

Before a Hearings Panel
Appointed by Gore District Council

under: the Resource Management Act 1991

in the matter of: Submissions and further submissions on the Proposed
Gore District Plan

and: Hearing Stream 10: Ecosystems and Indigenous
Biodiversity

Statement of evidence of Natalie Dianne Hampson (Economics)
on behalf of Gore District Council

Dated: 13 January 2025

**STATEMENT OF EVIDENCE OF NATALIE DIANNE HAMPSON ON
BEHALF OF GORE DISTRICT COUNCIL**

INTRODUCTION

- 1 My full name is Natalie Diane Hampson. I am the Director of Savvy Consulting Limited and was previously a Director at Market Economics Limited (M.E) from mid-2019 to the end of October 2023. I hold a Master of Science degree in Geography from the University of Auckland (first class honours).
- 2 I have worked in the field of economics for over 20 years for commercial and public sector clients with a particular focus on economic assessment within the framework of the Resource Management Act (*RMA*). Since 2001 I have specialised in studies relating to land use analysis, assessment of demand and markets, the form and function of urban economies and growth, policy analysis, and evaluation of economic outcomes and effects, including costs and benefits.
- 3 I have considerable experience assessing economic costs and benefits of proposed plan changes and district plan reviews throughout New Zealand. Recent examples include economic evidence for five submitters on the Waimakariri District Plan Review, economic evidence for a submitter's appeal on the Selwyn District Plan Review, and economic evidence for a submitter on the Timaru District proposed District Plan. In December I provided economic evidence on behalf of Queenstown Lakes District Council in relation to an appeal on Stage 3 of their District Plan review. At the time of drafting this evidence, I am involved in economic reports supporting four industrial plan changes and one residential plan change in Christchurch City, Dunedin City and Central Otago District.
- 4 Directly relevant to the proposed Ecosystems and Indigenous Biodiversity (ECO) Chapter of the Gore District Plan, during my time at Market Economics Limited (M.E) I was the author of the Cost Benefit Analysis (CBA) of the proposed National Policy Statement on Indigenous Biodiversity (NPS-IB) and contributing author to the Section 32 report for that proposed national direction. That work was completed for the Ministry for the Environment. Through this work, I have a sound knowledge of the objectives, policies and rationale of the NPS-IB and how district and regional councils and landowners must give effect to it, as well as the potential costs and benefits of the regulations for different stakeholders and land use activities.
- 5 To date, my previous involvement in the proposed Gore District Plan (PDP) has been provision of an economic peer review and evidence on behalf of the Council on the Greenbriar submission (in relation to provisions impacting their coal mine operations). That work was completed in July 2024. I have had no involvement in the proposed ECO Chapter prior to the Section 42A reporting stage.

CODE OF CONDUCT

- 6 Although this is not an Environment Court hearing, I note that in preparing my evidence I have reviewed the Code of Conduct for Expert Witnesses contained in Part 9 of the Environment Court Practice Note 2023. I have complied with it in preparing my evidence. I confirm that the issues addressed in this statement of evidence are within my area of expertise, except where relying on the opinion or evidence of other witnesses. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

SCOPE OF EVIDENCE

- 7 My evidence covers the following:
- 7.1 An overview of the values and benefits of protecting significant natural areas (SNAs) and maintaining indigenous biodiversity.
 - 7.2 Brief discussion on why greater regulation is needed in order to achieve those benefits, both nationally and as applied in the Gore District context.
 - 7.3 A spatial analysis of SNAs, other currently mapped significant indigenous vegetation areas (SIVAs) and other indigenous vegetation areas (IVAs) in Gore District, with a key focus on general tenure (private) property in the (proposed) General Rural Zone.
 - 7.4 Discussion on relevant economic costs attributable and not attributable to the proposed ECO chapter, and the processes through which consent related costs and opportunity costs may arise.
 - 7.5 Discussion of the efficiency of the proposed rules (ECO-R1 and R2) as they may apply across impacted rural properties and overall conclusions on the efficiency of the proposed provisions in the ECO chapter, as recommended by the Section 42 officer (Mr Heale).
 - 7.6 My response to selected submissions and/or submission themes not already covered in the above scope.
- 8 In preparing my evidence, I have reviewed and/or relied on:
- 8.1 The NPS-IB 2023, as amended October 2024.
 - 8.2 The Operative District Plan (ODP) provisions as they relate to indigenous biodiversity.

- 8.3 The Gore District Plan Review Efficiency and Effectiveness Report 2022.
- 8.4 Gore District Plan Review Planning for Growth report by The Property Group (TPG) (June 2022).
- 8.5 The notified ECO chapter.
- 8.6 The Section 32 report on the notified ECO chapter, including underlying technical reports.
- 8.7 The summary of submissions and future submissions on the ECO chapter, including full submissions where relevant.
- 8.8 The M.E CBA on the Proposed NPS-IB (2022).
- 8.9 GIS data/layers supplied to me by TPG, including property boundaries (and related data) from the current rating database, the latest (2024) defined IVAs and SIVAs, the operative SNAs, and notified PDP zoning.
- 8.10 Southland Region Forecasting Scenarios for Beyond 2025 Southland, Infometrics, June 2023
- 8.11 Report to the Policy and Regulation Committee (Council Agenda 13 August 2024 – Confidential/Public Excluded) on Indigenous Biodiversity Management by Matt Heale (TPG).
- 8.12 Signed record of consensus between Gore District Council, Stoney Creek Station and McLeod-Wantwood Trust (Wantwood Station) dated 3rd December 2024.
- 8.13 The recommended ECO chapter, as of 13th January 2025.
- 8.14 The report/letter of Andrew Wells (Ecologist) on behalf of Council, dated 13 January 2025.

SUMMARY OF EVIDENCE

- 9 The absence of any effective regulations in the ODP to manage the effects of indigenous biodiversity clearance on private properties in Gore District means that the PDP introduces significant changes to property rights enjoyed by rural landowners up till now compared with the status quo. However, those changes are necessary to give effect to the NPS-IB and SRPS and halt the continued decline of indigenous vegetation cover in the district (which is already one of the lowest in the country).
- 10 I have reviewed the proposed rules in the ECO chapter (as currently recommended relative to the notified version) and consider that they are generally efficient from an economic perspective. They provide for the permitted clearance of indigenous vegetation (within

some prescribed limits) for a wide range of existing lawfully established activities that support (or are critical for) economic wellbeing in Gore District.

- 11 The recommended amendments acknowledge and better provide for existing farming activities which is a core economic sector for the district. They also incentivise landowners with SIVAs/IVAs on their land to obtain a Council Endorsed Biodiversity Management Plan as these potentially increase the scope and scale of permitted vegetation clearance (and reduce future consent costs) where detailed ecological assessment can confirm no more than minor adverse effects and/or no net loss in indigenous biodiversity.
- 12 Beyond permitted vegetation clearance, the transaction and compliance costs potentially attributable to the proposed provisions are not considered to impose costs on landowners that are unfeasible or that constrain landowners from providing for their economic wellbeing. Furthermore, the likely incidence of proposed activities that may trigger a discretionary or non-complying consent for vegetation clearance over the life of the PDP is estimated to be low (applying to relatively few properties in any one year). Nor are the proposed ECO chapter provisions expected to result in any significant opportunity costs on private landowners such as reduced land value or foregone value uplift.
- 13 I have reviewed a number of submissions that relate specifically to the proposed rules of the ECO chapter. While some changes already recommended by Mr Heale address the concerns of many of these submissions (where efficient), I consider that some further amendments to the proposed provisions may further improve the economic efficiency of the rules. My key recommended amendments include:
 - 13.1 a less prescriptive clearance threshold for some non-traversable¹ existing activities listed in ECO-R1(1)(a) to better reflect the practicality of maintenance, repair, upgrade and replacement for those features;
 - 13.2 explicit recognition of existing mountain bike and hiking trails in ECO-R1(1)(a);
 - 13.3 an increase in the permitted clearance around existing buildings to help manage fire risk (and more appropriate wording to acknowledge that fire risk is never entirely 'removed'); and
 - 13.4 management of vegetation clearance (as already assessed in detail by ecological experts) in the Hokonui Hills Vegetation

¹ I adopt this term to describe physical features/structures that vehicles/machinery must drive beside but not on in order to maintain, repair, upgrade or replace. Conversely, traversable features are those that vehicles/machinery can drive on.

Area under ECO-R1 (and a Council Endorsed Biodiversity Management Plan) as an alternative to bespoke provisions currently drafted as ECO-R2.

- 14 I also support the retention of 1.0m of vegetation clearance for specific 'traversable' activities in ECO-R1(1)(a) and the notified 1.5m clearance for the maintenance of existing fire breaks for reasons explained in my evidence.

GIVING EFFECT TO THE NPS-IB – GORE CONTEXT

- 15 Key changes to the ODP are needed to give effect to the NPS-IB and the Southland Regional Policy Statement (SRPS). The net benefit (efficiency) of the required changes to the district plan to achieve the objectives and policies of the NPS-IB have already been determined through the NPS-IB Section 32 process, albeit at a national level with specific consideration given to costs and benefits at a localised level. The CBA underpinning the NPS-IB has been relied on in the Section 32 report for the notified ECO Chapter to help inform, at a high level, the costs, benefits and efficiency of the preferred and status quo options.²
- 16 While not wanting to unnecessarily repeat the costs and benefits of giving effect to the NPS-IB in the PDP, those costs and benefits are directly relevant to assessing the proposed changes to the Plan provisions (as notified and as recommended in the Section 42A report) and assessing the relief sought by submitters on the notified ECO chapter.
- 17 I therefore consider it helpful to recap those costs and benefits for the hearing (with some further explanation). Below I provide a brief commentary on the values of indigenous biodiversity (not limited to economic values), the problem statement that the NPS-IB sought to address, and the applicability of that problem statement to what is occurring in Gore District.

The Value of Indigenous Biodiversity³

- 18 Understanding the benefits of indigenous biodiversity provides a rationale for its maintenance, protection and restoration. Indigenous biodiversity has value not only to those who use it, but also to those who have the option of using it now or in the future. For others, just knowing it exists is important.
- 19 There is a wide body of evidence that demonstrates that ecosystem services delivered by indigenous biodiversity contribute in a wide variety of ways to the wellbeing of New Zealand and New Zealanders. It contributes to human welfare through provisioning

² ECO chapter Section 32A report, pages 28-31.

³ This section includes excerpts from the CBA report prepared for the proposed NPS-IB.

(such as food and fibre), regulating (such as erosion control, pollination, regulating nutrient cycling and greenhouse gas emissions) and cultural ecosystem services (such as spiritual values, recreation, cultural harvest, and knowledge).⁴ A full list of ecosystem services is set out in Figure 1. Indigenous biodiversity delivers most (although not all) of the ecosystem services in this list.⁵

Figure 1 - Typology of Ecosystem Services⁶

MAIN SERVICE TYPES	
PROVISIONING SERVICES	
1	Food (e.g. fish, game, fruit)
2	Water (e.g. for drinking, irrigation, cooling)
3	Raw materials (e.g. fibre, timber, fuelwood, fodder, fertilizer)
4	Genetic resources (e.g. for crop-improvement, medicinal purposes)
5	Medicinal resources (e.g. biochemical products, models, test organisms)
6	Ornamental resources (e.g. artisan work, decorative plants, pet animals, fashion)
REGULATING SERVICES	
7	Air quality regulation (e.g. capturing (fine) dust, chemicals)
8	Climate regulation (including C-sequestration, influence of vegetation on rainfall, etc.)
9	Moderation of extreme events (e.g. storm protection, flood prevention)
10	Regulation of water flows (e.g. natural drainage, irrigation, drought prevention)
11	Waste treatment (especially water purification)
12	Erosion prevention
13	Maintenance of soil fertility (including soil formation) and nutrient cycling
14	Pollination
15	Biological control (e.g. seed dispersal, pest and disease control)
HABITAT SERVICES	
16	Maintenance of life cycles of migratory species (including nursery service)
17	Maintenance of genetic diversity (especially through gene pool protection)
CULTURAL AND AMENITY SERVICES	
18	Aesthetic information
19	Opportunities for recreation and tourism
20	Inspiration for culture, art and design
21	Spiritual experience
22	Information for cognitive development

Source: Kumar (2010: 26).

- 20 Indigenous biodiversity (in one form or another) is valued by the wider public irrespective of whether it occurs on private land (including within commercial forestry and on agricultural land) or public land (i.e. a public conservation area or reserve). Understanding this is central to assessing the costs and benefits of protecting SIVAs/SNAs and maintaining biological diversity as the costs invariably fall to the relatively few landowners where

⁴ CBA of Proposed NPS-IB, page 1.

⁵ For example, indigenous flora and fauna does not provide water for consumption per se, but habitats of significant indigenous biodiversity may also include water sources and indigenous ecosystems help provide for water purification/filtration.

⁶ Sourced from The Economics of Ecosystems and Biodiversity Project (2010).

indigenous biodiversity exists, and the benefits are felt by the wider public (not limited to residents of Gore District).

- 21 This is why landowners of indigenous biodiversity areas are described as 'stewards' in the NPS-IB (and mana whenua are described as 'kaitiaki' (guardians)) as they have the responsibility (and some would say privilege) of maintaining indigenous biodiversity for everyone, including current and future generations. The challenge is to ensure that those landowners can still provide for their own economic wellbeing while performing that important role.
- 22 The values of indigenous biodiversity can be described as:
 - 22.1 use values (direct and indirect); and
 - 22.2 non-use or passive values (option, existence and bequest values).
- 23 The ecosystem services delivered by indigenous biodiversity span across those two categories.
- 24 Landowners potentially benefit from all ecosystem services delivered by indigenous biodiversity when located on their land.⁷ In particular, they have the exclusive benefit of consumptive direct use values (where appropriate), as well as non-consumptive direct use values whereby SIVAs/SNAs and IVAs on their property potentially provide opportunities for recreation, exploration and learning. Similarly, landowners have the exclusive benefit of future option values associated with the indigenous vegetation. Private landowners are also likely to indirectly benefit from all of the functional/regulating services provided by indigenous biodiversity on their land.
- 25 Public use values of indigenous biodiversity on private land are generally limited to indirect functional/regulating ecosystem services provided by that indigenous biodiversity, particularly those services that contribute (in aggregate) to catchment level water quality, air quality and climate regulation. Nutrient cycling and shelter benefits are excluded on the basis that these are anticipated to be more localised (and therefore received mainly by the landowner).
- 26 There are also public benefits of indigenous biodiversity when on public land. In terms of direct use values, these are likely to be focussed on non-consumptive benefits, including tourism, recreation, science and education. The wider public also benefits indirectly from the regulating services of indigenous vegetation (SIVAs/IVAs) on public land, where again, in aggregate these contribute to catchment level water and air quality, erosion control and climate regulation for example. Optional values could also apply

⁷ The exception would be tourism value when private land is not made available for public access (such as for a tourism operation).

to the wider public for SIVAs/IVAs on public land, although that future option may be limited to non-extractive direct use values (e.g. having the option to do a hike/walk or bike ride in a public park or conservation area in the future).

- 27 With regard to existence/intrinsic and bequest (non-use) values, these apply to indigenous biodiversity on private and public land and are not limited to landowner values when indigenous biodiversity is on private land.⁸ For example, where habitat areas on private land contribute to sustaining local populations of indigenous fauna (such as native birds), this can translate into public non-use values (i.e. enjoyment gained from the presence of local indigenous birdlife in the district). For others, just knowing that there are SIVAs/SNAs (or IVAs generally) in their local environment is valued.

The RMA, the Problem and the National Direction Response

- 28 In recognition of the significant and widespread tangible and non-tangible values of indigenous biodiversity, Section 6c of the RMA identifies the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna as matters of national importance, and section 7(d and i) requires particular regard to be had to intrinsic values of ecosystems. Maintaining indigenous biological diversity is also a function of territorial authorities and regional councils under the RMA (sections 30(ga) and 31(1biii)).
- 29 And yet, New Zealand's indigenous biodiversity is in decline and natural ecosystems continue to degrade.
- 30 While local authorities have obligations to maintain New Zealand's indigenous biodiversity as part of their functions, the provisions in district plans relating to indigenous biodiversity have generally proven to be unclear. There is strong evidence that the status quo will lead to an ongoing decline of indigenous biodiversity across the country through further loss of remaining indigenous habitats and ecosystems on private land where there is little or no formal protection (unlike public conservation land).
- 31 Without national direction and improved national guidance on this issue, it was considered (by the Ministry for the Environment) likely that local authorities would continue to manage indigenous biodiversity inconsistently. Further, the market will not solve the issue of declining indigenous biodiversity on its own as there are no mechanisms in commercial markets through which the benefits of indigenous biodiversity would be effectively protected and preserved for current and future generations. 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.

⁸ CBA on Proposed NPS-IB, page 3.

- 32 In order to reduce or minimise adverse effects on indigenous biodiversity at the aggregate level, land use outcomes need to be regulated at the micro-level (individual land holdings), so that the aggregate outcome from many small-scale and minor adverse effects (and in some cases, large-scale and significant adverse effects) can be avoided. This is where the effectiveness of district plans plays a critical role.
- 33 The NPS-IB introduced a package of provisions addressing all aspects of terrestrial indigenous biodiversity protection, maintenance, restoration, enhancement and monitoring. Protecting and maintaining indigenous biodiversity will help to protect and maintain the ecosystem services that New Zealanders rely on for their wellbeing. It draws a line on any further loss of indigenous biodiversity on private land.
- 34 The provisions of the NPS-IB are expected to represent a shift in practice in many local authorities across New Zealand. It identifies a nationally consistent methodology for identifying SNAs with clear objectives and policies for biodiversity management including the need for SNAs, highly mobile fauna areas and taonga species to be identified, mapped and characterised in district plans.
- 35 In addition, the NPS-IB requires management of new subdivision, use and development within SNA's and in areas of indigenous biodiversity and highly mobile fauna habitat generally. Enabling provisions (exceptions) are made for existing use rights, nationally significant infrastructure, mineral and aggregate extraction, commercial forestry, new dwellings on existing lots, and Māori customary activities.
- 36 These provisions are intended to strike a balance between allowing people and communities to provide for their economic (as well as social and cultural) wellbeing while also protecting indigenous biodiversity and the ecosystem services it provides for current and future generations.

