

Partial review



# CMS

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## CONSERVATION MANAGEMENT STRATEGY

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Otago 2016  
(Incorporating the 2022 partial review)  
Volume 1



Department of  
Conservation  
*Te Papa Atawhai*

# CMS

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Otago 2016  
(Incorporating the July 2022 partial review)

Volume 1

This revision of the Otago Conservation Management Strategy 2016 incorporates the July 2022 partial review.

*Cover image: *Celmisia haastii* on the upper Wye valley near Queenstown with the Tāpuae-o-Uenuku/Hector Mountains in the background.*

*Photo: John Barkla*

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# Contents

<b>Foreword</b>	<b>7</b>
<hr/>	
<b>Introduction</b>	<b>8</b>
<hr/>	
Purpose of conservation management strategies	8
Treaty partnership with Ngāi Tahu	9
CMS structure	11
Interpretation	11
CMS term	12
Relationship with other Department of Conservation strategic documents and tools	12
Relationships with other planning processes	14
The Department's legislative tools	14
Treaty of Waitangi and Ngāi Tahu Settlement Obligations	15
International obligations	16
<b>Part One</b>	<b>17</b>
<hr/>	
1.1 The Department in Otago	17
1.2 Vision for Otago—2066	17
1.3 Distinctive features, values and issues of Otago	19
1.4 Treaty partnership with Ngāi Tahu	25
1.5 Otago by 2026	32
<b>Part Two—Places</b>	<b>45</b>
<hr/>	
2.1 Mount Aspiring National Park/Tititea Place	46
2.2 Te Papanui, Oteake and Hāwea Conservation Parks Place	48
2.3 Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākaihautū Place	57
2.4 Central Otago Uplands Place	74
2.5 Old Man Range/Kopuwai, Old Woman Range, and Garvie Mountains Place	82
2.6 Central Otago Drylands/Manuherikia Place	88
2.7 Eastern Otago and Lowlands/Maukaatua Place	94
2.8 Catlins/Te Ākau Tai Toka Place	103
2.9 Marine/Te Tai o Arai te Uru Place	111
2.10 Freshwater/Wai Māori Place	116
<b>Part Three—Specific policy requirements for Otago</b>	<b>124</b>
<hr/>	
3.1 General	124
3.2 Vehicles	127
3.3 Biking	129
3.4 Electric power-assisted pedal cycles	132

3.5	Other forms of transport	133
3.6	Aircraft	133
3.7	Animals	139
3.8	Dogs	140
3.9	Horses and pack animals	141
3.10	Structures and utilities	142
3.11	Private accommodation and related facilities	143
3.12	Marine mammal viewing	146
3.13	Commercial eeling	147
3.14	Sports fish and game bird hunting	148
3.15	Grazing and farming	148
3.16	Mining	149
3.17	Sand and shingle extraction	150
3.18	Commercial filming and photography	151
3.19	Collection of material	152
3.20	Wild animals	152
3.21	Game animals (see also wild animals)	155
3.22	Sporting and other competitive events	156
3.23	Recreation activities using fixed anchors	157
3.24	Fire management	158
3.25	Ski fields	159
<b>Part Four—Implementation monitoring and reporting, and review</b>		<b>161</b>
<b>Glossary</b>		<b>162</b>
<b>Appendices</b>		<b>181</b>
<b>Appendix 1:</b>		181
	Work or activities of the Department of Conservation that may meet the requirements of section 4(3) of the Resource Management Act 1991 for exemptions from land use consents in Otago	
<b>Appendix 2:</b>		191
	Ecosystem and habitat types within Otago	
<b>Appendix 3:</b>		209
	Islands administered by the Department of Conservation in Otago	
<b>Appendix 4:</b>		211
	Priority ecosystem units on public conservation lands and waters in Otago identified by the Department through natural heritage prioritisation processes	
<b>Appendix 5:</b>		216
	Threatened and at-risk indigenous flora and fauna present in Otago	

<b>Appendix 6:</b>	229
Threats or pests and wild animals present in Otago	
<b>Appendix 7:</b>	249
Nationally iconic species in Otago	
<b>Appendix 8:</b>	250
Marine habitats and ecosystems in Otago	
<b>Appendix 9:</b>	255
Significant geological features, landforms and landscapes in Otago	
<b>Appendix 10:</b>	260
Actively conserved historic places on public conservation lands and waters, or managed by the Department, in Otago	
<b>Appendix 11:</b>	264
Icon and Gateway destinations in Otago	
<b>Appendix 12:</b>	265
Prescriptions for the management of visitor management zones	
<b>Appendix 13:</b>	268
Ngāi Tahu Claims Settlement Act provisions relating to Otago	
<b>Appendix 14:</b>	292
Statement of outstanding universal value for Te Wāhipounamu—South West New Zealand World Heritage Area	
<b>Appendix 15:</b>	300
Publicly available huts on public conservation lands and/or managed by the Department within Otago.	



# Foreword

Many of Otago's most significant and highly visited natural and historic places are located on public conservation land, providing valuable contributions to New Zealand's international identity, reputation and economy.

This Otago Conservation Management Strategy (CMS) integrates national and local conservation priorities and identifies outcomes for places that are special to Ngāi Tahu and the community. It builds on the wisdom, skills, knowledge and experience we have collectively gained over the past decade and sets out our aspirations for the next 10 years and beyond. It reaffirms the Department of Conservation's desire to work alongside others, including Ngāi Tahu, other government agencies, individuals, business and the community to significantly increase our conservation effort in Otago.

This CMS has been prepared through a lengthy public process and is the result of input from Ngāi Tahu, the Otago Conservation Board and many in the community. Their input, and enthusiasm and support for conservation, are acknowledged and have helped direct the future of conservation in Otago over the next 10 years and beyond.

This CMS became operative on 1 September 2016.



**Dr Warren Parker**

Chair, New Zealand Conservation Authority—Te Pou Atawhai Taiao O Aotearoa



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Otago Conservation Board



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# Introduction

## Purpose of conservation management strategies

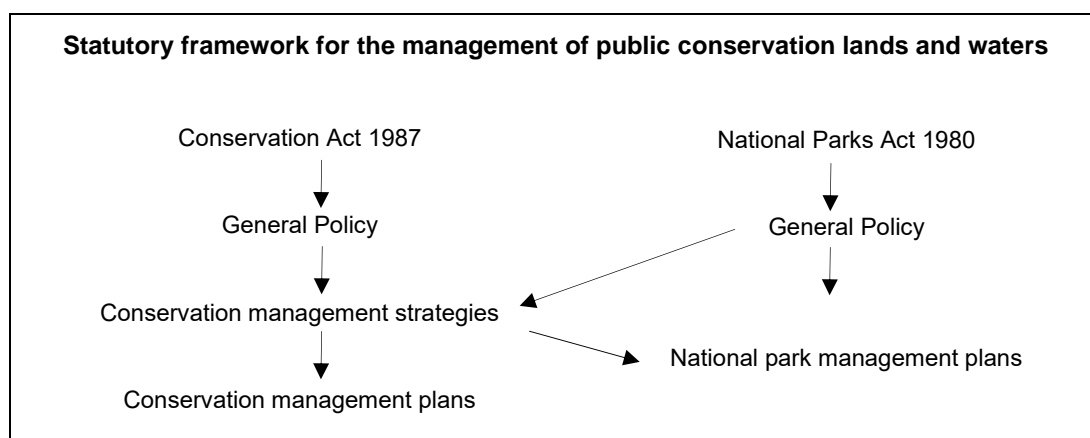
Conservation, as defined under section 2 of the Conservation Act 1987 (the Act), is the ‘preservation and protection of natural and historic resources for the purpose of maintaining their intrinsic values, providing for their appreciation and recreational enjoyment by the public, and safeguarding the options of future generations’.

The functions of the Department of Conservation (the Department) are for the most part identified in section 6 of the Act and in other Acts listed in the First Schedule of the Act.

The purpose of a conservation management strategy (CMS), as defined by section 17D of the Act, is to implement statements of general policy, and to establish objectives for the integrated management of natural and historic resources, including species managed by the Department, and for recreation, tourism and other conservation purposes.

The Act creates a hierarchy of documents to guide the Department in its management. The Act is at the top, General Policy is next and below that are the CMS and conservation management plans and other management plans. In the Otago region there is one recent<sup>1</sup> operative conservation management plan for Taiaroa Head Nature Reserve.<sup>2</sup>

There is one operative national park management plan within the area of this CMS, prepared under the National Parks Act 1980, for Mount Aspiring National Park.



A lower-order planning document cannot derogate from a higher-order one, meaning that it cannot be contrary to it. The lower in order a planning document is, the greater the level of detail as to management intentions.

<sup>1</sup> Other conservation management plans dating from prior to the Department of Conservation may still exist. The intention is that these will be revoked subsequent to this strategy’s approval.

<sup>2</sup> Part of the Pukekura Reserves Management Plan (2012) jointly developed by the Department, Dunedin City Council, Te Rūnanga o Ōtākou and the Korako Karetai Trust.

The general policies relevant to this CMS are the:

- Conservation General Policy 2005, which applies to all conservation lands, waters and resources managed by the Department under the following Acts: the Conservation Act 1987, the Wildlife Act 1953, the Marine Reserves Act 1971, the Reserves Act 1977, the Wild Animal Control Act 1977 and the Marine Mammals Protection Act 1978
- General Policy for National Parks 2005, which sets expectations and takes priority for national park management planning.

Other legislation for which the Minister of Conservation has a role or that is relevant to this CMS includes: the Electricity Act 1992, the Freedom Camping Act 2011, the Heritage New Zealand Pouhere Taonga Act 2014, the Protected Objects Act 1975, the State-Owned Enterprises Act 1986, the Crown Minerals Act 1991, the Walking Access Act 2008, the Game Animal Council Act 2013, the Crown Pastoral Land Act 1998 and the Ngāi Tahu Claims Settlement Act 1998.

Each draft CMS is prepared with public participation according to the process set out in the Conservation Act 1987. Preparation of this CMS has involved:

- a) Consultation with an extensive list of agencies, concessionaires, commercial interest groups, and recreation, conservation and other community groups. Many were met through the Department's ongoing community liaison processes, and others invited the Department to strategy meetings.
- b) Posting pre-draft sections of the CMS and other background documents on a 'CMS' website for informal public comment.
- c) Consultation with Te Rūnanga o Ngāi Tahu,<sup>3</sup> with regular updates and discussion regarding process and values (particularly cultural values).
- d) The Otago Conservation Board's involvement in the development of the draft CMS, from identification of Otago issues to choices of the CMS Places.
- e) Public notification of the CMS, with submissions sought and received and, where requested by submitters, hearings were held.
- f) Consideration of the revised draft CMS by the Otago Conservation Board, requesting revisions and sending the revised draft CMS to the New Zealand Conservation Authority for approval.

## Treaty partnership with Ngāi Tahu

Ngāi Tahu are the tangata whenua with rangatiratanga or tribal authority over the area covered by this CMS. They are the Department's primary partner under the Treaty of Waitangi. Te Rūnanga o Ngāi Tahu is the governing tribal council established by the Te Rūnanga o Ngāi Tahu Act 1996. Papatipu Rūnanga are the representative bodies of the tangata whenua who hold mana whenua in their traditional takiwā (boundaries). There are nine Papatipu Rūnanga in Otago (see Table 1).

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<sup>3</sup> In Otago the local dialect form 'Kai Tahu' is often preferred; however, this CMS uses Ngāi Tahu for consistency with legislation.

