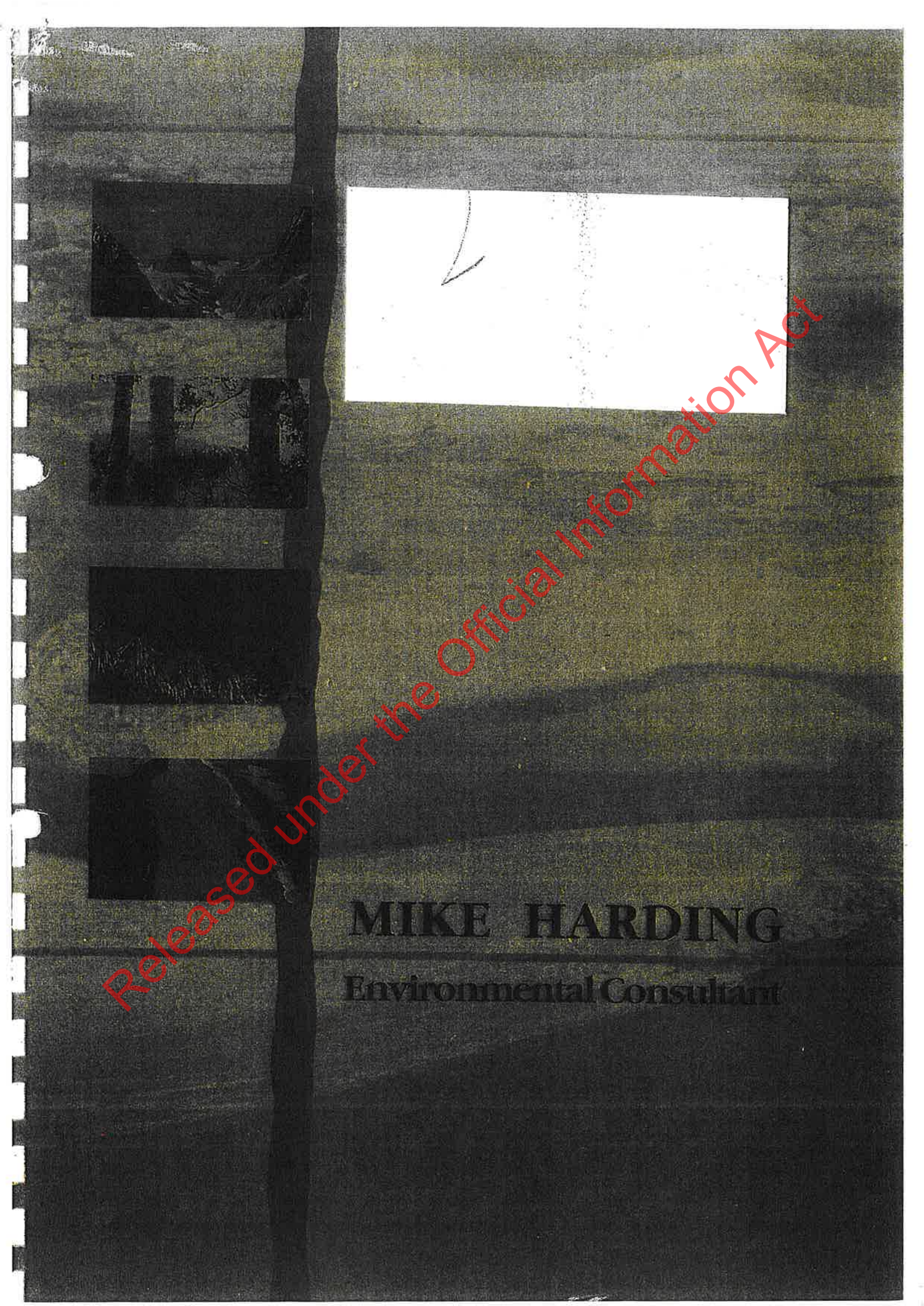


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ASSESSMENT OF THE RELATIVE CONSERVATION VALUES OF THE PHASE II SILNA LANDS

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ASSESSMENT OF THE RELATIVE CONSERVATION VALUES OF THE PHASE II SILNA LANDS SOUTHLAND

December 2007

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Mike Harding
Environmental Consultant
t: 64-3-692-2722
e: mikeharding@ihug.co.nz

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Acknowledgements

This project was arranged and supervised by John Morton, Executive Officer, Nature Heritage Fund, Wellington. DOC GIS staff of the Southland Conservancy, notably Paul Jacques and William Gamble, provided the maps and aerial photographs upon which this assessment is largely based. Brian Rance and Eric Edwards of the DOC Southland Conservancy Office provided support, information and advice. I thank these people for their assistance. Preparation of this assessment within this short time would not have been possibly without their support.