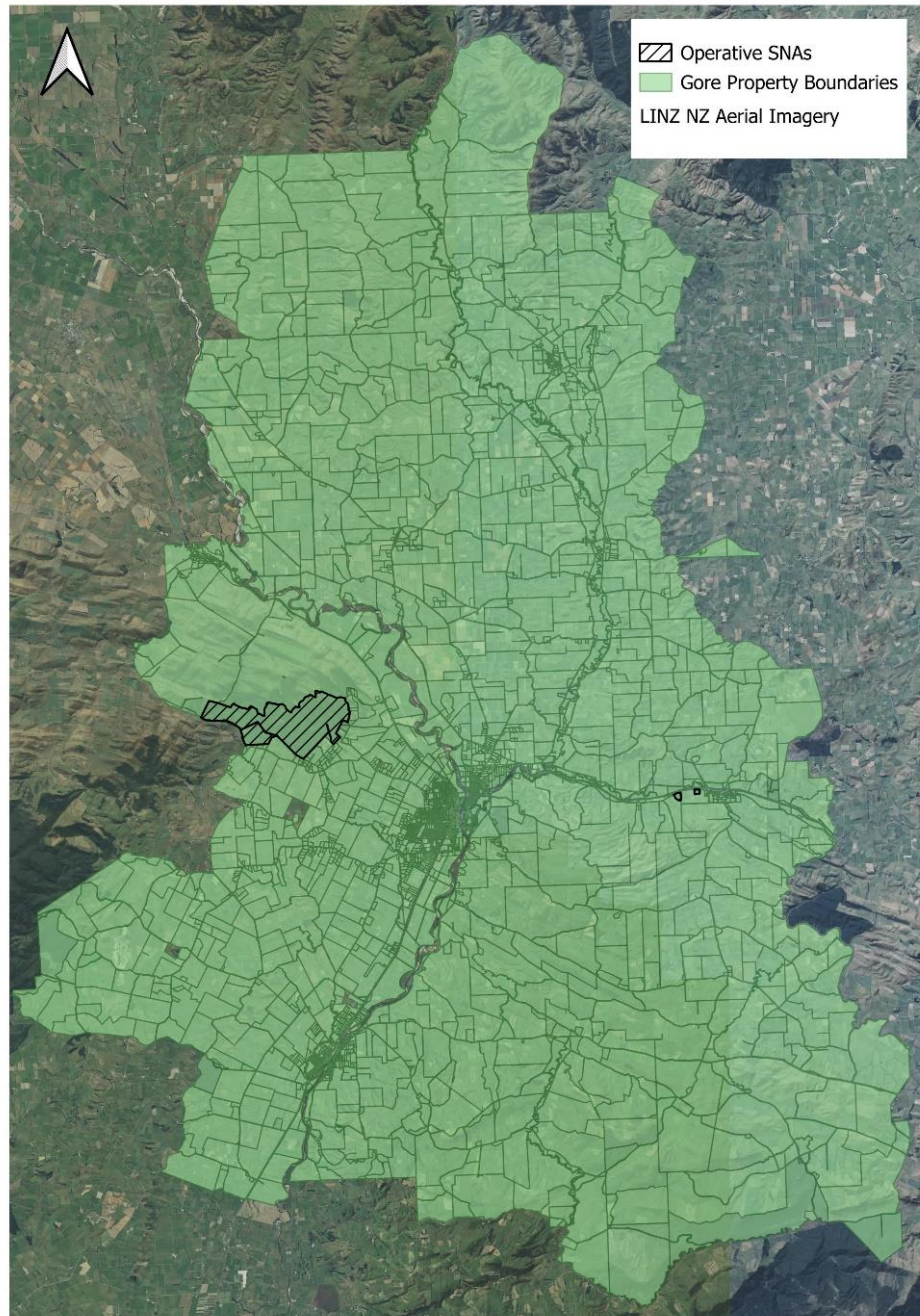
Operative Gore District Plan

- 37 The costs and benefits of giving effect to the NPS-IB 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. The scale and significance of those costs and benefits depends on the local indigenous biodiversity context and the status quo regulatory environment, as combined, this is the baseline against which the effect of the proposed changes in a district plan can be measured.⁹
- 38 In the case of Gore District, the ODP does not seek to maintain indigenous biodiversity or comprehensively identify SIVAs/SNAs. It

⁹ CBA of Proposed NPS-IB, page 4.

only identifies the Waterfall Range (Croydon Bush/Dolamore Park) and the Pukerau Red Tussock Reserve as SNAs (Figure 2). Other areas of indigenous vegetation are noted, such as along roadsides and gully bottoms, “*but do not warrant protection as they do not provide a sustainable habitat given their small size and location*”.¹⁰

Figure 2 – Existing SNAs in the Operative Gore District Plan



- 39 The ODP does not manage indigenous vegetation outside of these public areas with the exception of individually protected trees.

¹⁰ Section 32 Report – Ecosystems and Indigenous Biodiversity Chapter, page 11.

There are no general vegetation clearance controls applying outside the two SNAs. Most activities within the two SNAs require a discretionary consent, including for the felling or removal of indigenous vegetation, the planting of shelterbelts, woodlots or commercial forestry, earthworks (apart from forming of pedestrian tracks), and the erection of buildings and other structures.

- 40 The Section 32 report for the ECO chapter concludes that the ODP approach (status quo) does not meet the purpose of the RMA, Council's functions under s30 and 31, or the requirements of the NPS-IB and RPS.

Performance of the ODP in Maintaining Indigenous Biodiversity

- 41 The Gore District Plan Review Efficiency and Effectiveness Report (2022) provides an evaluation of how effective the ODP has been in protecting indigenous biodiversity.
- 42 That report categorised the majority of the district as 'acutely threatened LENZ Environments', meaning there is less than 1% remaining indigenous vegetation cover, smaller portions of the district meet the categorisation of 'Chronically Threatened' – 1-20% indigenous vegetation cover, 'At Risk' – 20-30% remaining, 'under protected' – over 30% cover with 10-20% protected and 'less reduced and better protected' – over 30% cover at over 20% protected.
- 43 In terms of threatened or at risk species, the Department of Conservation (DOC) has indicated that there are a number of rare species including two nationally endangered and two nationally vulnerable species, with 12 declining and one naturally uncommon species.¹¹
- 44 At a district level, land cover analysis between 2008 and 2018 (effectively the life of the ODP) showed that (within the limitations of the dataset), there has been no change in the area of fern land, flax land, tall tussock grassland and indigenous forest, but there has been a slight (2ha) decline of broadleaved indigenous hardwoods, and more material declines in manuka/kanuka (69ha), and matagouri or grey scrub area (78ha).¹² The aggregate reduction across these vegetation types is 148ha over the 10 years.
- 45 While this may not sound like much, it is significant in a district that has very little indigenous vegetation remaining. In the analysis carried out for the NPS-IB CBA Report, Gore District had the 9th lowest amount of indigenous vegetation cover remaining (out of 66 territorial authorities). Those territorial authorities that had less indigenous vegetation are made up of the mainly urban cities or

¹¹ Gore District Plan Review Efficiency and Effectiveness Report, 2022. Page 25.

¹² Ibid, page 24.

tightly defined authorities of Napier, Hamilton, Tauranga, Kawarau, Wellington, Porirua, Palmerston North and Invercargill. As a mainly rural district, Gore is an outlier.

- 46 The Efficiency and Effectiveness Report concluded that broadly speaking the Gore District has very low levels of intact indigenous vegetation cover and biodiversity, and what little there is, may not have sufficient protection. It determined that the ODP appears to have been partially effective at protecting the two identified SNAs, however *"a district wide reduction in indigenous vegetation suggests further protection needs to be afforded to biodiversity within the district"*.¹³ In short, the ODP has not been effective in maintaining indigenous biodiversity.
- 47 Gore District is not unique in terms of this finding – in particular, the issue of loss of indigenous vegetation remnants on private property is happening nationwide. This is precisely why the NPS-IB was developed.
- 48 It is important to note that the Efficiency and Effectiveness Report does not confirm *where* the reductions in indigenous vegetation coverage have occurred (i.e. if the clearance was dispersed over numerous properties perhaps as minor clearance events, or occurred on relatively few properties as significant clearance events). Second, it does not confirm if areas where indigenous vegetation has been cleared were areas that would have met the criteria of a SIVA/SNA under the NPS-IB or SRPS or were IVAs.¹⁴ Third, it does not confirm if the clearance would otherwise have been enabled (in retrospect) under the NPS-IB in relation to the maintenance of improved pasture (for example).
- 49 Nonetheless, the continued depletion of indigenous biodiversity (which has been happening over a long time scale) destabilises the functioning of ecosystems which, in turn, puts at risk the flow of related benefits, such as the provision of food and clean water, mitigation of natural disasters, and physical, mental and spiritual wellbeing. This in turn affects the long-term viability of economic activities and human wellbeing.¹⁵

IVAs and SIVAs in Gore District

- 50 Indigenous vegetation in Gore District (mainly remnants of what was historically extensive coverage of indigenous land cover) are not limited to the two SNAs identified in the ODP (Figure 2). I understand that Wildlands have provided a number of iterations of maps of indigenous vegetation since 2011, with the latest mapping in 2024 more refined and consistent with the criteria of the SRPS

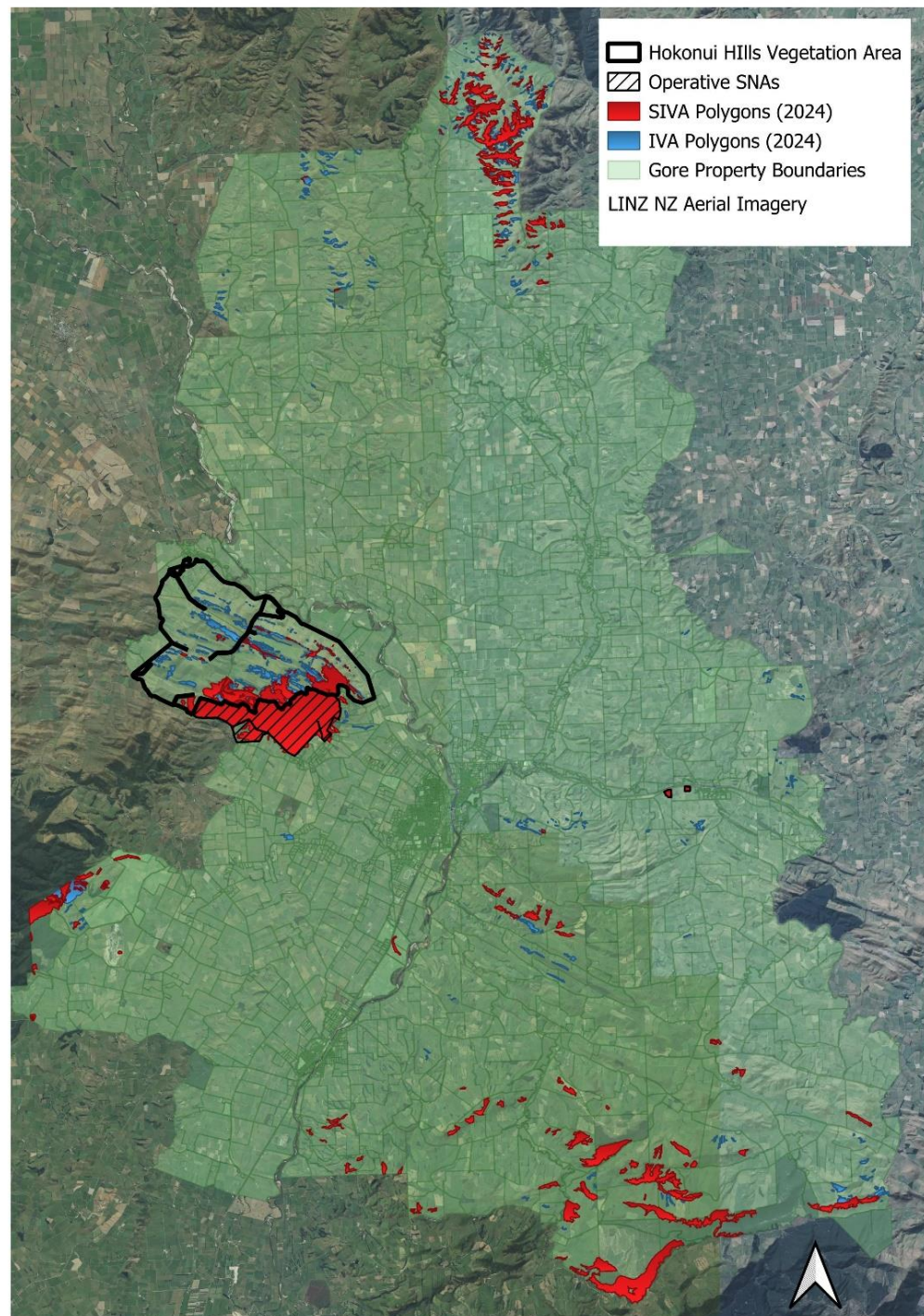
¹³ Ibid, page 2.

¹⁴ While such analysis can be carried out, it was considered outside the scope of this evidence.

¹⁵ Ezzine de Blas et al. 2017 (taken from the CBA on the Proposed NPS-IB).

and the NPS-IB, albeit limited to desktop identification for most sites at this stage.¹⁶

Figure 3 – Map of Existing SNAs and Estimated SIVAs and IVAs in Gore District (based on desktop mapping in 2024)



¹⁶ Wildlands has completed onsite assessments for some properties including in the Hokonui Hills Vegetation Area and some council owned properties such as Dolamore Park.

- 51 This latest mapping distinguishes SIVAs (indicative SNAs under the NPS-IB or SRPS) and IVAs (being contiguous indigenous vegetation outside of SIVAs). Both are relevant for provisions that would affect indigenous vegetation clearance under the proposed ECO chapter discussed further below.
- 52 Figure 3 maps the 2024 SIVAs (inclusive of the relevant parts of the existing SNAs)¹⁷ and other IVAs. SIVAs and IVAs that fall within private land in the Hokonui Hills Vegetation Area of Stoney Creek and Wantwood Stations are also identified (and are discussed in more detail later in this evidence). It is my understanding that areas of Highly Mobile Fauna have yet to be mapped¹⁸ and may include net additional land areas within the district.
- 53 While there is a process through which SIVAs will need to be ground-truthed in order to be formally identified and mapped as SNAs in the district plan, I rely on this current mapping for the purpose of my evidence.
- 54 Figure 3 and Table 1 shows that:
- 54.1 There are a total of 381 discrete polygons of SIVA left in the district (inclusive of the existing SNA areas that qualify as SIVAs in recent surveying), totalling approximately 3,174ha. While counted as discrete polygons, many of these are clustered close together. The largest cohesive area of SIVA is 1,195ha which is the area that includes Croydon Bush/Dolamore Park but also extends onto neighbouring private land. Some of the remnants of SIVA currently defined are very small (for example just 400sqm – the size of a small urban residential section). The average size of SIVA polygons is 8.3ha.
- 54.2 There is an estimated total of 704 discrete IVAs that are not thought to be SIVAs left in the district, totalling approximately 844ha. While counted as discrete polygons, many of these are clustered close together (and many adjoin SIVAs but have been counted as separate areas for the purpose of this evidence). The largest cohesive IVA is 50ha located near the western boundary of the district in Waitane and adjoining SIVA land. The average size of IVAs is 1.2ha.

¹⁷ A small area of SNA1 falls outside of the latest analysis of SIVA extent, and I understand may not remain as SNA once a comprehensive approach to identifying and mapping SNAs in the district is completed in the coming years.

¹⁸ This work will be carried out by Southland Regional Council.

Table 1 – Summary of Existing SIVAs and IVAs in Gore District (based on mapping in 2024)

	SIVAs**	IVAs **	Total Defined Indigenous Vegetation (2024)
Count of Unique/Discrete Polygons*	381	704	
Total Area (ha) ***	3,174	844	4,018
Average Polygon Size (ha)	8.3	1.2	-
Max Polygon Size (ha)	1,195	50	

Source: TPG, Wildlands, GDC, Savvy

* While some SIVAs and IVAs are contiguous, they have been counted as separate/discrete areas/polygons. Where roads/farm tracks dissect SIVAs/IVAs and this was visible in the underlying data, the area on each side of the road/farm track is treated as a separate polygon as the vegetation cover is not contiguous.

