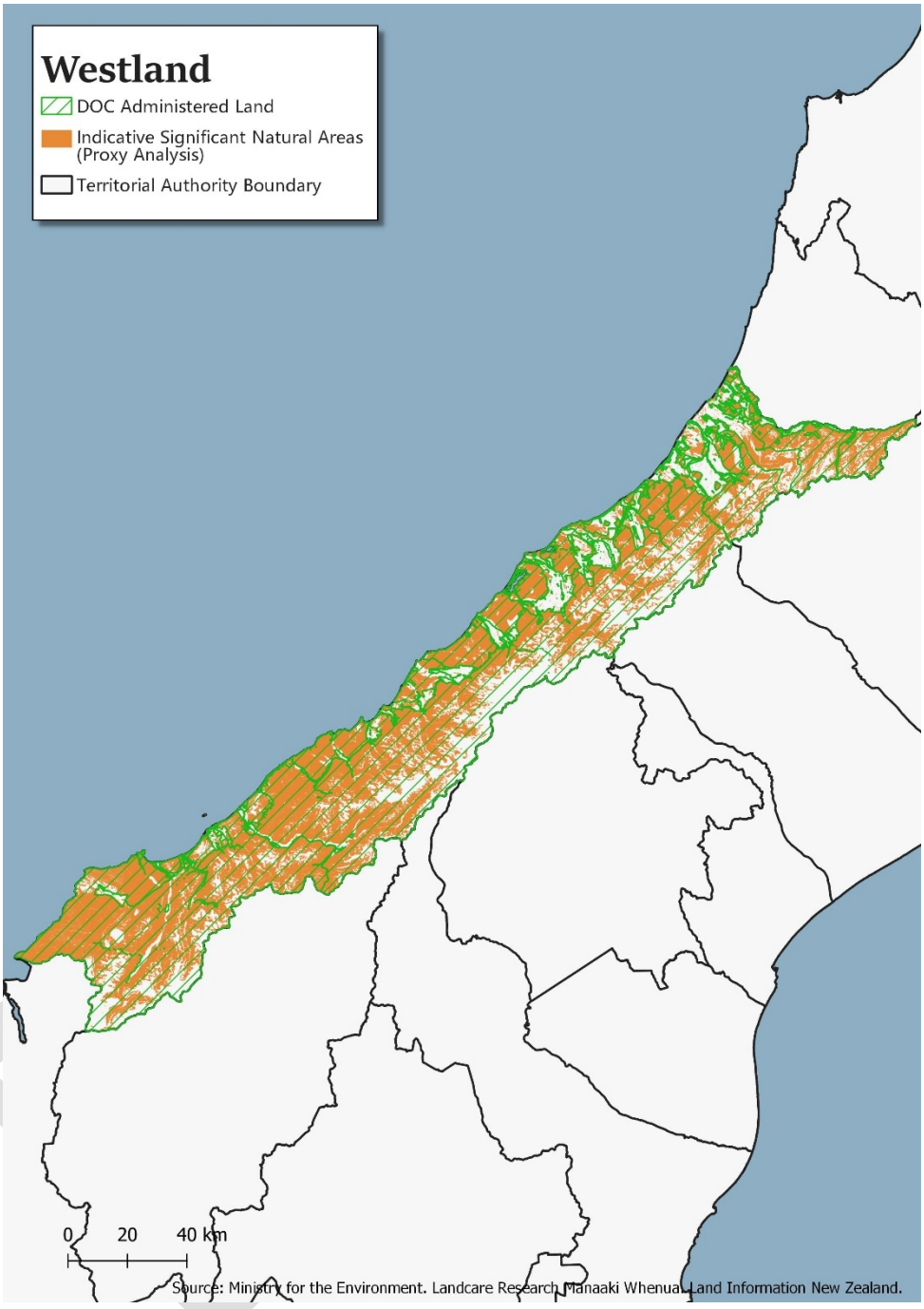

Figure 6: Indicative Significant Natural Areas (Proxy Analysis) – Westland.

As outlined above, there is a significant amount of DOC administered land in Westland (1,036,484ha). The spatial analysis indicates that DOC land makes up 94% of total Indicative potential SNA hectares in the district. 47% of Māori land in Westland is captured by Indicative SNAs, although this land accounts for less than 1% of the Indicative SNA coverage in the district. Treaty Settlement land has slightly less coverage in Indicative SNAs (43% captured) but this only accounts for 1% of Indicative SNA area in the district. 5% of the Indicative SNA hectares in the district is located on general ownership properties, further highlighting the significant amount of DOC administered land in the district. Indicative SNAs cover 30% of the total area of general tenure land. This highlights that general landowners will be less impacted as a group by the protection of SNAs (all else being equal) compared to Māori land or Treaty Settlement landowners. However, in quantum terms general landowners would be most impacted with 36,255 general properties containing Indicative SNAs (82,885 general land properties have no Indicative SNA coverage).

There are an estimated 105 Māori land properties in Westland (the second smallest amount after Tasman among the six case study councils). However, 62% of these properties have some Indicative Medium SNA coverage, which is the third highest among the six case study councils below Southland (79%) and Far North (63%). . A moderately high portion of Māori land properties have greater than 80% SNA coverage, although this equates to only 26 properties due to the limited amount of Māori land in the district. These are a mix of mostly moderately large (2-10ha) and large (greater than 10ha) properties, with a few small properties (less than 1ha in size). The larger properties may still be able to accommodate future subdivision, use and development without affecting the Indicative SNAs. The NPSIB provisions will require adverse effects from development of Māori land within Medium SNA to be managed in accordance with the effects management hierarchy (rather than require certain adverse effects on High SNAs to be avoided). This is relevant for potential opportunity costs, which may only be significant for a relatively small portion of Māori land properties in Westland District.

Westland has the highest percentage of general owned properties that have Indicative Medium SNA coverage (37%) among the six case study councils. However, the spatial analysis indicates there are no general owned properties with High SNA coverage. An estimated 10% of general properties have Indicative Medium SNA coverage that is greater than 80% of property area. Many of these are large sized properties (greater than 10ha) or moderately large (2-10ha), so they may be able to accommodate future subdivision, use and development without affecting the Indicative SNAs.

Mining is a key sector of the Westland economy. 42% of open cast mines identified by LINZ are located in Indicative Medium SNAs, so there may be opportunity costs to manage effects of their operations in accordance with effects management hierarchy in the NPSIB. These mines make up just 0.01% of Indicative SNA extent in the district. Council noted that all mining consents that impact on indigenous biodiversity are now dealt with by the West Coast Regional Council as Westland District Council has transferred these functions.

9.7 Southland District

This section provides an overview of the case study findings for Southland District. The summary of key issues, current planning approach, and key impacts expected from the NPSIB is based on feedback from interviewees – it does not represent 4Sight's or M.E's views on these matters. Southland District Council was also provided with the opportunity to provide feedback on this section.

9.7.1 Overview of district and key issues

Southland District is the largest territorial authority in New Zealand (11% of total area), which means that it is a challenging area to cover and manage in terms of indigenous biodiversity. The district covers a wide range of climates and environments, from alpine, forests, wetlands and coastal. Stewart Island is also part of the Southland District and has unique biodiversity management challenges. A significant share of the district is DOC administered land. On private land, clearance of indigenous vegetation for grazing/pasture is a key issue for the district.

A lot of money is also spent on dealing with wilding pines which can have adverse effects of indigenous biodiversity. Landowners/foresters are planting Douglas Firs next to beech forests on DOC administered land and this is resulting in incursions of exotic species. A lack of knowledge on the actual state and losses of indigenous biodiversity within the district is currently a challenge for council given the size of the district and limited resourcing.

9.7.2 Overview of current planning approach

The Southland District Plan is a second-generation plan that was recently made operative (January 2018). It was deemed to be too costly to comprehensively deal with indigenous biodiversity though the district plan review (e.g. map SNAs) in the time that was available and so the operative provisions were largely rolled over.

The nature of the district plan is reasonably progressive and very enabling. In terms of indigenous vegetation clearance, the plan provides for a limited list of permitted activities and above these thresholds resource consent is required as a discretionary activity. The consenting process is then used to require ecological assessments to be undertaken to determine whether the proposal will affect indigenous biodiversity that is significant or not. Southland District Council does not have an in-house ecologist but uses a consultant ecologist to help assess and progress these applications.

The provisions allow for indigenous vegetation which has grown naturally on land lawfully cleared of vegetation since the year 2000 to be cleared again (subject to certain conditions). There are challenges establishing evidence to confirm that indigenous vegetation growth has occurred since that year and therefore whether the clearance is permitted. There is limited data available to assess compliance with this rule, most often utilised by farmers but also some tourism activities. Council is often dealing with landowners where the farm property has been in the family for generations and they consider it their right to clear regenerating indigenous vegetation. These issues are likely to prevail under the NPSIB (specifically Policy 8 which relates to existing activities).

SNAs have not been identified in Southland, or in any other operative district plan in the region. In the past, the community has expressed strong opposition to the mapping of SNAs.

Southland District Council has more recently been working collaboratively with other councils in the region on three major region wide projects relating to climate change, landscapes and indigenous biodiversity. This is in order to give effect to the new Regional Policy Statement (**RPS**), ensure consistency across the region, and to ensure that everyone is using the same data. Council is using aerial imagery, existing information and other desktop methods identify areas of ecological significance. Wildlands Consultants are in the process of drafting three initial maps to contribute to the study.

A significant non-regulatory method adopted by Southland District Council is their support for the High Value Area Programme (**HVAP**). This provides an opportunity for landowners on a voluntary basis to request an ecological assessment of indigenous vegetation and habitats of indigenous fauna located on their properties.

The RPS requires a regional biodiversity strategy which is in progress. This is a collaborative process among the councils (led by the regional council), key stakeholders and community groups focussed on facilitating improvements in indigenous biodiversity management and outcomes.

Currently, Southland District Council provides funding towards a number of biodiversity related programmes including High Value Area assessments, Toimata Foundation (Enviroschools), Waituna Partnership and the Hollyford Conservation Trust. This equates to approximately $60,000pa (sourced from the 2018-2028 Long Term Plan). In terms of Resource Management projects, the Council's General Project budget has contributed to the Regional Biodiversity Study and has funding to continue work in the area in an ongoing manner. Council's contribution to this regional study was $16,000 in the 2016/2017 financial year. In addition, Group Manager – Environment Services and Resource Management staff time and expertise are offered to specific projects as they arise. In recent times this has included the Waituna Project, Biodiversity Southland, Predator Free Rakiura, Predator Free Southland and the Rakiura Integrated Management Team. Council also has invested time in developing open space and reserves management policies and strategies and undertakes some active management of pests and weeds on its own land.

Monitoring of indigenous biodiversity is currently limited in the district. DOC is doing Tier 1 monitoring. Otherwise, the regional projects that are underway are likely to result in some suggestions for improved monitoring on the state of indigenous biodiversity in the region. Compliance monitoring is also currently limited in the district. Council only has 0.5 FTE dedicated to compliance. As a consequence, not all losses of indigenous biodiversity are being identified and there is likely to be some non-compliance with the indigenous clearance rules in the plan. Currently there are only about 3-4 consents per year that relate to indigenous vegetation clearance.

9.7.3 Key impacts expected from the NPSIB

While national direction is welcome by Council and will provide better context for ecologists to assess resource consents, the cost to rate payers to implement the NPSIB will be a key issue for Southland due to the large size of the district and small rating base.

Identifying and mapping SNAs in the district is likely to assist in dealing with clearance of regenerated indigenous vegetation for improved pasture (currently a challenge) but will also raise tensions for existing landowners that may perceive they have existing use rights. Council is interested to see how this tension will be reconciled in the NPSIB. Ongoing monitoring of SNAs will be challenge for the district and this additional monitoring will come at a cost to councils/rate payers. Resourcing the implementation of the NPSIB is really the key issue for Council. This primarily relates to the SNA identification process and working with landowners, more so than developing the provisions per se. It will be a significant challenge for Council to source the funds to undertake this work.

Council is also interested in whether the NPSIB requirements will consider compensation for landowners that have SNAs identified on their land and how the various RMA national instruments being developed by central government will work together. On the latter, carbon farming of forestry has been identified as a potential boom industry in Southland, with Fonterra already a big player. Council wonders how achieving carbon neutral objectives on private land will impact on achieving biodiversity objectives, and vice versa.

9.7.4 Findings from spatial analysis

The key parameters of the spatial analysis for Westland District are summarised in Table 47 below (with full details contained in **Appendix C**).

At a broad level, Southland District is made up almost entirely of DOC administered land or farmland (with 24,950 general tenure properties potentially maintaining improved pasture). This means that the costs of identifying SNAs in accordance with the requirements in the NPSIB will be heavily influenced (as with Tasman and Westland) by how SNA identification on DOC administered land is to be treated under the NPSIB. It also means that the NPSIB provisions relating to improved pasture maintenance and how this is given effect to in the Southland District Plan will be of key relevance to farmers in Southland (and more relevant than in the other case studies examined). Indicative (proxy) SNAs and DOC administered land are shown in Figure 7.

Where pastoral farming has occurred, the LCDB indicates there is very little original indigenous cover remaining. However, there may be some mixed indigenous/exotic grasslands that still have high biodiversity value but cannot be seen in the LCDB. An estimated 1% of Indicative SNA area relates to indigenous cover where there is just 2% of original coverage left. This falls largely on general owned land, which accounts for 59% of Indicative High SNA hectares in the district based on the spatial analysis. By comparison, general owned land has just 5% of the Indicative Medium SNA hectares in the district, with most Indicative Medium SNA hectares located on DOC administered land (87%). Overall, 10% of all general owned land in Southland is captured by Indicative SNAs. In contrast, a significant 83% of the total area of Māori land in the district is captured by Indicative SNAs (this includes land under the South Island Landless Natives Act (**SILNA**)).

Table 45: Southland District Summary of Key Parameters (Based on Proxy SNA).

High Level Paramaters	Southland District
SNA (Terrestrial) Count (n)	N/A
SNA (Terrestrial) Area (ha)	1,708,330*
Total Land Area (ha)	2,927,376
SNA Coverage of Total Land Area (%)	58%
Indigenous Land Cover (LCDB) (ha)	1,708,330
Indigenous Land Cover (LCDB) as Share of Total Land Area (%)	58%
SNA Coverage of Indigenous Land Cover (%)	100% *
DOC Administered Land Area (ha)	1,829,126
SNA Coverage of DOC Land (%)	81%
Maori Land Court Tenure Land Area (ha)	39,203
SNA Coverage of Maori Land Area (%)	83%
Estimated Number of Maori Land Properties (n)	485
Percentage of Maori Land Properties Containing Indicative Medium SNA (%)	73%
Percentage of Maori Land Properties Containing >80% Indicative Medium SNA Coverage (%)	55%
Percentage of Maori Land Properties Containing Indicative High SNA (%)	6%
Percentage of Maori Land Properties Containing >80% Indicative High SNA Coverage (%)	4%
General Land Tenure Land Area (ha)	981,210
SNA Coverage of General Land (%)	10%
Estimated Number of General Land Properties (n)	39,497
Percentage of General Land Properties Containing Indicative Medium SNA (%)	7%
Percentage of General Land Properties Containing >80% Indicative Medium SNA Coverage (%)	1%
Percentage of General Land Properties Containing Indicative High SNA (%)	4%
Percentage of General Land Properties Containing >80% Indicative High SNA Coverage (%)	0.2%
Exotic Forestry Land Area (LCDB) (ha)	86,545
SNA Coverage of Exotic Forestry Land Area (%)	N/A
Properties Containing Pastoral Land Area (LCDB) (n)	24,950 **
Percentage of Pastoral Land Properties Containing <1% SNA Cover (%)	89% **
* Due to Proxy SNA being based on Indigenous Land Cover.	
** Based on property land use codes (farming) and not LCDB coverage of producing grasslands. Also relates to just general land, and excludes Maori Land and Treaty Land.	

Southland District has an estimated 485 Māori land properties (including SILNA properties). An analysis of Indicative SNA coverage and property size shows that 21% have no Indicative SNA coverage. This is the lowest (and therefore worst) proportion of the six case study councils. An estimated 73% of Māori land properties contain an area of Indicative Medium SNA and 55% of the total (269) have 80% or more Indicative Medium SNA coverage (most in fact have between 90% and 100% coverage). A portion of these properties fall within Fiordland National Park therefore the high Indicative SNA coverage on these properties is not surprising. Large areas of Māori land are also on Stewart Island / Rakiura. The properties with very high coverage of Indicative Medium SNA are mostly large (greater than 10ha) or moderately large (2-10ha) properties so these properties may be able to accommodate some use and development anticipated under the NPSIB provisions relating to SNAs classified a Medium (Part 3.9(2)-(3)). However, costs to develop will be higher than on properties with less SNA coverage and opportunity costs are likely. Given the remote and isolated location of these properties the costs to develop already pose a significant limitation on future development and so the NPSIB has a cumulative impact on those landowners.