Mike Harding
Woodbury
11th December 2007

1.0 INTRODUCTION

This report assesses the relative conservation values of five blocks of land set aside under the South Island Landless Natives Act 1906 (the 'SILNA' lands) in Southland:

- Waimumu Trust (43 sections; 4463 hectares)
- Maori Trustee (29 sections, 3755 hectares)
- Rowallan Block XIII, Section 7 Trust (one section, 121 hectares)
- Rowallan Block IV, Section 11 Trust (one section, c.125 hectares)
- Rowallan Alton Incorporated (11 sections, 1313 hectares)

This assessment has been undertaken at the request of the Director General of the Department of Conservation, through the Nature Heritage Fund.

Part 2 of this report describes the information sources and methods used to undertake this assessment. Part 3 describes the location and conservation values of the SILNA land assessed. A full schedule of the SILNA lands assessed in this report is attached Appendix 1.

Part 4 of this report assesses the relative conservation values of the sections within each block of lands. Details of the assessment criteria are outlined in Appendix 2.

Map 1 Location of the SILNA lands assessed



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2.0 METHOD

This report was researched and compiled from readily-available information over a one-week period in December 2007. The report must, therefore, be regarded as a rapid assessment of conservation values of the SILNA lands. At best, it provides a guide to the relative conservation values of the sections of SILNA lands.

2.1 Information Sources

The main sources of information used to describe the conservation values of the SILNA lands are listed below:

- A schedule of the SILNA lands, comprising legal descriptions and sizes of the individual sections.
- Topographic maps with the locations of the SILNA sections marked.
- Land Resource Inventory (LRI) maps.
- Land Cover Database (LCDB2) maps.
- Land Environment (LENZ) maps.
- Aerial photographs (Google Earth).
- Mainland Southland Conservation Management Strategy (DOC)
- Atlas of Bird Distribution in New Zealand 1999-2004 (Robertson *et al*, 2007)
- Southland Protection Strategy (Harding, 1999a)
- Relative Conservation Values of the SILNA Lands (Harding, 1999b)
- Discussions with DOC staff, Southland Conservancy

Some notable limitations of these data are that the LCDB2 maps and aerial photographs are based primarily on aerial (satellite or airplane) images with limited or coarse resolution, the LENZ (land environment) maps are computer-generated depictions of predicted vegetation cover based on limited field data, and that the topographic maps are compiled from aerial photographs and field checks that are several years old.

There is some discrepancy in the information provided by these sources, especially information about the extent to which indigenous forests have been logged or otherwise modified by humans or human-induced activity. Further information, such as that provided by aerial inspections or field surveys, would be required to resolve these discrepancies.

2.2 Assessment Method

The method used to determine the relative conservation values of the SILNA lands is a modified form of the Nature Heritage Fund criteria (Harding, 1994). These criteria have been adapted in this assessment so they are consistent with the criteria used for earlier assessment of SILNA lands (Harding, 1999b) and for the Nature Heritage Fund's Southland Protection Strategy (Harding, 1999a). These criteria are listed in Section 4 and described in more detail in Appendix 2.

Important Note:

It must be emphasised that no field checks were undertaken as part of this assessment; it is a desk-top assessment and its results should be interpreted with caution.

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Western Block

See Maori Trust Lands Map 2 of 3

Legal Descriptions:
Rowallan Block VII, Sections 3, 4, 5, 6, 7, 8, 9, 12 and 13; and Rowallan Block XI Section 1.

The Western Block comprises ten sections in the lower catchments of the Track Burn and Hump Burn on the eastern slopes of Hump Ridge, west of Tuatapere in western Southland. It covers approximately 1323 hectares of hill slope and terrace country in the Waitutu Ecological District. The sections within this Block lie between 10 m above sea level at the South Coast Track to approximately 335 m above sea level on the slopes of Hump Ridge. The Block adjoins extensive areas of indigenous forest protected within Fiordland National Park to the west and south, and Waikoau Forest Conservation Area to the east.