**Table 1: The Papatipu Rūnanga of Otago**

<b>PAPATIPU RŪNANGA</b>	<b>TAKIWĀ</b>
Te Rūnanga o Waihao	The takiwā of Te Rūnanga o Waihao centres on Wainono, sharing interests with Te Rūnanga o Arowhenua to Waitaki, and extends inland to Omarama and the Main Divide.
Te Rūnanga o Moeraki	The takiwā of Te Rūnanga o Moeraki centres on Moeraki and extends from Waitaki to Waihemo and inland to the Main Divide.
Kāti Huirapa ki Puketeraki	The takiwā of Kāti Huirapa ki Puketeraki centres on Karitāne and extends from Waihemo to Purehurehu and includes an interest in Otepoti and the greater harbour of Ōtākou. The takiwā also extends inland to the Main Divide, sharing an interest in the lakes and mountains to Whakatipu-Waitai with Rūnanga to the south.
Te Rūnanga o Ōtākou	The takiwā of Te Rūnanga o Ōtākou centres on Ōtākou and extends from Purehurehu to Te Matau and inland, sharing an interest in the lakes and mountains to the western coast with Rūnanga to the north and to the south.
Te Rūnanga o Arowhenua	The takiwā of Te Rūnanga o Arowhenua centres on Arowhenua and extends from Rakaia to Waitaki, sharing an interest with Ngāi Tūāhuriri ki Kaiapoi between Hakatere and Rakaia, and thence inland to Aoraki and the Main Divide.
Waihopai Rūnaka	The takiwā of Waihopai Rūnaka centres on Waihopai and extends northwards to Te Matau, sharing an interest in the lakes and mountains to the western coast with other Murihiku Rūnanga and those located from Waihemo southwards.
Te Rūnanga o Awarua	The takiwā of Te Rūnanga o Awarua centres on Awarua and extends to the coasts and estuaries adjoining Waihopai, sharing an interest in the lakes and mountains between Whakatipu-Waitai and Tawhitarere with other Murihiku Rūnanga and those located from Waihemo southwards.
Te Rūnanga o Ōraka Aparima	The takiwā of Te Rūnanga o Ōraka Aparima centres on Ōraka and extends from Waimatuku to Tawhitarere, sharing an interest in the lakes and mountains from Whakatipu-Waitai to Tawhitarere with other Murihiku Rūnanga and those located from Waihemo southwards.
Hokonui Rūnaka	The takiwā of Hokonui Rūnaka centres on the Hokonui region and includes a shared interest in the lakes and mountains between Whakatipu-Waitai and Tawhitarere with other Murihiku Rūnanga and those located from Waihemo southwards.

Source: Derived from Te Rūnanga o Ngāi Tahu (Declaration of Membership) Order 2001.

The Treaty partnership is an enduring Treaty-based relationship between Ngāi Tahu and the Crown. This partnership is based on the principles upon which the Treaty is founded, and gives ongoing effect to the tino rangatiratanga of Ngāi Tahu alongside the requirement of the Crown to govern responsibly. With respect to conservation management, its practical application is expressed through the exercise of Ngāi Tahu kaitiakitanga (guardianship) responsibilities over their natural resources (see section 1.4 Treaty partnerships with Ngāi Tahu for details).

## CMS structure

This CMS describes the conservation values present in Otago, and provides guidance for the Department's work in the form of a vision, objectives, outcomes for Places, policies and milestones translating the Department's strategic outcomes to Otago. The Places described in Part Two of this CMS have been identified for the purposes of integrated conservation management and require some specific management direction.

This CMS has two volumes. Volume I includes:

- A vision for Otago, and whole-region objectives, policies and milestones (Part One)
- Outcomes, policies and milestones for Places within Otago (Part Two)
- Other specific whole-region policies and milestones that address legislative and general policy requirements (Part Three)
- Objectives for implementation monitoring and reporting, and review (Part Four)
- Glossary
- Appendices.

Volume II contains maps and a public conservation lands and waters inventory.

The various objectives, outcomes, policies and milestones in the CMS sometimes refer to information in various appendices and maps (see table of contents). All other text is provided as supportive background material.

Guidance for the interpretation of this CMS is provided below and at the start of Parts One, Two and Three.

Milestones are included as specific actions that are measureable steps towards achieving objectives, outcomes and policies. They are a means by which the Otago Conservation Board can monitor and report on CMS implementation.

Information in Appendices and the CMS Volume II conservation lands and waters inventory maps may be amended from time to time to keep the information accurate, with consequent updates to other CMS maps. Where such amendments relate only to conservation lands and waters, they may be able to be undertaken in accordance with section 17I(1A) of the Conservation Act 1987. Where the amendments would have implications beyond public conservation lands and waters for statutory parts of the CMS (objectives, outcomes and policies), the Department will consider an amendment process in accordance with section 17I(2) or (4) of the Act. All amendments and a schedule of them will be made and recorded on the Department's website.

## Interpretation

All public conservation lands and waters must be managed in accordance with the legislation under which they are held. All operative provisions of this CMS must be interpreted and applied in accordance with that legislation.

The parts of this CMS that have legal effect are the objectives, outcomes, policies and glossary:

- Objectives describe the goals that the Department wants to achieve across Otago, and support national directions and community aspirations to achieve integrated management.
- Outcomes describe the future state of a 'Place', including its values and expected changes at that Place over the 10-year term of the CMS, and will be used for conservation management and decision-making. This applies whether or not there is a relevant policy for a Place.

- Policies describe the course of action or guiding principles to be used for conservation management and decision-making.
- The glossary defines words and phrases.

The Minister’s decision-making powers are, in most cases, delegated to departmental employees. When that is the case, that person acts as the Minister’s delegate. The Director-General’s decision-making powers are also, in most cases, delegated.

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## POLICIES

1. Public conservation lands and waters will be managed consistently with the provisions of the relevant legislation, general policy and the purpose for which they are held.
  2. The operative parts of this CMS are the objectives, outcomes, policies and glossary.
  3. The objectives in Part One, the policies in this section and the policies in Part Three of this CMS apply to all lands, waters and resources administered by the Department in Otago.
  4. The outcome and policies in each section of Part Two apply to all the lands, waters and resources administered by the Department in that section.
  5. Where the outcomes and policies in Part Two differ from the objectives or policies in Part One and/or the policies in Part Three, the provisions of Part Two prevail.
  6. An integrated approach will be applied by the Department to its management within Otago and to cross-boundary management of public conservation lands and waters.
  7. In interpreting the policies in this CMS, the words ‘will’, ‘should’ and ‘may’ have the following meanings:
    - a. Policies where legislation provides no discretion for decision-making or a deliberate decision has been made by the Minister to direct decision-makers state that a particular action or actions ‘will’ be undertaken.
    - b. Policies that carry with them a strong expectation of outcome without diminishing the constitutional role of the Minister and other decision-makers state that a particular action or actions ‘should’ be undertaken.
    - c. Policies intended to allow flexibility in decision-making state that a particular action or actions ‘may’ be undertaken.
  8. Approved national park and conservation management plans continue to have effect until they are amended, reviewed, withdrawn or revoked.
  9. Approved national park and conservation management plans have primacy until such time as they are reviewed; then their review will be undertaken within the framework established by this CMS.
- 

## CMS term

This CMS will have effect for 10 years or until formally amended or reviewed in full or in part. The term of this CMS is from 2016 to 2026 but may be extended with ministerial approval.

## Relationship with other Department of Conservation strategic documents and tools

This CMS must be read in conjunction with the Conservation and National Parks General Policies as these are the key statutory tools directing the content of conservation

management strategies. Relevant provisions of the Conservation General Policy 2005 are not repeated in this CMS.

This CMS should also be read in conjunction with the Department's Statement of Intent,<sup>4</sup> revised yearly.

The Conservation General Policy 2005 provides clear direction that each CMS should integrate the management of Places to achieve national conservation outcomes and coordinate planning between Places in other conservation management strategies. To help achieve this integration towards national conservation outcomes, the high-level objectives of the Department's Statement of Intent 2015–2019 and national priorities identified through the Department's national decision-making support tools are reflected in this CMS. These tools, including those for natural heritage management and destination management, identify national priorities for the delivery of the Department's biodiversity, historic and recreation functions. National priorities for ecosystems and recreation are identified on Map 2 (Ecosystem priorities and recreation destinations).

In this CMS, the term 'priority ecosystem unit' refers to a site where conservation work will most effectively contribute to protecting the full range of ecosystems nationally and the threatened and at-risk species associated with them. These sites have been identified through the application of the Department's natural heritage prioritising processes. Research and increased knowledge will result in adaptations to management approaches.

Threatened and at-risk species are referred to by their status according to their level of threat of extinction identified in the New Zealand Threat Classification System (2008). 'iconic species' are those that the public has told the Department help define New Zealand's identity. 'iconic natural features' are places highly valued by the public for recreation, tourism, education and research.

Recreation opportunities on public conservation lands and waters have been categorised as a national suite of destinations to reflect known and potential demand, and to capture people's outdoor leisure preferences. This is part of an approach known as Destination Management. 'Icon destinations' are those that the Department has identified as high profile, popular destinations that underpin national and international tourism, and provide memorable visitor experiences in New Zealand. 'Gateway destinations' introduce New Zealanders to the outdoors and allow them to learn about conservation. These destinations may provide for a diverse range of activities but include many traditional camping and tramping destinations. 'Local Treasures' are vehicle-accessible, locally valued locations that provide recreation opportunities for, and grow connections with, nearby communities. 'Backcountry destinations' provide for more challenging adventures, including popular walks and tramps, within the body of large-scale natural settings. 'Historic Icon sites' are an important part of New Zealand's history and identity, and will be the focus of the Department's storytelling to bring history to life. Acknowledging the collective values of all these destinations is part of Destination Management.

National conservation initiatives, such as Battle for our Birds, Wilding Conifer Strategy and War on Weeds, are all operational programmes implementing the intermediate outcomes and objectives of the Statement of Intent, and the Department's 2025 Stretch Goals (as developed in 2015).

CMS integrate the Department's national priorities with local priorities identified through consultation with the community for the management of Places, business planning and the Statement of Intent, decisions on concessions and other authorisations, and identify opportunities for collaborative efforts to achieve more conservation.

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<sup>4</sup> Department of Conservation. 2015: Statement of Intent 2015–2019. [www.doc.govt.nz](http://www.doc.govt.nz)

## Relationships with other planning processes

CMS are part of a wider planning framework. In preparing CMS, the Conservation General Policy 2005 requires that regard be had to local government planning documents. In turn, local government planning processes are required to have regard to the Department's statutory plans when preparing documents under the Resource Management Act 1991 (RMA). Planning for natural and historic resources cannot be undertaken in isolation from wider regional, local government and Ngāi Tahu planning processes.

Te Rūnanga o Ngāi Tahu and Papatipu Rūnanga have prepared the following non-statutory documents. While they do not form part of the CMS, they are a valuable resource for the Department, concessionaires and others in providing an understanding of Ngāi Tahu cultural values:

- Te Rūnanga o Ngāi Tahu Freshwater Policy 1999. Te Rūnanga o Ngāi Tahu, Christchurch.
- Hazardous substance and new organisms policy statement 2008. Te Rūnanga o Ngāi Tahu Christchurch.
- Kāi Tahu ki Otago natural resource management plan 2005. Kai Tahu ki Otago Dunedin.
- Pounamu resource management plan 2002. Te Rūnanga o Ngāi Tahu, Christchurch.

Individual nohoanga management plans are also being developed by Te Rūnanga o Ngāi Tahu and, as they are completed, will be added to the Te Rūnanga o Ngāi Tahu website.

Integration of this planning framework will ensure that plans and policies work as building blocks to deliver good conservation and environmental outcomes at a regional scale.

Under the Biosecurity Act 1993, regional councils are responsible for preparing regional pest management strategies and pathway plans to ensure a coordinated approach to pest control is taken. The Department will work with regional councils on the preparation of these strategies and plans.

## The Department's legislative tools

### Exemption from land use consents

Section 4(3) of the RMA exempts the Department from obtaining district council land use consents where activities are consistent with a CMS, conservation management plan or similar documents and do not have significant adverse effects beyond the boundary of public conservation lands and waters. Appendix 1 of this CMS lists many activities that the Department considers meet the requirements for an exemption under section 4(3)(a) and (b) of the RMA. The facilities and activities in Appendix 1 are listed for the sole purpose of enabling the exemption under section 4(3) of the RMA and do not represent an undertaking in terms of the provision of these facilities.

### Closure of areas and access restrictions

Section 13 of the Conservation Act 1987 enables the Minister of Conservation to close areas administered under that Act for reasons of public safety or emergency. This section also enables the Minister to close areas if a CMS provides for the closure for conservation purposes (see Part Three, Policy 3.1.3).

Access to national parks may be restricted to preserve indigenous plants and animals or for the general welfare of the park. Access to reserves may also be restricted under the conditions for use of the reserve by Gazette notice, or signage.

### **Bylaws and regulations**

Bylaws can be established for reserves under the Reserves Act 1977 or for national parks under the National Parks Act 1980, and Regulations can be made for conservation areas and other conservation purposes under the Conservation Act 1987.