** Includes all of SNA2 and the majority of SNA1 currently identified as SIVA based on 2024 desktop mapping.

*** Includes approximately 2.7ha of IVA and 24.4ha of SIVA that overlaps roads/non-rateable land. Some of these may be paper roads and are therefore valid indigenous

Table 2 – Spatial Analysis Summary of SIVAs and IVAs by Land Tenure (based on mapping in 2024)

	DOC/ Crown Land	Gore District Council and Southland Regional Council Land ***	Maori Land Court *	General Land (Private) **	Non-Rateable Land/Roads	Total District
Area (ha)						
SIVAs 2024	944	-	2	2,217	24	3,163
IVAs 2024	0	-	-	841	3	841
No SIVAs or IVAs 2024	60	227	20	117,358	-	117,665
Total District	1,004	227	23	120,415	27	121,669
Share of Area by Tenure						
SIVAs 2024	29.8%	0.0%	0.1%	70.1%	0.8%	100%
IVAs 2024	0.0%	0.0%	0.0%	100.0%	0.3%	100%
No SIVAs or IVAs 2024	0.1%	0.2%	0.0%	99.7%	0.0%	100%
Total District	0.8%	0.2%	0.0%	99.0%	0.0%	100%
Share of Area by Category						
SIVAs 2024	94.0%	0.0%	9.9%	1.8%	90.1%	2.6%
IVAs 2024	0.0%	0.0%	0.0%	0.7%	9.9%	0.7%
No SIVAs or IVAs 2024	6.0%	100.0%	90.1%	97.5%	0.0%	96.7%
Total District	100%	100%	100%	100%	100%	100%
Share of Total District						
SIVAs 2024	0.8%	0.0%	0.0%	1.8%	0.0%	2.6%
IVAs 2024	0.0%	0.0%	0.0%	0.7%	0.0%	0.7%
No SIVAs or IVAs 2024	0.0%	0.2%	0.0%	96.5%	0.0%	96.7%
Total District	0.8%	0.2%	0.0%	99.0%	0.0%	100%

Source: TPG/Wildlands, GDC, Savvy

* Land administered under Te Ture Whenua Maori Act (Maori Freehold Land)

** General tenure land refers to fee simple land that can be bought and sold. May include Treaty Settlement land that is general land. May include areas protected by covenants.

*** Dolamore Park (SIVA) is listed as being Crown owned in the dataset provided, however, further information has confirmed it is owned by GDC.

Numbers vary slightly from Table 1 for SIVA and IVA area due to some unresolvable overlaps in the spatial dataset. The difference is negligible in percentage terms.

- 55 Table 2 provides a spatial analysis of indigenous biodiversity areas by my estimates of land tenure for the total district.¹⁹ Key findings include:
- 55.1 SIVAs have a total area of 3,163ha²⁰ and make up 2.6% of the district land area. SIVAs fall totally within the proposed General Rural Zone and largely on general tenure (private) land (70.1%), with the remaining 29.8% on DOC/Crown land²¹ and only 0.1% on Māori Land Court land (i.e. Māori Freehold Land).
- 55.2 Other IVAs have a total area of 841ha²² and make up 0.7% of the district land area. IVAs fall totally within the proposed General Rural Zone and almost exclusively on general tenure (private) land, with an immaterial 0.3% on non-rateable land.
- 55.3 Of the estimated 1,004ha of DOC and Crown land in the district (which for the purpose of this analysis includes Dolamore Park owned by GDC), 94% is contained within a SIVA (with most of that already an SNA in the ODP). 6% of DOC/Crown land contains neither SIVAs or IVAs and this includes some land within operative SNA1 (Dolamore Park) not considered to qualify as SIVA or IVA according to current mapping.
- 55.4 There is an estimated 227ha of District and Regional Council owned land in the district (excluding Dolamore Park), and none of it contains SIVAs or IVAs. As above, Dolamore Park is coded in the data as Crown land, but is owned by GDC and includes SIVAs.
- 55.5 There is a small amount of Māori Land Court land in the district (in two locations). I note that only one of these blocks is proposed as a Māori Purpose Zone, along with a few additional properties containing marae that are not administered under the Te Ture Whenua Māori Act as far as I am aware. Approximately 10% of Māori Land Court land contains a SIVA. There are no IVAs currently defined on this land tenure.

¹⁹ Tenure has been assigned based on a combination of ownership data contained in the Rating Database, spatial data on DOC Public Conservation Land, and data from the Māori Land Court Pataka Whenua Dashboard. Deed of Settlement Land and Statutory Acknowledgement Land in Gore District is limited to the Mataura River and some land parcels in the Gore Township. Given the very limited ratable property area, this tenure has been excluded from Table 2 (and grouped with General Land). It is noted that Dolamore Park is included in DOC/Crown land based on data listed above but is understood to be owned by GDC. This is not shown in Table 2.

²⁰ Note, Table 1 has a total of 3,174ha, so essentially similar.

²¹ A portion of which (Dolamore Park) is in fact GDC owned.

²² Note, Table 1 has a total of 844ha, so essentially similar.

- 55.6 General tenure (private) land accounts for 99% of the district's land area. The significant majority of this (97.5%) does not contain SIVAs or IVAs and is therefore unlikely to be impacted by the proposed provisions in the ECO chapter (although will be beneficiaries of its effectiveness). Land not containing SIVAs or IVAs may be subject to highly mobile fauna areas yet to be mapped and some of that land may also be a candidate for indigenous biodiversity restoration in the future.
- 56 DOC's mandate is to protect SNAs and maintain indigenous biodiversity and while some development takes place in public conservation land, this is generally limited to providing recreational access to conservation areas, and buildings/structures ancillary to that purpose. As such, indigenous biodiversity on DOC (and Crown) land generally does not have the same development pressures that can apply on private property. As such, the remainder of my evidence is focussed primarily on the efficiency of proposed provisions as they apply to general tenure (private) land where an estimated 3,058ha of either SIVAs or IVAs are currently thought to exist (subject to further ground truthing).²³

IVAs and SIVAs on General Tenure (Private) Land

- 57 Table 3 and Appendices A and B of my statement provide a summary of an analysis that measures the coverage of general tenure (private) properties by SIVAs and IVAs as mapped in 2024. The extent of property coverage is a useful indicator of how constrained, or otherwise, landowners may be in developing their land (for its zoned purpose) when there are proposed rules that seek to manage the effects of clearance of indigenous vegetation.
- 58 Broadly, if the coverage is only minor relative to the size of the total property, it is considered more likely that development enabled in the General Rural Zone can occur on the land not covered by indigenous vegetation without constraint. Conversely, if coverage is significant relative to the size of the total property, it is considered more likely that opportunities for development enabled by the zoning will be constrained if vegetation clearance is to be avoided or minimised.
- 59 While this is a useful guide to potential opportunity costs associated with the presence of indigenous vegetation on private property, it is not always clear cut. Not all activities enabled by the General Rural Zone are suitable/feasible on all rural properties (i.e. not all land is suited for development – with the highest and best use of any property typically already reflected in its land valuation).

²³ I do discuss Croydon Bush (managed by DOC) in response to one submission later in my evidence.

- 60 Further, not all new development, use and subdivision potentially sought on rural properties would naturally seek a location currently occupied by indigenous vegetation. With so much of the district's indigenous vegetation already removed in the past, the remnants that remain today are expected to be largely in areas of farms that are less suitable/accessible for grazing and other farming activities. In other words, to date the presence of indigenous vegetation has likely not hindered current farming operations (and farming and SIVAs/IVAs co-exist).
- 61 This 'business as usual' land use is likely to apply for many rural properties over the life of the PDP. It is only those landowners potentially seeking to increase the scale of existing activities/operations or pursue new land uses on their property where the potential to impinge on existing SIVAs/IVAs may arise.
- 62 Hence, opportunity costs associated with any proposed provisions vary from property to property (and landowner to landowner). This makes analysis of economic costs very challenging as future aspirations for land use on any rural property are unknown in most cases.²⁴
- 63 There are approximately 6,586 general tenure (private) properties in Gore District based on the current rating database. Table 3 shows that across Gore District, 99% of those general tenure land properties contain no SIVA coverage. General tenure properties that are less than 10ha in size (which includes all the urban properties as well as most large lot and rural lifestyle properties) make up 89% of all general tenure properties in the district (5,861 in total), and only 9 of those contain any SIVA.
- 64 This means that the clear majority of general property owners will not face any direct costs or opportunity costs under the proposed/recommended ECO chapter provisions specifically related to protecting SIVAs (but may still be impacted by indigenous biodiversity protection outside of SIVAs (i.e. IVAs) – examined separately below). SIVAs (as currently mapped) occur on just 77 general tenure (private) properties. This is 77 landowners required to help protect SIVAs (not necessarily with any additional costs to them), for the benefit of themselves, the other 6,509 private property owners in the district, and the wider public (current and future) that all benefit directly, indirectly and passively from the presence of that indigenous vegetation.

²⁴ Some future development aspirations may be able to be taken into account if the landowner pursues a Council Endorsed Biodiversity Management Plan. This has been the case where Stoney Creek Station identified planned fences and farm tracks within SIVAs/IVAs that have been able to be assessed by a Council Endorsed ecologist.

Table 3 – Private Property Size Profile and Coverage by SIVAs (as mapped in 2024)

Property Size	Total SIVAs (Based on 2024 Mapping) - General Land Tenure Only*										Total General Tenure Properties
	No Coverage	<1% Coverage	1% - 10% Coverage	10% - 20% Coverage	20% to 35% Coverage	35% to 50% Coverage	50% to 65% Coverage	65% to 80% Coverage	80% to 90% Coverage	90% to 100% Coverage	
Count of Properties (n)											
Less than 1ha	5,054	1	-	-	-	-	-	-	-	-	5,055
1ha to 2ha	245	-	-	-	-	-	-	-	-	-	245
2ha to 5ha	425	4	1	-	-	-	-	-	-	-	430
5ha to 10ha	128	-	2	-	-	1	-	-	-	-	131
10ha to 20ha	90	-	1	-	2	-	-	-	-	-	93
20ha to 50ha	117	-	2	1	-	-	-	-	-	-	120
50ha to 100ha	153	2	3	2	-	-	-	-	-	-	160
100ha to 150ha	69	-	4	1	-	-	-	-	-	-	74
150ha to 250ha	135	4	2	-	-	-	-	-	-	-	141
250ha to 500ha	77	9	10	5	2	-	-	-	-	-	103
500ha to 1,000ha	15	2	5	2	1	-	-	-	-	-	25
More than 1,000ha	1	2	4	2	-	-	-	-	-	-	9
Total Properties	6,509	24	34	13	5	1	-	-	-	-	6,586
Share of Total Properties (%)											
Less than 1ha	77%	0%	0%	0%	0%	0%	0%	0%	0%	0%	77%
1ha to 2ha	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%
2ha to 5ha	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7%
5ha to 10ha	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
10ha to 20ha	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
20ha to 50ha	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
50ha to 100ha	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
100ha to 150ha	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
150ha to 250ha	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
250ha to 500ha	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
500ha to 1,000ha	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
More than 1,000ha	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total Properties	99%	0%	1%	0%	0%	0%	0%	0%	0%	0%	100%
Share of Properties Containing a SIVA (%)											
Less than 1ha		1%	0%	0%	0%	0%	0%	0%	0%	0%	1%
1ha to 2ha		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
2ha to 5ha		5%	1%	0%	0%	0%	0%	0%	0%	0%	6%
5ha to 10ha		0%	3%	0%	0%	1%	0%	0%	0%	0%	4%
10ha to 20ha		0%	1%	0%	3%	0%	0%	0%	0%	0%	4%
20ha to 50ha		0%	3%	1%	0%	0%	0%	0%	0%	0%	4%
50ha to 100ha		3%	4%	3%	0%	0%	0%	0%	0%	0%	9%
100ha to 150ha		0%	5%	1%	0%	0%	0%	0%	0%	0%	6%
150ha to 250ha		5%	3%	0%	0%	0%	0%	0%	0%	0%	8%
250ha to 500ha		12%	13%	6%	3%	0%	0%	0%	0%	0%	34%
500ha to 1,000ha		3%	6%	3%	1%	0%	0%	0%	0%	0%	13%
More than 1,000ha		3%	5%	3%	0%	0%	0%	0%	0%	0%	10%
Total Properties		31%	44%	17%	6%	1%	0%	0%	0%	0%	100%

Source: TPG, Wildlands, GDC, Savvy. *Excludes DOC/Crown Land and Maori Land Court Land.

65 The bottom block of Table 3 focusses just on the composition of the 1% of general tenure (private) properties that contain some area of SIVA (of any size). Nearly a third of those potentially affected general land parcels (24 out of 77) have less than 1% SIVA coverage (i.e. 100sqm of SIVA on a 1ha property or 10ha of SIVA on a 1,000ha property).

66 A further 44% of those properties potentially affected by provisions relating to SIVAs (34 out of 77) have between 1% and 10% of their property covered in SIVA. Appendix C of my evidence maps the remaining private properties that have greater than 10% SIVA coverage. These include:

66.1 only 13 rural properties that have between 10% and 20% SIVA coverage (and these properties range from 20ha to more than 1,000ha in total size),

- 66.2 5 rural properties that have between 20% and 35% SIVA coverage (two of which are between 10-20ha in size and the other three are greater than 250ha in size).
- 66.3 Last, there is 1 property that has SIVA coverage of between 35% and 50%. That property is between 5-10ha in size.
- 66.4 There are no rural properties privately owned that have coverage of SIVA greater than 50%.
- 67 Compared with analysis undertaken for the NPS-IB CBA, these SIVA (indicative SNA) coverages are lower than the national average. For example, nationally, 2.4% of general tenure land parcels were estimated to have indicative SNA coverage of greater than 50%, including 1.2% that were estimated to have coverage of greater than 90% of the parcel area. The policy in the NPS-IB enabling the development of a dwelling on existing parcels where there was no practical option to develop without vegetation clearance was specifically developed for properties that had such high coverage. While required to be included in the PDP, I consider it highly unlikely that that rule will need to be implemented in Gore District, with even the highest covered property still having 4.82ha of land that is not covered by SIVA (or IVA).²⁵
- 68 Appendix A of my statement contains the same analysis for currently defined IVAs, and Appendix B contains the same analysis for the intersection of both SIVAs and IVAs combined on general tenure (private) properties.
- 69 In summary, 99% of all general tenure (private) rural properties do not contain an IVA (as mapped in 2024). As such, only 68 properties contain any IVAs. Of those:
- 69.1 44% have less than 1% coverage;
- 69.2 a further 47% have between 1% and 10% coverage;
- 69.3 just 5 properties out of the 68 (mapped in Appendix D) have IVA coverage of between 10% and 20% (and range in size from 10ha to more than 1,000ha); and
- 69.4 one property (also mapped in Appendix D) has coverage of between 20-35% (and is less than 1ha in size).²⁶
- 70 When SIVA and IVA are combined, 115 general tenure (private) rural properties are impacted, showing that while some properties have both SIVA and IVA, the majority have either SIVA or IVA

²⁵ That particular property is 7.82ha in size with 3ha of SIVA coverage (42.5%).

²⁶ That particular property is 5,300sqm in size and is owned by Chorus NZ Ltd. It contains 1,170sqm of IVA (and no SIVA).

coverage. Of those properties with some form of indigenous vegetation coverage:

- 70.1 31% (36 out of 115) have combined coverage of less than 1%;
 - 70.2 A further 47% (54 out of 115) have combined coverage of less than 10%;
 - 70.3 16 properties (mapped in Appendix E) have combined coverage of 10% to 20%,²⁷
 - 70.4 7 properties (also mapped in Appendix E) have combined coverage of 20% to 35%,²⁸ and
 - 70.5 just 2 properties have combined coverage of between 35% and 50%. One of those is 5-10ha in size (discussed already above in relation to SIVA coverage)²⁹, and the other is a 281ha properties with 34ha of SIVA and 66ha of IVA (total coverage of 36%).³⁰ Even in that instance, there is 180ha of land not covered by indigenous vegetation on which rural activities can (and are already likely to) be carried out. See Appendix E for the location of these 2 properties. Prioritising these properties for a Council Endorsed Biodiversity Management Plan (and Environment Southland funding for ecological assessments) would make sense in my view.
- 71 Table 4 provides a specific analysis of private property within the proposed Hokonui Hills Vegetation Area. This land is mapped in Figure 4. The two main properties identified in the rating database (as supplied by TPG) are Wantwood Station (1,441ha) and Stoney Creek Station (2,540ha within the Hokonui Hills Vegetation Area, and 2,591ha of total property area inclusive of the land registered to the Tulloch's which forms part of Stoney Creek Station operational area).
- 72 There are two other properties in the Hokonui Hills Vegetation Area noted as being owned by Chorus NZ Ltd and the Moody's. These are shown separately but may form part of the general land operated as Stoney Creek Station, noting that their submission stated a total operational area of 2,696ha which would suggest their inclusion).

²⁷ One of these is Wantwood Station.

²⁸ One of these is Stoney Creek Station.

²⁹ Owner: Warren Joseph Heslip (code 17896).

³⁰ Owner: MacDonald & Associates Trustees, Limited, Stephen William Goodwin (code 19182).