The remaining 6% (29 properties) of Māori land parcels in Southland contain an area of Indicative High (or High and Medium) SNA. An estimated 4% of Māori land properties (18) have 80% or more Indicative High SNA coverage. Most of these are large (greater than 10ha) or moderately large (2-10ha) properties so may be able to accommodate some form of development on areas not covered by Indicative High (or High and Medium) SNA. Nine properties are totally

covered by Indicative SNA, but as these properties have a mix of High and Medium Indicative SNA coverage, they could potentially still be developed to some level under the provisions in the NPSIB relating to medium SNAs (where adverse effects need to be managed in accordance with the effects management hierarchy). Therefore, no single property is considered to be rendered unavailable for some form of development based on this desk-top spatial analysis (i.e. no site-specific assessment).

The analysis indicates that 7% of general owned properties include an area of Indicative Medium SNA. Just 1% of total general properties (551 properties) have 80% or greater Indicative Medium SNA property coverage. Many of these are large sized properties (greater than 10ha) and may be able to accommodate development without affecting the Indicative SNA. However, an estimated 281 properties are less than 1ha in size and have 90% or greater Indicative SNA coverage. If already containing a dwelling, these will generally appear as bush blocks with a house site and driveway added. If any of these existing lots do not already have dwellings, effects on indigenous biodiversity from a new single dwelling could be managed in accordance with the provisions in the NPSIB relating to medium SNAs (Part 3.9), but the costs to develop are likely to be higher because of NPSIB requirement to manage adverse effects in accordance with the effects management hierarchy. However, other forms of subdivision, use and development would be managed under the NPSIB provisions that require certain adverse effects to be avoided and may be constrained under the NPSIB. An estimated 4% of general owned properties include an area of Indicative High SNA. As with Indicative Medium SNAs, there is a very small portion (about 30) of general properties with 90% of greater Indicative High SNA coverage that are less than 1ha in size. If these properties have yet to be developed, this would be a significant opportunity cost for those property owners from the requirements in the NPSIB to avoid certain adverse effects on SNAs.

Otherwise in Southland, plantation forestry is not a significant land use (although Southland District Council indicates that this could change in future if more farmland is converted to forestry). Only 1% of identified mining areas fall within Indicative High SNAs and 3% falls within Indicative Medium SNAs. Any constraints on these activities because of the presence of SNAs is not expected to be a material impact on their operations under the NPSIB, although this has not been confirmed.

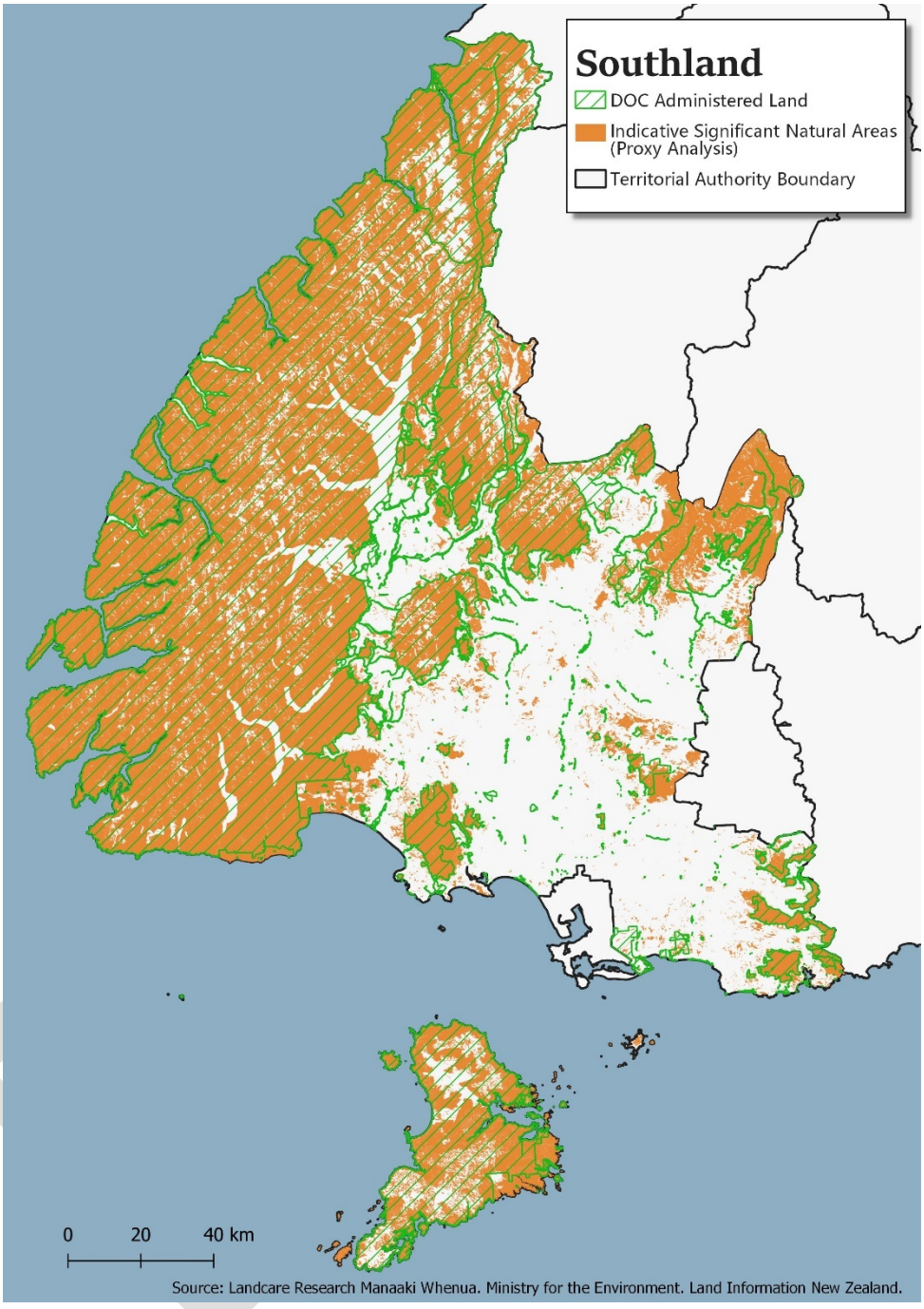

Figure 7: Indicative Significant Natural Areas (Proxy Analysis) – Southland District.

10 CONCLUSION

The purpose of this report is to provide a draft section 32 evaluation and indicative CBA of the proposed NPSIB in accordance with the relevant provisions in the RMA. This is important to test the NPSIB prior to public consultation and help inform stakeholders on the likely impacts, benefits and costs of the NPSIB provisions.

A number of key considerations and complexities informed the overall approach to the draft section 32 evaluation and indicative CBA. These include uncertainties on how the NPSIB will be implemented, the alignment of the NPSIB with existing council approaches and plan provisions to manage indigenous biodiversity, landowner intentions and associated opportunity costs, gaps in information, and difficulties quantifying key benefits and costs. The impacts, costs and benefits of the NPSIB are also expected to vary significantly within, and between, regions and districts.

Addressing these matters in a section 32 evaluation and CBA is an inherently challenging task for any proposal under the RMA and is particularly challenging for an NPS. This draft section 32 evaluation and indicative CBA is therefore largely based on:

- A qualitative assessment of benefits and costs of the NPSIB provisions;
- A selection of case studies to illustrate the potential impacts, benefits and costs in a selection of districts;; and
- An assessment of monetised and quantitative costs where possible – this is focused on indicative implementation cost ranges for councils and a spatial analysis of SNA coverage (actual and indicative) on different land uses in the selected case studies.

Overall, the draft section 32 evaluation found that the NPSIB objectives are appropriate to achieve the purpose of the RMA. The NPSIB objectives are directly related to a number of matters in Part 2 of the RMA, most significantly section 5(2)(b) in terms of safeguarding the life-supporting capacity of ecosystems, section 6(c), section 6(e), section 7(aa), section 7(a) and section 8.

The key objective of the NPSIB is to maintain indigenous biodiversity. The combination of Objective 1 and the explanation of '*maintenance of indigenous biodiversity*' in the NPSIB provides greater clarity on what this means in practice, i.e. specifying the aspects of indigenous biodiversity that there "shall be no reduction in" when the NPSIB comes into force. This will assist councils to carry out their functions under section 30(1)(ga) and 30(1)(b)(iii) of the RMA to maintain indigenous biodiversity and is directly related to the core problem the NPSIB seeks to address – the ongoing loss of New Zealand's terrestrial indigenous biodiversity.

The NPSIB objectives also recognise the importance of allowing people and communities to provide for their social, economic and cultural wellbeing. The implementing provisions recognise that maintaining indigenous biodiversity does not preclude subdivision, use and development in appropriate locations and forms and within appropriate limits – and this is a key focus of the effects management provisions in the NPSIB. Providing for appropriate subdivision, use and development within nationally consistent "bottom lines" that have been identified by experts as necessary to maintain indigenous biodiversity is fundamental to overall approach of the NPSIB, and is an effective and appropriate approach to achieve the purpose of the RMA.

The NPSIB objectives also seek to improve the role of tangata whenua in the management of indigenous biodiversity, consistent with the provisions in Part 2 of the RMA to recognise and provide for the relationship of tangata whenua with the environment and their taonga (section 6(e)), have particular regard to kaitiakitanga (section 7(a), and take into account Te Tiriti o Waitangi/Treaty of Waitangi (section 8). The NPSIB includes an objective to recognise and provide 'Hutia Te Rito' as the underlying concept in the management of indigenous biodiversity. This concept seeks to provide a convergence of Māori and non-Māori world views in the management of indigenous biodiversity. The acceptability and feasibility of this conceptual framework needs to be further tested through public consultation to better understand its appropriateness in achieving the purpose of the RMA.

The assessment of reasonably practicable options concluded that a National Policy Statement focused on Terrestrial Indigenous Biodiversity (i.e. the NPSIB) is the most appropriate option to achieve the NPSIB objectives. The NPSIB is the preferred option as it provides clear direction on the outcomes sought for indigenous biodiversity and how those

outcomes are to be achieved, while also providing some flexibility for councils to respond to local pressures and priorities. This is achieved through a combination of prescriptive provisions that provide clear 'environmental bottom lines' and leave little room for interpretation and other provisions which provide more discretion and flexibility to incentivise and promote good outcomes.

Increased guidance, support and training is considered to be critical to support the implementation of the NPSIB. Strong guidance and support from central government is considered critical to support the efficient and effective implementation of the NPSIB given that some of the requirements will be new, complex and resource intensive for councils. The capacity of councils and tangata whenua to effectively implement the NPSIB requirements (e.g. map SNAs, identify taonga) is highly varied.

The assessment of the effectiveness of the NPSIB provisions focuses on the how successful they are likely to be to achieve the NPSIB objectives and address the identified issues. Overall, this evaluation concludes that the NPSIB provisions are likely to be effective to achieve the NPSIB objectives. In particular, the NPSIB provisions are likely to be effective to achieve the overall objective to maintain indigenous biodiversity. The NPSIB provisions collectively require a comprehensive range of actions to protect, maintain, restore and enhance indigenous biodiversity.

A key focus of the NPSIB provisions is the identification of SNAs and the effects management provisions that apply within identified SNAs. The NPSIB will require a nationally consistent approach to identify SNAs based on existing best practice and introduce nationally consistent bottom lines to manage adverse effects within SNAs. It will also introduce a nationally consistent effects management regime for indigenous biodiversity (the 'effects management hierarchy') which is based on best practice nationally and internationally. Complementing effects management provisions in the NPSIB is a combination of provisions focused on the restoration and enhancement of indigenous biodiversity in those areas and environments that need it most.

There is an inevitable tension between the effectiveness of the NPSIB provisions to maintain indigenous biodiversity (Objective 1) while also allowing people and communities to provide for their social, economic and cultural well-being (Objective 6). The NPSIB provisions seek to 'strike the right balance' by providing clear direction on the adverse effects that need to be avoided and the effects management hierarchy that must be followed for other adverse effects, while still allowing for a limited range of exceptions within clearly defined parameters. Collectively, these provisions are expected to be effective to achieve the key objective in the NPSIB to maintain indigenous biodiversity while still enabling subdivision, use and development to occur in appropriate locations and forms, within appropriate limits.

This finding is supported by the Indicative CBA. The CBA considered the impacts, costs and benefits of the NPSIB as a whole (across all proposed provisions). Case studies of Waikato District, Auckland, Far North District, Tasman District, Westland District and Southland District have provided useful context on the potential scale and significance of key NPSIB provisions. Those councils have also provided valuable insight on the pressures on indigenous biodiversity in their part of New Zealand and their current and proposed regulatory framework and how the NPSIB might impact on that, including the financial costs of implementation. This feedback has been incorporated in identification and measurement of costs and benefits throughout this report.

Overall, the long-term environmental benefits of achieving the objectives of the NPSIB will be wide-spread and will be felt by current and future generations. The indigenous biodiversity loss avoided, and the enhancements to indigenous biodiversity achieved in any one district or region does not just benefit communities in that district or region but will benefit the wellbeing of wider New Zealand (and beyond). This is because indigenous biodiversity is a public good that delivers multiple benefits.

Other costs and benefits (with the exception of those benefits for central government, national infrastructure providers and businesses that operate at a national level) will be borne more locally - at the district and regional level. A key cost is associated with implementing a more spatially explicit and stringent planning framework to protect SNAs and maintain indigenous biodiversity. These costs are potentially significant for some councils although actual costs will depend on the level of change required relative to NPSIB requirements and/or their ability to fund the implementation of the NPSIB. However, these costs are mostly faced in the short-term and it is expected that the ongoing implementation costs of the NPSIB will reduce substantially over time.

There are still some large uncertainties and information gaps on the actual impacts, benefits and costs of certain NPSIB provisions at the local, regional and national level. In particular, there are aspects of Policies 1, 6, 8 and 10, Appendix

1 and Appendix 2 that are uncertain and will benefit from feedback and more detailed information through public consultation. A final section 32 evaluation and CBA report will be prepared at that time.

However, the analysis completed to date (including the six case studies) supports the preliminary CBA and draft section 32 conclusion that the aggregate, long-term and cumulative benefits of implementing the NPSIB will, on balance, outweigh the expected aggregate and generally short-term costs. This is based on a high level of certainty that the NPSIB will improve the management of indigenous biodiversity in the terrestrial environment under the RMA and lead to improved outcomes for indigenous biodiversity. In particular, it will provide a more robust, nationally consistent approach to identify and protect SNAs and provides greater clarity and direction on how to maintain and restore indigenous biodiversity. Overall, the NPSIB objectives and implementing polices are expected to help to achieve the sustainable management purpose of the RMA through maintaining New Zealand's indigenous biodiversity while also enabling subdivision, use and development to provide economic, social and cultural benefits within appropriate limits.

Appendix A: CBA

HIGH LEVEL COST AND BENEFIT ASSESSMENT

To help identify relevant costs and benefits, this assessment has considered the draft proposed NPSIB (version 7), the BCG (2018) report, MfE/DOC discussion of changes to the BCG NPS provisions (dated 28th March 2019), the draft RIS report, official's analysis, feedback from interviews with case study councils and general input from the NPSIB project team. Public consultation is expected to identify additional information on costs and benefits that may not have been anticipated here. As such, this indicative CBA should be viewed as a living document that may be subject to further changes or refinement post-consultation.

Costs and Benefits of the NPSIB

The table below identifies the costs and benefits directly and consequently anticipated to arise from the NPSIB. They are organised in terms of biophysical (environmental), economic, social and cultural effects. Economic effects span a range of affected parties (stakeholder groups) including district councils, regional councils, central government, landowners, private sector businesses and non-government organisations (NGOs). These costs and benefits have been used throughout **Section 7** (assessments of efficiency for each policy for the section 32 evaluation). An indicative assessment of the significance of each cost and benefit (not to individuals but overall in terms of wellbeing) is included (low, moderate and high). Further detail on interpreting this three-point scale in included in **Section 8.** It is an overall judgement taking into consideration the scale and significance/consequence of the effect (as well as the probability) and is a guide as to how much weight should be assigned to each cost and benefit in a relative sense. **Section 8** also provides a summary of the indicative CBA, including further discussion on some costs and benefits.