### **Conservation management plans**

Section 17E and 17G of the Conservation Act 1987 provides for the preparation of conservation management plans for the purpose of implementing a CMS and establishing detailed objectives for the integrated management of natural and historic resources for a place, and for recreation, tourism or other conservation purposes. The Act provides that the intention to prepare a conservation management plan may be identified in a CMS.

This does not preclude the preparation of conservation management plans, which may come about as a requirement in Treaty Settlement Acts.

## **Treaty of Waitangi and Ngāi Tahu Settlement Obligations**

The Conservation Act 1987 and all the Acts listed in its First Schedule must be interpreted and administered so as to give effect to the principles of the Treaty of Waitangi (Conservation Act 1987: section 4). The Department also has specific responsibilities under Treaty settlement legislation. As Otago falls entirely within the takiwā of Ngāi Tahu, the Ngāi Tahu Claims Settlement Act 1998 applies.

In addition to the section 4 responsibilities under the Conservation Act 1987, specific provisions in the Ngāi Tahu (Pounamu Vesting) Act 1997, Ngāi Tahu Deed of Settlement 1997 and Ngāi Tahu Claims Settlement Act 1998 provide opportunity and direction for the Crown and Ngāi Tahu to work together to give effect to the principles of the Treaty of Waitangi. The Deed was signed in 1997 between representatives of Ngāi Tahu and the Crown. The settlement was later passed into law through the Ngāi Tahu Claims Settlement Act 1998 and provides for a full and final settlement of the Ngāi Tahu historic claims. Settlement provisions include Tōpuni, Statutory Adviser, Deeds of Recognition, nohoanga sites, taonga species, and protocols, as well as for pounamu and regarding customary use (see 1.4 Treaty partnership with Ngāi Tahu).

The Ngāi Tahu Claims Settlement Act 1998 provides a practical framework for assisting the Treaty partnership between Ngāi Tahu and the Crown. The legal mechanisms established through the Ngāi Tahu Claims Settlement Act 1998 provide a starting point for Ngāi Tahu tino rangatiratanga and its expression through kaitiakitanga, and the basis for an enduring partnership between Ngāi Tahu and the Crown.

### **Ngāi Tahu (Pounamu Vesting) Act 1997**

The Ngāi Tahu claims settlement also includes the Ngāi Tahu (Pounamu Vesting) Act 1997. This Act returned all pounamu (otherwise known as greenstone, and including all nephrite, semi nephrite, bowenite and specific serpentine resources) occurring in its natural state in the takiwā (tribal area) of Ngāi Tahu, which was the property of the Crown, to Te Rūnanga o Ngāi Tahu. Pounamu is managed by Te Rūnanga o Ngāi Tahu in accordance with the Ngāi Tahu Pounamu Resource Management Plan.



## International obligations

New Zealand is a signatory to many international agreements that are relevant to conservation. The Department implements these agreements in accordance with its functions and has responsibilities for a number of species under these agreements. Examples of important international agreements of most relevance within Otago include the:

- Convention on Biological Diversity;
- Convention Concerning the Protection of the World's Cultural and Natural Heritage (World Heritage Convention);
- Convention on International Trade in Endangered Species of Wildlife Flora and Fauna (CITES);
- International Convention for the Regulation of Whaling;
- Convention on the Conservation of Migratory Species of Wild Animals;
- Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention);
- Convention for the Protection of Cultural Property in the Event of Armed Conflict;
- Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property.

### World Heritage Areas

Mount Aspiring National Park and parts of the Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākaihautū Place are within the Te Wāhipounamu—South West New Zealand World Heritage Area (see Appendix 14).

# Part One

## 1.1 The Department in Otago

This section contains a vision, objectives and milestones that apply to all public conservation lands, waters and resources in Otago (refer Map 1). Where there is a more specific provision in Part Two or Part Three, that more specific provision prevails.

This section, along with Part Two, guides the Department when it advocates for conservation of public conservation lands and waters.

## 1.2 Vision for Otago—2066

The Vision sets the long-term picture for the conservation of natural and historic resources of Otago. It goes well beyond the 10-year life of this CMS and may change over time.

The Department also has a national longer-term Vision:

***New Zealand is the greatest living space on earth***

*Kāore he wāhi i tua atu i a Āotearoa, hei wāhi noho i te ao*

This Vision is aspirational, a great deal bigger than conservation, and a great deal bigger than the Department. It challenges the Department to connect with others in order to achieve it, often in ways that expand the traditional view of the Department's role, and who its partners are, in addition to its primary Treaty partner within the Ngāi Tahu takiwā. In doing so, it requires the Department to build empathy, trust and understanding, so that both traditional and non-traditional audiences engage in a common vision.

Conservation protects New Zealand's natural capital. Conserving and protecting our natural resources and heritage is an essential investment in New Zealand's long-term well-being and prosperity. The Department provides leadership to inspire and involve others to work together to achieve more conservation than it could achieve alone.

It means changing the way people perceive a healthy environment, so that they understand and value of spending on nature conservation, seeing that it delivers a broad range of benefits, such as healthy soils, clean air and fresh water. The benefits nature provides are also multi-faceted and broad—they feed our social, physical, cultural and spiritual health, and our wealth. This allows people to be drawn to making *New Zealand the greatest living space on Earth* through many pathways.

Working towards the longer-term Vision for the Department and the Vision for Otago, the Department aims to increase the amount of conservation work being achieved over the life of this CMS by building a strong partnership with its primary Treaty partner Ngāi Tahu, and strong local partnerships with communities, agencies and businesses.

Neither the ecological nor social environment of New Zealand will be the same in 100 years as they are today. The Department will adapt its management as the decades pass in response to climate and demographic changes so as to maintain relevance to New Zealanders and to demonstrate conservation leadership. Future revisions of the CMS will reflect those adaptations.

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## VISION FOR OTAGO—2066

Otago is renowned for its wide diversity of distinctive landscapes and vegetation, evidence of a long human history, and its suite of recreational opportunities, which change with the seasons.

An effective Treaty partnership between the Department and Ngāi Tahu is a key component of this vision. It creates an enduring relationship that recognises Ngāi Tahu tino rangatiratanga over their taonga tuku iho (treasured resources) and it enables the exercise of their kaitiakitanga responsibilities (cultural guardianship) and protection over them. The contribution of Ngāi Tahu resources, knowledge and values to conservation is thereby recognised, and Ngāi Tahu will actively engage in decision-making and management processes meaningfully.

More conservation is achieved by working cooperatively with Ngāi Tahu, other agencies, communities and businesses. This results in conservation outcomes that are responsive to change, new and innovative, by finding enduring ways of enhancing the protection of natural values and increasing the number and range of protected and thriving biodiversity refuges and species.

Marine ecosystems and species are thriving, with marine mammals and birds successfully breeding along the coast. Cultural, recreational and business activities associated with marine protected areas are consistent with this vision. A representative range of marine ecosystems has been protected, reflecting the value that communities have for their marine environment.

Flowing from the mountains to the sea—ki uta ki tai—Otago's diverse freshwater systems support healthy aquatic ecosystems. All riparian margins are clothed in predominantly indigenous vegetation. People can safely swim in and gather food from all freshwater systems. Otago is a stronghold for indigenous galaxiid species, and tuna/eels are abundant. Upland and lowland wetlands have increased through active restoration and protective activity and their margins remain vital habitats for indigenous flora and fauna. Braided river ecosystems retain their distinctiveness and are all intact. The contribution of freshwater systems to ecosystem services and their intrinsic values are understood and valued by the community.

Otago terrestrial ecosystems and their species are thriving at a self-sustaining level. An expanded network of protected areas supports intact vegetation sequences and provides links for wildlife. The protected areas network includes a full range of Otago's ecosystems and in particular has a good representation of lowland dryland ecosystems. Tussock grassland parks reflect the high value accorded to the tussocklands and their natural, historic and cultural values. Distinctly Otago species are secure and thriving in natural habitats and are valued as part of Otago's natural heritage. Inland Otago is a 'sea of gold' as kōwhai blooms amongst healthy indigenous shrublands, and Otago skinks and grand skinks thrive in restored habitats. Ecosystem services provided by protected areas are better understood and valued, playing a vital role in Otago's prosperity, including mitigating the effects of climate change and by providing refuges and safe migration pathways for affected animal and insect species.

Otago's rich history remains visible and accessible with communities actively involved in sharing their stories. People learn about the past through interpretation across a network of sites focusing on Ngāi Tahu, pioneer, pastoral farming, gold and exploration stories. Ngāi Tahu maintain their relationship with whenua tūpuna and their treasured sites on public conservation lands and waters.

People enjoy public conservation lands and waters. A network of well-managed recreational opportunities in Otago offers locals and visitors exciting, informative and memorable experiences of international quality. Traditional backcountry opportunities where natural qualities dominate enable people to experience peace, natural quiet and the challenges of self-sufficiency. More residents seek out new recreational opportunities and take advantage of opportunities near where they live.

Otago's 'flourishing kete' supports a range of opportunities for hunting and gathering activities that are important to the ongoing expression of Ngāi Tahu and the community's identity.

Businesses are integral to sustaining a healthy environment. Business partnerships add value to the public's use and enjoyment of natural, historic, recreational and cultural values. Prosperous communities have been created, which improves the health, wealth and well-being of Otago people and their families.

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## 1.3 Distinctive features, values and issues of Otago

### Introduction

Otago stretches from the dramatic landscapes of the eastern coasts and rainforests of The Catlins, westward through the ancient block mountains and drylands of Central Otago, to the beech forests and tussock grasslands of the lakes and mountains of the Southern Alps/Kā Tiritiri o te Moana, centred on Mount Aspiring National Park (see Map 1).

All of Otago lies within the rohe of a single iwi, Ngāi Tahu, who have had footprints here for over 800 years. Ngāi Tahu have a special relationship with the land, waters and resources in Otago. As tangata whenua, Ngāi Tahu have particular rights and responsibilities. They are kaitiaki and have rangatiratanga status, in the management of the lands, waters and resources in the takiwā (see section 1.4 for further details).

Otago has a character distinct from other regions of New Zealand and a vast diversity of landscapes, ecosystems, species and climates, which contribute to New Zealand's international identity and reputation.

The coastal and marine environments in Otago and the species that inhabit them are rich and diverse. Compared with terrestrial environments, relatively little is known about them and the scarcity of marine protected areas remains the most obvious gap in Otago's protected area network.

Central Otago has relatively few formally protected low-altitude dryland habitats, which provide a haven for dryland conservation, including nationally threatened species, such as skinks, galaxiid fishes, chafer beetles and distinctive plant communities.

In the west, the mountainous country along the main divide of the Southern Alps/Kā Tiritiri o te Moana is largely included in Mount Aspiring National Park. The ecological, landscape, wilderness and natural quiet values of the park and surrounding areas are internationally recognised by its inclusion in the Te Wāhipounamu—South West New Zealand World Heritage Area. These areas have cultural significance for Ngāi Tahu and are important to New Zealanders' and the tourism industry.

The western mountains form the headwaters of some of New Zealand's longest and largest rivers that flow east to the coast. These rivers are integrally linked with the early exploration and settlement of Otago and provide valuable natural, recreational, historic and economic resources.

In Otago, tenure review plays a very important role in securing formal protection of conservation and recreation values in the high country as many important conservation values are located off public conservation lands.

## **History—the journeys and stories of Māori occupation, gold mining and high-country pastoral farming**

Otago has a long and rich history. Māori settlers have left signs of their lifestyle in moa hunting sites, middens and stone tool working areas. The earliest verified dates of these are from the 13th century, although some sources within Ngāi Tahu refer to much earlier settlement or occupation. Substantial moa processing sites lie in north Otago river mouths of the Waitaki, Shag (Waihemo) and Pleasant rivers, on The Catlins coast (Cannibal Bay, Pounaweia, Papatowai, Tautuku) and in the margins of the inland basins (Puketoi, Millers Flat, Hawksburn and Nevis River valley). Moa may have become extinct in Otago around 1500 AD at which time the diet and pattern of Māori settlement changed to focus on the area between Kaka Point and Oamaru. Inland, settlement was concentrated at points on the margins of the big lakes where foods such as fern root, weka, the extinct koreke/New Zealand quail and tuna/eels became important. The discovery and subsequent exploitation and use of pounamu occurred around this time. Treasured and with spiritual significance, pounamu was used by Māori to denote status and authority, for adornment, and for making tools, for trading and peacemaking. Trails criss-crossed the landscape from one coast to the other, and pounamu seams and boulders in the western mountains became important.