Table 4 – IVA and SIVA Coverage of Properties in the Hokonui Hills Vegetation Area (and including total Stoney Creek Station)

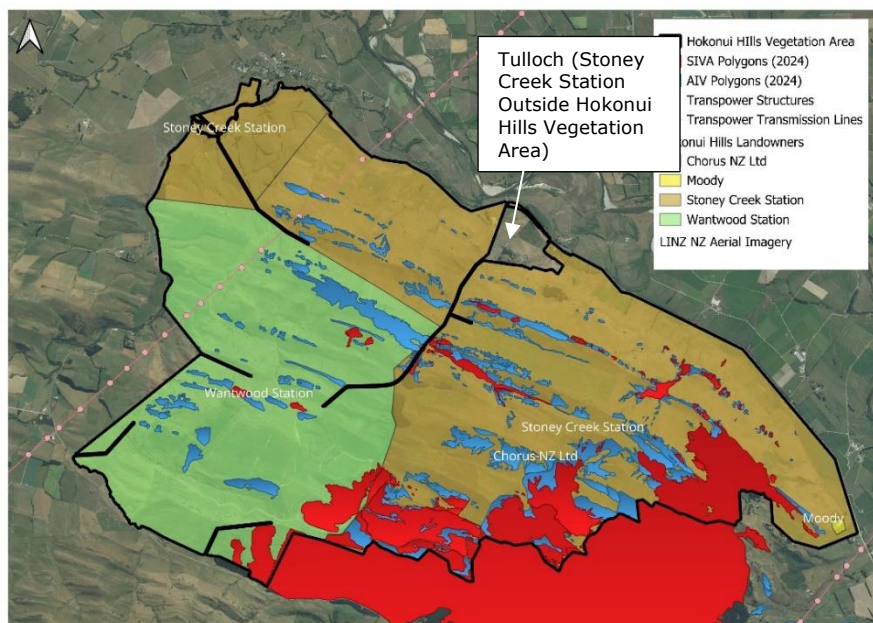
	IVAs 2024 (ha)	SIVAs 2024 (ha)	IVAs and SIVAs Combined (ha)	No SIVAs or IVAs 2024 (Includes Improved Pasture) (ha)	Total Property (ha)
Hokonui Hills Vegetation Area					
Wantwood Station Ltd	95	73	168	1,273	1,441
Chorus New Zealand Ltd	0	-	0	0	1
Aaron David Moody, Rebecca Maree Moody	-	-	-	3	3
Stoney Creek Station Ltd *	259	360	619	1,920	2,540
Non-Rateable Land/Roads	1	0	1	-	1
Total Hokonui Hills Vegetation Area	354	434	788	3,197	3,985
Outside Hokohui Hills Vegetation Area					
Stoney Creek Station Limited (Tulloch Land)	-	-	-	51	51
Sub-Total Stoney Creek Station	259	360	619	1,971	2,591
Share of Property					
Hokonui Hills Vegetation Area					
Wantwood Station Ltd	7%	5%	12%	88%	100%
Chorus New Zealand Ltd	22%	0%	22%	78%	100%
Aaron David Moody, Rebecca Maree Moody	0%	0%	0%	100%	100%
Stoney Creek Station Ltd *	10%	14%	24%	76%	100%
Non-Rateable Land/Roads	59%	41%	100%	0%	100%
Total Hokonui Hills Vegetation Area	9%	11%	20%	80%	100%
Outside Hokohui Hills Vegetation Area					
Stoney Creek Station Limited (Tulloch Land)	0%	0%	0%	100%	100%
Sub-Total Stoney Creek Station	10%	14%	24%	76%	100%
Hokonui Hills Vegetation Area					
Share of Land Cover Type					
Wantwood Station Ltd	27%	17%	21%	40%	36%
Chorus New Zealand Ltd	0%	0%	0%	0%	0%
Aaron David Moody, Rebecca Maree Moody	0%	0%	0%	0%	0%
Stoney Creek Station Ltd *	73%	83%	79%	60%	64%
Non-Rateable Land/Roads	0%	0%	0%	0%	0%
Total Hokonui Hills Vegetation Area	100%	100%	100%	100%	100%

Source: TPG/Wildlands, GDC, Savvy

* Includes land with ownership also listed as NZ Agricultural Company Ltd (in conjunction with Stoney Creek Station Ltd)

Both the Chorus property (which may be a lease) and the Moody property fall within the wider extent of the Stoney Creek Station.

Figure 4 – Map of IVAs, SIVAs, and Property Boundaries in the Hokonui Hills Vegetation Area



- 73 In total, the Hokonui Hills Vegetation area includes an estimated 354ha of IVAs and 434ha of SIVAs. This makes up 42% and 14% respectively of total district IVAs and SIVAs and 42% and 20% respectively of total IVAs and SIVAs on general tenure (private) land.
- 74 Wantwood Station accounts for 27% of the total IVAs and 17% of the total SIVA in the Hokonui Hills Vegetation Area, however total indigenous vegetation coverage of Wantwood Station is only minor at 12% in total (IVAs cover 7% of the property and SIVAs cover 5%).
- 75 Stoney Creek Station accounts for 73% of the total IVAs and 83% of the total SIVA in the Hokonui Hills Vegetation Area, however total indigenous vegetation coverage of Stoney Creek Station is only moderate at 24% in total (IVAs cover 10% of the property and SIVAs cover 14%)³¹.
- 76 I discuss the efficiency of proposed (and recommended) provisions that seek to protect SIVAs and indigenous biodiversity in the context of this analysis of property coverage further below in my evidence.

Economic Growth Pressures and Implications for Rural Development

- 77 To help understand the potential pressure that remaining indigenous vegetation cover on general tenure (private) property may face over the life of the PDP from new use, subdivision and development, I have considered the district's growth context.
- 78 In terms of projected housing demand, the Gore District Plan Review - Planning for Growth report by TPG (June 2022) projects between 650 and 850 additional dwellings between 2018-2038 inclusive of a 20% competitiveness margin for the district overall. Removing this margin (to calculate actual projected dwelling growth) equates to between 540-710 additional dwellings or an average of 27-35/annum. While representing only modest growth, this projection is still high compared to household projections by Infometrics in 2023 for Gore District. They projected growth of just 207 additional households between 2022 and 2054 (annual average growth of just 6-7 households per year over the long term).³²
- 79 The TPG report indicates that recent housing growth pressure has been for urban dwellings and rural lifestyle properties, with the latter gravitating towards the urban fringe. In response, the PDP provides for new areas of Rural Lifestyle Zone and Large Lot Residential Zone and Settlement Zone to consolidate housing

³¹ These percentage coverages are essentially the same when the Tulloch land is included in the total property area when rounded to whole numbers.

³² Southland Region Forecasting Scenarios for Beyond 2025 Southland, Infometrics, June 2023, page 44 (Baseline Projection Scenario).

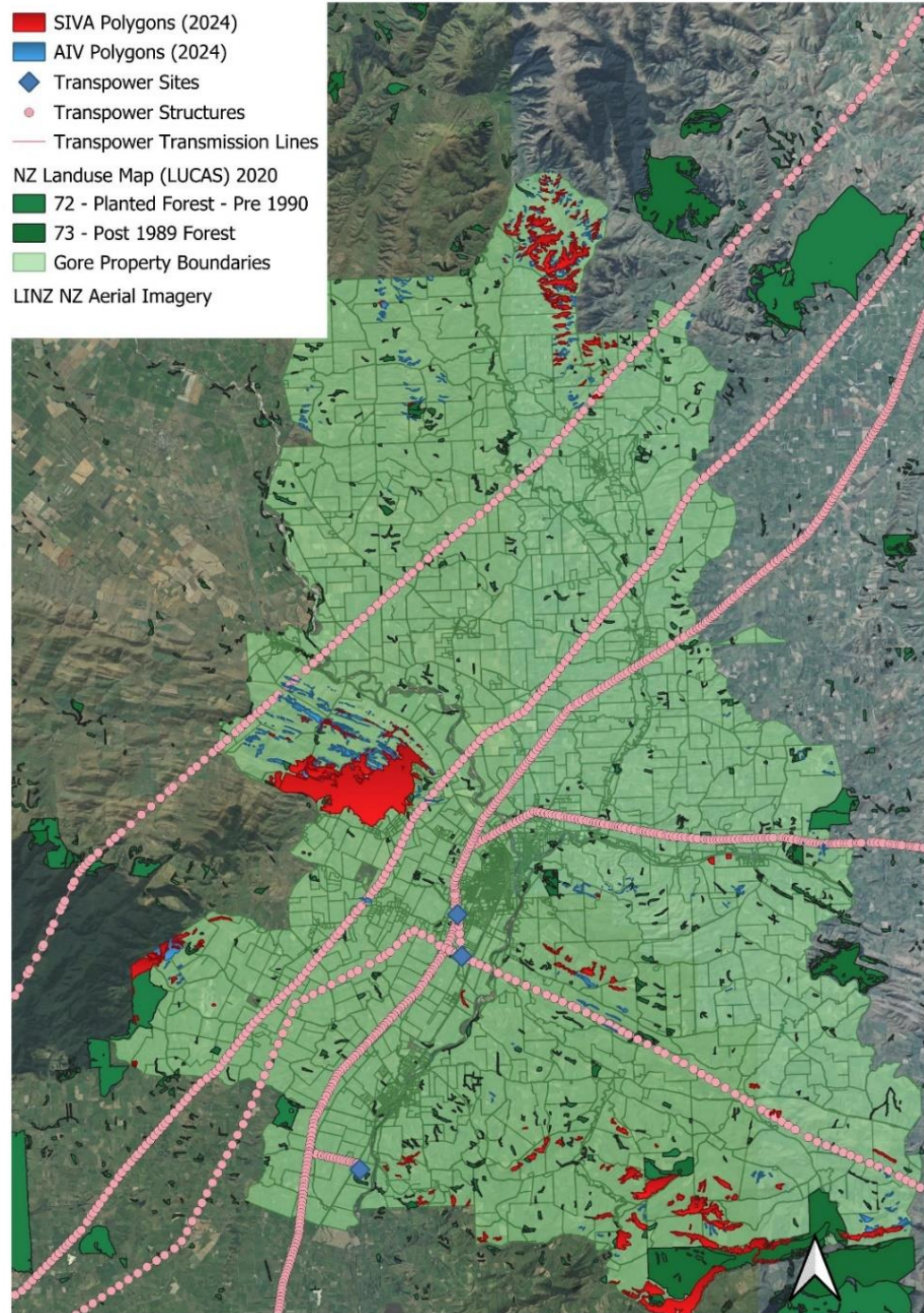
growth in urban (and semi-urban) locations. All of these growth areas appropriately avoid SIVAS/IVAs. Overall, there is no evidence of material pressure for housing development in the General Rural Zone.

- 80 Similarly, the majority of expected employment growth is provided for in the PDP through mixed use and industrial rezoning in urban fringe areas (much of this sustained directly or indirectly by agriculture). Again, these locations proposed for rezoning do not contain indigenous vegetation (as mapped in 2024).
- 81 In terms of potential growth targeting the General Rural Zone, the PDP has increased the minimum lot size in the General Rural Zone (and reduced the residential density provisions), so a decrease in recent subdivision trends and/or housing development supporting agricultural activities may be anticipated. The TPG report considers there will be continued strong growth in the agriculture sector (and notes the district's prime agricultural land). Other rural based activities *"which have shown growth over the last 10 years and are anticipated to continue to grow include forestry, energy generation and mining related activities"* (page 44).
- 82 Overall, while not researched in any detail, I consider that most recent development in the rural areas of the district has been primarily limited to locations close to the urban fringe and not in the wider farming areas per se. The scale and cost of investment in renewable energy generation and mining means that any growth in those sectors will be limited to very few properties that are suitable for such activities and will not be widespread. Forestry conversion is also likely to avoid gullies and steep terrain (where indigenous vegetation is likely to be concentrated)³³ and can be planned around SIVAs/IVAs.
- 83 As a whole, it is not considered that Gore's General Rural Zone will face any material or unusual pressure for new subdivision, use of development that would warrant more stringent provisions in the PDP than outlined in the NPS-IB (where this is an option left to local authorities) to protect SIVAs/SNAs and maintain indigenous biodiversity.³⁴ Agriculture will continue to be the mainstay of the economy, with any changes in rural land use (even within the primary production sector) likely to be confined to relatively few locations/properties over the life of the Plan.

³³ For harvest feasibility and erosion consideration) reasons.

³⁴ Clause 3.14 of the NPS-IB allows local authorities to provide for plantation forestry activities to occur while also maintaining indigenous biodiversity in SNAs as far as practical. While the ECO Chapter does not permit indigenous vegetation clearance for forestry activities within a SIVA/SNA, it is relatively more enabling of this activity than other activities that impact SNAs (by assigning a RDA rather than NCA).

Figure 5 – National Grid Infrastructure, Forestry and Indigenous Vegetation Cover in Gore District



84 Most new development is likely to be related to expansion of existing rural activities and operations that will occur on some but not all rural properties. Providing for the ongoing operation of existing farming and forestry activities (which is mostly very small scale but widespread as shown in Figure 5)³⁵ is a key economic

³⁵ The majority of forestry landcover (based on the most recent LUCAS land cover database) appears to be related to smaller woodlots (or shelterbelts), with

consideration for the proposed ECO chapter. Gore also has significant national grid infrastructure (compared with many districts, see Figure 5), so requirements in the NPS-IB that provide for the safe operation and maintenance of the national grid will be particularly relevant.

ECONOMIC COSTS AND BENEFITS – GORE DISTRICT

Overview of Proposed and Recommended Provisions

- 85 The NPS-IB provides some discretion to local authorities as to what policies and rules they insert into district plans to implement the objective and policies of the NPS-IB. However, some policies and rules required to be inserted in the Plan are prescribed in the NPS-IB and their inclusion cannot be contested (and need not be assessed for efficiency in my view). An example would be the effects management hierarchy.
- 86 While typically, the efficiency of the proposed provisions would be assessed relative to a status quo baseline (i.e. the ODP provisions),³⁶ the requirement to give effect to the NPS-IB (and SRPS) has meant wholesale changes in the approach to manage indigenous biodiversity in the Gore District. This means that the status quo is no longer a suitable counterfactual. As such, my evidence below considers the efficiency of the recommended provisions relative to the notified provisions. That is, it focusses on some of the more recent changes to provisions that have been made in response to submissions, including where further changes are not recommended despite relief sought by submissions.
- 87 I have been supplied the proposed ECO chapter (as notified) and the recommended changes to that version developed by Mr Heale (as drafted at the time of preparing this evidence).³⁷ There have been wide ranging changes recommended to the proposed overview, objectives, policies, rules and definitions of the ECO chapter. Some of these recommended changes are relatively minor and relate to improved wording or a more accurate reflection of NPS-IB requirements. I do not consider such changes in my evidence. Other recommended changes are more substantive.
- 88 One change that had occurred post notification is the removal of the stated indigenous vegetation clearance distance either side of existing fencing which is a permitted activity in rule ECO-R1. This change was following a resolution of Council on the 21st November 2023. I return to this specific matter in my response to submissions.

commercial scale forestry on the south and western fringes of the district boundary.

³⁶ This is the approach required in a S32A assessment for example.

³⁷ The recommended version of the provisions may be modified further (after this evidence is completed) as the S42A report is finalised.

Approach to Assessing Costs and Benefits

89 There are a number of economic costs indirectly related to the proposed ECO chapter that I do not assess. I explain these below:

89.1 *Council administration costs for mapping SNAs and including them in the District Plan, including associated participation costs for affected landowners in that process:*³⁸ There is a financial cost for a qualified ecologist/consultancy to ground truth SNAs on private and public land,³⁹ with additional administration costs within Council to manage landowner communication, data management and carry out a variation to the Plan. Similarly, there are 'costs of time' for landowners to facilitate ground surveys on their property and review and consider survey findings etc. These costs, particularly for the Gore District Council and Environment Southland (if assisting with funding) are substantial. However, that expenditure (time and money) is a requirement under the NPS-IB and so goes beyond the efficiency test of the proposed provisions for this hearing. Also, if landowners wish to be proactive and identify SIVAs on their land prior to a council initiated process, an ecological survey can be funded by Southland Regional Council "at no cost or obligation to the landowner", although at this stage, this funding is due to run out by mid-2025.⁴⁰

89.2 *Restoration costs:* ECO-P6 and P7 are not directive, rather they use the word "promote" in regard to indigenous biodiversity restoration. There is insufficient information upon which future restoration attributable to those proposed PDP policies P6 and P7, and the future Regional Biodiversity Strategy, can be assessed. As such, any costs (and benefits) of future restoration are not considered here. It is noted that funding may be available to mitigate restoration and enhancement costs for private landowners (essentially a cost spread over all ratepayers or taxpayers (depending on the source of the funding). For example, Environment Southland's Environmental Enhancement Fund (EEF) may assist with direct costs of materials and labour used in a restoration project and up to 50% of the project costs. Other funding sources are also likely to be available to mitigate costs.

89.3 *Pest management costs:* Two proposed rules in the notified provisions make the planting of exotic weed species within SIVAs/SNAs and intentional release of animal pests (or farming of animals) within SIVAs/SNAs non-complying

³⁸ Covered by ECO-O2 and ECO-P1

³⁹ This is understood to also cover the preparation of a Council Authorised Biodiversity Management Plan.

⁴⁰ <https://www.es.govt.nz/environment/biosecurity-and-biodiversity/ecological-surveys>

activities (NCA). At the time of preparing this evidence, Mr Heale was of the view that it was not necessary to retain these rules in the ECO chapter, as they duplicated the RPMP.⁴¹ Irrespective of whether these rules are retained or deleted, the requirement for landowners is unchanged and forms part of the status quo thanks to the RPMP. Any opportunity costs associated with not planting or releasing pest species in SIVAs/SNAs is not attributable to the PDP and therefore goes beyond the scope of this evidence to assess.

It is also noted that proposed R3 and R4 do not require landowners to actively manage (control or remove) pest species from SIVAs/SNAs on their land. This is consistent with the NPS-IB which did not direct any expenditure by landowners in order to protect SNAs if there was no new use, development of subdivision, or change in existing activities. Only if those circumstances do not apply may conditions of consents require such costs if considered necessary to avoid, remedy or mitigate adverse effects on SNAs. Even then, Environment Southland's EEF can also provide financial support for pest animal and weed control and associated fencing.

- 89.4 *Covenant or similar protection costs and management plans:* Similar to the above, the proposed provisions do not require landowners to legally protect SIVAs/SNAs on their land. This is a voluntary cost⁴² not attributable to the ECO chapter provisions and is excluded. The recommended changes to ECO-R1 also provide the opportunity (but not a requirement) for landowners to pursue a Council Endorsed Biodiversity Management Plan for their property. While such Plans may come at a cost (net of any funding that may assist) such plans may also reduce the need for future consents for indigenous vegetation clearance under ECO-R1 for *some* proposed new activities or planned existing activities that are greater in scale or different in character. This is on the basis that potential minor effects and no net loss of indigenous biodiversity can be determined at the time through an expert ecological assessment, allowing them to be included as a permitted activity if prescribed in the Biodiversity Management Plan. Again, this is a voluntary cost (with potential economic benefits) and is excluded.