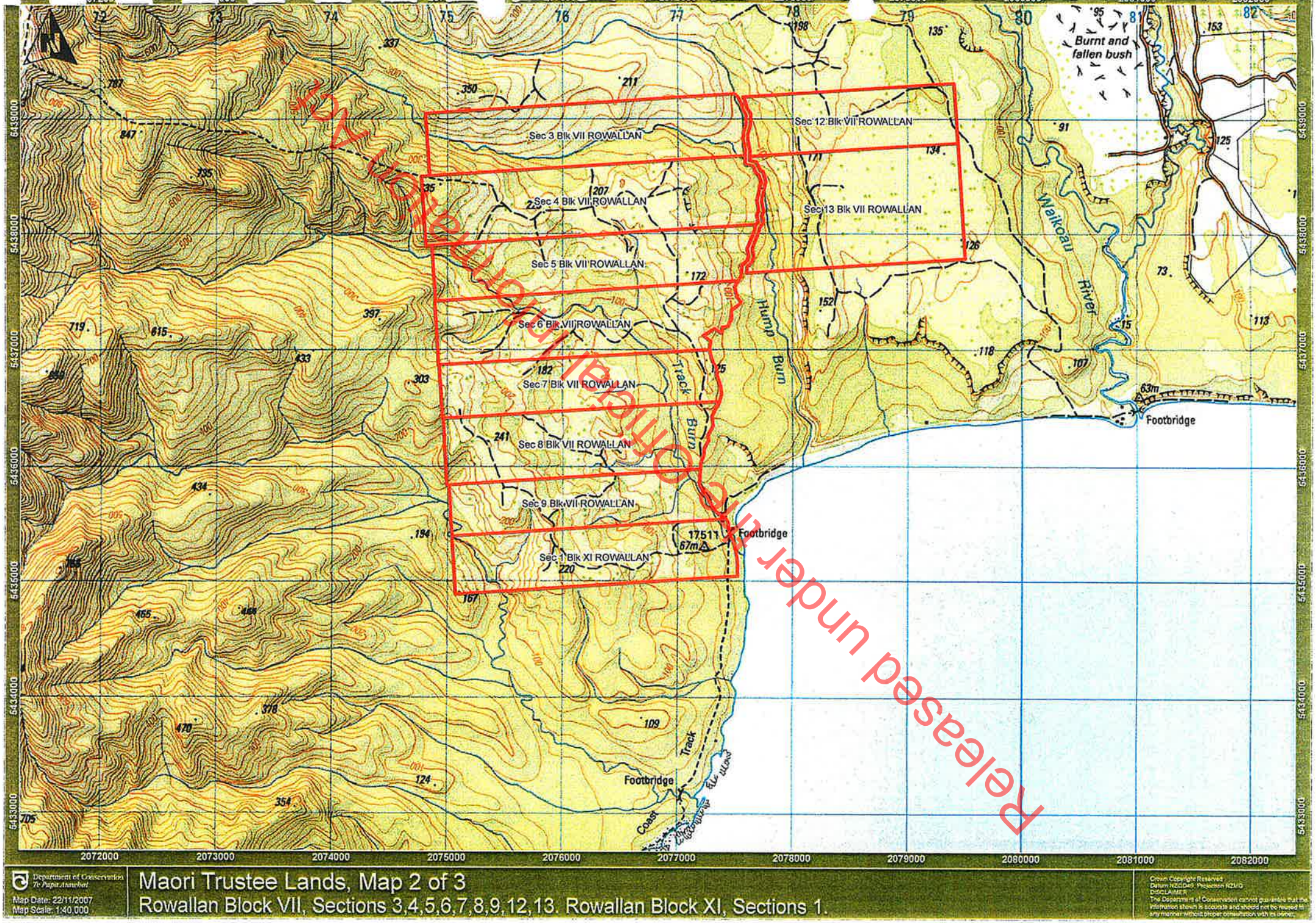
Indigenous forests in this area are lowland podocarp-hardwood forest in the main valleys and lower-altitude terraces, and lowland to lower-montane silver beech forest on hill slopes. Land Resource Inventory maps (LRI) and aerial photographs (Google Earth) indicate that all the sections within this Block comprise cutover or cleared indigenous forest, with areas of more intact indigenous forest in gullies and on steeper slopes.

The LENZ Level IV Threat category maps indicate that this Block comprises a land environment within which more than 30% of the former extent of vegetation cover remains. The analysis in the Southland Protection Strategy (Harding, 1999a) indicates that a relatively large proportion of this forest type remains in the Waitutu Ecological District.