Ngāi Tahu explored most of Otago in their desire for exploration and in their search for food and mineral resources. Signs of their seasonal and temporary occupation remain obvious in the extensive shell middens on the coast. Important inland sites are now being identified through the tenure review process. Although small in population, Māori had a visible and enduring impact on the landscape, including through fire. Ōtākou was one of three South Island sites for the signing of the Treaty of Waitangi/Te Tiriti o Waitangi and remains a significant marae today.

Signs of Otago's varied history, from early sealing and whaling to early Māori-Pākehā interactions and later European exploration, gold mining, pastoral farming, railways and settlement, remain in today's landscape, the most obvious being gold-mining relics. Gold was discovered at Gabriel's Gully in 1861 and resulted in a series of gold rushes. For several years Otago boomed, the population of Dunedin nearly trebled and in many places there were profound changes to the landscape, and major river impacts. By 1865 the great gold rushes in Otago were over. Historic goldfields sites are on and off public conservation lands; some of these are popular visitor attractions, especially the Arrowtown Chinese Settlement Historic Reserve (Icon destination) and Skippers (Gateway destination).

High-country farming also has a long history in Otago, with a visible and enduring impact on the landscape, including through grazing and fire. Sheep farming in particular is seen as an integral part of the high-country and part of the present character of Otago as well as the history. Many relics of this history, such as mining relics and musterers' huts are now located on public conservation lands and waters.

Archaeological sites are legally protected under the Heritage New Zealand Pouhere Taonga Act 2014 and archaeological and heritage sites protected under the conservation legislation. The multi-faceted history of Otago also includes the liberation of exotic wild animals, in particular red deer, and the subsequent control, including recreational and commercial hunting.

Journeys are a recurring theme in Otago's history. They include Māori trails, pioneer and gold trails, early exploration trails, and more recently, walking and biking tracks and horse-riding cavalcades. The early tramping and mountaineering clubs played an important role in advocating for the ongoing protection of these areas and left a significant legacy of backcountry huts built by Otago mountaineers. They connect the past with the present, through providing opportunities for recreational tracks and facilities.

Rivers such as the Kawarau, Clutha River/Mata-Au and Taieri provide powerful connections through the landscapes of Otago, as do old trails such as the Dunstan Trail and the Nevis Road. They continue to provide access to and through public conservation and other lands.

### **Landscapes—from the snowfields of the main divide of the Southern Alps/Kā Tiritiri o te Moana, to the tor-studded central Otago block mountains, and Otago’s wild coastline**

Defining characteristics of Otago are the combination of block mountain, tussock grassland, and rocky dryland landscapes, and the indigenous bush-covered coastal hills of The Catlins, which is one of few localities in eastern New Zealand where such intact coastal landscapes reach the sea. Many of these landscapes are whenua tūpuna, with five recognised by Tōpuni, reflecting Ngāi Tahu ancestral links to the land.

Significant landscape features include the scroll plain of the upper Taieri River. Although much diminished in size, it is the only one of its type in New Zealand. Signs of the historical Otago gold rushes are also present on a landscape scale.

Large areas of indigenous vegetation remain in central and western Otago, but recent land use change has reduced their extent and naturalness.

### **Ecosystems—rainforests, tussock grasslands, drylands, rich coastal forest and wetland ecosystems**

Within Otago’s diverse mountains-to-the-sea ecosystems are the Otago salt pans with their distinct assemblages of plants and animals, and The Catlins coastal forests. Some of The Catlins catchments comprise a wholly indigenous vegetation sequence of temperate rainforest, coastal wetlands and estuarine vegetation.

The extensive, intact snow-tussock grasslands and tundra-like vegetation found on the broad block mountains of Central Otago are seemingly featureless, but on closer examination they encompass numerous microhabitats and support a high level of indigenous plant and invertebrate biodiversity.

Central Otago’s low-relief range crests also support extensive wetlands and bogs that provide habitat for threatened freshwater fish, water birds, invertebrates and plant communities. Indigenous wetland systems of this size are now rare at any altitude, and elsewhere are often adversely affected by exotic plant invasions and various forms of land use. Otago’s lowland and coastal wetland systems provide habitats for threatened and at-risk species and are highly valued for their landscape, cultural and recreational values.

Otago’s coastal and marine ecosystems are varied reflecting the diversity of rock types and exposure to waves and currents along the coast. Rocky shores alternate with sandy beaches, kelp beds and coastal cliffs.

The ecosystem services provided by intact ecosystems, particularly tussock grasslands and high-altitude wetlands, are increasingly being recognised. Dunedin City’s water supply depends on maximising the water yield from the Lammermoor Range catchments, and irrigation schemes in Central Otago rely on the steady flow of water from the ranges. Climate change is predicted to result in less precipitation throughout most of Otago and may increase extreme weather events, increasing the importance of water yields and catchment stability in the long term.

## **Species—Otago, a stronghold for birds, lizards, galaxiids, marine mammals and dryland plant species**

The diversity of ecosystems, weather and geology result in a diversity of vegetation and species, many endemic to Otago.

Of particular importance is the lizard fauna, including the threatened grand and Otago skinks of Central Otago and the moko kākārīki/jewelled gecko, several threatened and endemic freshwater fish species, and many threatened dryland plant species (see Appendix 5).

The extensive public conservation lands and waters in the western mountains and lakes support threatened animals including whio/blue duck, mohua/yellowhead, pīwauwau/rock wren, kākā; kākārīki/parakeet, kārearea/New Zealand falcon and pekapeka/bat.

The high-altitude range crests and bogs of the Central Otago dry basins and uplands support a distinctive range of low-stature alpine plants. Other distinctive features are the salt pans, which support endemic salt-tolerant plant species, and the presence of small spring annuals that feature at several small reserves. The drylands also contain a wide range of threatened invertebrates, such as moths and beetles. Many species of invertebrates have yet to be formally identified.

The forests of The Catlins include priority ecosystem units on the MacLennan and Beresford ranges and at Pūrākaunui, providing nationally important habitats for mohua/yellowhead and other forest-dwelling species.

Otago's rivers, particularly the Taieri, hold among the most diverse indigenous fish fauna in New Zealand, and are a stronghold for a number of threatened and endemic galaxiid. Thirteen non-migratory species have been confirmed, with sometimes a species being confined to one catchment. Protection of freshwater quantity and quality (including protection of upland and lowland wetlands) and increased public awareness of these often overlooked species are critical to their survival. Protection from salmonids is important in specific catchments.

Marine and coastal areas support a wide range of seabirds, marine mammals, fish and invertebrates. Penguins, shearwaters, shags, albatrosses and gannets feed and breed in a number of locations along the coast. Bird species that usually nest only on offshore islands can be found nesting on parts of the mainland Otago coastline. Of particular note are the toroa/northern royal albatross and hoiho/yellow-eyed penguin. The toroa/northern royal albatross colony at Taiaroa Head (Pukekura) is the world's only mainland albatross breeding colony.

Dolphins and four species of seal (popoia/gore/leopard seal, kekeno/New Zealand fur seal, ihupuku/southern elephant seal, and rāpoka/whakahao/New Zealand sea lion) are present in coastal waters. Public interest in marine mammals and birdlife is high. Oamaru, Otago Peninsula and The Catlins coast attract many people to observe wildlife, including kororā/little penguins<sup>5</sup> and hoiho/yellow-eyed penguins. Dunedin is widely promoted as the 'Wildlife Capital of New Zealand' and the economies of Dunedin and beyond are enhanced by the growing marine-based wildlife tourism ventures.

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<sup>5</sup> Previously known as 'little blue penguins'.

## **Recreation—seasonal changes and diverse opportunities—short walks to wilderness**

The diverse landscapes of Otago provide for an extensive range of recreation activities both on and off public conservation lands and waters, and Otago is a significant contributor to New Zealand's outdoor recreation and tourism opportunities.

Nature- and scenic-based activities such as wildlife viewing, photography, sightseeing tours and walking are popular in coastal Otago, particularly around Oamaru, Dunedin and The Catlins. The diversity of marine mammals and birdlife around the coast supports Dunedin's claim to be the 'Wildlife Capital of New Zealand', which draws domestic and international tourism.

The Central Otago mountains are renowned for their seasonal recreation experiences and the opportunity to easily find solitude and natural quiet. During summer the area is popular for tramping, hunting, horse riding, angling, camping, and four-wheel drive and motor-bike touring on old farm tracks, together with experiencing its gold mining heritage. In winter the high country becomes a haven for backcountry skiing.

The tourist areas of Queenstown and Wanaka are visited year-round for many recreational and adventure pursuits, either as individual or club activities or via commercial operators. The presence of several of the country's major ski fields, three on public conservation lands and waters, is a driver for New Zealand's winter tourism market. Other popular winter activities include heli-skiing/boarding, snow-kiting and ice-climbing. In summer the townships of Queenstown and Wanaka become a base for a vast array of outdoor experiences in the region. Adventurous activities such as bungee jumping, jet boating, canyon swinging, paragliding, hang-gliding, canyoning, mountaineering, white water rafting, cycling, mountain biking and heli-biking are all provided for. Tramping is widely popular, either as day walks or multi-day walks, with the area located close to well-known tracks. There are also opportunities for scenic flights, cruises, camping and horse riding.

Mountain biking and cycling have become very popular, with the best-known cycle track—the Otago Central Rail Trail—an Icon destination. New cycle tracks have been developed on and off public conservation lands and waters, often utilising old trails such as along the Clutha River/Mata-Au and the Queenstown Trail, meandering through the Lake Wakatipu (Whakatipu-wai-māori) area. These are the result of collaboration between the local mountain biking community, the Department, other government agencies and private landowners.

Otago has some of the most diverse waters for sports fishing in New Zealand. They range from unique high-country to clear southern lakes and river tributaries. Each year thousands of residents and visitors enjoy many types of angling throughout Otago waters.

Otago's public conservation lands and waters accommodate several recreation and multi-sport events, including the Otago Central Rail Trail Duathlon, the Routeburn Classic, and the Motatapu and The Peak to Peak. There is interest in increasing this type of activity.

There is a number of large and active community-led recreation groups in Otago and many recreation concessions. Issues can arise from increasing recreational use, conflicts between activities, and pressures to accommodate new activities at locations where increased activity has potential to adversely affect intrinsic values or other users.

The abundance of recreational opportunities within Otago provides scope for the Department to work cooperatively with interested parties to achieve conservation outcomes. Examples of partnerships already underway include with the Queenstown Mountain Biking Club, Queenstown Trails Trust, Otago Central Rail Trail Trust, Routeburn Trust and Upper Clutha Tracks Trust.



## Threats—the challenges facing conservation in Otago

The most obvious threats to conservation in Otago are pest plants and animals, human activities, developments and fire. Natural hazards including debris flows, erosion and flooding can significantly modify the environment and pose a threat to conservation values, recreation users and facilities.

Otago's marine environments lack protection and will require community engagement around the benefits and means of marine protection. The direct and indirect effect of some methods of commercial and recreational fishing on marine mammals and seabirds is a threat to some species, notably tūpoupou/Hector's dolphin and toroa/albatross.

Many landscapes remain relatively unmodified at higher altitudes but those at lower altitudes and in dry areas are undergoing rapid change through intensification of land use, such as dairy farming and viticulture, and subdivision. At mid and higher altitudes, some modification is occurring through land use practices such as burning, through incursions by pest plants and animals, and by tourist and energy developments.

Freshwater and dryland habitats and wetlands, under-represented in protected areas, are vulnerable to pollution, irrigation, conversions to pasture or forestry, and lifestyle block development.

Central Otago dryland areas with low-stature plants are susceptible to replacement by higher stature exotic plants. The spread of pest plants such as wilding trees and gorse threatens the landscape, ecological and ecosystem-service values of tussock grasslands, as does fire.

High-altitude landforms are also at risk, with the potential for climate change to exacerbate weed invasion. Protection of these intact indigenous habitats from the impacts of pest plants and animals will require a high degree of inter-agency and community cooperation into the future.

Otago's ecosystems and species, along with some recreational opportunities and coastal heritage sites, are being affected by climate change. Future impacts are likely on both terrestrial and marine ecosystems, the distribution and survival of species, and the range of pests. Coastal heritage sites are rapidly being lost by increasing coastal erosion. Minimising the impact of other threats, such as habitat modification and fishing pressure in the marine environment, may allow ecosystems to be more resilient to the effects of climate change.