- 90 My evidence below is limited to the recommended changes to the proposed rules in the ECO chapter, as the rules give effect to the policies and are the tangible link between the actions of landowners on their land and the proposed provisions (i.e. the rules are where

⁴¹ Regional Pest Management Plan.

⁴² There are also funding sources to help with these costs.

the regulations interact with property rights and is where potential costs and benefits arise).

- 91 The next sections of my evidence discuss economic costs and benefits of the proposed rules (as recommended at the time of drafting this evidence) at a high-level. I focus initially on rule ECO-R1, then provide further commentary on proposed rule ECO-R2. As noted above, I do not consider rules ECO-R3 and R4 that reinforce the Southland RPMP.

Economic Costs – ECO-R1

- 92 ECO-R1 deals with indigenous vegetation clearance and land disturbance outside of the Hokonui Hills Vegetation Area. At the highest level, the processes through which ECO-R1 can directly generate economic costs for different stakeholders are as follows:
- 92.1 Where permitted clearance/land disturbance activities are not complied with, activities will either require a restricted discretionary (RDA), discretionary (DA) or non-complying (NCA) consent application. Consent applications impose transaction costs on applicants (i.e. costs associated with preparing the necessary information for a consent application (including ecological assessment), application and processing fees, and potentially hearing costs and fees). There is usually a continuum of costs for consents, with NCA consents typically costing more.
- 92.2 It is important to recognise that while ECO-R1 relates to clearance of indigenous vegetation (and land disturbance) that may trigger a consent, some activities may have required a consent in any case because of provisions in other chapters of the district plan (such as the transport or subdivision chapter), and so not all transaction costs can be attributable to ECO-R1.
- 92.3 Until SNAs are mapped in a district plan, transaction costs may be expected to be higher because of the additional work needed for an ecologist to establish the baseline against which effects of the proposal are measured. However, funding is currently available from Environment Southland⁴³ which covers the costs of mapping and ecological assessment of SIVAs (in accordance with the SRPS), so the delay in SNA mapping is considered to have a neutral effect on transaction costs (at least over the short term) but potentially increasing if/once that funding runs out (indicatively mid 2025). Only

⁴³ This is funding is part of Environment Southland's Biodiversity Action on the Ground Project which to date has utilised Central Government "Jobs for Nature" funding.

the ecologist costs for assessing the effect of the proposed activity therefore count towards the transaction cost.

- 92.4 If a consent is granted, it may impose conditions on the applicant which have financial implications, which I treat as compliance costs. Compliance costs may include net additional costs not anticipated by the application (including any mitigation measures, offsetting or compensation already anticipated/calculated) like additional fencing, pest control, planting, or monitoring costs. Some of these costs may be able to be mitigated by funding (discussed above for restoration and pest control). Compliance costs can be spread over a number of years unlike transaction costs which are one-off costs linked to a proposed activity.
- 92.5 Each time a consent is required, this imposes administration costs on the local council. Some consents (in addition to permitted activities) will also increase Council's monitoring and enforcement costs. While much of these costs are meant to be recovered from the consent applicant, invariably there are some costs to Council (mainly staff time/resourcing) that are not recovered. Processing consents, enforcing conditions on consents and permitted activity standards, and environmental monitoring are all core functions of local authorities. As Council is the proponent of the PDP, it is considered that the administration costs of ECO-R1 (and other rules proposed in the chapter) are anticipated and considered acceptable (relative to the benefits that return to rate payers from protecting SIVAs/SNAs and maintaining indigenous biodiversity in the district).
- 93 Regarding the above three **consent related costs** (transaction, compliance and administration), the number of consents that ECO-R1 may trigger annually is not possible to predict. The more enabling the permitted activities, the lower the probability that a consent will be required. However, the need for a consent should be balanced with the need to manage adverse effects arising from indigenous vegetation clearance (or the risk of adverse effects where there is uncertainty) so that the objectives and policies (benefits) of the ECO chapter can still be met.
- 94 We do know:
- 94.1 the number of properties that contain indigenous vegetation (discussed above) is relatively low. This is estimated at 151 general tenure (private) properties and a handful of DOC, Crown, GDC and Māori Land Court properties. This is only a fraction of the total properties in the district.
- 94.2 that all properties containing indigenous vegetation are within the General Rural Zone and so the nature of activities sought

or carried out on the land (existing and new) can be reasonably anticipated.

94.3 In Gore District, the coverage of indigenous vegetation relative to total property area is negligible or very minor for most properties potentially impacted by ECO-R1. Even the few properties with relatively higher coverage (which still does not constitute high coverage in my view) still have large areas not covered in indigenous vegetation where new activities (or existing activities that are larger in scale or different in character) might be proposed without requiring indigenous vegetation clearance (or land disturbance).

95 Having considered the proposed range of activities that permit indigenous vegetation clearance,⁴⁴ which may also include activities that are approved within a Council Endorsed Biodiversity Management Plan if obtained for a private property, I consider that ECO-R1 provides for a wide and relevant scope of existing activities and regular farming/rural operations, as well as providing for cultural practices, maintenance of existing critical and other infrastructure, matters of public/health and safety and commercial forestry activities outside of SIVAs/SNAs. Ensuring that existing activities can continue (albeit within some limits before a consent is required), goes a long way to ensuring that landowners can continue to provide for their economic wellbeing.

96 For example, a recent change recommended in the S42A report includes permitting incidental removal of indigenous vegetation that is not forest vegetation (up to 50sqm per 5 years, or indicatively 100sqm each over the life of the PDP) to facilitate existing farming operations (ECO-R1(1)(m)). This recommended rule further recognises the important role of farming in the district, and the day to day practicalities of farming. I support the addition of this permitted activity on the basis that the potential quantified loss of indigenous vegetation is estimated to be minor over the life of the PDP⁴⁵ relative to the economic benefits of sustaining existing farming activities.

97 I do query the addition of rule ECO-R1(1)(n).⁴⁶ While Mr Wells supports this rule and has confirmed that indigenous vegetation re-growth over the last 15 years in Gore District would not meet the criteria of a SNA/SIVA or IVA as currently mapped, this rule sets no limits to the area that could be cleared or no limits on the reason for clearance (with the presumption that it is not for improved pasture

⁴⁴ Many of which have been prescribed by the NPS-IB.

⁴⁵ For example, even if all 151 properties containing indigenous vegetation (SIVA or IVA) contained existing farming operations and all of those cleared 50sqm of indigenous vegetation each 5 years, this is a maximum loss of 1.51ha of non-forest indigenous vegetation over the next 10 years. The actual loss over the life of the plan would be expected to be well below this.

⁴⁶ Indigenous vegetation clearance is a permitted activity "where vegetation is no older than 15 years ".

maintenance as there is a different rule that allows for that clearance). It does not take into consideration whether the location of the regenerated indigenous vegetation provides any buffering or other ecological benefits for an adjoining SNA/SIVA or habitat for indigenous fauna.

- 98 What was cleared within the last 15 years, may not be considered best practice today. Given that the NPS-IB set a baseline for the maintenance of indigenous biodiversity (at the date that it came into effect), it would seem possible that clearance under this proposed rule could lead to a material decline in indigenous biodiversity relative to that baseline. I also consider that monitoring this rule could be challenging. A Controlled Activity (CA) status would at least provide an opportunity for proof of previous clearance to be established, else I consider that such clearance should be managed through the other proposed RDA, DA and NCA consent provisions. I may review my concerns on this proposed provision if further evidence is provided during the hearing.
- 99 I consider that the potential scale and nature of properties containing indigenous vegetation combined with the scope of proposed permitted activities in ECO-R1 (as drafted at the time of preparing this evidence) and the relatively low growth pressure facing rural areas in the district, means that the potential incidence of rural activities triggering a resource consent for indigenous vegetation clearance or land disturbance in any one year will be relatively low district-wide.⁴⁷ Based on current drafting, examples of clearance related to farming or rural production activities that would trigger a consent include (but are not limited to):
- 99.1 New fencing in any IVA or SIVA/SNA (RDA).
 - 99.2 New firebreaks or maintenance, repair, replacement or upgrade (herein referred to as "maintenance") of existing firebreaks requiring clearance greater than 1.5m on either side in any IVA or SIVA/SNA (RDA).
 - 99.3 Commercial forestry activities (including harvest) within a SIVA/SNA (RDA).
 - 99.4 New vehicle tracks, walkways or waterway crossings, or maintenance of existing tracks, walkways or waterway crossings requiring clearance greater than 1.0m on either side in any IVA (DA) or SIVA/SNA (NCA).

⁴⁷ The NPS-IB anticipated an increased incidence of consent applications relative to the status quo in most districts, so this is not unexpected or unique to Gore District.

- 99.5 Maintenance of existing roads, network utilities or critical infrastructure requiring clearance greater than 1.0m on either side. DA in IVA or NCA in SIVA/SNA.
- 99.6 The construction of new buildings or structures (and associated site infrastructure). DA in IVA or NCA in SIVA/SNA.
- 99.7 The removal of indigenous vegetation to manage fire risk that is greater than 2.0m from the exterior wall of existing buildings.
- 100 Examples of clearance related to other activities that may locate in the rural area (whether by landowners or other service providers) that would trigger a consent include (but are not limited to):
- 100.1 New additions to the national grid, new roads, additions to a network utility or new critical/specified infrastructure in any IVA (DA) or SIVA/SNA (NCA).
- 101 I have found online the Gore District Council costs/fees for 2024/25 of RDA, DA or NCA consent applications (as they may apply to the ECO chapter). While one submitter had indicated that costs have risen in recent years⁴⁸ the base charges are the same irrespective of the activity status and are relatively minor in value. For example, non-notified consents have an application charge of \$1,580 and notified consents have a charge of \$5,000.⁴⁹
- 102 In addition to council fees required for consents, an ecologist assessment is needed to determine the impact of the proposed activity on indigenous biodiversity in that location (and advise how to manage those effects). There may also be other professional costs (i.e. if a planner is required to prepare the consent application), but the ecologist cost is considered the main cost attributable to proposed ECO-R1.
- 103 I do not have data on likely ecologist costs for Gore District. However, based on average consent cost data collected for the NPS-IB CBA, I do not consider that the transaction⁵⁰ and compliance

⁴⁸ Submitter 3 (Stoney Creek Station)

⁴⁹ There may be other charges. The first hour of a pre-application meeting is free, after which it is charged at cost of around \$120-160/hour. I am uncertain of the likelihood that vegetation clearance consents would face the higher notified consent application cost.

⁵⁰ Table 6.2 of the CBA Report showed the gross costs for ecological assessment that would be expected to meet the standards required by the NPSIB by a suitably qualified/experienced consultant. These gross costs could range from as low as \$3,000-7,000 for small scale/simple projects that don't include any fauna assessments or residual effects modelling (minor effects to be managed) through to \$70,000-150,000 for large scale/complex projects that deal with more than minor effects on multiple species/ecosystem types and require offset/compensation modelling, or in the case of significant infrastructure projects in sensitive environments, costs could reach closer to \$1 million but are considered rare. Given that consent was not required for vegetation clearance outside of

costs potentially faced by landowners in Gore District (some of which could be funded) will be such that they adversely affect the viability of proposed activities or farming/other rural (i.e. commercial forestry) operations generally. Rural activities which are likely to occur relatively frequently (fence maintenance, firebreak maintenance and commercial forestry activities are afforded RDA status which (all else being equal) would be expected to be less costly than DA or NCA consents. Landowners would also be expected to be strategic about consent applications to minimise transaction and compliance costs over time (and this may include obtaining a Council Endorsed Biodiversity Management Plan).

- 104 Less frequent or unlikely situations of vegetation clearance (and land disturbance) that are not covered by a permitted activity or RDA status are (all else being equal) relatively more costly to consent but are not considered to be cost prohibitive.
- 105 A key finding from the CBA for the NPS-IB was that large scale developments in rural areas that potentially have significant adverse effects on indigenous biodiversity (such as for new infrastructure or roads) typically carry out best practice ecological assessments even when district plans do not have provisions that prescribe the scope and quality of assessment. For such infrequent projects, the proposed provisions of the ECO chapter are not expected to generate any material net additional transaction or compliance costs above the status quo.
- 106 Based on the information provided to date, and in light of the objectives of the ECO chapter, and particularly the need to protect SIVAs/SNAs, I consider that the proposed DA and NCA status is an appropriate response (and deterrent) for those indigenous vegetation clearance (and land disturbance) activities that are not already provided for as permitted activities or RDA. A DA or NCA status is not expected to result in net additional costs to landowners that go beyond those anticipated by the NPS-IB, or that will limit the ability of landowners to provide for their economic wellbeing.
- 107 I do however consider that some of the clearance distances set in the recommended provisions could be adjusted to better reflect the practicalities of maintenance activities in rural areas (and reduce the incidence of RDA, DA and NCA consent applications (and associated transaction and compliance costs) for lawfully established activities. I address this in more detail in response to submissions further below.

operative SNAs in the ODP, gross costs are considered the best approach for Gore District, rather than a marginal change in costs relative to the status quo that might be applicable in some other districts that had more stringent rules in their ODP for vegetation clearance.

- 108 In addition to consent related costs discussed above, it is relevant to consider if ECO-R1 indirectly generates **opportunity costs** on private landowners. Opportunity costs refer to potential reductions in land value (or foregone uplift in value) associated with any net additional constraints on the maintenance of existing activities or new subdivision, use or development (or productive output) in order to manage adverse effects on SIVAs/SNAs (and indigenous biodiversity generally). This may arise if DA or NCA consents consistently cannot be obtained, subdivision yield is reduced (or wholly prevented), or development outcomes (including those approved by consent) are sub-optimal on a site relative to what could otherwise be achieved.
- 109 While transaction and consent-related compliance costs would only occur if some form of new development, use and subdivision approval was pursued and given effect, an opportunity cost on property value may occur irrespective of whether a landowner intends to realise the potential of the land or not.⁵¹
- 110 Opportunity costs will be greatest (although not always significant) when a new use, subdivision or development is wholly constrained (prevented) by the need to avoid certain adverse effects on a SIVA/SNA. This only occurs where there is no potential to modify the proposal to avoid the specified effects of proposed ECO-P3.
- 111 The NPS-IB contains a number of exception clauses that ensure that activities that contribute significantly to economic wellbeing are not unduly constrained by the need to protect SNAs on private land (and have a consent pathway). This includes an enabling approach for specified infrastructure, mining, aggregate extraction, forestry activities, maintaining improved pasture, development of Māori land and constructing a dwelling on lots that existed prior to the commencement of the NPS-IB.
- 112 These exceptions (reflected in the proposed ECO chapter) have substantially reduced the probability that giving effect to the NPS-IB will generate significant opportunity costs for private landowners in Gore District. The CBA for the proposed NPS-IB considered situations where the NPS-IB may still have a constraining effect on new use, subdivision and development, and found that those opportunity costs were minor in most cases and were one-off costs faced by a relatively small number of current landowners. It also found limited situations in practice where the requirement to protect SNAs would lead to the retirement of productive farm or commercial forestry land because of the identification of an SNA on that land.⁵²
- 113 As shown, properties in Gore District are not highly constrained by indigenous vegetation coverage to the extent that they would

⁵¹ CBA for the Proposed NPS-IB, page 93.

⁵² CBA for the Proposed NPS-IB, page 9 and page 147.

unduly constrain existing activities or rural use and development. Furthermore:

- 113.1 Farming (and to some extent commercial forestry) has been carried out in Gore District over a long time period alongside remnants of indigenous vegetation. Current land uses are well established and operate effectively despite the presence of IVAs and SIVAs on those properties to date (although rural activities are eroding indigenous vegetation cover on some properties). The proposed provisions provide for the continuation of those existing activities (at their current scale and character).
 - 113.2 There are very limited changes to the zoning of productive rural land in the PDP compared to the ODP in terms of activities anticipated and enabled (other than the proposed provisions being more prescriptive).⁵³
 - 113.3 Minimum lot sizes in the proposed General Rural Zone are also relatively large and increased (40ha permitted, and down to 8ha RDA) compared to 2ha in the ODP. The opportunity cost of increased minimum lot sizes is outside the scope of the ECO chapter, but the proposed provisions of the ECO chapter are unlikely to further add to those subdivision opportunity costs. This is because larger lot sizes mean it is less likely that rural subdivision yield would be reduced in order to avoid fragmenting SIVAs/SNAs.
 - 113.4 While some farming activities would require a consent if certain effects of indigenous vegetation clearance or land disturbance could not be avoided, as discussed above those consent related costs are not considered to be so high as to make those proposed activities unfeasible, such that farming or forestry was no-longer viable at a property level.
- 114 These are all factors which influence the capitalised value and/or the gross output (revenue) of rural land. As such, I do not consider that the proposed ECO-R1 will generate any more than minor opportunity costs, including reductions in land values, for existing rural property owners.⁵⁴ I disagree with the submission by Southland Federated Farmers that the proposed provisions of the ECO chapter will create "*a real risk of a perverse effect that SNAs*

⁵³ In some cases, the provisions of the proposed Rural General Zone are more enabling than in the ODP (opportunity benefits/value uplift).