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
BIOPHYSICAL				
	The consequent effect of the NPSIB focussing on terrestrial indigenous biodiversity is that indigenous biodiversity in freshwater and coastal environments (but excluding wetlands) may continue to decline where not effectively managed in regional and district plans, including through other national legislation and planning instruments (NPSFM) and NZCPS [various]. *This cost is of Moderate significance.*	The provisions are clear about exclusion of non-terrestrial indigenous biodiversity, so there is a high degree of certainty of this effect. There is a moderately sufficient information on the status of freshwater and coastal marine biodiversity and the pressures on this. The probability that this effect will take place is however low given the likelihood of other legislation and instruments being strengthened to align with the new national Biodiversity Strategy. If this cost was realised, it would be significant.	The current state of New Zealand's terrestrial indigenous biodiversity is maintained (future loss and decline is avoided), including the state of species populations and occupancy, indigenous character, ecosystem representation, ecosystem connectivity, buffering, resilience and adaptability [Policy 3 and Part 3.5 (Resilience to Climate Change)]. This is achieved within SNAs [Policy 6 and Part 3.8 (Identifying SNAs)] and in areas outside of SNAs [Policy 7 and Part 3.13 (General Rules Applying Outside SNAs)] as a consequent effect of improved management and decision making [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)], [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)], [Policy 1 and Part 3.3 (Tangata Whenua as Kaitiaki)], [Policy 2 and Part 3.6 (Precautionary Approach)], [Policy 12 and Part 3.14 (Identified Taonga)], [Policy 5 and Part 3.19 (Assessment of Env. Effects)] including consideration of cumulative effects under the NPSIB. Assists in achieving the sustainable management purpose of the RMA. *This benefit is of High significance.*	The provisions are clear and supported by clear definitions, so there is a high degree of certainty of these effects. The expectation of guidance and support would provide greater certainty. There are examples of best practice so there is sufficient information to determine that these effects can occur. The probability that they will take place is high given the overarching requirements of the RMA and the role of councils. The consequences will be significant.
			The sustainability of depleted terrestrial indigenous biodiversity habitats, including wetlands, will be restored and reconstructed as a consequence of the NPSIB [Policy 6 and Part 3.8(1) (Managing Adverse Effects on SNAs)], [Policy 14 and Part 3.18 (Regional Biodiversity Strategies)], [Policy 10 and Part 3.14 (Restoration and Enhancement)], [Policy 11 and Part 3.17 (Increasing Indigenous Vegetation Cover)]. The aim is that restoration is initiated before the ecological tipping point is reached (i.e. helps avoid any more depleted environments reaching the ecological tipping point, after which restoration is impossible). Indigenous vegetation cover in depleted environments will be increased by a minimum of 10% in urban areas, and an unspecified percentage in other (rural) areas (timeframes to be determined by	

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
			Councils). *High significance given aggregate effects of even minimum targets across New Zealand.*	
			The ecological integrity of degraded terrestrial SNAs and areas that provide important connectivity and buffering functions, including wetlands, are restored and enhanced as a consequence of the NPSIB [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)], [Policy 14 and Part 3.18 (Regional Biodiversity Strategies)], [Policy 11 and Part 3.16 (Restoration and Enhancement)]. *Moderate significance.*	
			Further fragmentation of SNAs is avoided as a consequence of the NPSIB [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)]. *Moderate significance.*	
			Taonga (species and ecosystems) are (more consistently) identified and protected as a consequence of the NPSIB [Policy 1 and Part 3.3 (Engaging with Tangata Whenua)], [Policy 12 and Part 3.14 (Identified Taonga)], [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)]. *Moderate significance (forms a subset of overall indigenous biodiversity).*	There is a low level of certainty that this benefit can be realised given that tangata whenua have the option not to identify taonga or may not have the resources to achieve this outcome (although some may have already done this through other means such as Treaty Settlements/statutory acknowledgments). There is however sufficient information of best practice to indicate that the benefit could be realised if taonga were included in the effects management framework. The probability that this benefit will be realised is considered moderate, but the consequence if it is realised is high.
			Highly mobile fauna is identified and protected as a consequence of the NPSIB by identifying and mapping areas where they are likely to be present [Policy 12 and Part 3.13 (Highly Mobile Fauna)]. *Moderate significance*.	The is a low level of certainty that these benefits can be realised given that Councils need only identify and map highly mobile fauna *if practicable*. There is also a low sufficiency of information that these actions would be effective given that it is not common practice by councils. The probability that this benefit will be realised is considered low as the identification process achieves only 'likely presence' but not actual presence. However, the consequence if it is realised is high, if the species is at risk or threatened.
			Reduced loss of at risk and threatened species/taxa, including internationally significant species/taxa as a consequence of the NPSIB [Policy 6 and Part 3.8(1) (Managing Adverse Effects on SNAs)], [Policy 13 and Part 3.15 (Highly Mobile Fauna)], and including within plantation forestry areas that are identified as SNAs [Policy 8 and Part 3.10 (Managing Adverse Effects in Plantation Forests in PLBAs)]. *High significance.*	
			Consequent improved outcomes for indigenous biodiversity, including associated ecosystem services, arising from management that specifically identifies the adverse effects of pest plants, animal incursions (including pets and stock), and disruption by people. *Moderate significance*.	The provisions clearly identify relevant adverse effects, so there is a high degree of certainty that Council's will account for these effects in their provisions. There is a high level of sufficient evidence on the impact of pests, pets, stock and people. The probability that this benefit will occur is low-moderate as it will depend on the strength of provisions adopted by Councils, the willingness or ability of landowners to meet those requirements and the ability of Council's to monitor and enforce them. However, the consequence of achieving this benefit will be significant.
	Indigenous biodiversity in all SNAs may be subject to short-term disturbance/damage/loss as a result	There is a high degree of certainty that such activities can impact on SNAs and there is sufficient	SNAs (vegetation and habitat) are more consistently identified and protected from inappropriate subdivision,	The provisions are clear and supported by clear criteria, so there is a high degree of certainty of these effects.

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
	of new use and development arising from activities where the purpose is to protect or enhance the SNA, address severe risk to public safety (i.e. clear a slip or remove a tree/limbs at risk of falling), or the purpose of establishing the indigenous vegetation was not primarily for the purpose of maintaining or enhancing biodiversity (i.e. erosion control or harvest, apiculture). However, there *must* be no net loss of indigenous biodiversity as a consequence of the NPSIB (when remedial/ mitigating/ offsetting actions have established to an equivalent pre-impact state) and the positive effects of any proposed compensation must be proportionate to the adverse effects on indigenous biodiversity [Policy 8 and Part 3.9(4) (Managing Adverse Effects on SNAs)]. *Low significance.*	information to indicate that they should be managed but not necessarily avoided. Overall the probability of these impacts occurring (over and above operative provisions) is low (they are infrequent and have a low spatial incidence) and because of the effects management framework, the consequence of this cost occurring is very low.	use and development as a consequence of the NPSIB [Policy 6 and Part 3.8 (Identifying SNAs)], [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)]. Significant adverse effects are avoided, including significant effects from specific new activities that are locationally constrained but impact on High SNAs [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)]. *High significance on the basis that SNAs capture the major share of indigenous biodiversity.*	There are examples of best practice so there is sufficient information to determine that these effects can occur. The probability that they will take place is high, although the timing may vary across councils (resourcing and financing SNA mapping is a key constraint). The consequences will be significant if achieved.
	Indigenous biodiversity in Medium SNAs may be subject to minor short-term disturbance/damage/loss as a result of new use, development and subdivision arising from nationally significant infrastructure, mineral extraction, development of Māori owned land and dwelling construction where there is no alternate building site. However, there *must* be no net loss of indigenous biodiversity as a consequence of the NPSIB (when remedial/ mitigating/ offsetting actions have established to an equivalent pre-impact state) and the positive effects of any proposed compensation must be proportionate to the adverse effects on indigenous biodiversity [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)]. *Low significance.*		Minor adverse effects on indigenous biodiversity in SNAs are more consistently avoided, remedied, mitigated, offset or compensated as a consequence of the NPSIB [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)], [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)]. This includes effects of specific new activities that have a functional or operational need to be in that location where the SNA is a Medium. *Low significance*.	The provisions ensure that there are no gaps with significant and minor effects captured. The NPS itself does not include information on what 'all other' adverse effects are so is not specific. The probability of minor adverse effects occurring in SNAs is still linked to the incidence of development and subdivision (primarily on private land) and the degree to which this relates to SNAs. Overall, this rate of incidence is estimated to be low and operative plans are more likely to have managed these effects in the past (although not necessarily linked to defined SNAs). The effects management approach means that any consequence would be low.
	Indigenous biodiversity inside and outside of SNAs may potentially be degraded or reduced as a result of the continuation of existing activities (of the same scale, character and intensity) as a consequence of the NPSIB if not otherwise addressed at the discretion of regional and local authorities [Policy 10 and Part 3.12 (Existing Activities in SNAs)]. *Low significance.*		Areas of indigenous biodiversity outside SNAs that over time meet the threshold of significance will be identified as SNAs and afforded greater protection as a consequence of the NPSIB [Policy 6 and Part 3.8 (Identifying SNAs)], [Policy 7 and Part 3.13 (Rules Outside SNAs)], [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)]. *Low significance*.	The provisions ask Councils to recognise this potential outcome so this benefit can occur. There is a low level of sufficient information to establish the degree to which indigenous biodiversity areas will become SNAs over time (and whether this occurs within the life of a plan). The probability of it occurring is considered to be low and is dependent on effective monitoring and re-evaluation of SNAs. The consequence of this benefit occurring is also low (if these areas are enhancing in the absence of SNA protection, then the change in protection is likely to have a marginal effect.
	Potential that the environmental limits in Policy 6 might prompt adverse impacts to SNAs ahead of the policy being implemented in council plans. Goldrush effect [Policy 6 and Part 3.8 (Identifying SNAs)], [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)]. This is a consequent effect of the NPSIB. *Low significance on the basis that this is likely to be the exception rather than the norm in terms of landowner responses.*			
	Indigenous biodiversity outside of SNAs may be subject to minor short-term			

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
	disturbance/damage/loss as a result of new use, development and subdivision. However, there *must* be no net loss of indigenous biodiversity as a consequence of the NPSIB (when remedial/ mitigating/ offsetting actions have established to an equivalent pre-impact state) and the positive effects of any proposed compensation must be proportionate to the adverse effects on indigenous biodiversity [Policy 7 and Part 3.13 (Rules Outside SNAs)]. *Low significance.*			
	Indigenous biodiversity outside of SNAs but within plantation forestry properties may suffer or be degraded/depleted from plantation forestry activities if that biodiversity is inappropriately recognised, managed or monitored [Policy 8 and Part 3.10 (Managing Adverse Effects on Plantation Forests)]. This is a consequent effect of the NPS. *Low significance*.	This cost recognises the potential risk of providing limited guidance in the NPS on how indigenous biodiversity within plantation forests should be managed. Moderate certainty. Research by Pawson, S. et al (2010)[94] found that 118 threatened species are found within plantations, so this contributes to the evidence base. It is not known how well Council's understand the indigenous biodiversity values of their local planation forests and how practical it will be for them to monitor adverse effects. The probability of this cost occurring is moderate and will depend on the willingness and practical ability of forestry companies to manage effects on indigenous biodiversity when carrying out forestry activities. The consequence is considered low given that it relates only to indigenous biodiversity outside of SNAs.	Plantation forestry activities can continue to be sustainably managed as long as those activities manage adverse effects on any indigenous biodiversity occurring within those forests. Biophysical and biodiversity benefits of plantation forestry are maintained [Policy 8 and Part 3.10 (Managing Adverse Effects on Plantation Forests)]. This is a consequent benefit of the NPS. *Moderate significance.*	Policy 8 and Part 3.9 (Managing Adverse Effects in PLBAs) provides certainty that plantation forestry activities are recognised and provided for. Research by Pawson, S. et al (2010)[95] found that 118 threatened species are found within plantations, so this contributes to the evidence base There is insufficient information on the number of forestry properties nationally that would be defined as an SNA under the NPS. The probability of the benefit being realised is high, on the basis that the NPS provides little specificity on how effects on indigenous biodiversity should be "managed". The wording "as necessary" implies that this may be left to the forestry owners to determine unless the councils themselves are more prescriptive. The consequence of allowing plantation forestry is moderate. This recognises that forestry plays a significant role in the economy (contributing to GDP and sustaining jobs), but that the NPS exception for forestry is only a marginal change from the status quo.
	Indigenous biodiversity outside of SNAs that regenerates on improved pasture between regular cycles of clearance to maintain that pasture, and that do not support the habitat of threatened or at risk taxa, will continue to be lost/cleared as a consequence of the NPSIB where a regular pattern of clearance can be established and the scale, character and intensity of the clearance activity is the same [Policy 10 and Part 3.12 (Existing Activities in SNAs)]. *Low significance.*	This exception for existing pastoral farming activities is clear – high certainty that this cost is relevant. There is low sufficiency of information on how prevalent regenerated biodiversity cover/habitats are on pastoral farming properties that do not meet the criteria of SNA. Or on what constitutes a regular pattern of clearance. This may be a key issue for Councils and landowners, agreeing on what is a regular cycle of clearance and then having the evidence to support those patterns. The probability of this cost arising is high on the basis that regular clearance activities will remove any regenerated growth. The consequence is low, on the basis that this exception is a method of maintaining existing pastoral activities where appropriate.	Where a regular cycle of vegetation clearance on land for improved pasture is not evident and indigenous biodiversity outside of SNAs has regenerated and has been shown to support the habitat of threatened or at risk taxa, a consent will be required for any clearance activities for the purpose of pastoral farming as a consequence of the NPSIB. [Policy 10 and Part 3.12 (Existing Activities in SNAs)]. Potential beneficial environmental outcomes from retaining and protecting regenerating indigenous biodiversity on pastoral farming land and protecting new habitats of threatened or at-risk taxa. *Low significance.*	The NPS provides clear direction for Council's to protect regenerating indigenous biodiversity on pastoral land that has not been regularly cleared. High certainty of effect. There is low sufficiency of information on how prevalent regenerated biodiversity cover/habitats are on pastoral farming properties that do not meet the criteria of SNA. Or on what constitutes a regular pattern of clearance. This may be a key issue for Councils and landowners, agreeing on what is a regular cycle of clearance and then having the evidence to support those patterns. The probability of this benefit being realised is considered low. Any regenerated cover that is able to be protected through the consent process is likely to also have been retained under the status quo as possibly reflects land that is no-longer used in current farm management practice. The consequence of this benefit occurring is considered low.
	To the extent that climate change results in changes in the natural range of ecosystems and	The certainty of this cost is low (and this is implicit in the inclusion of a precautionary approach). There is	The resilience of indigenous biodiversity to climate change and biosecurity threats is improved as a	The provisions are clear that Councils must promote resilience when managing biodiversity, so this benefit

[94] Pawson, S., Ecroyd, C., Seaton, R., Shaw, W. and Brockerhoff, E. 2010. New Zealand's exotic plantation forests as habitats for threatened indigenous species. New Zealand Journal of Ecology (2010) 34(3): 342-355.

[95] Ibid.