## 1.4 Treaty partnership with Ngāi Tahu

Ngāi Tahu are the tangata whenua of Otago and as such are the primary Treaty partner with the Department of Conservation. Under this kākahu (cloak) of partnership, the parties are committed to strengthening their relationship to ensure they stand side by side to protect and manage ngā taonga tuku iho, recognise Ngāi Tahu rangatiratanga over these taonga and enable the iwi to exercise their kaitiakitanga obligations accordingly.

### Ngāi Tahu – mana whenua

Ngāi Tahu are the tangata whenua of and have mana whenua over this region. They are a resilient, entrepreneurial people who have lived in Te Waipounamu for over 800 years. Ngāi Tahu means ‘people of Tahu’ and is the iwi comprised of five primary hapū: Ngāti Kuri, Ngāti Irakehu, Kāti Huirapa, Ngāi Tūāhuriri and Ngāi Te Ruahikihiki. Post-Settlement, these five hapū are represented by 18 Papatipu Rūnanga.

The Ngāi Tahu takiwā extends over 80% of Te Waipounamu, and the traditions of Ngāi Tahu tūpuna (ancestors) are embedded in the landscape. They left markers as they journeyed the length and breadth of Te Waipounamu, including visible additions to the landscape such as pā and kāinga, and other equally important reminders such as the place names, and stories relating to the vast geographic expanse and natural features that remain evident to this day.

The Ngāi Tahu relationship with the land, waters and other natural resources is steeped in whakapapa as much as anything else. Whakapapa defines the relationship between elements of the natural and spiritual world. Otago is whenua tūpuna (a cultural landscape), treasured for its natural features, physical formations, cultural features, ara tawhito (traditional trails), mahinga kai (resource gathering places and practices), mātauranga (knowledge), wāhi tapu (sacred places), taonga (treasures), spiritual values, cultural values, traditions and associations.

Ngāi Tahu are kaitiaki over the natural resources in Otago covered by this CMS. The kaitiaki responsibility of Ngāi Tahu is an expression of rangatiratanga, and one of their responsibilities as mana whenua. This role is reliant on mātauranga tuku iho (traditional knowledge and understanding) to care for natural resources and leave them in a better state for generations to come, as reflected in the tribal whakataukī *mō tātou, ā, mō kā uri ā muri ake nei*.

Mahinga kai in particular is central to Ngāi Tahu resource management practices, and was a key component of the grievances that were recognised in the Ngāi Tahu Claims Settlement Act 1998. Customary practices have evolved over time to adapt to the changing needs of Ngāi Tahu Whānui and the changing environment. The ability to make use of mahinga kai and cultural materials, and the ability to continue and evolve cultural practices to meet changing needs, are crucial to enable Ngāi Tahu to maintain their identity, traditional knowledge, cultural traditions and well-being into the future.

### Responsibilities under specific legislation relating to Ngāi Tahu

(See the Introduction regarding the Ngāi Tahu Claims Settlement Act 1998.) The key components of the Act included an apology from the Crown, tribal redress, economic redress and cultural redress through provisions for Ngāi Tahu to express their traditional kaitiaki relationship with the environment. The Act included a number of specific mechanisms for active involvement by Ngāi Tahu in management of conservation lands and resources, as summarised below.

### ***Tōpuni***

The concept of Tōpuni derives from the traditional Ngāi Tahu tikanga (customary values and practices) of persons of rangatira (chiefly) status extending their mana and protection over a person or area by placing their cloak over them or it. In its new application a Tōpuni confirms and places an overlay of Ngāi Tahu values in relation to specific areas of public conservation lands and waters. A Tōpuni does not over-ride or alter the underlying land status (e.g. national park), but ensures that Ngāi Tahu values in relation to Tōpuni are also recognised, acknowledged and provided for.

The Tōpuni addressed in this CMS, as identified and described in Appendix 13, are:

- Pikirakatahi (Mount Earnslaw) (see 2.1 Mount Aspiring National Park Place)
- Tititea (Mount Aspiring) (see 2.1 Mount Aspiring National Park/Tititea Place)
- Te Koroka (Dart/Slipstream) (see 2.1 Mount Aspiring National Park/Tititea Place)
- Maukaatua Scenic Reserve (see 2.7 Eastern Otago and Lowlands/Maukaatua Place)
- Matakaea (Shag Point) (see 2.7 Eastern Otago and Lowlands/Maukaatua Place).

### ***Statutory Adviser***

Te Rūnanga o Ngāi Tahu is also Statutory Adviser for the above Tōpuni sites and Tokatā (Nugget Point) and the Nuggets Islands, which enables Te Rūnanga o Ngāi Tahu to have greater input to the management of those sites. The Minister of Conservation must have particular regard to any advice received directly from Te Rūnanga o Ngāi Tahu in relation to these sites when considering any draft CMS, conservation management plan or national park management plan affecting those sites, or when making written recommendations to the New Zealand Conservation Authority in respect of those sites.

### ***Deed of Recognition***

There are five Deed of Recognition sites within Otago, which are listed in Appendix 13. A Deed of Recognition provides for Ngāi Tahu input into the decision-making processes of the Crown body responsible for the administration of each named area. A Deed of Recognition recognises the particular Ngāi Tahu cultural, spiritual, historic and traditional association with each area. A Deed of Recognition obliges the Department to consult with Te Rūnanga o Ngāi Tahu and to have particular regard to its views in relation to the management of each area.

### ***Nohoanga entitlements***

The term nohoanga literally means ‘a place to sit’ and traditionally referred to the seasonal occupation sites that were an integral part of the mobile lifestyle of Ngāi Tahu tūpuna (ancestors) as they moved around in pursuit of various foods and other natural resources, such as pounamu. This traditional concept has been given contemporary effect in the Ngāi Tahu Claims Settlement Act 1998. Ngāi Tahu have been granted 72 nohoanga entitlements (campsites) to temporarily and exclusively occupy land close to waterways on a non-commercial basis, for the purpose of lawful customary fishing and gathering of other natural resources. Thirteen of these nohoanga entitlement sites are located on public conservation lands and waters within Otago (see Appendix 13).

The nohoanga entitlement sites provide Ngāi Tahu with an opportunity to experience the landscape as their tūpuna did, and to rekindle the traditional practices of gathering of food and other natural resources that are an essential part of Ngāi Tahu culture. The Department supports and encourages the utilisation of these sites.

The sites may be used for up to 210 days each year between mid-August and the end of April. Camping shelters or similar temporary dwellings can be erected during this period. The sites are approximately one hectare in size, are set back from marginal strips and were chosen to not unreasonably impair existing public access or use at the time of granting. They are subject to all legislation, bylaws, regulations, and land and water management practices, such as pest and river control.

### ***Taonga species management***

Taonga species are animals and plants that are treasured by Ngāi Tahu.<sup>6</sup> Although Ngāi Tahu considers all natural resources as 'taonga', specific species (refer Appendix 13) are identified as taonga species under the Ngāi Tahu Claims Settlement Act 1998 (the Act) for the purpose of sections 288-296, 298-302 and 304 of the Act.

Through sections 288 and 298 of the Act, the Crown acknowledges the cultural, spiritual, historic and traditional association of Ngāi Tahu with the taonga species. These include species of birds, plants, marine mammals, fish and shellfish, many of which the Department is actively managing. The Act also provides for participation by Ngāi Tahu in consultation processes connected with the Minister of Conservation's or the Director-General of Conservation's decision over the management of certain taonga species as well as participation in some species recovery groups.<sup>7</sup>

### ***Department of Conservation and Ngāi Tahu protocols***

The Minister of Conservation has issued protocols in relation to how the Department of Conservation and Ngāi Tahu will work together on specified matters of cultural importance to Ngāi Tahu. Appendix 13 provides a copy of the protocols. A number of documents produced by the Department and Ngāi Tahu provide guidance on the implementation of these protocols, all of which need reviewing.

### ***Pounamu management***

Te Rūnanga o Ngāi Tahu should be contacted, in the first instance, about all enquiries and matters relating to pounamu.

### ***Customary use***

Applications for the customary use of animals and plants can be made under the Conservation Act 1987, the National Parks Act 1980, the Wildlife Act 1953, the Marine Mammals Protection Act 1978 and the Reserves Act 1977. Through the Ngāi Tahu Claims Settlement Act 1998, Ngāi Tahu do not require a permit to hold specimens<sup>8</sup> that are protected by the Wildlife Act 1953. Authorisations are required to hold whale bone and take plant materials and clays from public conservation lands and waters. Authorisations to take indigenous fish are only required for reserves and national parks. The Department and Te Rūnanga o Ngāi Tahu have developed the *Allocation of Cultural Materials Guidelines 2007* for the Ngāi Tahu takiwā to guide staff and applicants in the processing of applications. Although the commercial component of the customary right of Ngāi Tahu to take tuna/eel

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<sup>6</sup> For species not listed as taonga under the Act, Ngāi Tahu have a kaitiaki responsibility for them and wish to be involved, including in species translocations and management.

<sup>7</sup> 'Species recovery groups', as referred to in the Ngāi Tahu Claims Settlement Act 1998, have been replaced by alternative species management systems within the Department. The Department is engaging with Ngāi Tahu to ensure these new management systems provide for the interest and representation of Ngāi Tahu.

<sup>8</sup> The dead bodies or any part of the dead bodies of any species of wildlife absolutely protected pursuant to section 3 of the Wildlife Act 1953 or partially protected pursuant to section 5 of that Act.

was settled in the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992, the customary right of Ngāi Tahu to take tuna/eel on a non-commercial basis remains.

### **A living Treaty partnership**

Te Tiriti o Waitangi and its principles provide the foundation for the relationship between the Department and Ngāi Tahu. A meaningful Treaty partnership between the Department and Ngāi Tahu respects the Department's conservation responsibilities, whilst protecting the authority of Ngāi Tahu in relation to ancestral lands and taonga.

The Ngāi Tahu Claims Settlement Act 1998 (the Settlement) provided a framework for partnership through a number of legal mechanisms. In the years immediately post-Settlement, the Department and Ngāi Tahu worked closely together to implement the Settlement and build a close working relationship. Much has changed since, both within the Department and Ngāi Tahu, and concerning the challenges and opportunities in managing natural resources in partnership. Both parties are committed to building on the platform established by the Settlement to develop and strengthen a partnership that fully realises the Department's section 4 (Conservation Act 1987) responsibilities and actively provides for Ngāi Tahu tino rangatiratanga and its expression through kaitiakitanga. This includes:

- Active and shared management and decision-making with Ngāi Tahu (consistent with legislation) in management of public conservation lands, waters and resources of importance to Ngāi Tahu
- Recognition of the kaitiaki responsibility and associated mātauranga of Papatipu Rūnanga in regard to whenua tūpuna (cultural landscape) and ngā taonga tuku iho (treasured resources)
- Enabling Ngāi Tahu to undertake customary practices, including access to and use of cultural materials and mahinga kai, consistent with legislation
- Protection of Ngāi Tahu values and the historic and continuing presence of Ngāi Tahu in the whenua tūpuna
- Enabling Ngāi Tahu to explore and develop opportunities to support intergenerational well-being
- Implementing the Ngāi Tahu Claims Settlement Act 1998.

Implementation of the above requires a framework to manage the partnership at governance, management and operational levels. The Department and Ngāi Tahu will work together to co-design a partnership framework that sets out the principles and mechanisms for strengthening the partnership and maintaining it on an ongoing basis at all levels. Identifying projects of strategic priority to Ngāi Tahu that the Department can support is one mechanism to achieve this.

An active partnership requires acknowledgement that changes may occur over time. The Department and Ngāi Tahu will work together to regularly monitor and review the effectiveness of the partnership framework, and adapt it as necessary to strengthen the relationship.

The Department and Ngāi Tahu have developed some guidelines and documents to cover customary use, species recovery, historic and cultural heritage, concessions and relationship matters. The Department and Ngāi Tahu will work together to regularly review and improve these existing documents and co-develop new processes and protocols, where necessary, to ensure that Ngāi Tahu Treaty rights and kaitiaki responsibilities are recognised and provided for. This includes: the involvement of community and business groups in activities on public

conservation lands and waters; and management of sites and species of significance to Ngāi Tahu.

Achieving a sustainable, living Treaty partnership between the Department and Ngāi Tahu underpins this CMS. The objectives and policies that follow apply to all of the Department's activities across the Otago region.