⁵⁴ Only existing rural property owners are subject to potential opportunity costs. These costs are mainly felt (in the hand) if the land is sold (at the lower impacted value). Sometimes it can affect the ability to borrow money against the value of the property. As buyers of rural land (sales that occur after the proposed provisions are operative) already accounted for the opportunity cost (by paying less for the land), it is not carried over into any subsequent sale and purchase agreements.

will become something that farmers are motivated to avoid having on their properties” in the Gore District.⁵⁵

- 115 If Gore District Council considers rates remission for the estimated 77 private landowners containing SIVAs/SNAs in the future, then this would help, over time, to mitigate any potential opportunity costs associated with the need to protect SIVAs/SNAs and maintain indigenous biodiversity on private land under ECO-R1.

Economic Costs – ECO-R2 (Hokonui Hills)

- 116 Rule ECO-R2 has been drafted as a recent addition to the ECO chapter, following the Record of Consensus signed between the two main properties in the Hokonui Hills Vegetation Area (Stoney Creek Station and Wantwood Station⁵⁶) and Gore District Council on the 3rd of December 2024. I respect that these provisions were drafted with input from independent ecologists and planners, based on site visits and further information provided by the landowners to the Working Group members, that I have not been party to, although some further information has been included in Mr Wells’ report.
- 117 My views below are informed by:
- 117.1 the submissions made by the respective landowners on the notified ECO chapter;
 - 117.2 the assumption that areas A and B (as confirmed by site visits) are comparable to IVAs mapped elsewhere in the district, and areas C and D are comparable to SIVAs mapped elsewhere in the district;⁵⁷
 - 117.3 my analysis of that indigenous vegetation land coverage on both properties (and relative to other properties);
 - 117.4 the wording of ECO-R2 in that context and relative to ECO-R1 as currently recommended; and
 - 117.5 Further discussion with Mr Heale and Mr Wells.
- 118 My understanding of the differences between proposed ECO-R2 and the recommended version of ECO-R1 (at the time of preparing this evidence) are:
- 118.1 the maintenance of existing tracks as a permitted activity does not have a clearance width applied to it, rather than a

⁵⁵ Submission 126, page 4.

⁵⁶ McLeod-Wantwood Trust.

⁵⁷ This was also my approach to the spatial analysis earlier in my evidence.

1.0m clearance threshold either side applicable to all other rural landowners.

118.2 ECO-R2(1)(10) provides for clearance for new fencing as a permitted activity within any IVAs (aka Areas A and B) up to 3,750sqm/5 years (Stoney Creek)⁵⁸ and 900sqm/5 years (Wantwood Station) rather than a RDA in ECO-R1 for all other rural landowners. Only clearance exceeding those thresholds is an RDA for Stoney Creek and Wantwood Stations.

118.3 ECO-R2(1)(11) provides for clearance for new fencing⁵⁹ as a permitted activity within any SIVA/SNA (aka Areas C and D) up to 1,250sqm/5 years (Stoney Creek) and 50sqm/5 years (Wantwood Station) rather than a RDA in ECO-R1 for all other rural landowners. Only clearance exceeding those thresholds is an NCA for Stoney Creek and Wantwood Stations.

118.4 ECO-R2(1)(10) provides for clearance for new tracks as a permitted activity within any IVAs (aka Areas A and B) up to 3,750sqm/5 years (Stoney Creek)⁶⁰ and 900sqm/5 years (Wantwood Station) rather than a DA in ECO-R1 for all other rural landowners. *This threshold is not additive, but in combination with clearance for new fencing.* Clearance exceeding those thresholds is still only an RDA for Stoney Creek and Wantwood Stations.

118.5 ECO-R2(1)(11) provides for clearance for new tracks⁶¹ as a permitted activity within any SIVA/SNA (aka Areas C and D) up to 1,250sqm/5 years (Stoney Creek) and 50sqm/5 years (Wantwood Station) rather than a NCA in ECO-R1 for all other rural landowners. *This threshold is not additive, but in combination with clearance for new fencing.* Only clearance exceeding those thresholds is an NCA for Stoney Creek and Wantwood Stations.

118.6 ECO-R2(1)(10) provides for clearance for any other activity essential for existing farming operations as a permitted activity within any IVAs (aka Areas A and B) up to

⁵⁸ This exceeds the quantum requested in Stoney Creek's submission where they sought up to 500sqm of clearance outside an SNA per annum (i.e. 2,500sqm/5 years).

⁵⁹ Creating new fences in a SIVA fragments a potential SNA, and reduces the extent of the SNA. Having this as a permitted activity would appear to be inconsistent with ECO-P3.

⁶⁰ This exceeds the quantum requested in Stoney Creek's submission where they sought up to 500sqm of clearance outside an SNA per annum (i.e. 2,500sqm/5 years).

⁶¹ Creating new farm tracks in a SIVA fragments a potential SNA, and reduces the extent of the SNA. Having this as a permitted activity would appear to be inconsistent with ECO-P3.

3,750sqm/5 years (Stoney Creek)⁶² and 900sqm/5 years (Wantwood Station) rather than permitting up to 50sqm/5 years in ECO-R1 for all other rural landowners (and excluding indigenous forest vegetation). *This R2 threshold is not additive, but in combination with clearance for new fencing or tracks.* Clearance exceeding those thresholds is a RDA for Stoney Creek and Wantwood Stations but exceeding just 50sqm/5 years in an IVA for all other properties is a DA.

118.7 ECO-R2(1)(11) provides for clearance for any other activity essential for existing farming operations as a permitted activity within any SIVA/SNA (aka Areas C and D) up to 1,250sqm/5 years (Stoney Creek) and 50sqm/5 years (Wantwood Station) rather than permitting up to 50sqm/5 years in ECO-R1 for all other rural landowners (and excluding indigenous forest vegetation). *This R2 threshold is not additive, but in combination with clearance for new fencing or tracks.* Clearance exceeding those thresholds is a NCA for Stoney Creek and Wantwood Stations but exceeding just 50sqm/5 years in a SIVA/SNA for all other properties is a NCA.

118.8 Non-compliance with all other permitted indigenous vegetation clearance related activities in Stoney Creek and Wantwood Stations (i.e. ECO-R2(1)(1-8) is only a RDA, rather than DA or NCA in the rest of the district.

119 While these clearance thresholds are minor relative to the IVAs and SIVAs on both properties (including cumulatively over the life of the PDP), and Mr Wells has confirmed that the thresholds were agreed on the basis that the effects of planned fencing and farm tracks were assessed as being minor and would not result in a net loss of indigenous biodiversity on the properties over the life of the PDP, this level of detail (context) is not included in the provisions. Therefore, it may not be clear to readers of the ECO chapter why these two properties warrant a more enabling approach relative to other properties containing IVAs or SIVAs in the district (and perceptions of wellbeing inequities may arise).

120 The IVAs and SIVAs on Stoney Creek Station and Wantwood Station are no less important to maintain and protect than IVAs and SIVAs on any other rural property in Gore District. In fact, pro-rata, the remnants of indigenous vegetation on both properties' accounts for a substantial share of the total benefits delivered by IVAs and SIVAs/SNAs in the district on account of their scale.

⁶² This exceeds the quantum requested in Stoney Creek's submission where they sought up to 500sqm of clearance outside an SNA per annum (i.e. 2,500sqm/5 years).

- 121 There are other private properties that have higher IVA and SIVA coverage than both Stoney Creek and Wantwood Station.^{63 64} Some of these are also relatively large rural properties. These properties do not have bespoke rules.
- 122 I understand that the detailed ecological assessment that has been carried out on the two stations (which determined acceptable vegetation clearance thresholds) broadly equates to what would be addressed in a Council Endorsed Biodiversity Management Plan.
- 123 GDC is looking to encourage landowners with IVAs/SIVAs to obtain these Biodiversity Management Plans. The greater certainty provided by an on-site ecological assessment can result in more enabling outcomes for landowners (and reduced/avoided consent costs in future), as evidenced by the Stoney Creek/Wantwood Station experience and proposed ECO-R2.
- 124 However, ECO-R1 now provides for vegetation clearance as a permitted activity where this implements a Council Endorsed Biodiversity Management Plan. On that basis, and on the assumption that Stoney Creek Station/Wantwood Station could obtain a Biodiversity Management Plan with little or no additional cost, I consider that the outcomes sought by the Stoney Creek and Wantwood Stations (and confirmed as appropriate permitted activities) can now be covered by ECO-R1(1)(f) without the need for bespoke rules in ECO-R2.⁶⁵
- 125 Subject to any further evidence provided at the hearing that demonstrates that ECO-R1 (as now recommended) would not be an efficient outcome for both Stoney Creek Station and Wantwood Station, or that ECO-R1 would significantly constrain the ability of the landowners to provide for their economic wellbeing (through farming), compared to any other farming property in the district, I consider that ECO-R1 (including recommended further amendments discussed below) should apply to all rural properties containing indigenous vegetation, inclusive of Stoney Creek Station and Wantwood Station (and ECO-R2 should be removed).

Economic (and other) Benefits of ECO-R1 and R2

- 126 If effective, the benefits of given effect to the NPS-IB and SRPS in the ECO chapter – as manifest through the proposed and recommended rules and wider policies – are the avoided further loss (where practicable) of indigenous biodiversity value on all property,

⁶³ Stoney Creek is ranked 6th highest in terms of IVA coverage and Wantwood Station is ranked 9th highest.

⁶⁴ Stoney Creek is ranked 9th highest in terms of SIVA coverage and Wantwood Station is ranked 30th highest.

⁶⁵ Care is needed not to set an expectation for other landowners who obtain a Council Endorsed Biodiversity Management Plan that they will also get bespoke rules in the ECO chapter.

but particularly general tenure (private) property relative to the status quo (where there was almost no regulation of indigenous vegetation clearance and land disturbance and a trend of continued decline).

- 127 Even a marginal improvement in indigenous biodiversity within Gore District (through avoided decline on private land) has the potential to impact positively and significantly on a wide range of critical ecosystem services that will benefit the wellbeing of current and future generations. The indigenous biodiversity loss avoided does not just benefit landowners and the wider Gore District community but will collectively⁶⁶ benefit the wellbeing of wider New Zealand (and beyond). This is because indigenous biodiversity is a public good that delivers ecosystem services as the local, catchment and national (and even global) level over the long-term.

High-level Conclusions on Recommended Rules

- 128 Clause 3.5 of the NPS-IB (Social, Economic and Cultural Wellbeing) requires that *"the protection, maintenance, and restoration of indigenous biodiversity does not preclude subdivision, use and development in appropriate places and forms"* (emphasis added).
- 129 SIVAs/SNAs, and to some extent IVAs, are not appropriate places for new subdivision, use and development unless expressly provided for under the NPS-IB or the effects on indigenous biodiversity can be assessed through a consent process (or Council Endorsed Biodiversity Management Plan) to ensure that there is no net loss in indigenous biodiversity value.
- 130 Further, there is data that shows that indigenous vegetation coverage on private properties in Gore District is minimal or very minor in most cases. This indicates that there is considerable land on all properties that is more appropriate for new subdivision, use and development. Even if less optimal than a location within SIVAs/SNAs or IVAs, the benefits of protecting SIVAs/SNAs and maintaining indigenous biodiversity across the district outweigh any potential opportunity costs to those landowners.
- 131 Subject to any further evidence provided at the hearing, and the further recommended changes discussed below in response to submissions, I consider that the proposed provisions of the ECO chapter, and particularly ECO-R1, are broadly appropriate in economic terms and will not generate any economic costs that would prevent landowners from providing for their economic wellbeing. I consider that ECO-R2 now considerably duplicates the scope of ECO-R1 and that the agreed clearance thresholds for the Hokonui Hills Vegetation Area would be more appropriately prescribed in a Council Endorsed Biodiversity Management Plan

⁶⁶ Alongside the efforts of landowners of indigenous biodiversity across the country as the NPS-IB is given effect to.

where they can be a permitted activity under proposed ECO-R1(1)(f).

RESPONSE TO SUBMISSIONS

- 132 This section provides some additional commentary on submissions that relate to indigenous vegetation clearance (and land disturbance) thresholds (as a permitted activity). A key theme across many submissions was the practicalities of these thresholds as they apply to farming and other rural land use practice. Ensuring that thresholds are practical (while also minimising the loss of indigenous vegetation) is an economic issue on the basis that unpractical thresholds will lead to inefficiencies and lost productivity on rural properties/businesses, and the consequence is that the number of consents required to carry out practical maintenance etc of existing rural activities is unnecessarily increased (which has economic costs for both landowners and Council).
- 133 My consideration of practical thresholds begins with the nature of the feature/activity itself and how these can be distinguished, the notified thresholds, and any discussion provided in submissions (albeit limited in most submissions). My conclusions below may change if further information is provided at the hearing.
- 134 Another key theme of submissions relating to ECO-R1 is changes to the activity status where consent is required. I defer to Mr Heale's planning expertise on these more nuanced activity status matters, and do not address them in this evidence.
- 135 I note only those relevant economic considerations related to 'activity status' include marginal changes in consent costs (discussed earlier in my evidence in relation to transaction costs) and the impact of certainty/uncertainty, with RDA status providing relatively more certainty than DA or NCA consents. Certainty (or lack of) can, in some circumstances, encourage or stifle investment decisions which can have indirect effects on economic growth when the cumulative effect of those decisions (over the total rural area and over time) is accounted for.
- 136 The benefit of requiring consents that have lower levels of certainty for landowners is that indigenous vegetation clearance is afforded greater assessment and scrutiny which is considered necessary to protect SIVAs/SNAs and maintain indigenous biodiversity.

Clearance thresholds for existing fences

- 137 There are several submissions that seek changes to the specified width of vegetation clearance (and land disturbance) for the maintenance etc of existing fences (which I take to include farm fences).

- 138 The notified ECO chapter (ECO-R1(1)(a)(i) specified a distance of 1.5m. I understand that this is either side of the fence. That distance was withdrawn by Council resolution on the 21st November 2023.
- 139 By not specifying a distance for clearance for existing fence maintenance etc, the potential for transaction and compliance costs potentially triggered under the notified version are avoided. While I can support this approach, I consider that not specifying or qualifying a distance may have unintended consequences for indigenous biodiversity, including for existing fences within SIVAs/SNAs. There is a potential risk of additional vegetation clearance occurring under the guise of fence maintenance etc.
- 140 The McLeod-Wantwood Trust⁶⁷ submission seeks that the width restriction for fencing be removed and provides evidence that 1.5m is not a practical width, noting that a digger bucket could be 2m in width and a bulldozer 3m wide. The Hokonui Runanga Inc⁶⁸ submission seeks that the distance be set at 2.5m. Southland Federated Farmers of NZ and other submitters⁶⁹ seek that all distance thresholds, including for fencing maintenance be deleted as they do not reflect farming practice. In Stoney Creek Station's submission (alternative relief), they also seek the removal of a clearance distance for maintaining existing fences and provide evidence on the width of:
- 140.1 a tractor used as a fence post driver (3.55m),
- 140.2 small dozer used to prepare land for the establishment or replacement of fence lines (3.4m),
- 140.3 digger used to assist with ground preparation for fence installation or replacement (2.6m),
- 140.4 farm ute used to access fence lines for inspections, maintenance and transportation of fencing materials (2.9m), or
- 140.5 a smaller four wheeler for the same purpose (1.2m).
- 141 Depending on how regularly existing fences that pass through IVAs or SIVAs/SNAs have been inspected by farm vehicles and/or maintained, the notified clearance width of 1.5m may only provide access for a four wheeler (and no practical access for machinery needed to keep vegetation clear to facilitate that access or carry out repairs).

⁶⁷ Submission S104.021. See also S105.021 and S127.021.

⁶⁸ Submission S139.036.

⁶⁹ Submissions S126.094, S115.095, S60.097, S143.106, S148,107 and S68.215.

- 142 I agree that for ECO-R1(1)(a)(i) to be economically efficient, the clearance width must be practical, else consents will be required simply because the machinery needed (and available) to manage the maintenance etc of existing fences will clear/damage more indigenous vegetation adjacent to existing fences than prescribed as a permitted activity.
- 143 Of the examples that Stoney Creek Station outline, I consider that there is a distinction between machinery used to form new fences (where the fence does not exist) and machinery used to inspect and maintain existing fences (where that machinery must pass on either side of the fence (and between any adjacent vegetation)). However, ECO-R1(1)(a) as recommended also includes "*replacement or upgrade*". Machinery used to upgrade or replace a fence, is likely to be the same or similar to that used to form a new fence.
- 144 Different farms will have different machinery. Different contours of land may dictate the use of different machinery. I consider that 1.5m may be practical for some farms but not others. However, to originally install those fences, vegetation would have been cleared at some point. It is also anticipated that most existing fences that pass through either SIVAs/SNAs or IVAs (as currently mapped) are regularly inspected and maintained by whatever vehicle is best suited to that task on that property. As such, I consider that specifying that clearance for the maintenance etc of existing fences should be '*no greater in width than the previously cleared area*' either side of that fence, may provide an efficient outcome for landowners (in most cases) while also achieving the objective of no net loss in indigenous vegetation extent.
- 145 I consider that such wording would provide some degree of control on clearance for fence maintenance etc (without prescribing a distance) and would be better than wording that implied no controls at all (as currently drafted).
- 146 This approach would also reduce the need for a RDA consent for most landowners (reducing the costs attributable to ECO-R1(1)(a) compared with the notified version while not necessarily diminishing the benefits). However, it may not eliminate the need for a RDA consent in some situations. For example, if machinery on a farm changes, and is wider than the previously or currently cleared width either side of the existing fence, or the original clearance for the fence did not allow for practical access for inspection or maintenance. In such circumstances, an RDA consent may be required to increase the clearance width and manage the effects of that.⁷⁰

⁷⁰ This is consistent with consent being required for existing activities that are greater in scale. Once the consented clearance occurs, then future consents for clearance would not be required (unless there were further changes, in which case an RDA would again be appropriate).