The eight western sections adjoin unlogged forest of Fiordland National Park on their western boundaries. The southernmost of these sections also adjoins Fiordland National Park on its southern boundary, and four other western sections also adjoin Waikoau Forest Conservation Area to the east. The sections are traversed by several logging tracks. The South Coast Track crosses the eastern corner of the southernmost section and a tramping track ascends Hump Ridge through the northern sections.

This Block lies within an area described as nationally-important for indigenous species distribution in the Southland Conservation Management Strategy. Forest habitats in this area are depicted as supporting more than 25 native bird taxa and moderate numbers of threatened bird species in the Atlas of Bird Distribution in New Zealand (Robertson *et al*, 2007).

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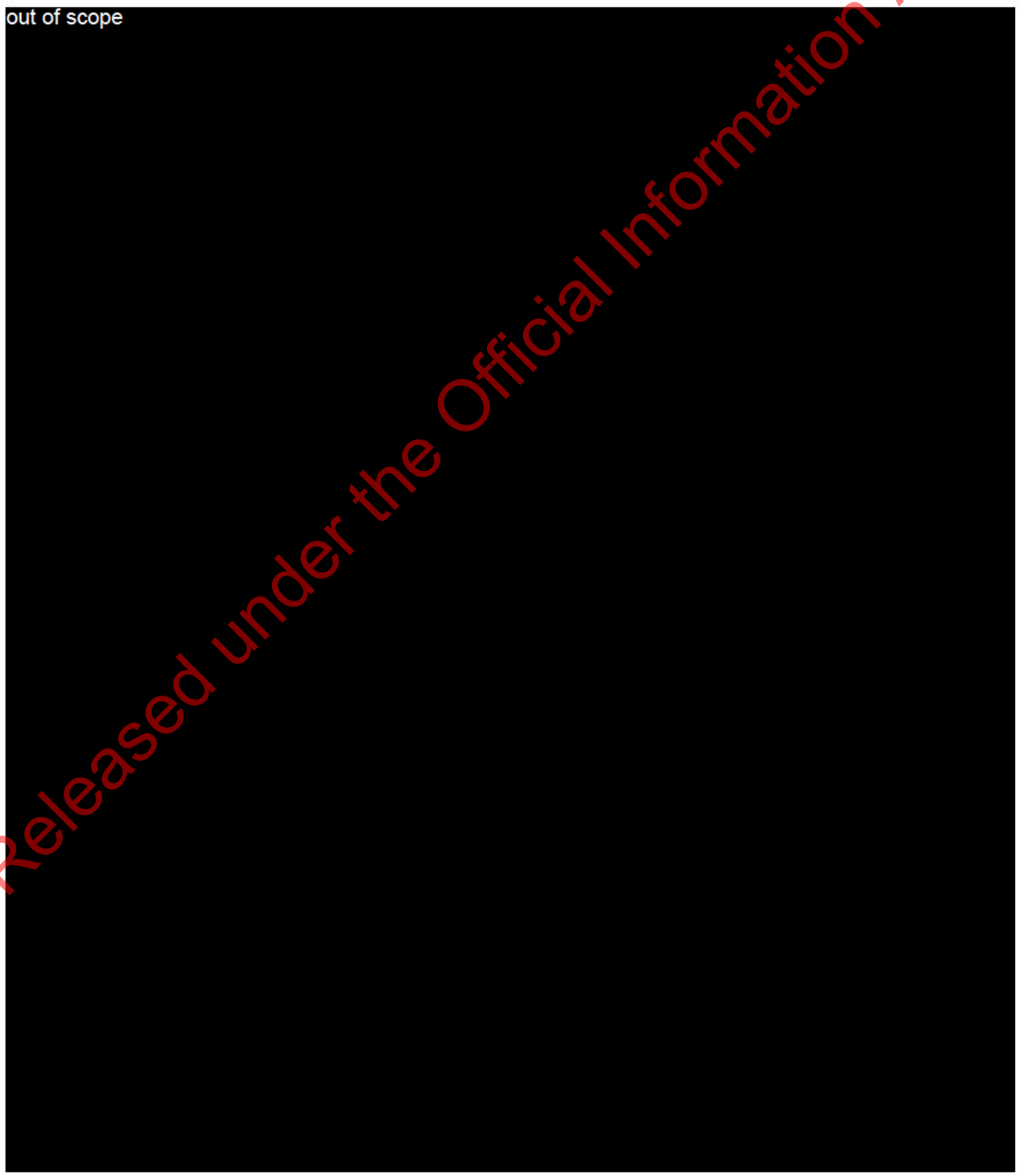
Maori Trustee Lands, Map 2 of 3

Rowallan Block VII, Sections 3,4,5,6,7,8,9,12,13. Rowallan Block XI, Sections 1.