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
	the spatial extent of habitats [Policy 2 and Part 3.6 (Precautionary Approach)], loss of indigenous biodiversity in some localised areas will continue to occur. The cumulative effect of this may also have aggregate effects on indigenous biodiversity if the rate of decline exceeds the rate or ability of indigenous biodiversity to adapt [Policy 3 and Part 3.5 (Resilience to Climate Change)]. *Low significance.*	sufficient information on the potential effects of climate change on biodiversity, but a low level of information on potential effects at a district or regional level. The probability of the cost occurring is low if the NPS if effective in achieving its objectives as the aggregate effect of all actions (not just this policy) will improve resilience to future changes. The consequences of the cost occurring are considered to be small in the context of overall gains.	consequence of the NPSIB [Policy 3 and Part 3.5 (Resilience to Climate Change)], [Policy 2 and Part 3.6 (Precautionary Approach)]. *Moderate significance.*	can occur. There is sufficient evidence that climate change and biosecurity pose real risks for maintaining biodiversity, so the benefit could occur, but how those changes will manifest is less certain. The probability of this benefit being achieved is considered to be low-moderate and highly dependent on guidance and support from central government. The consequence of it occurring in the life of a plan is only low, but overall is moderate (it will not affect all parts of New Zealand to the same degree).
ECONOMIC				
District Councils	Resourcing costs (internal and external) to carry out SNA mapping (where not already mapped) in the time specified [Policy 6 and Part 3.8 (Identifying SNAs)]. This is a direct effect of the NPSIB. Indicatively costs may range from an estimated $700,000 for a council with a relatively small amount of indigenous cover and adopting a collaborative / cost sharing approach, to $1,300,000 for a council with a large area of indigenous cover, a non-collaborative process and excluding any ground-truthing on DOC managed land. These costs are anticipated to be spread over five years and in present value terms (6% discount rate) equates to $590,000-$1,095,000 per Council. *High significance.*	The requirements to map SNAs is clear so these are relevant and certain costs. There is sufficient evidence from councils that have undertaken SNA mapping to confirm that these costs could occur. The probability of these costs occurring is high although will be felt differently by each Council depending on the process they adopt, the work they have done to date, and the receptiveness of local communities to the process and its outcomes. The consequence of these costs will be high, particularly for councils where the financial cost is high and the rating base is low.	SNAs will be comprehensively identified and mapped (within the limits of Council resources, expertise, data accuracy, and ability to verify SNAs on private land). In some areas where SNA have already been mapped, a greater number (and area) of SNAs may be identified under the NPS criteria [Policy 6 and Part 3.8 (Identifying SNAs)]. This is a direct effect of the NPSIB. *High significance.*	Appendix A requires consistent processes and criteria, so there is a high degree of certainty that these are relevant effects. There is sufficient evidence from districts that have mapped SNA to confirm that these benefits can arise. The probability of these costs occurring is high although will be felt different by each Council depending on the process they adopt, the work they have done to date, and the receptiveness of local communities to the process and its outcomes. The consequences will be significant given that SNAs will capture the majority of indigenous biodiversity requiring protection (particularly on private land) and identifying SNAs has proven effective in managing biodiversity when combined with effective management frameworks.
	Resourcing costs (internal and external) to modify existing SNA mapping (where already mapped) in the time specified [Policy 6 and Part 3.8 (Identifying SNAs)]. This is a direct effect of the NPSIB. *Moderate significance.*		The mapping of SNA is more equitable and complete. The complexity and sensitivity of identifying SNAs is reduced through clear policy direction to ignore tenure and property boundaries [Policy 6 and Part 3.8 (Identifying SNAs)]. This is a direct effect of the NPSIB. *Low significance.*	
	Resourcing costs (internal and external) to manage contested SNA boundaries (and described attributes), during the SNA mapping process and during the scheduling process (i.e. submissions and appeals) [Policy 6 and Part 3.8 (Identifying SNAs)]. This is a direct effect of the NPSIB. *Low significance.*			
	Potential damage to existing community relationships as a consequence of the NPSIB, particularly where SNA criteria and mapping will change (is more stringent or less stringent to that previously applied). Potential undermining of work completed to date. Reduced trust in local government [Policy 6 and Part 3.8 (Identifying SNAs)]. *Low significance.*		Opportunities to develop closer relationship with landowners/community through engagement to identify and map SNAs [Policy 6 and Part 3.8 (Identifying SNAs)]. This is a consequent effect of the NPSIB. *Low significance.*	
	Plan change costs to update the schedule of SNA every two years to include SNAs identified through consent applications or any other means. Indicatively costs may range from an estimated $15,000 for a council that faces no litigation on the	The provisions are clear that this is an outcome to be delivered by Councils (high certainty). However, there is not sufficient information on how realistic it will be for Councils to need to incorporate additional SNAs not already identified through a		

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
	added SNAs to $30,000 for a council that faces a low level of litigation on added SNAs. Spread every two years from an estimated start in Year 8 after the NPSIB comes into force, this equates to a total cost to 2050 of $64,000-$129,000 in present value terms (6% discount rate) per Council. This is a direct cost of the NPSIB. *Low significance.*	comprehensive process in accordance with Policy 6 and Part 3.7 (Identifying SNAs). The probability of identifying new SNA within each and every two year period is considered very low. However, the consequence of having to carry out a plan change every two years is low-moderate assuming little or no litigation (i.e. the cumulative effective of frequent plan changes). The costs would not necessarily be limited to financial/time costs as indicated.		
	Costs to develop programmes and processes to allow effective iwi consultation and engagement in processes [Policy 1 and Part 3.3 (Engaging with Tangata Whenua)], [Policy 1 and Part 3.2 (Hutia Te Rito)] including identification and mapping of Taonga [Policy 12 and Part 3.14 (Identified Taonga)]. Opportunity cost of time and financial costs. This is a direct effect of the NPSIB. *Low significance*.	It is considered likely that changes will be needed for some councils to improve the processes that manage partnerships and consultation with tangata whenua (high certainty). The probability of changing status quo processes because of this NPS is estimated to be low-moderate – many councils may consider their processes appropriate. The consequence of these 'process' costs is only small and is well within Council's existing capabilities.	Relationships and partnerships between territorial authorities and tangata whenua are strengthened through clearer guidance on roles [Policy 1 and Part 3.3 (Engaging with Tangata Whenua)], recognising Hutia Te Rito [Policy 1 and Part 3.2 (Hutia Te Rito)] and working together on the management and protection of indigenous biodiversity [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)], (including Taonga) [Policy 12 and Part 3.14 (Identified Taonga)]. This may result in more efficient processes. This is a consequent effect of the NPSIB. *Moderate significance*.	The intent of the NPS is clear (high certainty). It will be up to Council's (and tangata whenua) to determine what the local process will be and how this might be handled differently or more effectively than existing processes. There are examples of best practice to draw upon. Sufficiency of information to confirm this effect is therefore moderate. The probability of strengthened relationships (over the status quo) is moderate-high, but the probability that this will result in greater efficiency is unknown (examples of this are needed). The consequence of achieving these benefits are high (with flow-on benefits for wider resource management practice within Councils).
	Resourcing costs (internal and external) to carry out Taonga mapping (where not already mapped) in the time specified [Policy 12 and Part 3.14 (Identified Taonga)]. This is a direct effect of the NPSIB. *Moderate significance* (TBC).	There is a low level of certainty that this cost is real given that tangata whenua have the option not to identify taonga or may not have the resources to achieve this outcome. There is however sufficient information of best practice (including mapping of sites significant to Māori) to indicate that costs will be incurred if taonga mapping is pursued. The probability that this benefit will be realised is considered moderate. The economic consequence if it is realised is low-moderate (with Council's with limited resources and a small rating base most affected).		
	Resourcing costs (internal and external) to carry out mapping/surveys (where not already mapped) of areas likely to include the presence of highly mobile fauna or at risk or threatened species in the time specified [Policy 13 and Part 3.15 (Highly Mobile Fauna)]. These direct costs of the NPSIB may be shared with Regional Councils. Includes costs to prepare and provide information to the public about highly mobile fauna. *Moderate significance*.	There is a low level of certainty that this cost is real given that councils have the option not to carry out these surveys if considered unpracticable. There is however sufficient information to know that mapping exercises incur costs (time and money). The probability that this cost will be realised is considered low-moderate, particularly if smaller councils need to focus their efforts on SNA mapping which is not optional. The economic consequence if it is realised is low-moderate (with Council's with limited resources and a small rating base most affected).		
	Resourcing costs (internal and external) costs to develop/modify provisions that manage indigenous biodiversity (including data and training to develop an appropriate evidence base) and complete a plan change to implement them in the required time period. Includes the potential cost of litigation [various]. This is a direct effect of the NPSIB. Indicatively costs may range from an estimated $200,000 for a district council that is	The NPS is clear that a plan change is expected (high certainty). There is sufficient information to confirm that developing planning provisions and completing the plan change process incurs costs (time and money). The probability of these costs occurring are high and likely to affect every council. The consequence of these costs would be reduced through comprehensive guidance and support from central government and will depend on the level of	Objectives, policies and rules to manage effects on indigenous biodiversity in SNAs and in other areas (including wetlands) will be strengthened [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)], [Policy 7 and Part 3.13 (Rules Outside SNAs)], [Policy 13 and Part 3.15 (Highly Mobile Fauna)], [Policy 5 and Part 3.19 (Assessment of Env. Effects)], [Policy 11 and Part 3.16 (Restoration and Enhancement)] and in a way that promotes resilience to climate change and biosecurity	The NPS is clear that provisions need to be aligned with the proposed policies (high certainty). The is sufficient information that operative provisions across Councils vary significantly and that they are not effective (as a whole) in stopping the decline in indigenous biodiversity. This is not to say that some Councils are not achieving positive change as a result of effective operative provisions. The probability that these benefits will be achieved is high and this will be further increased

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
	able to incorporate the plan change as part of a rolling review or with another plan change to $250,000 for a council that that carries out a standalone plan change. It is estimated that this cost might be incurred in Year 5 after the NPSIB comes into force. In present value terms (6% discount rate) this equates to between $150,000-$187,000 per district council. *Moderate significance*.	change required from operative provisions. The cost is essentially a one-off cost (with any future changes likely to be captured within district plan reviews as required by the RMA). The consequence is therefore considered moderate.	risks [Policy 3 and Part 3.5 (Resilience to Climate Change)], [Policy 2 and Part 3.5 (Precautionary Approach)] and provides for new and existing uses and development [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)], [Policy 10 and Part 3.12 (Existing Activities in SNAs)]. This is a direct effect of the NPSIB. *High significance.*	with comprehensive guidance from central government that supports the development of provisions. The consequences of achieving these benefits are high as stronger and more effective provisions are the mechanism through which environmental benefits will be achieved.
			Objectives, policies and methods will be developed/strengthened to promote the maintenance, enhancement, restoration and reconstruction of SNAs and areas that provide connectivity or buffering functions, including promotion of voluntary action [Policy 11 and Part 3.16 (Restoration and Enhancement)], [Policy 10 and Part 3.17 (Increasing Indigenous Vegetation Cover)]. This is a direct effect of the NPSIB. *Moderate significance.*	
			Reduced litigation costs in plan making and resource consents as a consequence of the NPSIB due to clear requirements and outcomes to avoid loss of indigenous biodiversity [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)], [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)], effective involvement of tangata whenua (Policy 1 and Part 3.3 (Engaging with Tangata Whenua)], national guidance on SNA identification criteria [Policy 6 and Part 3.8 (Identifying SNAs)], certainty on the location and extent of SNA, clarity on adverse effects. *Low significance*.	
			Better (and more integrated) decision making through clear policy guidance on what adverse effects on indigenous biodiversity are to be considered. Greater attention/detail provided that is specific to indigenous biodiversity in AEEs [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)], [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)], [Policy 7 and Part 3.13 (Rules Outside SNAs)], [Policy 13 and Part 3.15 (Highly Mobile Fauna)], [Policy 5 and Part 3.19 (Assessment of Env. Effects)], [Policy 4 and Part 3.4 (Integrated Approach)]. This may lead to greater efficiency gains as a consequence of the NPSIB. *Moderate significance.*	
	Potential additional consenting costs associated with applications to clear regenerated indigenous biodiversity to maintain improved pasture as a consequence of the NPSIB [Policy 10 and Part 3.12 (Existing Activities in SNAs)]. *Low significance*.	The NPS is clear on what indicators trigger a consent for clearance to maintain improved pasture – high certainty that this cost is relevant. There is low sufficiency of information on how prevalent regenerated biodiversity cover/habitats are on pastoral farming properties that do not meet the criteria of SNA. Or what constitutes a regular pattern of clearance. This may be a key issue for Councils and landowners, agreeing on what is a regular cycle of clearance and then having 'adequate' evidence to support those claims. The probability of this cost arising is low on the basis that enforcing provisions		

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
		requiring a consent will require both the land owner and the Council to have spatially explicit information on whether regenerated coverage outside of SNAs supports the habitat of threatened or at risk taxon or alluvial landforms that have not been cultivated. The consequence is low as any additional consenting cost are likely to apply to a relatively small share of total landowners.		
	Potential additional costs to council to increase funding for restoration and enhancement of depleted biodiversity environments and other areas of significant indigenous biodiversity as a consequence of the NPSIB [Policy 11 and Part 3.17 (Increasing Indigenous Vegetation Cover)]. *Low significance*.	There is low certainty of this effect. The policies do not explicitly state that Councils must fund restoration and enhancement. These is evidence that Councils already provide some funding for indigenous biodiversity projects, so this suggest that the cost is not out of scope. The probability of this cost occurring will depend on any funding that comes to councils from central government or if Councils decide to contribute additional funding to add support to the policies they are promoting. Any contributions will need to be rationalised within the overall Council budget, so the consequence of this cost is estimated to be only low.		
	Increased monitoring and reporting costs over and above the status quo [Policy 15 and Part 3.20 (Monitoring by Regional Councils)]. Includes costs to re-survey/re-map and measure change on a site by site basis. This is a direct cost of the NPSIB. *High significance*.	The requirements for monitoring are relatively specific so the certainty that this is a relevant cost is high. There is sufficient information available from Councils to indicate that monitoring and compliance is under-resourced and often ineffective. It is an area needing investment and improvement across the board. This indicates that any requirement for comprehensive monitoring will have a high probability of incurring costs as current systems are likely to be inadequate. The consequence of these monitoring requirements is expected to be high for all councils.		
Regional Councils	Costs to develop programmes and processes to allow effective iwi consultation and engagement in processes (including monitoring and reporting) [Policy 1 and Part 3.3 (Engaging with Tangata Whenua)], [Policy 1 and Part 3.2 (Hutia Te Rito)]. Opportunity cost of time and financial costs. This is a direct effect of the NPSIB. *Low significance.*	It is considered likely that changes will be needed for some councils to improve the processes that manage partnerships and consultation with tangata whenua (high certainty). The probability of changing status quo processes because of this NPS is estimated to be low-moderate – many councils may consider their processes appropriate. The consequence of these 'process' costs is only small and is well within Council's existing capabilities.	Relationships and partnerships between regional councils and tangata whenua are strengthened as a consequence of the NPSIB through clearer guidance on roles [Policy 1 and Part 3.3 (Engaging with Tangata Whenua)] and working together on the management and protection of indigenous biodiversity [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)], including Taonga [Policy 12 and Part 3.14 (Identified Taonga)], Hutia Te Rito [Policy 1 and Part 3.2 (Hutia Te Rito)] and the Regional Biodiversity Strategy [Policy 14 and Part 3.18 (Regional Biodiversity Strategies)]. This may result in more efficient processes. *Moderate significance*.	The intent of the NPS is clear (high certainty). It will be up to Council's (and tangata whenua) to determine what the local process will be and how this might be handled differently or more effectively than existing processes. There are examples of best practice to draw upon. Sufficiency of information to confirm this effect is therefore moderate. The probability of strengthened relationships (over the status quo) is moderate-high, but the probability that this will result in greater efficiency is unknown (examples of this are needed). The consequence of achieving these benefits are high (with flow-on benefits for wider resource management practice within Councils).
	Resourcing costs (internal and external) costs to develop/modify provisions that manage indigenous biodiversity (including data and training to develop an appropriate evidence base) and complete a plan change to implement them in the	The NPS is clear that a plan change is expected (high certainty). There is sufficient information to confirm that developing planning provisions and completing the plan change process incurs costs (time and money). The probability of these costs occurring are	Objectives and policies to manage effects on indigenous biodiversity, including in wetlands, will be strengthened [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)], [Policy 7 and Part 3.13 (Rules Outside SNAs)], [Policy 13 and Part 3.15 (Highly Mobile Fauna)], [Policy 11	The NPS is clear that provisions need to be aligned with the proposed policies (high certainty). The is sufficient information that operative provisions across Councils vary significantly and that they are not effective (as a whole) in stopping the decline in indigenous

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
	required time period. Includes the potential cost of litigation [various]. This is a direct effect of the NPSIB. Indicatively costs may range from an estimated $100,000 for a regional council that is able to incorporate the plan change as part of a rolling review or with another plan change to $150,000 for a council that that carries out a standalone plan change. It is estimated that this cost might be incurred in Year 6 after the NPSIB comes into force. In present value terms (6% discount rate) this equates to between $71,000-$106,000 per regional council. *Moderate significance.*	high and likely to affect every council. The consequence of these costs would be reduced through comprehensive guidance and support from central government and will depend on the level of change required from operative provisions. The cost is essentially a one-off cost (with any future changes likely to be captured within district plan reviews as required by the RMA). The consequence is therefore considered moderate.	and Part 3.16 (Restoration and Enhancement)] and in a way that promotes resilience to climate change and biosecurity risks [Policy 3 and Part 3.5 (Resilience to Climate Change)], [Policy 2 and Part 3.5 (Precautionary Approach)] and provides for new and existing uses and development [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)], [Policy 10 and Part 3.12 (Existing Activities in SNAs)]. This is a direct effect of the NPSIB. *High significance*.	biodiversity. This is not to say that some Councils are not achieving positive change as a result of effective operative provisions. The probability that these benefits will be achieved is high and this will be further increased with comprehensive guidance from central government that supports the development of provisions. The consequences of achieving these benefits are high as stronger and more effective provisions are the mechanism through which environmental benefits will be achieved.
			Objectives, policies and methods will be developed/strengthened to promote the maintenance, enhancement, restoration and reconstruction of SNAs and areas that provide connectivity or buffering functions, including promotion of voluntary action [Policy 11 and Part 3.16 (Restoration and Enhancement)], [Policy 11 and Part 3.17 (Increasing Indigenous Vegetation Cover)]. Includes setting indigenous vegetation targets for depleted environment. This is a direct effect of the NPSIB. *Moderate significance*.	
			Better (and more integrated) decision making as a consequence of the NPSIB, through clear policy guidance on what adverse effects on indigenous biodiversity are to be considered. Greater attention/detail provided that is specific to indigenous biodiversity in AEEs [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)], [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)], [Policy 7 and Part 3.13 (Rules Outside SNAs)], [Policy 13 and Part 3.15 (Highly Mobile Fauna)], [Policy 5 and Part 3.19 (Assessment of Env. Effects)], [Policy 4 and Part 3.4 (Integrated Approach)]. This may lead to greater efficiency gains. *Moderate significance*.	
			Reduced litigation costs in plan making and resource consents as a result of clear requirements and outcomes to avoid loss of indigenous biodiversity and manage adverse effects. [various]. This is a consequent effect of the NPSIB. *Low significance.*	
	Regional Council resourcing costs (internal and external) to carry out mapping/surveys (where not already mapped) of areas likely to include the presence of highly mobile fauna or at risk or threatened species in the time specified [Policy 13 and Part 3.15 (Highly Mobile Fauna)]. These direct costs as a result of the NPSIB may be shared with District Councils. Includes costs to prepare and provide information to the public about highly mobile fauna. *Moderate significance*.	There is a low level of certainty that this cost is real given that councils have the option not to carry out these surveys if considered unpracticable. There is however sufficient information to know that mapping exercises incur costs (time and money). The probability that this cost will be realised is considered low-moderate, particularly if smaller councils need to focus their efforts on SNA mapping which is not optional. The economic consequence if it is realised is low-moderate (with Council's with limited resources and a smaller rating base most affected).		
	Regional Council resourcing costs (internal and external) to facilitate/develop (where not already completed) a Regional Biodiversity Strategy in the	The NPS is clear that regional councils must develop a regional biodiversity strategy (RBS) (high certainty). There is sufficient information that developing any		