- 147 The potential consent costs of my recommended approach (including the probability of it occurring in practice) would need to be considered relative to the no consent cost (but potentially no control) approach currently adopted by Council.
- 148 Related to the above, the Environment Southland⁷¹ submission seeks amendments so that the permitted indigenous vegetation clearance for the maintenance etc of existing fencing be limited to existing fences on property boundaries. It states that any clearance associated with the maintenance of existing paddock or vineyards fences should be excluded from permitted activity status (and presumably RDA). The relief sought would increase the consent related costs for both landowners and council relative to the notified version. I do not support this submission. All existing and lawfully established fencing should be able to be maintained to support viable and effective rural businesses.⁷²

Clearance thresholds for other existing non-traversable features

- 149 ECO-R1(1)(a)) as notified set a limit of 1.0m clearance for other non-traversable⁷³ existing features such as critical infrastructure (other than the State Highway network and arterial roads), dams, and network utilities (I discuss traversable features separately below). To the extent that there may be some ambiguity in current drafting, I consider that the wording of ECO-R1(1)(a) could be clearer that the distance threshold applies (as I understand it) on either side of the existing feature.
- 150 I agree that these clearance widths also need to be practical to avoid escalating the number of potential consents required. However, I consider that the submission by Southland Federated Farmers of NZ⁷⁴ that seeks no specified clearance threshold for these existing activities,⁷⁵ however prevalent, goes beyond what is reasonably necessary to provide for the economic wellbeing of rural landowners and provides no protection for indigenous biodiversity.
- 151 The same practical considerations facing the maintenance of existing fences applies to critical infrastructure, dams and network utilities, where maintenance etc vehicles/machinery must work beside these features, not traverse over them.
- 152 I agree that the notified provisions (1.0m clearance threshold either side) is not likely to be practical in many situations in light of the

⁷¹ Submission S85.032.

⁷² Consistent with clause 3.15 of the NPS-IB.

⁷³ By non-traversable, I mean existing features that vehicles/machinery must drive around, not on (the same as existing fences).

⁷⁴ Submission S126.094. See also S115.095, S60.097, S143.106, S148.107 and S68.215.

⁷⁵ The submission point applied to all existing activities listed in ECO-R1(1)(a).

vehicles/machinery needing access to maintain, repair, replace or upgrade these features.

- 153 As such, I consider that a similar approach to fencing could be more efficient for landowners (in most cases) whereby clearance for the maintenance etc of existing critical infrastructure (other than State Highways and arterial roads), dams and network utilities should be '*no greater in width than the previously cleared area.*' Such an approach should, in theory, achieve no net loss in indigenous vegetation extent (so long as previously cleared areas around these features have not since been mapped as IVAs or SIVAs).

Clearance thresholds for existing traversable cleared features

- 154 There are a number of submissions that focus on the vegetation clearance distance thresholds for other lawfully established activities in ECO-R1(1)(a), including (but not limited to) firebreaks, vehicle tracks and water crossings. Again, these clearance widths need to be practical to avoid escalating the number of potential consents required.

- 155 It is important to account for the width of existing traversable 'cleared features' such as vehicle tracks, roads (including State Highways and arterial roads),⁷⁶ walkways, firebreaks and water crossings in conjunction with the clearance threshold, as it is the combined width that determines the practicality of access for vehicles/machinery that are needed for maintenance etc. The approach for such existing traversable cleared features therefore differs from existing fences and non-traversable features discussed above, where vehicle/machinery access is limited to either side of a fence/structure.

- 156 For example:

156.1 to maintain, repair, replace or upgrade an existing vehicle track that is say 3m wide, that may also require some vegetation clearance on either side, most vehicles/machinery used for that purpose would seemingly have no access issues given the 3m width of the existing activity plus the specified clearance threshold either side.

156.2 Maintenance etc for an existing firebreak may have similar widths to work within.

156.3 Maintenance etc for an existing road, arterial road or State Highway would have even greater widths to work within.

156.4 Maintenance etc for an existing walking track may have less width to work within, but even a 1m wide walking track would

⁷⁶ State Highways and arterial roads are included as critical infrastructure.

have a total width of 3m to work within under the notified clearance thresholds.

- 157 It is noted that FENZ⁷⁷ supported the notified clearance threshold for existing firebreaks of 1.5m. I agree with this submitter as a 1.5m distance (in combination with the width of the existing firebreak) would appear to provide practical access and therefore enable landowners to provide for their economic wellbeing (by managing wildfire risk).
- 158 The Hokonui Runanga Inc submission⁷⁸ seeks a clearance width of 2.5m for firebreaks, and the Wantwood Station submission⁷⁹ stated that 1.5m falls below the FENZ recommendations. I do not consider that 2.5m either side of an existing firebreak is necessary to maintain etc an existing firebreak. And I consider that the Wantwood Station submission may have misinterpreted the clearance threshold (perhaps assuming it meant that the firebreak itself can only be maintained to a total width of 1.5m).
- 159 I consider that that 1.5m (as notified) should be retained for firebreak maintenance etc in ECO-R1((1)(a) and I support new firebreaks being a RDA (as notified) on the basis that their necessity within IVAs or SIVAs/SNAs will likely have been determined through a FENZ site assessment,⁸⁰ and because the social and economic benefits of having new firebreaks is potentially significant, and may itself help protect indigenous biodiversity from the risk of wildfires. RDA status still allows the effects of vegetation clearance to be managed so that there is no net loss of SIVAs/SNAs and indigenous biodiversity generally is maintained. As such, I do not support the relief sought by the Hokonui Runanga to make new firebreaks a permitted activity.
- 160 Similarly, the Hokonui Runanga Inc submission seeks that vegetation clearance (and land disturbance) for waterway crossings should be increased to 2.5m and that new waterway crossings should be included as a permitted activity. Existing water crossings are already a traversable cleared feature that provides some useable width for maintenance etc vehicles/machines. I do not support this relief for the same reasons stated above for firebreaks.
- 161 Subject to further evidence provided at the hearing, I summarise my recommended clearance thresholds discussed above in Table 5. I consider that these recommendations provide appropriate recognition of existing lawfully established activities, including the nature of those activities and the practicalities of their maintenance

⁷⁷ Submission S124.024.

⁷⁸ Submission S139.036.

⁷⁹ Submission S104.021. See also S105.021 and S127.021.

⁸⁰ <https://www.fireandemergency.nz/assets/Documents/Files/2023-04-14-FENZ-1650-Firebreaks-Policy-Factsheet-FINAL.pdf>

etc as described in some submissions (such that consenting for maintenance etc is minimised and landowners can provide for their economic wellbeing) while also minimising the impacts on indigenous biodiversity.

Table 5 – Summary of Supported Clearance Thresholds (ECO-R1(1)(a))

Existing Activity	Notified	Hampson Recommended
Fences	1.5m (later amended to no threshold by Council)	no greater in width than the previously cleared area (else support no threshold)
Vehicle tracks ⁸¹	1.0m	1.0m
Roads	1.0m	1.0m
Walkways ⁸²	1.0m	1.0m
Firebreaks	1.5m	1.5m
Waterway crossings	1.0m	1.0m
Critical infrastructure – state highway network and arterial roads	1.0m	1.0m
Critical infrastructure – other non-traversable	1.0m	no greater in width than the previously cleared area
Dams	1.0m	no greater in width than the previously cleared area
Network Utilities	1.0m	no greater in width than the previously cleared area

Fire risk around buildings

- 162 Proposed rule ECO-R1(g) permits removal of indigenous vegetation up to 2.0m from the exterior wall of an existing building to “*remove a potential fire risk*”. I consider that the term ‘reduce’ or ‘minimise’ might be more appropriate than ‘remove’ as it is unlikely that fire risk can be completely removed/avoided.

⁸¹ Could be expanded to include mountain bike trails (discussed further below).

⁸² Could be expanded to include hiking trails (discussed further below).

- 163 The submission by Hokonui Runanga Inc.⁸³ seeks to increase this clearance threshold to 5.0m and Stoney Creek Station seeks to increase this clearance to 7.5m. Neither submitter provides any reasoning or evidence for the increase in distance.
- 164 I am not aware of any FENZ recommendations for how far vegetation should be from buildings to minimise fire risk. Mr Wells explains that FENZ guidance differs for different types of vegetation. However, I would be surprised if keeping vegetation only 2.0m away from a building would "*remove a potential fire risk*". I consider that increasing the clearance above 2.0m would be more effective and on that basis a greater distance could be considered (if supported by evidence).
- 165 Buildings are typically a significant contributor to the improvement value of a property in rural areas, particularly when those buildings are residential dwellings. However, even farm buildings (sheds/barns etc) play a key role in the operation of farm businesses (particularly when they house valuable machinery/equipment or feed supplies). As such, protecting existing buildings from fire risk is important for the economic wellbeing of rural property owners.
- 166 There is a second benefit of increasing the effectiveness of vegetation clearance around existing buildings, other than helping to protect those buildings from fire risk. That is, helping to protect indigenous vegetation from the fire risk caused by existing buildings. The economic, social and environmental benefit of minimising the spread of fire into IVAs or SIVAs/SNAs from a burning building is potentially significant. It is important that consideration of the most appropriate clearance threshold for fire risk takes account of both aspects of increased protection.
- 167 I do not have spatial data that shows existing buildings in relation to IVAs or SIVAs (as currently mapped). However, based on current aerial photographs and the IVA and SIVA GIS layers, I estimate that the incidence of existing buildings within or immediately adjoining IVAs or SIVAs/SNAs in the district is very low. As such, any clearance associated with the ECO-R1(g), including an increased clearance threshold (however determined), is likely to be limited to relatively few of the 115 properties containing some form of mapped indigenous vegetation and I consider that the potential loss of vegetation cover to manage fire risk for existing buildings would be negligible at a district level.
- 168 Furthermore, as fire risk is ever-present, then it is likely that most existing buildings that have IVAs or SIVAs/SNAs in close proximity to any exterior wall have a regular pattern of vegetation clearance. As such, any clearance under this rule is likely to be restoring the previously cleared area (up to stated clearance threshold) -

⁸³ Submission S139.036.

essentially a maintenance activity - which means no net additional loss of indigenous biodiversity (as currently mapped).

- 169 I support these submission points from an economic perspective as the benefits are likely to outweigh the costs, although I do not have a view as to whether 5.0m or 7.5m is an appropriate threshold – and leave that to other experts/hearing evidence to determine.
- 170 I maintain my support for indigenous vegetation clearance for new buildings to require a DA or NCA consent. This helps discourage locating new buildings in IVAs or SIVAs/SNAs which, given the relatively low or minimal coverage of indigenous vegetation on rural properties in Gore District, should not create any material opportunity costs for property owners. The consent process may also help manage the location of new buildings in relation to IVAs and SIVAs/SNAs such that indigenous vegetation clearance to manage fire risk over time is accounted for (and avoided where practical). For this reason, over the life of the PDP, ECO-R1(g) would be expected to apply to the same or very similar number of buildings that exist today (and not an increasing number of buildings).

Mountain bike and hiking trails

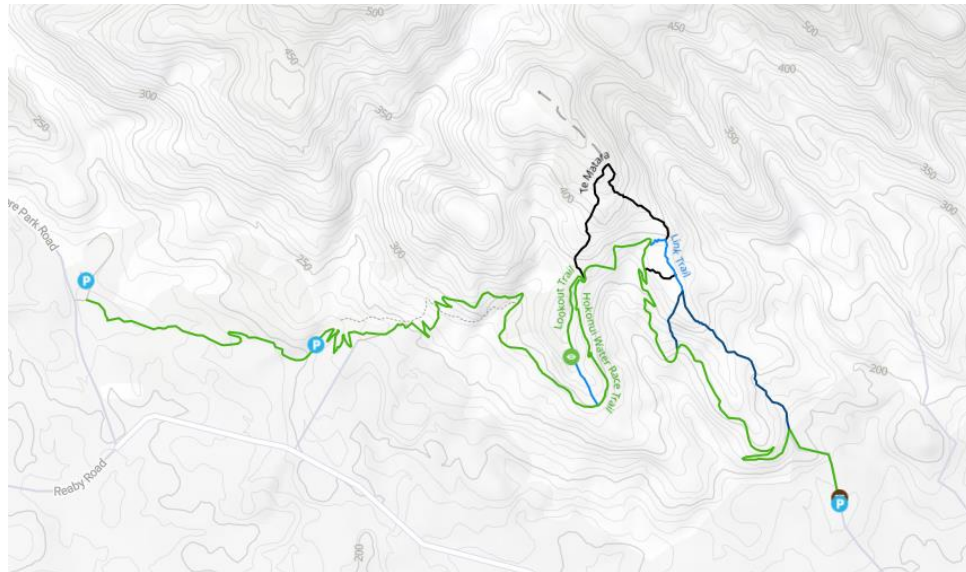
- 171 Mr H. Weir's submission⁸⁴ (supported by Stoney Creek⁸⁵ and opposed by Heritage New Zealand⁸⁶) refers to the "*expansive network of existing mountain bike tracks in the Croydon Bush reserve that need to be maintained and repaired*". He states that "*it would be beyond the means of the groups and individuals responsible for the tracks to apply for resource consent to work on them*" and goes on to say that "*the works required to maintain the permitted features will normally extend further than 1 meter beyond the feature*", providing an example of a native tree that has fallen in a storm and crosses a walkway or mountain bike track having its stump further than 1m from the edge of the trail.
- 172 As such, Mr Weir seeks that vegetation clearance and land disturbance associated with the maintenance of existing mountain bike tracks be included in ECO-R1(1)(a).
- 173 Figure 6 contains a map of the mountain bike tracks mainly within Croydon Bush (but also traversing Dolamore Park) that are identified on the TrailForks website. I do not know if this is representative of the full extent of trails in the locality or not. As a general rule, green trails are more modified and tend to be wider and flatter while blue and black trails are more narrow, steep and less modified (i.e. more reliant on natural features and terrain).

⁸⁴ Submission S74.005.

⁸⁵ Further submission FS25.063.

⁸⁶ Further submission FS11.044.

*Figure 6 – Mountain Bike Trails in Croydon Bush and Dolamore Park SNA
(Source: TrailForks)*



- 174 From an economic perspective, I agree that those responsible for maintaining (and developing) many mountain bike trails throughout New Zealand are often small clubs with limited financial resources or are local rider volunteers (with only mountain bike clubs in key mountain bike hubs (like Queenstown or Rotorua) relatively well resourced). When trails are on public land (as is the case with the Croydon Bush/Dolamore Park SNA), maintenance and development costs typically cannot be recovered from trail users. Rather, the trails are provided for free for the benefit of the wider public. When trails are on private land, the ability to charge a user fee (and generate income to help cover maintenance or development costs) may be possible (but is not always the case).
- 175 The costs of obtaining consents (particularly ecological assessment costs), even if modest, may be cost prohibitive for such groups/individuals operating on public land, particularly if no additional funding can be secured. At the same time, mountain bike trails provide social and recreational benefits and can help attract visitors to a district, with associated economic benefits from any spending that occurs locally. As such, I consider that some provision should be made for mountain bike tracks within the ECO chapter.
- 176 As currently drafted, ECO-R1(1)(a) provides for clearance of indigenous vegetation to maintain etc existing walkways and vehicle tracks. Vehicle tracks are not defined, and it is unclear if this would cover tracks used by bicycles. Similarly, mountain bike tracks on public land are often used by walkers, but it is not clear that the Croydon Bush/Dolamore Park mountain bike trails could rely on that classification. I consider that providing for the maintenance etc of existing and lawfully established mountain bike trails in ECO-

R1(1)(a) through some form of amendment would be economically efficient.

- 177 While Mr Weir also seeks that no prescribed clearance threshold should be applied for the maintenance etc of existing activities, I agree with Mr Heale that "*unfettered clearance limits*" for all activities listed in ECO-R1(1)(a) (not limited to mountain bike trails) is not justified to address practical maintenance considerations that support economic wellbeing, nor would it achieve the objectives of the ECO chapter (or the NPS-IB).
- 178 Should maintenance of existing mountain bike trails be explicitly included in ECO-R1(1)(a), then I consider that the notified clearance threshold of 1.0m either side of the trail would provide reasonable and adequate flexibility to maintain existing mountain bike trails. In my experience⁸⁷ it is not "*normal*" for works required to maintain etc existing mountain bike trails to extend further than 1.0m. Retaining vegetation adjacent to trails is generally considered advantageous to minimise exposure of the trail to the sun and weather (which accelerates deterioration).
- 179 For the example provided of a fallen tree, I consider it relatively more typical that fallen trees in mountain bike parks will be trimmed either side of the trail to restore access (particularly where the remaining tree material will be stable and not provide any further danger). Irrespective, I consider that the existing ECO-R1(b) would provide an ability to remove any fallen trees that extend beyond 1.0m as, in the case of Croydon Park and Dolamore Park which are public land, a tree lying across a mountain bike trail (particularly a steep one) could represent a high risk to public safety and its clearance would be justified (and have a less than minor effect on indigenous biodiversity).
- 180 While new (additional) mountain bike trails in Gore District may support an increase in economic (and social) benefits from bike tourism (currently expected to be only minor in terms of its economic contribution), so too would some other types of new developments that currently require a DA or NCA consent for indigenous vegetation clearance and land disturbance in the proposed provisions. I do not consider that that mountain bike and hiking trails should be exempt from the same rules applying to other new activities or existing activities that are greater in scale.
- 181 While I appreciate that the submitter's proposed additional permitted activity rule "*works associated with construction of mountain bike and hiking trails that utilise natural features and ground profile*" seeks to target trails that have the least associated vegetation clearance and land disturbance, it is also possible that an

⁸⁷ My family is actively involved in mountain biking, with membership in two mountain bike clubs. I have ridden mountain bike trails in many parts of New Zealand and am familiar with trail building and maintenance methods.

ecological assessment for such proposed activities would be relatively straightforward (and low in cost).⁸⁸ It is also possible (but unconfirmed) that both Dolamore Park and Croydon Bush have management plans that provide for recreational trails which could allow new trails to be covered by ECO-R1(1)(f). Overall, it is appropriate that a precautionary approach is taken, particular when new biking/hiking trails are proposed in an SNA, as is the case with Croydon Bush/Dolamore Park.