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Grouping of Sections for assessment:
The sections of the Western Block appear, from the readily available data, to have similar conservation values, except that the three northwest sections adjoin areas of protected indigenous forest on one boundary, the five southwest sections adjoin protected indigenous forest on more than one boundary, and the two eastern sections are isolated from other areas of indigenous forest. On this basis, the Block is separated into three sub-blocks for the assessment of relative conservation values:

- Sub-block 1: Three northwest sections (Rowallan Block VII, Sections 3, 4 and 5).
- Sub-block 2: Five southwest sections (Rowallan Block VII, Sections 6, 7, 8 and 9; and Rowallan Block XI Section 1).
- Sub-block 3: Two eastern sections (Rowallan Block VII, Sections 12 and 13).



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4.0 ASSESSMENT OF RELATIVE CONSERVATION VALUES

To determine the relative conservation values of the Blocks and Sections of SILNA lands, each of the sub-blocks described in Section 3 of this report is assessed against criteria derived from the Nature Heritage Fund's criteria (Harding, 1994). These criteria are similar to and comparable with those used in assessments of the indigenous ecosystems of Southland Conservancy (Harding, 1999a) and of other SILNA lands (Harding, 1999b). In this assessment each sub-block is given a value for each of six criteria:

Primary Criteria:

1. Representativeness: the extent to which the ecosystems/habitats are representative of those originally present.
2. Distinctiveness/rarity: the importance of the area for species distribution and rare/threatened species and communities.
3. Landscape/Ecological Integrity: the position of the area in the wider landscape, including ecological linkages, buffering and the condition and status of adjoining land.

Secondary Criteria:

4. Depletion: the extent to which the land environment is depleted from its former extent.
5. Sustainability/Condition: the resilience of the ecosystem to known threats/long-term viability.
6. Amenity: the presence of other values (e.g. recreation, ecosystem services, important sites) and the contribution of the area to surrounding sites or features.

These criteria and the scoring values are described in Appendix 2.

Sections have been grouped in Sub-blocks for assessment. Sections have not been further subdivided for assessment. Where the conservation values of a section are varied, the higher of the values have been scored in this assessment. For example, where a section supports a mix of areas of cutover and cleared forest, the score is based on the higher value cutover (rather than the lower value cleared) forest.

The nature of the information available for this rapid desk-top assessment has meant that the main determinants of the conservation values of the sections are the:

- apparent extent and condition of indigenous forest cover
- status and condition of forest on adjacent lands
- extent to which the vegetation of the Land Environment is depleted relative to its former extent.

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4.1 Assessment of the sub-blocks

In this assessment each sub-block is given one of five scores for each criterion. Scores range from 10 (high) to 2 (low) for the three primary (1°) criteria, and from 5 (high) to 1 (low) for the three secondary (2 °) criteria. The final column of the table contains the total score (and therefore relative value) of each sub-block.

Table 1 Assessment Criteria Scores for each Sub-block

		Score for each criterion						Total
Block	**Sub-block**	1° criteria			2 ° criteria			**score**
		Representativeness	Distinctiveness	Landscape Integrity	Depletion	Condition	Amenity	
out of scope								
Western Block (map 2 of 3)	**1**	8	8	6	1	2	4	**29**
	2	6	8	10	1	3	4	**32**
	3	8	8	4	1	2	3	**26**
out of scope								

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4.2 Relative Conservation Values of the SILNA lands

The sub-blocks of SILNA lands assessed in this report are listed in order of conservation value (from highest value to lowest value) in the table below:

Table 2 Relative Conservation Values of the SILNA Lands Sub-blocks

Trust	Block/Sub-block	Sections	Score
out of scope			
Maori Trustee Lands	Western/2	Rowallan Blk VII Secs 6, 7, 8 and 9; Blk XI Sec 1	32
out of scope			

Priority Section

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5.0 REFERENCES CITED

Harding, M. A. 1994. *Implementing Biodiversity Conservation: An assessment of the strategic direction of the Forest Heritage Fund.* Forest Heritage Fund, Wellington. 56p.

Harding, M. A. 1999a. *Southland Protection Strategy.* Nature Heritage Fund, Wellington. 114p.