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#### **1.4.1 OBJECTIVES**

- 1.4.1.1 To maintain and strengthen the partnership between the Department of Conservation and Ngāi Tahu so as to enhance conservation of natural resources through the administrative processes of the Department and the exercise of traditional tino rangatiranga and kaitiakitanga practices of the iwi. This partnership is to be based on mutual good faith, and active engagement and transparency in decision-making processes.
  - 1.4.1.2 To formalise and support, through agreement between the Department and Ngāi Tahu, the enhancement of those relationships.
  - 1.4.1.3 To ensure that the Department actively consults at all times with Ngāi Tahu in a timely, informed and effective way.
  - 1.4.1.4 To enable Ngāi Tahu to pursue their customary practices and the customary use of traditional materials and indigenous species, in a manner consistent with their kaitiakitanga obligations, the relevant legislation, regulations, general policies, and the purposes for which the land is held.
  - 1.4.1.5 To encourage increased Ngāi Tahu involvement and participation in the conservation management of public conservation lands and waters.
  - 1.4.1.6 To promote integrated conservation management for areas adjoining public conservation lands or waters that have been returned to Ngāi Tahu through Treaty of Waitangi claims settlements.
  - 1.4.1.7 To work with Ngāi Tahu where the Department has a common interest, to advocate for the protection of mahinga kai, wāhi tapu and other cultural resources located outside of public conservation lands in accordance with Ngāi Tahu Deed of Settlement 1997 and Ngāi Tahu Claims Settlement Act 1998.
  - 1.4.1.8 To work with Ngāi Tahu to establish and review formal protocols to:
    - a) provide for the customary use of traditional materials and indigenous species;
    - b) guide the management of marine mammal strandings;
    - c) recognise the rangatira and kaitiaki role of Ngāi Tahu with regard to management of taonga species; and
    - d) recognise the rangatira and kaitiaki responsibilities of Ngāi Tahu with regard to management of other indigenous species.
  - 1.4.1.9 Promote authenticity in the use of Ngāi Tahu stories, terms and images and provide for the development of protocols around the use of these by business and community groups involved in conservation projects and activities on public conservation lands and waters.
  - 1.4.1.10 Explore and develop opportunities for intergenerational Ngāi Tahu well-being.
  - 1.4.1.11 Acknowledge the ownership of pounamu by Te Rūnanga o Ngāi Tahu and ensure relevant legislation is given effect to when activities associated with pounamu occur.
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## 1.4.2 POLICIES

- 1.4.2.1 Ensure departmental staff are aware of, and implement, the Department's responsibilities under the Ngāi Tahu Deed of Settlement 1997 and the Ngāi Tahu Claims Settlement Act 1998 provisions, and associated protocols and guidance documents.
- 1.4.2.2 Work with Ngāi Tahu to develop and implement a partnership framework that identifies the principles and mechanisms to strengthen and maintain an enduring partnership at all levels.
- 1.4.2.3 Work with Ngāi Tahu to explore, identify and implement:
- a) opportunities for co-management of sites and species of significance to Ngāi Tahu;
  - b) measures to improve Ngāi Tahu access to and customary use of mahinga kai and other cultural materials; and
  - c) opportunities for shared decision-making consistent with legislation.
- 1.4.2.4 Work with Ngāi Tahu to develop, where necessary, review and implement guidelines, and protocols for Department engagement with Papatipu Rūnanga and Te Rūnanga o Ngāi Tahu.
- 1.4.2.5 Maintain effective communication between Papatipu Rūnanga and the Department.
- 1.4.2.6 Provide for the non-commercial customary take of tuna/eels and other indigenous freshwater fish from public conservation waters where:
- a) the effects of the harvest are understood, and adverse effects on indigenous species or ecosystems within those waters are avoided or otherwise minimised;
  - b) the activity is consistent with the outcome for the Place and the Mount Aspiring National Park Management Plan;
  - c) there is an established tradition of such a customary use at the site; and
  - d) this is consistent with section 50 of the Reserves Act 1977, in the case of reserves under that Act.
- 1.4.2.7 Consult with Papatipu Rūnanga on proposals for the taking of and/or research relating to taonga species.
- 1.4.2.8 Explore with Ngāi Tahu how customary Ngāi Tahu conservation practices such as rāhui (restriction on resources) may be used and supported to achieve shared conservation goals.
- 1.4.2.9 Work with Ngāi Tahu to review and implement the *Department of Conservation and Ngāi Tahu Guidelines for Management of Wāhi Tapu and Wāhi Taonga: Protection and Management of Historical and Cultural Heritage on Public Conservation Lands and Waters*.
- 1.4.2.10 Engage with Ngāi Tahu when developing partnerships with others to ensure the rights and values of Ngāi Tahu in relation to such partnerships are fully considered.
- 1.4.2.11 Work with Ngāi Tahu to develop and implement guidelines to ensure cultural sensitivity regarding the use of taonga species and sites of significance to Ngāi Tahu within advertising and promotional material.

- 1.4.2.12 Ensure that five Tōpuni and the 13 nohoanga entitlement sites on public conservation lands and waters within Otago are managed in accordance within sections 237–253 and 255–268 of the Ngāi Tahu Claims Settlement Act 1998.
  - 1.4.2.13 Work with Ngāi Tahu to review and implement decision-making processes for authorisation applications, to maximise opportunities for the involvement of Ngāi Tahu and ensure provision is made for Ngāi Tahu rights and values.
  - 1.4.2.14 Ensure that Ngāi Tahu tikanga and kawa (protocols) are upheld where iwi or hapū from outside of the Ngāi Tahu takiwā are involved in conservation projects within the Ngāi Tahu takiwā.
  - 1.4.2.15 Ensure that concessions for guiding or otherwise taking visitors into public conservation lands and waters include provisions to recognise and provide for Ngāi Tahu values and the respectful use of Ngāi Tahu cultural information.
  - 1.4.2.16 Support the erection of mutually agreed to Ngāi Tahu cultural markers (pou whenua) on or beside public conservation lands and waters.
  - 1.4.2.17 Develop, with Ngāi Tahu, guidelines for consultation regarding land reclassification, disposal or exchanges and provide for reviews of those guidelines.
  - 1.4.2.18 Help ensure the protection of pounamu by advising concessionaires and the public that pounamu belongs to Ngāi Tahu.
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## MILESTONES—OUTPUTS

### Achieved by the end of Year 3 after CMS approval (2019)

- An agreed ‘partnership framework’ has been developed with Ngāi Tahu to implement and monitor the Treaty partnership with respect to the management of conservation lands in Otago.
- A process has been established between the Department and Ngāi Tahu to prioritise, review, develop and implement protocols and guidance documents addressing Ngāi Tahu Claims Settlement Act 1998, Conservation Protocols and section 4 Conservation Act 1987 matters.
- Measures to protect, encourage respect for, and provide for active involvement of Ngāi Tahu in the management of sites and species of significance to Ngāi Tahu have been formally put in place.
- Guidelines on the use of taonga species and sites of significance to Ngāi Tahu within advertising and promotional material have been mutually formalised and implemented.
- A process has been mutually agreed to, and implemented, that will enable the Department to identify and support conservation-related projects of strategic priority to Ngāi Tahu.



### **Achieved by the end of Year 5 after CMS approval (2021)**

- Regular monitoring of the ‘partnership framework’, including relevant protocols and guidance documents, has been firmly implanted in the ongoing relationship between the Department and Ngāi Tahu and, when required, any changes are mutually agreed to and implemented.
- Regular monitoring of the measures to protect, encourage respect for, and provide for active involvement of Ngāi Tahu in the management of sites and species of significance to Ngāi Tahu has become firmly implanted in the ongoing relationship between the Department and Ngāi Tahu, and that any necessary changes are mutually agreed to and implemented.
- Success of advocacy undertaken to protect mahinga kai, wāhi tapu and other Ngāi Tahu cultural resources and values.
- Progress made on agreed projects of strategic priority to Ngāi Tahu.

### **Achieved by the end of Year 10 after CMS approval (2026)**

- Monitoring of the Treaty partnership in accordance with the ‘partnership framework’, including relevant protocols and guidance documents, and required changes agreed and implemented.
  - All existing protocols and guidance documents reviewed, and new protocols and guidance documents developed as required.
  - Satisfaction with measures to protect, encourage respect for, and provide for active involvement of Ngāi Tahu in the management of sites and species of significance to Ngāi Tahu.
  - Progress made on agreed projects of strategic priority to Ngāi Tahu.
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## **1.5 Otago by 2026**

This section outlines national and regional conservation objectives for natural heritage, history, recreation, public engagement and conservation gains from business partnerships to be delivered by management of conservation resources within Otago over the next 10 years (see Introduction).

The national conservation objectives in this Part are linked to the intermediate outcomes and their objectives in the Department’s Outcome Statement and 100-year Vision, as detailed in the Department’s Statement of Intent 2015-2019. The wording of the headings for sections 1.5.1 to 1.5.5 mirror those used for the intermediate outcomes.

Map 2 demonstrates the ecosystem priorities (see Appendix 4) and Icon and Gateway destinations (see Appendix 11) in Otago as part of the jigsaw of national ecosystem and recreation outcomes identified by the Department.

Regional objectives are consistent with the national objectives but identify specific goals for Otago.

### **1.5.1 Natural heritage**

Section 1.3 outlines the key matters that have shaped Otago into being an important place for natural heritage, in particular the diversity of Otago’s natural landscapes, ecosystems and species, the vulnerability of natural heritage to the impacts of human activities, and the opportunities to protect, maintain and restore these values. Places the Department considers nationally important for natural heritage management are listed in Appendices 2, 3, 4 and 8, and include:

- Lowland and coastal forests
- Coastal and marine areas
- Dryland ecosystems
- Tussock grasslands
- Grey shrublands
- Wetlands—both upland and lowland, and estuaries
- Saline ecosystems
- Braided river habitats
- Freshwater ecosystems.

The priority ecosystem units listed in Appendix 4 are based on national priorities for the protection of ecosystems. Threatened, at-risk and iconic species present in Otago are listed in Appendices 6 and 7.

Otago's natural heritage is highly valued by the community. This is reflected in the many community conservation initiatives (e.g. various Ngāi Tahu projects, Orokonui Ecosanctuary, the Yellow-eyed Penguin Trust, Central Otago Ecological Trust, and Setpoint Solutions Ltd—see section 1.5.4). Support from the community is integral to maintaining and increasing the amount of conservation work to support and restore natural heritage in Otago.

Outcomes from the tenure review process and cooperative community conservation efforts are contributing to the restoration of natural heritage in Otago. This is particularly so, given the high proportion of natural values on private or leasehold lands, especially in Central Otago.

The Department implements its responsibilities under the Forest and Rural Fires Act 1977, the Fire Service Act 1975, and the Forest and Rural Fires Regulations 2005 through its National Fire Plan.

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## OBJECTIVES

- 1.5.1.1 The diversity of New Zealand's natural heritage is maintained and restored, with priority given to:
- a) conserving a full range of New Zealand's ecosystems to a healthy functioning state, with an emphasis on the priority ecosystem units in Appendix 4;
  - b) supporting the work of others to maintain and restore ecosystem types selected from Appendix 2;
  - c) conserving threatened species to ensure persistence,<sup>9</sup> with an emphasis on those species listed in Appendix 5;
  - d) maintaining or restoring populations of nationally iconic species that occur locally, with an emphasis on those species listed in Appendix 7; and
  - e) conserving significant geological features, landforms and landscapes, including those listed in Appendix 9, where they are on public conservation lands and waters.
- 1.5.1.2 Build partnerships with others to maintain or restore the species, natural features and ecosystems that collectively are valued by a local community as defining their locality.

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<sup>9</sup> Persistence is achieved where there is a 95% probability of a species surviving over the next 50 years or three generations (whichever is longer).