CONCLUSIONS

- 182 Gore District has very little remaining indigenous vegetation when compared to most other districts. The loss of indigenous vegetation cover occurred a long time ago, but the ODP has contributed to the continued decline by protecting only indigenous vegetation on public conservation land (i.e., SNA1 and SNA2). The NPS-IB and SRPS requires that SNAs/SIVAs respectively on private land are also protected and that indigenous biodiversity across the district is maintained.
- 183 Indigenous biodiversity provides economic, social and cultural benefits directly and indirectly to all current and future residents in Gore District, and beyond. Helping to protect and maintain indigenous biodiversity in Gore District falls to an estimated 115 rural private property owners, including an estimated 77 property owners containing SIVAs (based on current mapping). This number may change slightly when desktop defined SIVAs are subject to on-site assessments to confirm if they are SNAs/SIVAs or just IVAs.
- 184 The benefits of protecting SIVAs/SNAs and maintaining indigenous biodiversity are considered, in principle, to outweigh the costs. This has been determined for higher order statutory documents – the NPS-IB and SRPS. While many of the proposed provisions of the ECO chapter are prescribed and do not need to be justified as being efficient, I have considered the proposed provisions for Gore District as a whole (as recommended at the time of drafting this evidence) and consider that they are unlikely to impose any significant net additional economic costs or opportunity on rural property owners that would impact on their ability to provide for their economic wellbeing.
- 185 That said, I consider that the following would further improve the economic efficiency (by reducing transaction and compliance costs) of the proposed rules in the ECO chapter:
 - 185.1 Amend permitted clearance and land disturbance thresholds for the maintenance etc of existing activities as set out in Table 5.

⁸⁸ Funding may also be available to help cover the cost (i.e., if there is a local trails Trust or a fund available from Council).

185.2 Explicitly provide for the permitted clearance associated with the maintenance etc of existing mountain biking and hiking trails (with a 1.0m clearance threshold).

185.3 Increase the clearance threshold to reduce fire risk for existing buildings to a distance greater than 2.0m.

186 I also consider that ECO-R2 should be deleted and that indigenous vegetation clearance on the Stoney Creek Station and Wantwood Station should be managed under a Council Endorsed Biodiversity Management Plan and therefore ECO-R1(1)(f) (as recommended) to avoid unnecessary duplication and prescription in the rules, avoid any perceived precedence for getting bespoke rules following a detailed on-site ecological assessment, and avoiding any perceived inequities when the more enabling provisions are read out of context.

187 I consider that applying ECO-R1 to these two properties is the most efficient way to achieve the objectives of the ECO chapter and will not result in any material opportunity costs that will limit the two landowners to provide for their economic wellbeing now and in the future.

188 I will consider any changes to the conclusions and recommendations expressed in this statement when further evidence is provided by submitters at the hearing.

Dated: 13 January 2025



APPENDIX A – Private Property Size Profile and Coverage by IVAs (as mapped in 2024)

Property Size	Total AIVs (Based on 2024 Mapping) - General Land Tenure Only*										Total General Tenure Properties
	No Coverage	<1% Coverage	1% - 10% Coverage	10% - 20% Coverage	20% to 35% Coverage	35% to 50% Coverage	50% to 65% Coverage	65% to 80% Coverage	80% to 90% Coverage	90% to 100% Coverage	
Count of Properties (n)											
Less than 1ha	5,054	-	-	-	1	-	-	-	-	-	5,055
1ha to 2ha	245	-	-	-	-	-	-	-	-	-	245
2ha to 5ha	429	-	1	-	-	-	-	-	-	-	430
5ha to 10ha	131	-	-	-	-	-	-	-	-	-	131
10ha to 20ha	92	-	-	1	-	-	-	-	-	-	93
20ha to 50ha	117	1	2	-	-	-	-	-	-	-	120
50ha to 100ha	153	-	6	1	-	-	-	-	-	-	160
100ha to 150ha	70	4	-	-	-	-	-	-	-	-	74
150ha to 250ha	131	6	4	-	-	-	-	-	-	-	141
250ha to 500ha	80	8	13	2	-	-	-	-	-	-	103
500ha to 1,000ha	14	8	3	-	-	-	-	-	-	-	25
More than 1,000ha	2	3	3	1	-	-	-	-	-	-	9
Total Properties	6,518	30	32	5	1	-	-	-	-	-	6,586
Share of Total Properties (%)											
Less than 1ha	77%	0%	0%	0%	0%	0%	0%	0%	0%	0%	77%
1ha to 2ha	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%
2ha to 5ha	7%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7%
5ha to 10ha	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
10ha to 20ha	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
20ha to 50ha	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
50ha to 100ha	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
100ha to 150ha	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
150ha to 250ha	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
250ha to 500ha	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
500ha to 1,000ha	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
More than 1,000ha	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total Properties	99%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Share of Properties Containing an AIV (%)											
Less than 1ha		0%	0%	0%	1%	0%	0%	0%	0%	0%	1%
1ha to 2ha		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
2ha to 5ha		0%	1%	0%	0%	0%	0%	0%	0%	0%	1%
5ha to 10ha		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
10ha to 20ha		0%	0%	1%	0%	0%	0%	0%	0%	0%	1%
20ha to 50ha		1%	3%	0%	0%	0%	0%	0%	0%	0%	4%
50ha to 100ha		0%	9%	1%	0%	0%	0%	0%	0%	0%	10%
100ha to 150ha		6%	0%	0%	0%	0%	0%	0%	0%	0%	6%
150ha to 250ha		9%	6%	0%	0%	0%	0%	0%	0%	0%	15%
250ha to 500ha		12%	19%	3%	0%	0%	0%	0%	0%	0%	34%
500ha to 1,000ha		12%	4%	0%	0%	0%	0%	0%	0%	0%	16%
More than 1,000ha		4%	4%	1%	0%	0%	0%	0%	0%	0%	10%
Total Properties		44%	47%	7%	1%	0%	0%	0%	0%	0%	100%

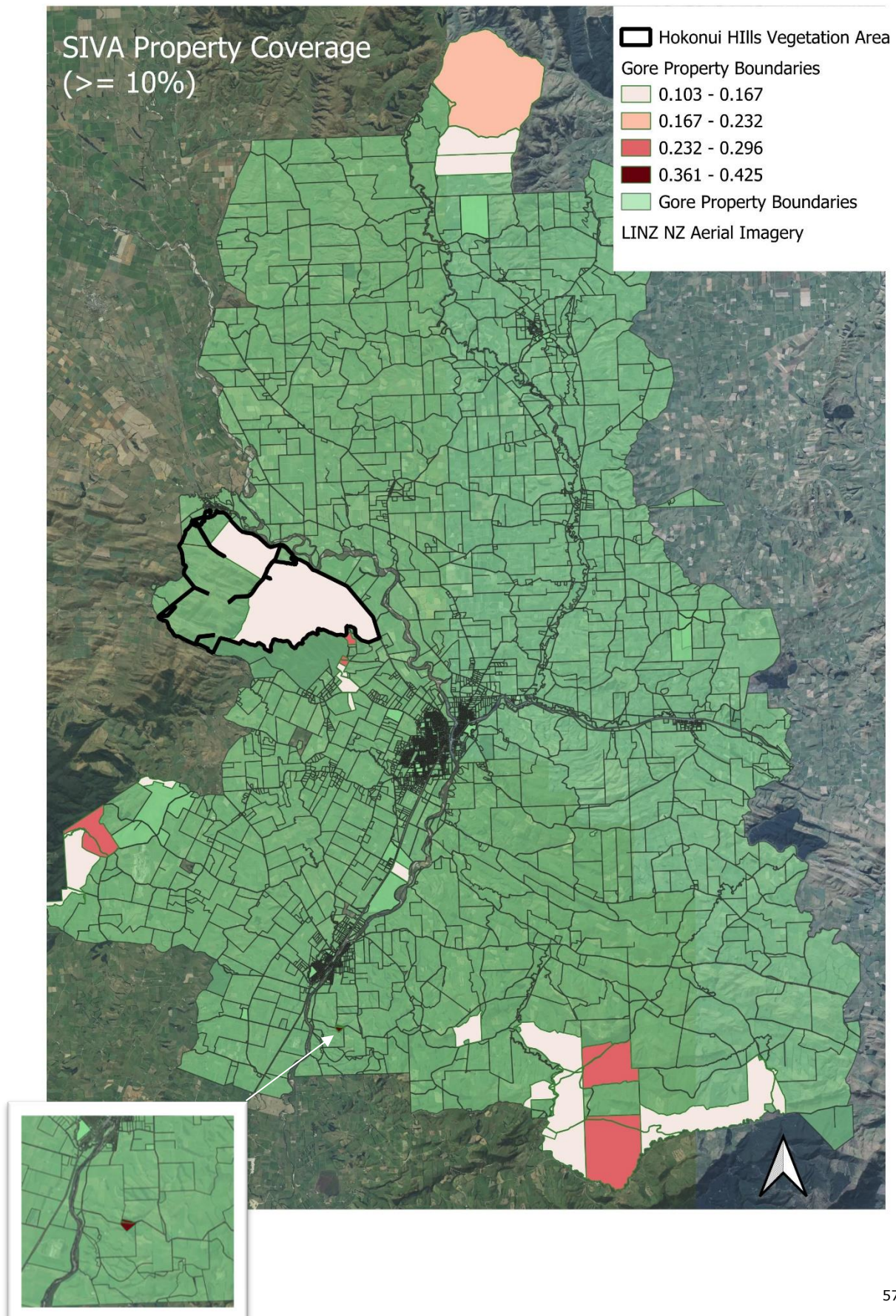
Source: TPG, Wildlands, GDC, Savvy. *Excludes DOC/Crown Land and Maori Land Court Land.

APPENDIX B – Private Property Size Profile and Coverage by IVAs and SIVAs combined (as mapped in 2024)

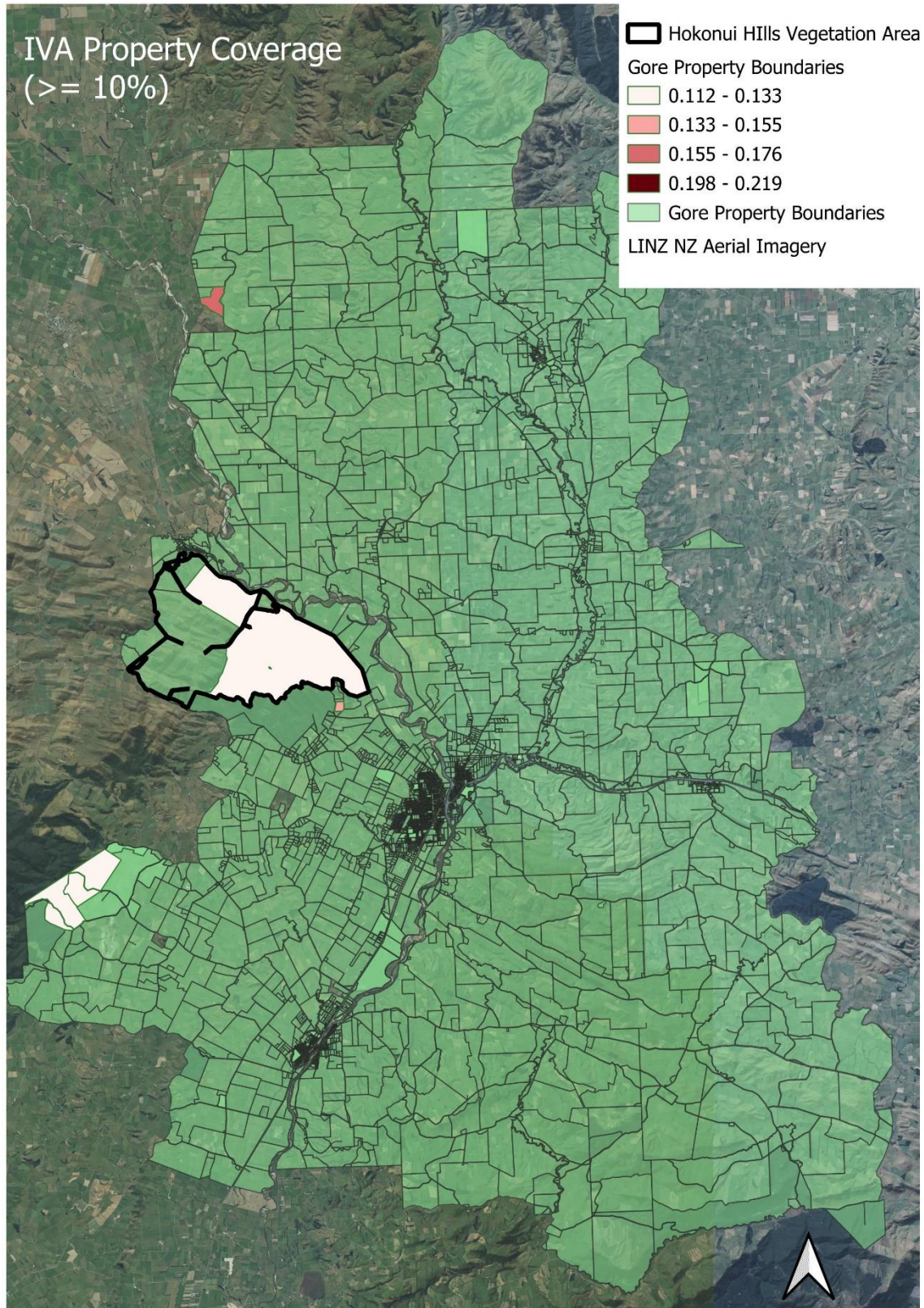
Property Size	Total SIVAs and AIVs Combined (Based on 2024 Mapping) - General Land Tenure Only*										Total General Tenure Properties
	No Coverage	<1% Coverage	1% - 10% Coverage	10% - 20% Coverage	20% to 35% Coverage	35% to 50% Coverage	50% to 65% Coverage	65% to 80% Coverage	80% to 90% Coverage	90% to 100% Coverage	
Count of Properties (n)											
Less than 1ha	5,053	1	-	-	1	-	-	-	-	-	5,055
1ha to 2ha	245	-	-	-	-	-	-	-	-	-	245
2ha to 5ha	424	4	2	-	-	-	-	-	-	-	430
5ha to 10ha	128	-	2	-	-	1	-	-	-	-	131
10ha to 20ha	89	-	1	1	2	-	-	-	-	-	93
20ha to 50ha	115	1	3	1	-	-	-	-	-	-	120
50ha to 100ha	147	1	10	2	-	-	-	-	-	-	160
100ha to 150ha	66	3	4	1	-	-	-	-	-	-	74
150ha to 250ha	129	6	6	-	-	-	-	-	-	-	141
250ha to 500ha	66	11	18	6	1	1	-	-	-	-	103
500ha to 1,000ha	9	7	4	4	1	-	-	-	-	-	25
More than 1,000ha	-	2	4	1	2	-	-	-	-	-	9
Total Properties	6,471	36	54	16	7	2	-	-	-	-	6,586
Share of Total Properties (%)											
Less than 1ha	77%	0%	0%	0%	0%	0%	0%	0%	0%	0%	77%
1ha to 2ha	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%
2ha to 5ha	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7%
5ha to 10ha	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
10ha to 20ha	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
20ha to 50ha	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
50ha to 100ha	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
100ha to 150ha	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
150ha to 250ha	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
250ha to 500ha	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
500ha to 1,000ha	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
More than 1,000ha	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total Properties	98%	1%	1%	0%	0%	0%	0%	0%	0%	0%	100%
Share of Properties Containing a SIVA and/or AIV (%)											
Less than 1ha		1%	0%	0%	1%	0%	0%	0%	0%	0%	2%
1ha to 2ha		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
2ha to 5ha		3%	2%	0%	0%	0%	0%	0%	0%	0%	5%
5ha to 10ha		0%	2%	0%	0%	1%	0%	0%	0%	0%	3%
10ha to 20ha		0%	1%	1%	2%	0%	0%	0%	0%	0%	3%
20ha to 50ha		1%	3%	1%	0%	0%	0%	0%	0%	0%	4%
50ha to 100ha		1%	9%	2%	0%	0%	0%	0%	0%	0%	11%
100ha to 150ha		3%	3%	1%	0%	0%	0%	0%	0%	0%	7%
150ha to 250ha		5%	5%	0%	0%	0%	0%	0%	0%	0%	10%
250ha to 500ha		10%	16%	5%	1%	1%	0%	0%	0%	0%	32%
500ha to 1,000ha		6%	3%	3%	1%	0%	0%	0%	0%	0%	14%
More than 1,000ha		2%	3%	1%	2%	0%	0%	0%	0%	0%	8%
Total Properties		31%	47%	14%	6%	2%	0%	0%	0%	0%	100%

Source: TPG, Wildlands, GDC, Savvy. *Excludes DOC/Crown Land and Maori Land Court Land.

APPENDIX C – Private Property SIVA (2024) Coverage Greater or Equal to 10% of Total Property Land Area



APPENDIX D – Private Property IVA (2024) Coverage Greater or Equal to 10% of Total Property Land Area



**APPENDIX E – Private Property SIVA and IVA Combined (2024)
Coverage Greater or Equal to 10% of Total Property Land Area**