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
	time specified [Policy 14 and Part 3.18 (Regional Biodiversity Strategies)]. This should include mapping of depleted biodiversity environments so that these can be carried over to the RPS [Policy 11 and Part 3.17 (Increasing Indigenous Vegetation Cover)]. This is a direct effect of the NPSIB. Indicatively costs may range from an estimated $80,000 for a regional council that needs only to amend an existing strategy to $150,000 for a council that that needs to develop a strategy from scratch. This does not include the cost for implementation programmes identified in the strategy. It is estimated that this cost might be incurred in Year 5 after the NPSIB comes into force. In present value terms (6% discount rate) this equates to between $60,000-$112,000 per regional council. *Moderate significance*.	strategy incurs costs (time and money). The probability of it occurring is low as 11 out of 16 regions already have a RBS. However, the probability of those existing RBS needing to be modified is high (to give effect to the NPS). The development of the first strategy is expected to be the costliest, with future updates more cost effective. Overall, the economic consequence if it is realised is low-moderate (with Council's with that don't already have a strategy most affected).		
	Potential additional costs to council to increase funding for restoration and enhancement of depleted biodiversity environments and other areas of significant indigenous biodiversity as a consequence of the NPSIB [Policy 11 and Part 3.17 (Increasing Indigenous Vegetation Cover)]. *Low significance*.	There is low certainty of this effect. The policies do not explicitly state that Councils must fund restoration and enhancement. These is evidence that Councils already provide some funding for indigenous biodiversity projects, so this suggest that the cost is not out of scope. The probability of this cost occurring will depend on any funding that comes to councils from central government or if Councils decide to contribute additional funding to add support to the policies they are promoting. Any contributions will need to be rationalised within the overall Council budget, so the consequence of this cost is estimated to be only low.		
	Regional Council resourcing costs (internal and external) to develop a monitoring plan, including liaison with district councils. Increased annual monitoring and reporting costs over and above the status quo [Policy 15 and Part 3.29 (Monitoring by Regional Councils)]. Includes costs to resurvey/remap and measure change on a site by site basis. This is a direct effect of the NPSIB. Indicative costs to develop and implement a monitoring plan under the NPSIB is estimated at between $100,000 per annum for a council that already has reasonably comprehensive state of environment monitoring for indigenous biodiversity and $400,000 per annum of those councils with limited or no existing monitoring of indigenous biodiversity. In present value terms (6% discount rate) this equates to an aggregate cost of $955,000-$3,820,000 by 2050 per regional council (assuming a start year of year 6 after the NPSIB comes into force). *High significance*.	The requirements for monitoring are relatively specific so the certainty that this is a relevant cost is high. There is sufficient information available from Councils to indicate that monitoring and compliance is under-resourced and often ineffective. It is an area needing investment and improvement across the board. This indicates that any requirement for comprehensive monitoring will have a high probability of incurring costs as current systems are likely to be inadequate. The consequence of these monitoring requirements is expected to be high for all councils.		

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
Central Government	Costs to central government to develop guidance for regional and district councils on implementing the NPS. Includes guidance on resilience to climate change/precautionary approach and guidance on developing provisions for specific activities and existing activities. Guidance on mapping highly mobile fauna and developing regional Biodiversity Strategies. Costs associated with liaising with Councils in relation to guidance and support. [Policy 2 and Part 3.6 (Precautionary Approach)], [Policy 6 and Part 3.8 (Identifying SNAs)], [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)], [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)], [Policy 10 and Part 3.12 (Existing Activities in SNAs)], [Policy 3 and Part 3.5 (Resilience to Climate Change)]. This is a direct cost of the NPS. Indicatively costs may range from an estimated $2m to $3m to provide guidance and support. It is estimated that this cost might be incurred mostly in Year 1 and 2, with a third of the cost spread over Year 3 and 4. In present value terms (6% discount rate) this equates to between $1.77m-$2.65m. *Low Significance*.	There is low certainty on this first effect as the NPS does not explicitly identify guidance and support requirements from central government. There is however high certainty that MfE will incur costs associated with monitoring (as this is specified as a policy). And again, low certainty that central government will need to increase funding available for restoration projects (this is not explicit in Policy 10 and Part 3.15 (Increasing Indigenous Vegetation Cover)). There is moderately sufficient information to indicate that it would be highly beneficial and logical for central government to provide as much support to Councils as needed to help achieve the smooth and efficient implementation of the NPS and to ensure consistent outcomes. It is acknowledged that a range of methods will be needed to achieve the objectives of the NPS and helping with funding Councils to support restoration is a plausible method. There is also evidence of other NPS instruments being supported with guidance and online resources (i.e. the NPS-UDC). The probability of these costs occurring is therefore high. The consequence of these costs (to taxpayers) is expected to be low (any expenditure would need be part of an approved budget).	Greater consistency in the way that indigenous biodiversity is managed across New Zealand through resource management systems and processes. Management of indigenous biodiversity it brought "up to date" in terms of current research and best practice. Improved integrated management outcomes (consistency and linkages between planning instruments) [various], [Policy 4 and Part 3.4 (Integrated Approach)]. This is a consequent effect of the NPSIB. *High significance.*	The provisions require consistent processes and bottom lines, so there is a high degree of certainty that this is a relevant effect. There is sufficient information provided in the bundle of provisions to determine that this effect can occur. The probability that they will take place is high given the precedent set by other NPS/NES. The consequences will be significant given that continued decline in indigenous biodiversity has been attributed to inconsistent regulatory frameworks.
	Ministry for the Environment resourcing costs to collaborate with regional and district councils on monitoring data, develop national monitoring and reporting programme, undertake other information gathering, review the effectiveness of the NPS and publish findings (including making any subsequent amendments) [Policy 15 and Part 4.1 (MfE Monitoring and Review)]. This is a direct effect of the NPSIB. *Low significance*.		Greater evidence and understanding of the status of indigenous biodiversity (in aggregate and in specific areas of New Zealand) as a result of regional and district council monitoring requirements and the sharing of this information with central government, as well as Ministry for the Environment's own information gathering and monitoring. Will lead to more effective and efficient national direction and investment as a consequence of the NPSIB [Policy 15 and Part 3.20 (Monitoring by Regional Councils)], [Policy 15 and Part 4.1 (MfE Monitoring and Review)]. This is a consequent effect of the NPSIB. *High significance.*	The NPS requires specific effort to be made to monitor indigenous biodiversity at the local and regional level and for this information to feed into a national monitoring plan. High certainty that this is a relevant benefit. There is insufficient information at this stage as to what that monitoring will look like and how that will translate in better evidence-based decision making at the national level, but it is generally accepted that better information leads to better planning and decision making. The probability of this benefit occurring is moderate. Effective monitoring and reporting are a challenge for many TAs and regional councils (particularly those with limited resources). The NPS will therefore requires a step-change in monitoring practice for many. However, the consequence of achieving a robust, centralised/coordinated and current evidence base on indigenous biodiversity is highly significant.
	Potential additional costs to government to increase funding for restoration and enhancement of depleted biodiversity environments and other areas of significant indigenous biodiversity as a consequence of the NPSIB. [Policy 11 and Part 3.17 (Increasing Indigenous Vegetation Cover)]. *Low significance.*		Potential increases in the tourism value of New Zealand's natural areas as a consequence of an enhanced state of the country's indigenous biodiversity, and/or, avoided loss of tourism value as a result of maintaining current levels of indigenous biodiversity. Arises through better local and aggregate outcomes. This is a consequent effect of the NPSIB. [various] *Low significance*	Low level of certainty that this benefit is relevant. However, the country's conservation estate and the quality of New Zealand's natural capital is a key driver of international (and domestic) tourism activity. There is therefore a correlation between our indigenous biodiversity values and tourism values. There is moderate sufficient information to support this outcome. The probability of it occurring is however low as a key area of avoided loss of indigenous biodiversity is on private land and the majority of tourism value is

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
				expected to be linked to the conservation estate where the impact of the NPS is expected to be more marginal. As a result, the consequence of this benefit is expected to be low (relative to the status quo).
Landowners (Private and Crown)	Time cost to landowners to provide/facilitate access to council staff/representatives to confirm SNA boundaries and description [Policy 6 and Part 3.8 (Identifying SNAs)], [Policy 15 and Part 3.20 (Monitoring by Regional Councils)]. This is a direct effect of the NPSIB. *Low significance.*	The NPS is clear that Councils need to ground truth SNAs where practical, so there is a high level of certainty that this effect is relevant. There is sufficient evidence from case study councils that landowners commit time for on-site visits or to attend drop-in sessions. The probability that this effect will occur is high given that on-site visits at lease require landowner permission. The consequence of realising this cost is considered low, as the overall share of landowners that participate in SNA ground-truthing is generally a small share of total landowners and many farmers will be on-site the majority of the time.	Opportunities to develop closer relationship with Council through engagement to identify and map SNAs as a consequence of the NPSIB [Policy 6 and Part 3.8 (Identifying SNAs)], [Policy 15 and Part 3.20 (Monitoring by Regional Councils)]. *Low significance.*	The NPS is clear that Councils need to ground truth SNAs where practical, so there is a high level of certainty that this effect is relevant. There is sufficient evidence from case study councils that a significant portion of landowners welcomed the process and/or appreciated the opportunity to play a role in protecting SNA on their land. The probability that this effect will occur is high. The consequence of achieving this benefit is considered low, as the overall share of landowners that participate in SNA ground-truthing is generally a small share of total landowners.
	Landowners that do not volunteer access to their land may feel a loss of privacy if Council's gain entry via s333 of the RMA (as a last resort) [Policy 6 and Part 3.8 (Identifying SNAs)], [Policy 15 and Part 3.20 (Monitoring by Regional Councils)]. This is a consequent effect of the NPSIB. *Low significance.*	The NPS identifies this option and so it is available to Councils to use if required (high certainty). There is insufficient information as to whether this method has been required in previous SNA mapping exercises or is generally applied by Councils (as a last resort). The probability is considered low as it is considered likely that Council's will prefer to rely on existing desktop analysis rather than take this approach. The consequence is therefore considered to be low.		
	Cost (time and money) to landowners to participate in plan changes that relate to SNAs identified on their land, including provisions to manage effects on those SNAs [Policy 6 and Part 3.8 (Identifying SNAs)], [various]. This is a consequent effect of the NPSIB. *Low significance.*	The NPS is clear that Councils need to notify an SNA schedule and associated provisions, so there is a high level of certainty that this effect is relevant. There is sufficient evidence from case study councils that some landowners will make submissions (generally to oppose the significance status or amend the boundaries) of notified SNA maps/schedules or oppose the provisions themselves. The probability that this effect will occur is moderate as most issues of contention are expected to be resolved during ground-truthing and landowner engagement. While the costs to individual landowners might be significant, in terms of overall community wellbeing the consequence is considered low, as relative to the total number of SNA the overall share of landowners that submit on the SNA or provisions is generally a small share of total landowners.	Greater certainty on SNAs, Taonga and highly mobile fauna/threatened or at risk species, depleted biodiversity environments on their land [Policy 6 and Part 387 (Identifying SNAs)], [Policy 12 and Part 3.14 (Identified Taonga)], [Policy 13 and Part 3.15 (Highly Mobile Fauna)], [Policy 11 and Part 3.16 (Increasing Indigenous Vegetation Cover)]. This is a consequent effect of the NPSIB. *Low significance.*	The NPS requires clear and certain identification of a number of aspects of indigenous biodiversity with the use of maps. High certainty that the location and boundaries of these areas will be understood. There is sufficient evidence that 'mapping' contributes to the ability to manage resource management effects in specific locations. The probability that this benefit will be realised is high as all landowners will be able to access these maps to understand the implications for their property. The consequence is however low, given that landowners are likely to have a good (although not total) understanding already of what indigenous biodiversity is on their land and where it is found.
	Potential for increased consent costs if provisions require greater scope or details for the assessment of adverse effects on indigenous biodiversity as a consequence of the NPSIB [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)], [Policy 8 and	The NPS clearly requires that council's outline the requirements for assessing the effects on indigenous biodiversity. High certainty. There is insufficient information to determine how much additional assessment will be required over the status quo –		

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
	Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)], [Policy 7 and Part 3.13 (Rules Outside SNAs)], [Policy 5 and Part 3.19 (Assessment of Env. Effects)]. *Low significance.*	this will vary by Council and some councils have placed the onus of SNA identification on consent applicants. In those TAs the requirements may already be detailed. The probability that this cost will arise is moderate on the basis that some aspects of the assessment are still likely to be new (such as effects on Taonga or highly mobile fauna). The consequence is however low given that councils have indicated very few consents are processed each year that have effects on indigenous biodiversity, and even if this number increases as a result of the NPS, this will impact on a small share of total landowners.		
			The ecological services delivered by indigenous biodiversity (including but not limited to: nutrient cycling, carbon sequestration, soil formation, food, fuelwood, fibre, biochemicals, climate regulation, shelter, water regulation, water purification, erosion stabilisation, pollination, recreation, eco-tourism, aesthetics) will be protected and potentially enhanced, with direct and flow-on benefits to landowners and the community overall. Indigenous biodiversity in general is the natural capital on which our economy depends This is a consequent effect of the NPSIB. *High significance.* [various]	Protecting SNAs and indigenous biodiversity from damage or loss is a clear requirement of Councils under the NPS, so if there is high certainty of that outcome, then there is a high certainty that the ecosystem services will also be protected. There is sufficient evidence that indigenous biodiversity delivers these ecosystem services (significant literature base[96]). The probability that this benefit will be achieved is high given the combined effect of the policies. The consequence to individual landowners will be marginal, but over time (for future generations) and across the community as a whole, the consequences will be significant. Also a social benefit.
	Potentially greater costs for landowners to manage pest and animal incursions, and manage disruption of indigenous biodiversity by people, pets and livestock where required by regional and district council provisions to maintain indigenous biodiversity. This is a consequent effect of the NPSIB. *High significance.*	These adverse effects are clearly identified in the national direction so can be expected to flow through to regional and district policies (high certainty). There is sufficient evidence of the effects of people, pets, pests and livestock on indigenous biodiversity. The probability that costs will be higher under the NPS will depend on what level of physical protection (fencing) and pest management already occurs on both general and crown owned land, and the degree to which Councils enforce these outcomes on landowners in their provisions. A moderate probability is estimated. The consequence is considered high on the basis that these are a mixture of one-off costs (i.e. fencing) and potentially ongoing costs (pest management) for landowners that contain SNAs.		
	Opportunity costs for new subdivision, use and development on land containing SNAs where that SNA precludes these activities in total or limits the extent of what could otherwise be achieved (over and above operative rules) as a consequent effect of the NPSIB [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)], including as a result of	There are some specific impacts on indigenous biodiversity that must be avoided in SNAs. There is a moderate level of certainty that constraints to subdivision, use and development could occur. There is evidence that development and use of land has reduced the extent of SNAs (and resulted in disruptions, fragmentation and reductions (as	As a consequence of the NPSIB, the value of indigenous biodiversity is better recognised relative to other land uses [Policy 6 and Part 3.8 (Identifying SNAs)], [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)], [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)], [Policy 10 and Part 3.12 (Existing Activities in SNAs)], [Policy 13 and Part 3.15 (Highly Mobile Fauna)],	The NPS requires clear and certain identification of a number of aspects of indigenous biodiversity with the use of maps plus clear identification of what effects are to be avoided and what are acceptable to manage and what the regional strategy is for achieving indigenous biodiversity objectives. Moderate certainty that the combined effect of these approaches will lead to a

[96] Patterson MG, Cole AO 2013. "Total economic value" of New Zealand's land-based ecosystems and their services. In Dymond JR ed. Ecosystem services in New Zealand – conditions and trends. Manaaki Whenua Press, Lincoln, New Zealand.