- 1.5.1.3 Engage in collaborative processes to build a nationally representative network of marine reserves and other marine protected areas, taking into account the marine habitats and ecosystems listed in Appendix 8.
- 1.5.1.4 Advocate for the protection of priority heritage, such as: priority ecosystem units and threatened species; and significant geological features, landforms and landscapes at risk of permanent degradation selected from Appendix 9.
- 1.5.1.5 Raise community awareness of fire threat, in partnership with other fire-fighting authorities and at sites where this will achieve conservation benefits.
- 1.5.1.6 Work with landowners, Ministry for Primary Industries, Fish and Game Councils, local government and other agencies, and advocate for the:
  - a) protection of freshwater fisheries, fish habitat and fish passage;
  - b) preservation of threatened indigenous freshwater species; and
  - c) maintenance and improvement of habitat connectivity and water quality from the headwaters of waterways to the coast.
- 1.5.1.7 Contain or control pest plants and animals and wild animals, including those identified in Appendix 6, in priority ecosystem units through a targeted strategic and sustainable multi-threat management approach.
- 1.5.1.8 Foster management action on pest plants and animals and wild animal control involving inter-agency, concessionaires and community.
- 1.5.1.9 Work with others to manage or avoid threats to marine and coastal habitats, particularly of seabirds and marine mammals, tohorā/southern right whales, tūpoupou/Hector's dolphins and terehu/bottlenose dolphins, to ensure their recovery and protection.
- 1.5.1.10 Manage all islands administered by the Department in accordance with the purposes for which they are held and the guidance provided and issues identified in Appendix 3.
- 1.5.1.11 Contribute to Crown tenure review and other processes, to seek the protection of significant inherent values<sup>10</sup> and seek opportunities to increase ecological connectivity with public conservation lands and waters, and protect ecosystems and habitats that are currently under-represented.
- 1.5.1.12 Work with others to undertake integrated catchment management around estuaries, coastal lagoons and river beds, to restore intertidal ecosystems and habitats, to reduce the impact of habitat fragmentation, and to protect indigenous species including migratory species and their migratory flyways.
- 1.5.1.13 Support relevant agencies in the implementation of the Regional Pest Strategy.
- 1.5.1.14 Work with businesses and others to foster greater engagement and support for conservation and the management of natural resources through the application of best conservation and environmental management practices.
- 1.5.1.15 Encourage further research and investigations into the flora, fauna and ecology of Otago to gain a better understanding of the natural biodiversity.

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<sup>10</sup> 'Significant inherent value' in the Crown Pastoral Land Act 1998, in relation to any land, means inherent value of such importance, nature, quality or rarity that the land deserves the protection of management under the Reserves Act 1977 or the Conservation Act 1987.

- 1.5.1.16 Contain Himalayan tahr within the feral range as set out in the Himalayan Thar Control Plan (1993)<sup>11</sup> and seek to ensure that new populations of wild animals and pest animals are not established.
- 1.5.1.17 Work with the community to secure ecological corridors linking public conservation lands and waters and other areas of conservation value.
- 1.5.1.18 Maintain the outstanding universal values (see Appendix 14) of the Te Wāhipounamu—South West New Zealand World Heritage Area.
- 1.5.1.19 Contribute to multi-agency management of water bodies.

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## MILESTONES—OUTPUTS

### Achieved by the end of Year 3 after CMS approval (2019)

- A baseline report on the condition of the priority ecosystem units in Otago as listed in Appendix 4.
- Scheduled outputs identified in approved work programmes for priority ecosystem units in Otago.
- Scheduled outputs identified for threatened species outside priority ecosystem units for which a work programme is underway.
- Collaborative partnerships for ecosystems and species restoration, protection and management are established.
- Control of wilding conifers in accordance with the New Zealand Wilding Conifer Management Strategy 2015–2030.<sup>12</sup>

### Achieved by the end of Year 5 after CMS approval (2021)

- Scheduled outputs identified in approved work programmes for priority ecosystem units in Otago.
- Schedule outputs identified for threatened species outside priority ecosystem units for which a work programme is underway.
- No increase in the range and population of pest animals and plants, and wild animals in Otago.
- Collaborative partnerships for pest animal and plant control are established.
- Control and containment of wilding conifers in accordance with the New Zealand Wilding Conifer Management Strategy 2015–2030.

### Achieved by the end of Year 10 after CMS approval (2026)

- Scheduled outputs identified in approved work programmes for priority ecosystem units in Otago.
  - Scheduled outputs identified for threatened species outside priority ecosystem units for which a work programme is underway.
  - An increased knowledge and understanding of the flora, fauna and ecology of Otago.
  - A decrease in the range and populations of pest animals and plants and wild animals in Otago.
  - Containment and eradication of wilding conifers in accordance with the New Zealand Wilding Conifer Management Strategy 2015–2030.
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<sup>11</sup> Department of Conservation. 1993: Himalayan Thar Control Plan. Department of Conservation, Christchurch.

<sup>12</sup> New Zealand Wilding Conifer Management Strategy 2015–2030. 2014 Ministry for Primary Industries, Wellington.

## 1.5.2 Historic and cultural heritage

There are many archaeological sites and historic places in Otago, reflecting the rich and diverse history of human exploration and settlement. These include a large number of buildings, structures, tracks and backcountry airstrips, which all hold some historical value. Actively conserved historic places and historic Icon destinations in Otago are listed in Appendix 10.

The Department is developing a priority-setting system that will allow it to apply its resources to priority projects. It aims to protect and interpret a range of historic sites and values that represent the main themes of Otago's history—early exploration and settlement, gold, journeying and early outdoor recreation activities, such as tramping, fishing, mountaineering and backcountry skiing. Of particular importance is Otago's gold history. Although the main 'gold rush' was relatively brief, it had a profound influence on Otago and many important relics of this period and later gold mining enterprises such as dredging remain on public conservation lands and waters throughout Otago. These sites represent the range of goldfield activities, including the gold rushes, access, techniques, settlements and life on the goldfields.

Another important feature of Otago's heritage is its journeying history. Journeys that traverse Otago's diverse landscapes or follow Otago's rivers have been an integral part of Otago's history since the first Polynesian settlement. The journeying theme permeates most aspects of Otago's history and continues into the present. Some tracks and routes used by visitors to public conservation lands and waters follow the *ara tawhito* (ancestral trails) or roads used by Māori, early explorers, gold miners or early settlers.

There are numerous sites of significance to Ngāi Tahu. The Department is working with Ngāi Tahu on how best to tell these stories.

Places and sites where the Department will focus effort to ensure history is brought to life are:

- Icon destinations and historic Icon sites of the Arrowtown Chinese Settlement Historic Reserve and Otago Central Rail Trail, and the Icon destination of Moeraki Boulders/Kaihinaki
- Gateway destinations of Bannockburn, St Bathans, Bendigo and Skippers
- A site or sites of spiritual and cultural importance to Ngāi Tahu.

Some of the historic places listed above also have important recreational and/or ecological values that contribute to their attraction as visitor destinations.

Many other historic sites, with less public profile, are managed by the Department and are highly valued by communities.

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### OBJECTIVES

- 1.5.2.1 Historic and cultural heritage on public conservation lands and waters is valued by New Zealanders.
- 1.5.2.2 Understand the location, value, significance and condition of historic places on public conservation lands and waters, and ensure that records of the location, value, significance and condition of these places are up to date.
- 1.5.2.3 Profile any historic Icon sites and the selected actively conserved historic places listed in Appendix 10, through quality interpretation both on- and off-site, to enable visitors to identify with historic sites and their stories.
- 1.5.2.4 Prioritise for protection and conservation of the actively conserved historic places listed in Appendix 10 on the basis of their historic, cultural, and physical

significance, their value to Ngāi Tahu and the community, and their conservation requirements.

- 1.5.2.5 Understand the expectations of Ngāi Tahu, the community and others regarding the conservation and management of historic places on public conservation lands and waters.
- 1.5.2.6 Build relationships with Ngāi Tahu, the community, and business to increase understanding, skill, active management and support for historic places.
- 1.5.2.7 Undertake conservation work (repair and maintenance) at actively conserved historic places having regard to conservation plans, national and international best practice and the International Council on Monuments and Sites (ICOMOS) New Zealand Charter.
- 1.5.2.8 Work with Ngāi Tahu to identify and manage places of importance to them according to the values of those places, and where there is a common interest support Papatipu Rūnanga to lead management.
- 1.5.2.9 Work with Ngāi Tahu to implement and update interpretation that tells their history on public conservation lands and waters, at places of importance to Ngāi Tahu, including ara tawhito (ancestral trails).
- 1.5.2.10 Work with Ngāi Tahu to protect cultural sites and whenua tūpuna on public conservation lands and waters from adverse effects of development.
- 1.5.2.11 Contribute to the Crown pastoral lease tenure review process to seek the best protection of historic places.
- 1.5.2.12 Expand the understanding, recording and interpretation of historic places/sites beyond those in Appendix 10, to include significant historic events, actions, tracks, trails and routes.
- 1.5.2.13 Work collaboratively with Ngāi Tahu, Heritage New Zealand Pouhere Taonga and other agencies to identify, protect and correctly interpret historic and cultural heritage, including cultural markers within the landscape.
- 1.5.2.14 Work with community heritage interest groups to further shared goals, and support each other to build skills and knowledge.
- 1.5.2.15 Recognise the interconnectedness of diverse elements of tangible and intangible heritage, and living cultural traditions.
- 1.5.2.16 Increase public awareness of historic resources and values on public conservation lands and waters and the potential threats to them.
- 1.5.2.17 Work with Ngāi Tahu Rock Art Trust on the integrated management of rock art sites on and off public conservation lands and waters.

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## MILESTONES—OUTPUTS

### Achieved by the end of Year 3 after CMS approval (2019)

- A baseline report on the number and condition of actively conserved historic places listed in Appendix 10 that are stable and not deteriorating.
- Progress heritage assessments for all actively conserved historic places listed in Appendix 10, including identification of Ngāi Tahu values.
- Identification of new sites for inclusion in Appendix 10, including sites important to Ngāi Tahu.

### **Achieved by the end of Year 5 after CMS approval (2021)**

- An increase in the number of actively conserved historic places in Appendix 10 that are stable and not deteriorating.
- Enhance existing and develop new partnerships to support the restoration, protection and management of historic places in Otago.
- Additional sites identified, including those in Otago of significant historic events, actions, tracks, trails and routes, to connect people with historic and cultural heritage.

### **Achieved by the end of Year 10 after CMS approval (2026)**

- A further increase in the number of actively conserved historic places listed in Appendix 10 that are stable and not deteriorating.
  - Heritage assessments for all actively conserved historic places listed in Appendix 10 have been completed.
  - An increase in the number of sites in Otago, including significant historic events, actions, tracks, trails and routes where active interpretation and promotion connects people with historic and cultural heritage.
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## **1.5.3 Recreation**

The Department uses a combination of approaches to manage recreation, including destination management, visitor management zones, and visitor groups. The intent of destination management (refer Glossary and Appendix 11) is to increase recreational use on public conservation lands and waters. It is a holistic approach that considers marketing and the contribution of community and business to the visitor experience, and focuses on the predominant visitor groups accessing different destinations (see Glossary for a full definition of destination categories):

- Icon destinations—people travelling on holiday
- Gateway destinations—new participants
- Local Treasure destinations—the recreation needs of local communities
- Backcountry destinations—the recreational needs of the backcountry community.

The Department has identified Icon and Gateway destinations in Otago (see Appendix 11).

The purpose of visitor management zones (see Map 3 and Appendix 12), which use the Recreation Opportunity Spectrum (ROS),<sup>13</sup> is to plan for a range of recreation opportunities from short stops next to main highways, to multi-day wilderness experiences. Visitor groups are described in the 1996 Visitor Strategy<sup>14</sup> and used to guide the application of visitor management zones and destination categories. They ensure that visitors are able to seek out different locations to suit the type of experience that they want to experience.

The Department uses other operational tools to manage individual facilities at a more detailed level, taking into account visitor management zones, destination categories and visitor groups, while recognising that certain locations with long-standing patterns of use may not fit typical or desired descriptors or categories under a particular approach. For example, there may be a Local Treasure destination in a backcountry or remote zone where day visitors are known to venture often, such as Macetown Historic Reserve near Arrowtown.

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<sup>13</sup> Hillary Commission and Department of Conservation. 1993: The New Zealand Recreation Opportunity Spectrum – guidelines for users.

<sup>14</sup> Department of Conservation. 1996: Visitor Strategy. [www.doc.govt.nz](http://www.doc.govt.nz)

Where possible, the Department seeks to collaborate or partner with others to maintain or better develop visitor opportunities on public conservation lands and waters, and elsewhere.

The heritage and/or historic value of backcountry facilities is highly regarded by New Zealanders and internationally, and to assist their retention an agreement has been reached between outdoor recreation clubs and the Department to facilitate shared management arrangements for these facilities.