Harding, M.A. 1999b. Relative Conservation Values of the SILNA Lands. *Unpublished Report to the Department of Conservation,* Wellington. 45p.

Robertson, C.J.R.; Hyönen, P.; Fraser, M.J.; Pickard, C.R. 2007. *Atlas of Bird Distribution in New Zealand 1999-2004.* Ornithological Society of New Zealand Inc. 533p.

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APPENDIX 1 SCHEDULE OF SILNA LANDS

The legal descriptions and sizes of the individual land parcels included in this assessment are listed below, grouped by location:



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Maori Trustee Lands

out of scope



Hump Ridge, Map 2 of 3	
Rowallan Block VII, Section 3	149.73
Rowallan Block VII, Section 4	169.83
Rowallan Block VII, Section 5	130.30
Rowallan Block VII, Section 6	138.90
Rowallan Block VII, Section 7	110.05
Rowallan Block VII, Section 8	128.61
Rowallan Block VII, Section 9	101.17
Rowallan Block VII, Section 12	95.41
Rowallan Block VII, Section 13	178.06
Rowallan Block XI, Section 1	121.41

out of scope



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APPENDIX 2 ASSESSMENT CRITERIA

These assessment Criteria are adapted from the Nature Heritage Fund's criteria (Harding, 1994) and are similar to and compatible with the Southland Protection Strategy criteria (Harding, 1999a) and the criteria used in an earlier assessment of SILNA lands (Harding, 1994b).

Primary Criteria

1. Representativeness	
The extent to which the ecosystems/habitats are representative of those originally present	**Score**
Highly representative of the original vegetation/habitat (unlogged)	**10**
Moderately representative (selectively logged; indigenous canopy)	**8**
Representative species still present (cutover; advanced regeneration)	**6**
Unrepresentative; regenerating/seral indigenous vegetation	**4**
Unrepresentative; no or few indigenous species present	**2**

2. Distinctiveness/rarity	
The importance of the area for species distribution and rare/threatened species/communities	**Score**
Internationally important for species distribution/high numbers of threatened species	**10**
Nationally important for species distribution/moderate numbers of threatened species	**8**
Regionally important for species distribution/moderate numbers of threatened species	**6**
Locally important for species distribution/low numbers of threatened species	**4**
No known species distribution or threatened species values	**2**

3. Landscape/ecological integrity	
The position of the area in the wider landscape, including ecological linkages, buffering and the condition and status of adjoining land.	**Score**
An enclave of unprotected land surrounded by protected land	**10**
Area adjoins protected land along >50% of its terrestrial boundary; or Links two or more protected areas, or a protected area with the sea, a river or lake, and the linkage is wide enough to be viable	**8**
Area adjoins protected land along <50% of its terrestrial boundary; or Does not adjoin a protected area but is large enough to sustain the ecosystem with certainty (including resilience to natural disturbance)	**6**
Area does not adjoin a protected area but is large enough, of suitable shape, and sufficiently buffered to sustain the ecosystem	**4**
Area does not adjoin a protected area and is not large enough, of suitable shape, and sufficiently buffered to sustain the ecosystem, but budgeted management action could sustain ecosystem processes and components	**2**
Area does not adjoin a protected area and is not large enough, of suitable shape, or sufficiently buffered to sustain the ecosystem, and management action to sustain ecosystem processes and components would be costly	**0**

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Secondary Criteria

4. Depletion	
The extent to which the land environment is depleted from its former extent	Score
Less than 10% indigenous cover remaining	5
10-20% indigenous cover remaining	4
20-30% indigenous cover remaining	3
>30% indigenous cover remaining and <20% protected	2
>30% indigenous cover remaining and >20% protected	1

5. Sustainability/Condition	
The resilience of the ecosystem to known threats/long-term viability	Score
Resilient to introduced species and other threats/excellent long-term viability	5
Fairly resilient to introduced species and other threats/good long-term viability	4
Some resilience to introduced species and other threats/moderate long-term viability	3
Not very resilient to introduced species and other threats/relatively poor long-term viability	2
Not resilient to introduced species and other threats/ poor long-term viability	0

6. Amenity	
The presence of other values (e.g. recreation, ecosystem services, important sites) and the contribution of the area to surrounding sites or features	Score
Very high amenity values/contribution to internationally-important area	5
High amenity values/contribution to nationally-important area	4
Moderate amenity values/contribution to regionally-important area	3
Low amenity values/contribution to locally-important area	2
No known amenity values/minor contribution to locally-important area	0

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