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
	precautionary approach to uncertain information [Policy 2 and Part 3.6 (Precautionary Approach)]. Includes activities associated with national infrastructure, mineral extraction, Māori land development and dwelling development where there is no alternate house site in High SNAs where the adverse effects on the SNA would have been more than minor [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)]. Opportunity cost for employment, output and housing capacity. *Moderate significance*.	identified in the policy)). The probability that it will occur is moderate. Opportunity costs are most relevant to general, Māori land and Treaty Settlement land (62% of the country with only 20% of that with indigenous land cover (making up 30% of all indigenous land cover), and less relevant to crown and DOC land (38% of the country with 76% of that with indigenous land cover (making up 70% of all indigenous land cover)). New mining activities (in areas not already designated or zoned for mining) are likely to be limited and infrequent. SNAs on general land are expected to be relatively small and discrete pockets limited to land less suitable for land clearance, farming and development. The chances that SNA coverage is so extensive that it totally precludes use and development is considered to be very low on general land and moderate on Māori land and Treaty Settlement land. Given that, opportunity costs are most likely to be focussed on limiting use, development and subdivision (rather than precluding it). Most limitations are likely to be dealt with by the landowner with modifications and adaptions to the next best outcome. On that basis, the consequence for most activities is estimated to be low. However, in recognition of the high investment costs associated with national infrastructure, any adjustments or alternatives that may be required to avoid significant effects on SNAs may have more moderate consequences.	[Policy 5 and Part 3.19 (Assessment of Env. Effects)], [Policy 14 and Part 3.18 (Regional Biodiversity Strategies)]. *Low significance.*	clearer understanding of the values of biodiversity. There is insufficient evidence at this stage that landowners and the community overall will change their values towards indigenous biodiversity (if needed), albeit that their *actions* will need to adjust as a result of policies and rules in the district plan (where these can be enforced). The probability that this benefit will be realised is low (those most aware of the work going on around indigenous biodiversity will be those most directly impacted by it). The consequence is also low, given that landowners are likely to have a good (although not total) understanding already of what indigenous biodiversity is on their land and where it is found (marginal change over the status quo in terms of values).
	Landowners who cause minor adverse effects on SNAs will need to spend time and money to remedy, mitigate, offset of compensate lost, damaged or disturbed indigenous biodiversity as a consequent effect of the NPSIB and where not already required by district plan provisions. Includes planting, labour and maintenance costs [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)], [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)]. *Low significance.*	The effects management framework of the NPS is clear – high certainty. There is insufficient information to confirm that these requirements will be enforced if required in district plans. The probability is considered moderate – those effects associated with consents will be more likely to be enforced while unconsented damage to SNAs will only be captured through comprehensive monitoring of SNAs using site visits. The consequences are likely to be low overall, as will affect only a small share of landowners with SNAs.	Greater certainty for landowners on what effects must be avoided in SNAs [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)] or areas that may include the presence of highly mobile fauna or threatened/at risk species [Policy 13 and Part 3.15 (Highly Mobile Fauna)]. This is a consequent effect of the NPSIB. *Low significance.*	
			New uses as well as existing uses, activities and structures in SNA can continue to be maintained, upgraded, developed if those activities are to enhance the SNA, address a severe risk public health and safety, or the indigenous vegetation or habitat was established for reasons other than maintaining or enhancing indigenous biodiversity, as long as adverse effects are avoided, then remedied, then mitigated, then offset then compensated within SNAs [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)], [Policy 10 and Part 3.12 (Existing Activities in SNAs)]. This is a consequent effect of	The NPS is clear on these exceptions in Policy 6 and Part 3.8 (Managing Adverse Effects on SNAs). High certainty of effect. There is sufficient information to determine that these benefits can occur. Generally, the benefits of enabling activities like vegetation clearance for protecting public safety or maintaining structures (including on nationally significant infrastructure like the national grid) outweigh the costs to indigenous biodiversity and it is important that these functions can continue under the NPS through an effects management framework. Similarly, in recognition of pre-existing

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
			the NPSIB. No loss of employment or output. *Low significance.*	development rights and opportunities to provide for housing (on Māori owned land – already constrained in many ways - or general land), the NPS provides for these effects on Medium SNAs to be managed. The probability that these benefits will occur is high and the consequence of achieving these benefits is low-moderate, on the basis that this method primarily serves to maintain the status quo.
	National infrastructure providers, mining enterprises, Māori landowners and private property owners will need to demonstrate that they are locationally constrained and have a functional and operational need to locate in areas where they will have minor or significant effects on Medium SNAs. May add to the costs of preparing and obtaining resource consent applications [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)], particularly where national guidance does not address any uncertainty. This is a consequent effect of the NPSIB. *Low significance.*	To qualify for these exceptions, the applicants will need to establish this status. High certainty that this cost could apply. There is insufficient information at this time as to whether national guidance might reduce the onus for these stakeholders to provide this evidence or how many SNAs might qualify as Medium Significance (and where they are located). Overall, the probability is expected to be low and the consequence of providing this additional evidence (where applicable) is expected to be low, particularly given that nationally significant infrastructure proposals are already likely to have given significant consideration to proposed locations/routes prior to applying for necessary consents (and so would have this information already).	New use, development and subdivision associated with locationally constrained national infrastructure, mineral extraction and development of Māori owned land as well as development of dwellings where there is no alternative house site can occur in Medium SNAs as long as adverse effects are avoided, then remedied, then mitigated, then offset then compensated within SNAs [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)]. This is a consequent effect of the NPSIB. No loss of employment, output or housing capacity. *Moderate significance.*	
			The economic benefits associated with new subdivision, use and development in SNAs are recognised as a consequence of the NPSIB [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)]. *Low significance.*	The NPS makes a clear statement that these benefits need to be recognised in regional and district level planning provisions – high certainty. There is ample information available on the economic benefits associated with new and existing subdivision, use and development. The probability that these benefits will be achieved is high as current district plans already tend acknowledge and provide for subdivision, use and development. The consequence of achieving these benefits is low on the basis that these provisions primarily serves to maintain the status quo.
	Potential opportunity costs (employment and output) and potential additional consenting costs associated with applications by pastoral farmers to clear regenerated indigenous biodiversity to maintain improved pasture as a consequence of the NPSIB [Policy 10 and Part 3.12 (Existing Activities in SNAs)]. *Low significance.*	There is a low level of certainty that there will be opportunity costs as a result of declined consents to clear regenerated indigenous biodiversity that is not identified as an SNA, and insufficient information on the likely incidence of this. If a long period has passed since the last clearance, this may indicate a change in farm management practice (generally farms are being more efficiently managed over time) and that the land in question is less optimal to develop as pasture. The probability of both opportunity costs and additional consenting costs is considered low as is the consequence to those landowners – the regenerated area is likely to represent a small share of the overall property.	The economic benefits associated with existing activities are recognised [Policy 10 and Part 3.12 (Existing Activities in SNAs)]. This is a consequent effect of the NPSIB. *Low significance.*	
	Potential opportunity costs (employment and output) for existing activities that would otherwise continue to degrade or reduce ecological integrity in SNAs [Policy 10 and Part 3.12 (Existing Activities in SNAs)]. This is a consequent effect of the NPSIB. *Low significance.*	There is not a lot of certainty on how regional and district councils will choose to manage existing activities in response to the NPS policies. There is insufficient information on what existing activities are taking place on land containing SNAs (that may need to stop or change to avoid significant adverse effects). The probability of this effect occurring is considered low and may depend on how effective monitoring of SNAs is over time as this will help identify adverse changes that may have occurred as a result of existing activities. The consequence of this cost is expected to be low as it will affect a small proportion of landowners.	Existing activities will not be adversely affected by provisions that manage indigenous biodiversity as a consequence of the NPS if they retain the same scale, character and intensity and will not reduce or degrade the ecological integrity of an SNA [Policy 10 and Part 3.12 (Existing Activities in SNAs)]. *Low significance.*	There is not a lot of certainty on how regional and district councils will choose to manage existing activities in response to the NPS policies. The is insufficient information on what existing activities are taking place on land containing SNAs that do not cause significant adverse effects and could therefore continue. The probability of this effect occurring is considered high as it is expected that most activities will be able to continue and/or do not impact on SNAs. The consequence of this benefit is expected to be low as it will result in only a marginal change from the status quo.
	Opportunity costs (employment and output) for subdivision, use and development on land containing indigenous biodiversity that this not	There are some specific impacts on indigenous biodiversity that must be managed outside of SNAs. There is a moderate level of certainty that	Greater certainty for landowners on what effects must be managed outside of SNAs [Policy 7 and Part 3.13 (Rules Outside SNAs)] or in areas that may include the presence	The NPS is clear that regional and district councils must develop policies (and maps) that give effect to these outcomes. High certainty that landowners will be better

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
	identified as an SNA where provisions precludes these activities in total or limit the extent of what could otherwise be achieved (over and above operative rules) as a consequence of the NPSIB [Policy 7 and Part 3.13 (Rules Outside SNAs)]. *Low significance*.	constraints to subdivision, use and development could occur. There is evidence that development and use of land has reduced the extent of biodiversity outside of SNAs. The probability that it will occur is moderate, although the probability that activities will be totally precluded is very low. Opportunity costs are most relevant to general, Māori land and Treaty Settlement land (as discussed above re opportunity costs in SNAs). Most limitations are likely to be dealt with by the landowner with modifications and adaptions to the next best outcome. On that basis, the consequence for most activities is estimated to be low.	of highly mobile fauna or threatened/at risk species [Policy 14 and Part 3.15 (Highly Mobile Fauna)]. This is a consequent effect of the NPSIB. *Low significance.*	informed. There is sufficient information from best practice that landowner can be effectively informed by strategies and plan provisions. Councils can also provide information in other formats that help build understanding and certainty for landowners and the community in general. The probability of these benefits being realised is high. The consequence of greater certainty is low (when assessed on its own, but in combination with provisions that influence actions, the consequences become relatively more significant).
	Potential opportunity costs (employment and output) for alternative uses of land in areas to be restored/enhanced as a consequence of the NPSIB due to targets set in regional policy statements to increase vegetation cover [Policy 11 and Part 3.17 (Increasing Indigenous Vegetation Cover)]. *Low significance*.			
	Landowners who cause adverse effects on indigenous biodiversity outside of SNAs will need to spend time and money to remedy, mitigate, offset of compensate lost, damaged or disturbed indigenous biodiversity. This is a consequent effect of the NPSIB. Includes planting, labour and maintenance costs [Policy 7 and Part 3.13 (Rules Outside SNAs)]. *Low significance.*			
	Potentially greater costs for landowners to voluntarily enhance, restore or reconstruct indigenous biodiversity on their land in response to this being promoted by regional and district councils and the Regional Biodiversity Strategy, or greater costs to enhance, restore or reconstruct indigenous biodiversity if imposed as a condition of a consent [Policy 11 and Part 3.16 (Restoration and Enhancement)], [Policy 11 and Part 3.17 (Increasing Indigenous Vegetation Cover)], [Policy 14 and Part 3.18 (Regional Biodiversity Strategies)]. This is a consequent effect of the NPSIB. *Low significance.*	There is low certainty for this effect. These is insufficient information on whether identifying opportunities for restoration, promoting restoration or setting targets for restoration will translate into voluntary restoration efforts by private landowners. The provisions may however help ensure that any voluntary restoration that would have happened under the status quo is more effective in achieving biodiversity outcomes. The probability of this cost occurring (i.e. increasing over and above the status quo) is considered low but would rise if there were incentives provided to these landowners. The consequence is considered to be low as would likely to be limited to very few landowners who had the willingness and financial ability to carry out voluntary restoration.	Greater certainty for landowners of areas identified for protection, enhancement, restoration and the actions being undertaken regarding those areas and the methods available as a consequence of the NPS [Policy 14 and Part 3.18 (Regional Biodiversity Strategies)], [Policy 11 and Part 3.16 (Restoration and Enhancement)], [Policy 11 and Part 3.17 (Increasing Indigenous Vegetation Cover)]. *Low significance.*	
			Potential for increased support/incentives/economic benefits for landowner-based indigenous biodiversity restoration and enhancement and consequent effect of the NPS. [Policy 3 and Part 3.5 (Resilience to Climate Change)], [Policy 14 and Part 3.18 (Regional Biodiversity Strategies)], [Policy 11 and Part 3.16 (Restoration and Enhancement)]. May include cash funding [Policy 11 and Part 3.16 (Increasing Indigenous Vegetation Cover)]. *Low significance.*	There is low certainty for this effect. There is some information that Councils have or have had in the past contestable funds to help with restoration projects. There is also examples of transferable development rights where landowner protect natural resources. There is however nothing explicit in the NPS that states that Councils must provide new or additional financial support and/or other development incentives. The probability of this occurring is considered low and may be unachievable for some councils with a small rating base (especially given other implementation costs of the NPS). The consequence is considered to be low as would likely to benefit relatively few property owners, as a share of the total containing SNAs.
Private Sector Businesses			Businesses that provide native plants or planting services may experience increased demand as a consequence of the NPSIB [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)], [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)], [Policy 11 and Part 3.17 (Increasing Indigenous Vegetation Cover)]. Opportunities for added employment/economic growth. *Low*	There is moderate certainty of these benefits being realised. There is sufficient information from case study councils that external ecologist experts are relied upon solely or in addition to in-house ecologists to assist with SNA identification, consenting, enforcement and monitoring. More so for the smaller councils. To the extent that any restoration efforts increase, this will

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
			significance. There are also costs of production associated with this benefit.	increase demand for native plants. Similarly, should there be increased demand to protect SNAs from stock (for example), then demand for fencing would increase, etc. This increased demand provides opportunities for businesses supplying those services. The probability of the benefits arising is high. Overall the consequences will be low (benefiting a very small share of the economy).
			Businesses that provide fencing and pest management services may experience increased demand as a consequence of the NPSIB [various]. Opportunities for added employment/economic growth. *Low significance.*	
			Greater demand for ecological experts to service demands from Councils and landowners. Opportunities for additional employment and earnings as a consequence of the NPS [Policy 6 and Part 3.8 (Identifying SNAs)], [Policy 13 and Part 3.15 (Highly Mobile Fauna)], [Policy 5 and Part 3.19 (Assessment of Env. Effects)], [Policy 15 and Part 3.20 (Monitoring by Regional Councils)], [various]. Opportunities for added employment/economic growth. *Low significance.*	
			Greater certainty and consistency and efficiency for businesses (and sectors) who operate over multiple regions [Policy 6 and Part 3.8 (Identifying SNAs)], [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)], [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)]. Reduced advocacy costs as a consequence of the NPSIB. *Low significance.*	The certainty of the effect is moderate. There is insufficient information on what sectors or businesses operate over multiple regions. Forestry is likely to be relevant here. For providers of national network infrastructure (such as Transpower, NZTA), this benefit may be highly relevant. The probability that greater consistency will be achieved, and that this will lead to cost savings is considered moderate. The consequence (in terms of savings) is considered low (when balanced against the litigation costs that might also be generated by the NPS across the country).
NGOs	Potentially greater costs for NGOs to voluntarily enhance, restore or reconstruct indigenous biodiversity in response to this being promoted by regional and district councils and the Regional Biodiversity Strategy [Policy 11 and Part 3.16 (Restoration and Enhancement)], [Policy 14 and Part 3.18 (Regional Biodiversity Strategies)]. This is a consequent effect of the NPSIB. *Low significance.*	There is low certainty for this effect. These is insufficient information on whether identifying opportunities for restoration, promoting restoration or setting targets for restoration will translate into increased voluntary restoration efforts by NGOs. The provisions may however help ensure that any voluntary restoration that would have happened under the status quo is more effective in achieving biodiversity outcomes. The probability of this cost occurring (i.e. increasing costs over and above the status quo) is considered low but would rise if there was increased funding available to help cover the costs of materials. The consequence to NGOs is considered to be low on the basis that any increase in restoration projects will be limited to the time and financial capacity of those organisations over and above the status quo. I.e. they will only incur the costs that they can afford.	Greater certainty for NGOs of areas identified for protection, enhancement, restoration and the actions being undertaken regarding those areas and the methods available. Will allow greater coordination of operations and more effective prioritisation of efforts [Policy 14 and Part 3.18 (Regional Biodiversity Strategies)]. Greater certainty of progress being made through monitoring reports, including the positive collective impact (or not) of their actions and effectiveness [Policy 15 and Part 3.20 (Monitoring by Regional Councils)]. This is a consequent effect of the NPSIB. *Low significance.*	There is a high level of certainty that NGOs focussed on restoration projects will better informed and prepared on where to focus their efforts and the methods available for that. There is however a low level of certainty that they will receive any additional support as a result of the NPS. There is some information that Councils have or have had in the past contestable funds to help with restoration projects. There is however nothing explicit in the NPS that states that Councils must provide new or additional financial support or support in kind. The probability of this occurring is considered low and may be unachievable for some councils with a small rating base (especially given other implementation costs of the NPS). The consequence is considered to be moderate if NGOs could achieve greater support as this is likely to be a very effective and efficient way to make restoration gains across the country (i.e. investing in those organisations that have the expertise, resources and community backing).
			Potential for increased financial and logistical support for NGO-based indigenous biodiversity restoration projects as a consequence of the NPSIB. Benefits for building social connections and sense of belonging through community activities [Policy 3 and Part 3.5 (Resilience to Climate Change)], [Policy 14 and Part 3.18 (Regional Biodiversity Strategies)], [Policy 11 and Part 3.16 (Restoration and Enhancement)]. May include cash funding [Policy 11 and Part 3.16 (Increasing Indigenous Vegetation Cover)]. *Moderate significance given that achieving restoration targets might fall to NGOs and the aggregate outcome of this work is significant*.	

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
			Potentially reduced need for litigation on ecological bottom lines now set through the NPSIB. Cost savings on advocacy. *Low significance*.	
SOCIAL				
These are all consequent effects of the NPSIB.	Forgone opportunities and lost flexibility where household behaviour must change as a result of more restrictive local/regional regulation around the effects on indigenous biodiversity [various]. *Moderate significance given that achieving objectives will require a national effort.*		The values and state of New Zealand's indigenous biodiversity are better understood, including the values of highly mobile fauna. Improved levels of social responsibility towards indigenous biodiversity, including for future generations [Policy 6 and Part 3.7 (Identifying SNAs)], [Policy 6 and Part 3.8(1) (Managing Adverse Effects on SNAs)], [Policy 12 and Part 3.13 (Highly Mobile Fauna)], [Policy 13 and Part 3.16 (Regional Biodiversity Strategies)], [Policy 5 and Part 3.17 (Assessment of Env. Effects)], [Policy 14 and Part 3.18 (Monitoring by Regional Councils)]. *Moderate significance given that achieving objectives will require a national effort.*	The certainty of these effects is low-moderate. These outcomes are highly dependent on how Councils communicate with ratepayers and how government generally communicates on the progress being achieved (or otherwise) with regards to indigenous biodiversity management (at a wider public level). There is insufficient information in the NPS provisions on how regulatory methods will be supported with non-regulatory methods, as both will lead to a greater probability of these benefits occurring. It is estimated that probability of these benefits being realised is moderate (and would require a step change in the general publics' understanding of the state of indigenous biodiversity. The consequence of these benefits being achieved would (in aggregate) be significant because that could be New Zealand wide.
			The impacts of activities, including subdivision, use and development, on indigenous biodiversity are better understood. Greater stewardship/kaitiaki of natural resources [Policy 6 and Part 3.7 (Identifying SNAs)], [Policy 6 and Part 3.8(1) (Managing Adverse Effects on SNAs)], [Policy 14 and Part 3.18 (Monitoring by Regional Councils)]. *Moderate significance.*	
			The social benefits associated with new subdivision, use and development in SNAs are recognised [Policy 8 and Part 3.8(2 & 3) (Managing Adverse Effects on SNAs)], including on Māori owned land. *Low significance.*	
			The social benefits associated with existing activities are recognised [Policy 9 and Part 3.10 (Existing Activities in SNAs)]. *Low significance.*	
			Intrinsic value of indigenous biodiversity and highly mobile fauna is maintained for future generations. *High significance.*	
			Greater pride in New Zealand's natural capital. *Low significance.*	
			Current and future communities can continue to access and experience indigenous biodiversity (to the extent that this resource is not diminishing over time. Recreational, educational, scientific, historical, amenity, landscape and natural character values associated with areas of indigenous biodiversity are maintained (and potentially enhanced) [various]. *High significance.*	There is a high level of certainty that this is a relevant effect. There is sufficient evidence that these direct and indirect use values of indigenous biodiversity are important for social wellbeing. The probability that they will be maintained or potentially enhanced is high given the overarching requirements of the RMA, the role of councils and the multi-pronged approach to achieving national biodiversity objectives, including the clear policy direction provided by the NPS. It may however take some time to measure these benefits (as it will to determine the success of the NPS in avoiding further losses of indigenous biodiversity. The consequences will be significant if achieved.
	Potential for increased costs for those members of the community that engage in council processes	Policy 13 and Part 3.16 (Regional Biodiversity Strategies) in particular specifies community	Greater certainty for the community of areas identified for protection, enhancement, restoration and the actions	As above for landowners and NGOs, there is a high level of certainty that the NPS will result in a greater

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
	required under the NPSIB. Includes travel and time costs. May include resource costs and costs of professionals to support community-based feedback [Policy 14 and Part 3.18 (Regional Biodiversity Strategies)], [Policy 15 and Part 3.20 (Monitoring by Regional Councils)]. *Low significance*.	engagement so there is a high degree of certainty that some community engagement will be included in council processes. There is sufficient evidence that community engagement and consultation is best practice and regularly employed by Councils. The probability of this effect occurring is high, but the portion of society that tends to participate in local government engagement is expected to be only small. Those most likely to participate will be those with a strong interest, are directly affected, and have the time and resources to provide feedback and be involved. The consequences of this cost are considered low in that community participation is not mandatory (i.e. it is volunteered).	being undertaken regarding those areas and the methods available [Policy 14 and Part 3.18 (Regional Biodiversity Strategies)]. Social benefits associated with input to local government processes/sense of contribution to local biodiversity outcomes [Policy 11 and Part 3.16 (Restoration and Enhancement)], and sense of achievement where monitoring demonstrates positive change [Policy 15 and Part 3.20 (Monitoring by Regional Councils)]. *Low significance.*	understanding of the areas within communities that need to be restored and how that can be achieved. To achieve this across the whole community, will require Councils to promote and share this information in a number of ways. There is sufficient information from case study councils of positive feedback from the community on approaches to identify SNAs and better protect natural capital, and of community involvement directly in those regulatory processes where relevant. The probability of these outcomes is considered low-moderate. The consequences are considered low in the context of costs and benefits of the NPS.
			Potential for increased financial and logistical support for community-based indigenous biodiversity restoration projects. Benefits for building social connections and sense of belonging through community activities [Policy 3 and Part 3.5 (Resilience to Climate Change)], [Policy 14 and Part 3.18 (Regional Biodiversity Strategies)], [Policy 11 and Part 3.16 (Restoration and Enhancement)]. May include cash funding [Policy 11 and Part 3.17 (Increasing Indigenous Vegetation Cover)]. *Low significance.*	There is a low level of certainty that community-based restoration projects will receive any additional support as a result of the NPS. There is some information that Councils have or have had in the past contestable funds to help with restoration projects. There is however nothing explicit in the NPS that states that Councils must provide new or additional financial support or support in kind. The probability of this occurring is considered low and may be unachievable for some councils with a small rating base (especially given other implementation costs of the NPS). The consequence of building social connections through participation in restoration projects is considered to be low as it will be a small share of the total population that is actively involved (over and above the status quo).
CULTURAL				
	There will be a cost for iwi/hapu to resource engagement and consultation in the development of provisions as well potential involvement in decision making and management of indigenous biodiversity [Policy 1 and Part 3.2 (Hutia Te Rito)], [Policy 1 and Part 3.3 (Engaging with Tangata Whenua)], [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)], [Policy 5 and Part 3.19 (Assessment of Env. Effects)], [Policy 14 and Part 3.18 (Regional Biodiversity Strategies)] and to work with Councils to identify and protect Taonga species [Policy 1 and Part 3.3 (Engaging with Tangata Whenua)], [Policy 6 and Part 3.8 (Identifying SNAs)], [Policy 12 and Part 3.14 (Identified Taonga)], develop monitoring approaches, and monitor outcomes [Policy 15 and Part 3.20 (Monitoring by Regional Councils)]. There will be an opportunity cost of time and potential financial costs, including costs to improve capabilities in this area. These are direct costs of the NPSIB. *High significance on the basis that*	There is a high certainty of these costs. The NPS is clear that there should be significant engagement and collaboration with tangata whenua and involvement of tangata whenua is key resource management processes. There is insufficient information on how well resourced tangata whenua are – across the country – to cope with this additional involvement over and above the status quo. The probability that these costs will arise are high. Any guidance provided by government could help reduce costs. The consequences of these costs for those that are involved may be high, particularly if their time and resources are already stretched (i.e. cumulative effects).	The concepts of Te Ao Māori, matauranga Māori and Tikanga Māori play a bigger role in decision making affecting indigenous biodiversity [Policy 1 and Part 3.3 (Engaging with Tangata Whenua)], [Policy 5 and Part 3.19 (Assessment of Env. Effects)], [Policy 14 and Part 3.18 (Regional Biodiversity Strategies)], [Policy 15 and Part 3.20 (Monitoring by Regional Councils)]. This is a direct effect of the NPSIB. *High significance.* The Mauri of the land is enhanced and protected. The connection between nature (te taiao) and cultural wellbeing is maintained as a consequence of the NPS. Te Ao Maori worldview: people and nature inextricably linked. Protection of nature protects people [Policy 1 and Part 3.2 (Hutia Te Rito)]. *High significance.* Relationships and partnerships between tangata whenua and local authorities and regional councils are strengthened through clearer guidance on roles as a consequence of the NPSIB [Policy 1 and Part 3.3 (Engaging with Tangata Whenua)]. *Moderate significance.* Taonga (species, population and ecosystems) are protected for future generations [Policy 6 and Part 3.8	The NPS is relatively clear on this outcome so certainty is moderate. It will be up to Council's and tangata whenua to determine what the local process/approaches will be and how this might be handled differently or more effectively than existing processes/approaches. There are examples of best practice so there is sufficient information to determine that this effect can take place. The probability that it will take place will depend on both the Council and local iwi/hapu to make it happen and this may vary across Councils. The consequence of achieving these benefits are high (with flow-on benefits for wider resource management practice within Councils).

Type/Issue	Costs	Notes (certainty, sufficiency, consequence, probability)	Benefits	Notes (certainty, sufficiency, consequence, probability)
	resourcing this involvement may be spread over relatively few tangata whenua representatives.		(Identifying SNAs)], [Policy 1 and Part 3.3 (Engaging with Tangata Whenua)], [Policy 12 and Part 3.14 (Identified Taonga)], [Policy 5 and Part 3.19 (Assessment of Env. Effects)]. This is a consequent effect of the NPSIB. *High significance*. As a consequence of involvement of tangata whenua in the management of indigenous biodiversity, the ability for tangata whenua to exercise customary practices may be enhanced (i.e. customary take) [Policy 1 and Part 3.3 (Engaging with Tangata Whenua)], [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)], [Policy 12 and Part 3.14 (Identified Taonga)], [Policy 15 and Part 3.20 (Monitoring by Regional Councils)]. *Low significance.*	
	Potential impacts on cultural wellbeing where there are opportunity costs for new subdivision, use and development on Māori land containing SNAs where that SNA precludes these activities in total or limits the extent of what could otherwise be achieved (over and above operative rules) [Policy 6 and Part 3.9(1) (Managing Adverse Effects on SNAs)], including as a result of precautionary approach to uncertain information [Policy 2 and Part 3.6 (Precautionary Approach)]. Includes activities associated Māori land development in High SNAs where the adverse effects on the SNA would have been more than minor [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)]. This is a consequent effect of the NPSIB. *Moderate significance.*	There are some specific impacts on indigenous biodiversity that must be avoided in SNAs. There is a moderate level of certainty that constraints to subdivision, use and development could occur. There is evidence that development and use of land has reduced the extent of SNAs (and resulted in disruptions, fragmentation and reductions (as identified in the policy)). The probability that it will occur is moderate. Opportunity costs are especially relevant for Māori land property. The chances that SNA coverage is so extensive that it totally precludes use and development is considered to be moderate on Māori land. Given that, opportunity costs are most likely to be focussed on limiting use, development and subdivision, but with some instances of totally precluded activity. Most limitations are likely to be dealt with by the custodians through modifications and adaptions to the next best outcome. On that basis, the consequence for <u>most</u> activities is estimated to be low. However, in a small amount of cases the consequences could be high and adversely affect the ability of tangata whenua to achieve the benefits of developing papakainga and further connecting to their land.	The cultural benefits associated with new subdivision, use and development in SNAs are recognised [Policy 8 and Part 3.9(2 & 3) (Managing Adverse Effects on SNAs)], including the benefits of providing for papakainga, marae and ancillary community facilities on Māori owned land. This is a consequent effect of the NPSIB. *Low significance*. Planning incentives may (at the discretion of councils) be offered to Māori landowners where they face opportunity costs associated with protecting biodiversity as a consequence of the NPS. This may enable more intensive development of land outside of SNAs. *Moderate significance.* The cultural benefits associated with existing activities are recognised [Policy 10 and Part 3.12 (Existing Activities in SNAs)] as a consequence of the NPSIB. *Low significance*.	The NPS makes a clear statement that these benefits need to be recognised in regional and district level planning provisions – high certainty. There is ample information available on the cultural benefits associated with new and existing use and development of Māori Land. The probability that these benefits will be achieved is high as current often acknowledge and provide for development on Māori Land (see for example the proposed Far North District Plan where Maori land is provided for as a specific zone). The consequence of achieving these benefits is low on the basis that these provisions primarily serve to maintain the status quo.

Appendix B:

Case study monetised implementation cost analysis

CASE STUDY MONETISED IMPLEMENTATION COST ANALYSIS

This appendix provides detail on the approach used to determine indicative cost ranges for council to implement selected provisions of the NPSIB to help inform the indicative CBA. These implementation costs cover the provisions requiring SNAs to be mapped (Policy 6, Part 3.8, Appendix 1 and 2), regional biodiversity strategies (Policy 14, Part 3.18, Appendix 5), monitoring plans to be prepared (Policy 15, Part 3.20), and regional policy statements and district plans to be changed (numerous provisions). It also provides estimates of costs to central government to support the implementation of the NPSIB through guidance and targeted support.

SNA Mapping Costs – Methodology

To estimate the costs to implement the provisions in the NPSIB to identify SNAs using a national consistent process and ecological significance criteria, approximate SNA mapping costs were collected and assessed from both Auckland Council (which excludes the Hauraki Gulf Islands) and Waikato District Council. The Waikato District Council costs took account of the regional council costs to do preliminary SNA mapping, which have been apportioned to Waikato District Council. These two councils applied slightly different approaches to identify SNAs (as discussed in **Section 9**) but both approaches are reasonably aligned with the NPSIB requirements to identify SNAs. The two districts have the least amount of indigenous land cover within the six case studies.

Cost estimates for SNA mapping were also sourced from Tasman District Council and Far North District Council. Tasman District Council are part way through their SNA mapping process. Far North District Council are in the early stages of their SNA mapping process (collaborating with Whangarei and Kaipara District Councils) but have some estimates for external consulting costs. Far North District Council had anticipated replicating the Waikato District process, although this is unlikely to provide the level of ground-truthing that the NPSIB will require.

For the purpose of the CBA, Auckland SNA mapping costs were determined to be the most accurate and indicative estimates of what might be anticipated to identify SNAs in accordance with the NPSIB requirements. To apply this cost to the other case studies, a ratio of Auckland costs per ha of terrestrial indigenous land cover (excluding the Gulf Islands) was calculated and multiplied by the current indigenous biodiversity cover (ha) in each of the case study councils. The cost estimate for SNA mapping captures the following broad components:

- Desktop analysis / data management / overlay production;
- Internal staff time (ecologists/planners)
- External ecologist costs / site visits; and
- Engagement and communication with landowners.

Applying the Auckland cost ratio to total indigenous land cover provides an indication of what additional cost Auckland Council might face (for example) to roll out their current SNA mapping process for the Hauraki Gulf Islands and also what additional costs Waikato District might face to carry out some additional ground-truthing to meet the NPSIB requirements. These net additional costs were considered to show a reasonable order of magnitude of costs to give effect to the provisions in the NPSIB relating to SNA identification relative to costs already incurred by each council to map SNAs.

However, applying the Auckland ratio to the indigenous land cover in Tasman, Westland, Southland and Far North districts generated significant cost estimates that were not considered reasonable and far exceeded the estimates provided by Far North District Council and Tasman District Council. The reason that the simple cost ratio generated such high (and unpractical) costs is because these four case studies have considerably more indigenous land cover than Auckland, and a significant share of that cover is administered by DOC. Some broad assumptions are therefore required to provide an indicative range of costs that can be expected to give effect to the NPSIB provisions to identify SNAs.

One area that has a significant impact on the results is whether SNA identification on the DOC administered land is required to follow the standard process in the NPSIB or a different process/timeframe is provided for. This is discussed in more details in relation to assessment of the NPSIB provisions to identify SNAs in **section 7** of this report. The indicative cost range for SNA identification below assumes, for the purpose of the indicative CBA, that a different and more simple process will be applied to identify SNAs on DOC administered land, such as desktop identification without

ground-truthing. However, it is important to note that the approach to identify SNAs on DOC administered land has yet to be confirmed by officials and may change as a result of feedback through public consultation.

As such, the indicative range of one-off costs to carry out SNA mapping in accordance with the NPSIB provisions (where no schedule exists) is estimated at between:

- Lower end - $700,000: this assumes a collaborative process with small amounts of indigenous land cover relative to the average of all districts/unitary authorities; and
- Higher end - $1,300,000: this assumes non-collaborative process (i.e. no resource/expert sharing or sharing of funding between councils within a region)) with large amounts of indigenous land cover relative to the average of all districts/unitary authorities).

These costs are assumed to be wholly borne by district councils, although it is acknowledged that regional councils are likely to provide some support for this process (e.g. technical input and/or assistance with funding).

Requirement under NPSIB	Impacted Party	Low ($)	Notes	High ($)	Notes	Year Applicable *(nb. 2020 estimated Year 1)*	Present Value 2020-2050 (6% Discount Rate)
SNA Mapping with Schedule	District Councils	$ 700,000	Assumes collaborative approach within Region and relatively small amount of indigenous cover. Full process, not amendments.	$ 1,300,000	Assumes non-collaborative approach and large amount of indigenous cover. Assumes no groundtruthing of DOC managed land. Full process, not amendments.	Spread over Yr 1-5	$590,000-$1,095,000

Indicative estimates only, to be confirmed/refined following public consultation.

For clarity, these one-off costs are to carry out SNA mapping when no SNA mapping has previously been completed (i.e. they are gross costs to give effect to the NPSIB). The actual costs that will be incurred by councils to give effect to the NPSIB will vary significantly based on whether they have identified SNAs, the completeness of their SNA schedule, and how aligned that SNA identification and mapping process is with the NPISB requirements. The review of district plan schedules combined with further evidence on the costs of SNA identification though consultation may allow these costs to be estimated at a national (aggregate) level.

Feedback from case study councils has confirmed that the effort and cost to undertake SNA mapping was spread over several years (including up to 10 years so far for Tasman District). For the purpose of the CBA, it has been assumed that SNA mapping costs above would be spread evenly over four years (i.e. years 1-5 after the NPSIB comes into force) to meet the timeframes in the NPSIB (Part 3.8(3)). This would then allow the plan change that includes the SNA mapping to be notified in year six in accordance with Part 3.8(6). In present value terms, the cost per district council is indicatively between $606,000-$1,126,000 (6% discount rate).

Biodiversity Strategy – Methodology

The estimated cost range below is based on feedback from two case study councils. At the lower end of the range is an indicative cost ($80,000) to amend an existing biodiversity strategy to meet NPSIB requirements, while the upper range reflects the cost ($150,000) to develop a new strategy (where there is no existing strategy). The one-off cost is borne by regional (or unitary) councils in accordance with Policy 14 and Part 3.18 of the NPSIB.

While territorial authorities, tangata whenua, communities and other stakeholders are expected to work with the regional councils to assist in developing the strategy, no additional monetary costs are identified for those parties for the purpose of Policy 14. There is a cost in terms of their time and there is likely to be direct costs in terms of travel (time and resource costs are identified in the high-level CBA (**Appendix A**), but there are also benefits arising from participating in these resource management processes. Relative to other costs potentially faced (directly or indirectly) by those other parties from the NPSIB, contributing to the development of a regional biodiversity strategy is not considered to be significant.

Policy 14, Part 3.18 and Appendix 5 requires that regional biodiversity strategies provide a comprehensive record of all areas identified for protection, restoration and enhancement, as well as all actions being taken and all methods available to achieve protection, restoration and enhancement. This scope relates to the provisions in the NPSIB

relating to the restoration and enhancement of specific areas and environments of indigenous biodiversity. For clarity, the costs below relate to the preparation and release of the biodiversity strategy document that articulates these indigenous biodiversity protection, restoration and enhancement actions, but excludes the costs associated with those actions. The indicative costs also exclude any implementation programmes that may be developed as a result of the regional biodiversity strategy in each region.

Requirement under NPSIB	Impacted Party	Low ($)	Notes	High ($)	Notes	Year Applicable *(nb. 2020 estimated Year 1)*	Present Value 2020-2050 (6% Discount Rate)
Biodiversity Strategy	Regional/ Unitary Councils	$ 80,000	Assumes amendment of existing strategy. Preparation of strategy document only, no implementation programme costs. Excludes any mapping specified in other policies.	$ 150,000	Assumes totally new strategy. Preparation of strategy document only, no implementation programme costs. Excludes any mapping specified in other policies.	Yr 5	$60,000-$112,000

Indicative estimates only, to be confirmed/refined following public consultation.

The NPSIB requires that regional councils that do not have biodiversity strategies must initiate the preparation of the strategy within three years of the commencement date (i.e. when the NPSIB comes into force) and must complete it within five years of that date. Where a regional council has a strategy, this must be updated to comply with Appendix 5 of the NPSIB within six years of commencement date. For the purpose of the indicative CBA, it has been assumed that the strategies would be developed and implemented in 2024 (which equates to year five following anticipated gazettal of the NPSIB in 2020). Applying a discount rate of 6%, the present value cost of developing regional biodiversity strategies under the NPSIB is estimated at between $60,000-112,000 per regional council/unitary authority.

Regional Monitoring – Methodology

Part 3.20 of the NPSIB requires regional councils to develop a monitoring plan for indigenous biodiversity in its region to implement Policy 15 (monitoring and assessment of indigenous biodiversity). Developing the monitoring plan itself would be a one-off cost but the benefits of the plan will only be realised once it is implemented as a monitoring programme. Accounting for just the preparation of the plan therefore does not account for the full range of costs expected under Policy 15 and Part 3.20. Understanding the implementation costs of these monitoring requirements for regional councils in the NPSIB also needs to recognise that currently many councils do little or no state of environment monitoring for indigenous biodiversity and Part 3.20 will require a much more proactive monitoring approach for indigenous biodiversity in each region. As such, the estimated cost range below represents both the initial costs to prepare the monitoring plan and the implementation of the plan on an annual basis over the long-term.

The estimated annual cost range is based on feedback from three case study councils. At the lower end of the range is an indicative cost ($100,000) to amend existing state of environment monitoring processes and reporting to meet NPSIB requirements, while the upper range reflects the cost ($400,000) to develop and implement a new monitoring plan (where there is currently little monitoring of indigenous biodiversity). The cost is borne by regional councils or unitary authorities in accordance with Policy 15 and Part 3.20.

Requirement under NPSIB	Impacted Party	Low ($)	Notes	High ($)	Notes	Year Applicable *(nb. 2020 estimated Year 1)*	Present Value 2020-2050 (6% Discount Rate)
SOE Monitoring	Regional/ Unitary Councils	$ 100,000	Assumes only limited addition to status quo scope of monitoring.	$ 400,000	Assumes limited or no existing monitoring of indigenous biodiversity.	Y6 Onwards	$955,000-$3,820,000

Indicative estimates only, to be confirmed/refined following public consultation.

While district councils, tangata whenua and other relevant agencies are expected to work with the regional councils to assist in developing the monitoring plan, no additional monetised costs are identified for those parties for the

purpose of estimating the implementation costs of Policy 15 and Part 3.20. Relative to other costs potentially faced (directly or indirectly) by those other parties from the NPSIB, contributing to the development of a regional monitoring plan is not considered to be significant. As above in relation to regional biodiversity strategies, these costs are expected to be mainly time and travel costs for a relatively small number of stakeholders in each region (with associated benefits arising from that involvement).

For clarity, the above indicative cost range does not include additional *compliance* monitoring costs for councils under the NPSIB. This is a separate cost that has not been quantified. Compliance monitoring is a core function of councils and the NPSIB does not propose to change this in any way. However, it is a relevant consideration because the NPSIB is anticipated to result in a greater number of consent applications being processed that relate to indigenous biodiversity and potentially more stringent permitted activity conditions. The increase in consent applications is likely to be relatively small in practice and feedback from case study councils is that there are very low numbers of resource consents required for indigenous biodiversity damage/clearance currently.

There are no specific timeframes in the NPSIB for regional councils to develop the monitoring plan so it falls within the general requirement to give effect to the NPSIB as soon as practicable and no later than 2028. For the purpose of the indicative CBA, it has been assumed that regional council led indigenous biodiversity monitoring to give effect to Policy 15 and Part 3.20 would be underway from year six of the NPSIB coming into force (i.e. estimated at 2025). It is also assumed to be an annual and ongoing cost. At a discount rate of 6%, the present value cost of comprehensive annual regional monitoring of indigenous biodiversity under the NPSIB is estimated at between $955,000-3,820,000 per regional councils/unitary authority up to and including the year 2050.

District and Regional Plan Changes – Methodology

The estimated cost range below is based on an analysis of plan change cost data extracted from the National Monitoring System (**NMS**) which related to plan changes that gave effect to a national planning instrument. The NMS data covered a three-year period and was divided into both district plan changes that gave effect to national instruments (the NPS for renewable energy generation and electricity transmission) and regional policy statement/regional plan changes that gave effect to national instruments (the NPSFM). While some plan change costs were considered more likely to represent the scale of a plan change potentially required under the NPSIB, the costs of the plan changes varied significantly, so further assumptions were required.

The following estimates reflect indicative cost savings where giving effect to the NPSIB can be incorporated into a full plan review (where timing and resources allows) or combined with another plan change and a higher cost where it is standalone plan change. For district councils, changes to district plans to give effect to the NPSIB is estimated at between $200,000-250,000 as the NPSIB is focused on indigenous biodiversity in the terrestrial environment and many of the NPSIB policies are directed at territorial authorities. For regional councils, a change to the regional policy statement/regional plan to give effect to the NPSIB is estimated at between $100,000-150,000. For unitary authorities, plan change costs to give effect to the NPSIB are estimated to fall between $300,000-350,000. These are one-off costs.

It has been assumed that councils will give effect to all relevant provisions of the NPSIB through a single plan change (or plan review) to maximise efficiency rather than initiate multiple plan changes to give effect to different NPSIB provisions. This reflects the common approach councils take to give effect to national instruments through a single plan change/plan review process[97].

The timing of plan changes is estimated as occurring in year six after the NPSIB comes into force (2026) in accordance with the requirements in the NPISB to notify plan changes with identified SNAs within this timeframe (Part 3.8). At a discount rate of 6%, the present value cost of completing plan changes to implement the NPSIB is estimated at between $75,000-106,000 for regional councils, $141,000-$176,000 for district councils, to $211,000-247,000 for unitary authorities.

[97] A notable exception is the NPSFM where regional councils have taken a staged approach to implement the requirements in the NPS.

Requirement under NPSIB	Impacted Party	Low ($)	Notes	High ($)	Notes	Year Applicable *(nb. 2020 estimated Year 1)*	Present Value 2020-2050 (6% Discount Rate)
Plan Change	District Councils	$ 200,000	Assumes amendment and/or development of provisions to give effect to NPS. Assumes incorporation with other plan change/review. Includes litigation stage.	$ 250,000	Assumes amendment and/or development of provisions to give effect to NPS. Assumes standalone plan change. Includes litigation stage.	Yr 6	$141,000-$176,000
Plan Change	Regional Councils	$ 100,000		$ 150,000		Yr 6	$71,000-$106,000
Plan Change	Unitary Authorities	$ 300,000		$ 350,000		Yr 6	$211,000-$247,000
Plan Change SNA Updates	District Councils	$ 15,000	Assumes no litigation.	$ 30,000	Assumes low level litigation.	Yr 8 and every 2 years	$64,000-$129,000

Indicative estimates only, to be confirmed/refined following public consultation.

The development of provisions that relate to those mapped areas is captured in the plan change cost estimates above. However, the plan change costs above **do not** include additional mapping exercises required by the NPSIB, such as mapping of taonga, mapping of highly mobile fauna or identification of degraded or depleted environments. Those are separate costs that are not currently quantified. .

Part 3.8(8) of the NPSIB also requires that territorial authorities carry out a plan change to add SNAs identified through a resource consent application, notice of requirement or other means (that were not already captured through the district-wide SNA identification process) every two years, where practicable, after the district-wide identification of the SNA. The indicative cost range for these plan changes is estimated at between $15,000-$30,000. This is the lower end of plan change costs from the NMS given these are likely to be discrete, site specific plan changes but also recognises that any plan change process through the Schedule 1 process has a range of administrative tasks and potential litigation. The upper range of the cost range allows for some litigation. In present value terms, this equates to ongoing plan change costs for district councils of between $64,000-129,000 (based on plan changes every two years starting year 7, through to 2050 and a 6% discount rate).

Central Government Support and Guidance – Methodology

The estimated cost range below is based on high-level data supplied by MfE relating to the costs of central government implementation support for two national instruments – the NPSFM and the National Policy Statement for Urban Development Capacity 2016 (**NPS-UDC**). These two national instruments have involved more comprehensive implementation support programmes than other national direction with the cost estimate ranging from $2m and $5m spread over four years.

In the absence of a breakdown of these costs (not available at the time of preparing these cost estimates), it is uncertain how potential support and guidance costs for the NPSIB might compare to this range. However, as highlighted throughout the assessment of NPSIB provisions, comprehensive guidance and implementation support is recommended in a number of areas. It is therefore expected that central government support for the NPSIB will be in the upper range of that provided for national direction under the RMA. This indicative CBA has taken a conservative approach of assuming that central government implementation support costs for the NPSIB will be between a lower range of $2m and upper range of $3m spread over four years until such time as more detailed estimates are available. In present value terms (6% discount rate), this equates to a one-off cost over four years (starting in 2020) of between $1.77m-2.65m.

Requirement under NPSIB	Impacted Party	Low ($)	Notes	High ($)	Notes	Year Applicable *(nb. 2020 estimated Year 1)*	Present Value 2020-2050 (6% Discount Rate)
Support and Guidance	Central Govt.	$ 2,000,000	Detailed guidance is expected in a number of areas as is targeted support for less resourced councils. Excludes costs to review the NPSIB.	$ 3,000,000	Detailed guidance is expected in a number of areas as is targeted support for less resourced councils. Excludes costs to review the NPSIB.	Spread over Yr 1-4 (with two thirds in first two years)	$1,766,200-$2,649,250

Indicative estimates only, to be confirmed/refined following public consultation.

Part 4.1 of the NPSIB (Ministry for the Environment monitoring and review) requires that MfE undertake an assessment of the effect of the NPSIB on regional policy statements and regional and district plans, resource consents, designation and other decision-making within 10 years of the commencement date. Costs for central government to undertake that review are not included in the cost estimates provided above.

Summary of Indicative Implementation Costs

The following summarises the aggregate indicative cost ranges estimated for each type of council and central government to implement the NPSIB. These are a combination of one-off and ongoing costs calculated over a 30-year time horizon and expressed in present value terms (using a 6% discount rate). The estimated aggregate implementation cost ranges are as follows:

- For each district council: $824,000-$1,450,000.
- For each regional council: $1,090,000-$4,045,000.
- For each unitary authority: $1,846,000-$5,321,000.
- For central government: $1,766,200-$2,649,250.

Next Steps

Implementation Cost Ranges

It is important that feedback on the implementation cost estimates in this indicative CBA is collected and analysed further through public consultation. Providing a range of indicative costs is intended to enable councils to advise how realistic or applicable these costs may or may not be once the NPSIB provisions have been assessed in full. That feedback will be critical in helping to refine the estimated cost ranges in an updated CBA and final section 32 evaluation, as will further feedback from officials on central government implementation support cost estimates.

Implementation Cost Gaps

There are a number of council implementation requirements within the NPSIB provisions that have not been costed (in monetary terms), as well as potential costs faced by other stakeholders. These gaps includer:

- The costs for district councils to identify locations and opportunities for restoration and enhancement, to identify and/or describe taonga species and ecosystems with tangata whenua, and to work with regional councils to map highly mobile fauna.
- The costs for regional councils to identify depleted indigenous biodiversity environments, to identify locations and opportunities for restoration and enhancement, to identify and/or describe taonga species and ecosystems with tangata whenua, and to work with district councils to map highly mobile fauna.

Currently, these costs are identified in a qualitative manner in this indicative CBA. Feedback from councils and stakeholders may help to provide monetary cost estimates for these NPSIB provisions in an updated CBA and final section 32 report.