The extensive public conservation lands and waters of Otago present an opportunity for more people to participate in recreation and in so doing to gain health benefits and an improved sense of well-being. The Department manages a well-established network of visitor facilities and recreation opportunities, complemented by concessionaire facilities and services and by regional and local parks and facilities managed by councils, trusts and landowners.

While the Department's main focus will be on the recreation opportunities and experiences in public conservation lands and water, which in Otago are backcountry experiences, wildlife viewing, seasonal recreation and adventure, it will also work with councils, trusts and others, especially where they provide opportunities that differ from or complement those provided by the Department.

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## OBJECTIVES

- 1.5.3.1 Understand demand for outdoor recreation and provide recreation opportunities where:
  - a) the recreation opportunities are consistent with:
    - i) the protection of indigenous natural, historic and cultural resources; and
    - ii) the purpose for which the lands and waters concerned are held; and
  - b) demand is evident; and
  - c) demand is expected to be sustained.
- 1.5.3.2 Contribute to a national network of visitor opportunities by promoting the Icon and Gateway destinations identified in Appendix 11, as strategic attractions within the network of opportunities offered in Otago.
- 1.5.3.3 Contribute to a national network of visitor opportunities by promoting the Local Treasure and Backcountry destinations, as locally important locations and as more challenging attractions respectively, within the network of opportunities offered in Otago.
- 1.5.3.4 Recognise the historic and/or heritage value of huts (identified in Appendix 15) and tracks in Otago, and its ongoing value for backcountry and frontcountry recreation. To achieve this, work with outdoor recreation groups and the Otago Conservation Board to assist with management and retention of the network, while recognising that some parts of the network may need to adapt in response to changes in the community that uses them.
- 1.5.3.5 Build partnerships with others to plan for, maintain and/or better develop recreation destinations.
- 1.5.3.6 Provide visitors with the opportunity for a positive social, physical and learning experience on public conservation lands and waters.
- 1.5.3.7 Work with the New Zealand Walking Access Commission to achieve priorities for improved access to public conservation lands and waters for recreation, and to enhance public access to the coastal margin and rivers.
- 1.5.3.8 Contribute to the Crown tenure review process and work with the New Zealand Walking Access Commission and leaseholders to enhance public access to public



conservation lands and waters and to seek the provision of recreational opportunities.

- 1.5.3.9 Seek to avoid or otherwise minimise conflicts between visitors undertaking different types of activities in the same location.
- 1.5.3.10 Enhance visitors' understanding and appreciation of natural, historic and cultural heritage, particularly at Icon and Gateway destinations and at major concessionaire destinations.
- 1.5.3.11 Understand and encourage visitor desires to undertake voluntary conservation work as recreation, including when initiated by concessionaires.
- 1.5.3.12 Encourage recreation opportunities on public conservation lands and waters that are consistent with outcomes for a Place and that meet one or more of the following:
- a) emphasise access close to urban and holiday accommodation areas, and State Highways;
  - b) integrate recreation opportunities on and off public conservation lands and waters;
  - c) integrate recreation opportunities across Otago and with neighbouring public conservation lands and waters;
  - d) integrate recreation opportunities with objectives in sections 1.5.1–1.5.5;
  - e) provide education benefits to schools and educational groups;
  - f) have been subjected to thorough environmental impact assessment and landscape design processes, and are likely to have minimal environmental and landscape impacts; and
  - g) are supported or enabled by facilities that are able to be maintained into the future.
- 1.5.3.13 Work with others to understand the needs, barriers and demand for disabled visitors, families and older people to access public conservation lands and waters, and seek to provide opportunities to enable them to participate.
- 

## **MILESTONES—OUTPUTS**

### **Achieved by the end of Year 3 after CMS approval (2019)**

- A baseline report on the number and condition of huts, tracks and other visitor facility structures in Otago, and on the number and satisfaction of people using these facilities.
- Partnerships established to maintain and develop Local Treasure and Backcountry facilities in Otago.

### **Achieved by the end of Year 5 after CMS approval (2021)**

- The number and/or quality of experiences of people recreating on public conservation lands and waters at Icon, Gateway, Local Treasure and Backcountry destinations in Otago is enhanced.
- Partnerships established to maintain and develop Local Treasure and Backcountry facilities in Otago.

### **Achieved by the end of Year 10 after CMS approval (2026)**

- Success in increasing the number and/or the quality of experiences of people recreating on public conservation lands and waters of Icon, Gateway, Local Treasure and Backcountry destinations in Otago.
  - Maintained and improved public access to and from public conservation lands and waters in Otago.
  - Partnerships established to maintain and develop Local Treasure and Backcountry facilities in Otago.
- 

#### **1.5.4 Community engagement**

The Department aspires to be a leader in inspiring and enabling conservation with others by involving more volunteers and the wider community in conservation work and to work together to achieve more conservation. The contributions of others have potential to increase the total amount and impact of conservation achieved across Otago. Working with others provides opportunities for people to enjoy, learn and help look after places and indigenous species they value.

Volunteer projects can offer a range of different opportunities at different times, with options for ongoing contributions, and opportunities for participants to up-skill and increase their knowledge and capability to do more or different work with or without departmental support.

Working with Ngāi Tahu and the community, including schools, kōhanga reo, tertiary education organisations, and other education providers on skills, support and understanding can support existing or new conservation programmes.

Otago is fortunate to have many community groups involved with and leading conservation initiatives. Examples include:

- Yellow-eyed Penguin Trust
- Central Otago Ecological Trust
- Lake Waihola Waipori Wetlands Society
- Wakatipu Wilding Control Group
- Otago Natural History Trust
- Otago Central Rail Trail Trust
- Wakatipu Heritage Trust
- Royal Forest and Bird Protection Society
- Save the Otago Peninsula Inc. Society
- Lindis Pass Conservation Group.

Also numerous recreational groups (e.g. local hunting, mountain biking, four-wheel drive, tramping and mountaineering clubs) are involved in conservation initiatives. Ngāi Tahu are involved in conservation initiatives throughout Otago.

The expertise contained within the University of Otago and other research institutions is significant and collaborations between the Department and such institutions provide opportunities to advance conservation in Otago and beyond.

There are several localities identified in Part Two—Places that are highlighted as places where the Department would like more people to be involved in conservation. The Department will continue to re-evaluate existing, and explore new, opportunities for making such a contribution. There are numerous opportunities for new projects to be initiated or for

partnerships, including with Papatipu Rūnanga, to be further developed to enhance conservation. Examples of places where the community have signalled an interest in initiating or leading conservation programmes include but are not limited to:

- The Catlins—a multi-day walking track
- Aramoana
- Makarora River valley—protection of lowland podocarp forest habitat, for the benefit of mohua/yellowhead and other forest species by the Royal Forest and Bird Protection Society and Mohua Charitable Trust
- Various areas where wilding tree control is needed—Lake Wakatipu (Whakatipu-wai-māori) and Central Otago groups and potentially other such groups
- Around Wanaka—for island restoration, re-vegetation, and predator control
- Otago Central Rail Trail and other cycleways—involvement of various groups and trusts (e.g. Otago Central Rail Trail Trust, Queenstown Trails Trust, Upper Clutha Tracks Trust)
- Aldinga Conservation Area—in protection of skinks and other dryland species by the Central Otago Ecological Trust
- Otago Peninsula—various groups involved with marine mammal, gecko and bird protection and coastal re-vegetation (e.g. Yellow-eyed Penguin Trust, Save the Otago Peninsula Inc. Society, iwi and concessionaires)
- Lake Waihola Waipori Wetlands Society and community groups involved with protection, restoration and education programmes
- Orokonui Ecosanctuary—restoration programmes led by the Otago Natural History Trust
- Wye Creek and Matukituki River valley—to reduce predator numbers and enhance indigenous bird species populations.

The Department works with a wide range of other statutory agencies to achieve common objectives and mutually agreed priorities. Examples include: the New Zealand Transport Agency on roading; the New Zealand Walking Access Commission on access; TBfree New Zealand on possum control; regional councils on biodiversity and pest management; Heritage New Zealand Pouhere Taonga on historic places; the Otago Fish and Game Council on sports fish and game bird-related issues; the Police and Search and Rescue on emergency responses; the Royal New Zealand Navy on conservation management and compliance; and the Game Animal Council on improving hunting opportunities.

Business partnerships that support a variety of creative and innovative conservation projects could be developed across Otago.

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## OBJECTIVES

- 1.5.4.1 Increase community understanding, technical skill and active management and support for conservation in Otago.
- 1.5.4.2 Seek opportunities that connect more people to conservation values.
- 1.5.4.3 Work with a range of partners (such as statutory agencies, regional and local authorities, businesses, schools, tertiary education and research providers and the community) in enduring relationships to achieve ongoing conservation outcomes.
- 1.5.4.4 Focus relationship building in those areas where cooperative relationships support priority conservation outcomes.

- 1.5.4.5 Achieve recognition of the contribution that public conservation lands and waters within Otago make to the well-being and economic prosperity of Otago and New Zealand.
- 1.5.4.6 Raise public awareness that intact functioning ecosystems underpin New Zealand's economy both directly and indirectly.
- 1.5.4.7 Seek opportunities to integrate conservation values into messaging from other agencies (such as visitor information) where it can increase the number of people who engage with conservation and value its benefits.

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## MILESTONES—OUTPUTS

### Achieved by the end of Year 3 after CMS approval (2019)

- Evaluate the extent of, and outcomes from, programmes aimed at increasing the amount of conservation achieved with community partners in Otago.

### Achieved by the end of Year 5 after CMS approval (2021)

- An increase in the amount of conservation achieved with community partners in Otago.

### Achieved by the end of Year 10 after CMS approval (2026)

- A further increase in the amount of conservation achieved with community partners in Otago.
- 

## 1.5.5 Conservation gains from more business partnerships

The Department is seeking to double the amount of conservation achieved over the next 20 years by working with others. Business opportunities and partnerships that help deliver conservation gains are part of this objective.

Engaging in conservation offers businesses the opportunity to contribute to the protection of New Zealand's natural, historic and cultural heritage, and to add to their business' worth, value and reputation.

For business opportunities requiring various authorisations, such as concessions (under the Conservation Act 1987) and resource consents (under the Resource Management Act 1991), the Department and other agencies are keen to reduce duplication of regulatory controls and to streamline processes.

Tourism, natural resources, agriculture and filming have been identified as four key business sectors with the best potential to achieve greater conservation over the next decade both on and off public conservation land in Otago. The Department also recognises the value of working with non-concessionaire businesses through sponsorships, staff engagement or other support to achieve conservation outcomes.

Otago's landscapes and wildlife are important to New Zealand's domestic and international tourism. Tourism concessionaires provide opportunities such as guided walking/cycling, skiing, angling, four-wheel driving, helicopter access to public conservation lands and waters and wildlife viewing. Many tourism concessionaires already contribute to conservation via sponsorships, donations, staff involvement in projects and raising awareness of the value of conservation through their tours.

Public conservation lands and waters in Otago are also highly valued by the commercial filming industry which can bring international exposure of New Zealand and stimulate tourism. The majority of film productions using public conservation lands and waters occur in the western lakes and mountains (see 2.3 Western Lakes and Mountains/Ngā Puna Wai

Karikari a Rākaihautū Place) although interest in other locations is growing. Filming activity has included several large-scale feature films such as Lord of the Rings and The Hobbit and an assortment of commercials and lifestyle/adventure productions.

A partnership between the Department and Air New Zealand is enabling extended conservation biodiversity projects near the Routeburn Track whilst promoting the Great Walks—encouraging New Zealanders and international visitors to experience these Icon destinations. Setpoint Solutions Ltd is supporting a community moko kākārīki/jewelled gecko restoration programme.

In Part Two—Places, potential opportunities to work with businesses to enhance conservation outcomes, promote public enjoyment of conservation lands and waters and enhance the well-being of local communities are indicated.

Some examples include but are not limited to:

- Nature-based tourism (Otago Peninsula and The Catlins)
- Cycleways networks (Otago Central Rail Trail, Clutha Gold, Queenstown, Roxburgh Gorge and Around the Mountain Trails)
- Conservation park activities (Oteake, Hāwea and Te Papanui)
- Pest and wilding tree control (with landowners)
- Trusts to conserve natural or historic values (Routeburn Track/Dart River/Te Awa Whakatipu valley, Matukituki River West Branch, Arrowtown Chinese Settlement Historic Reserve) or to support cultural developments.

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## OBJECTIVES

- 1.5.5.1 Work with concessionaires and other businesses to enhance the conservation experience of their customers and others, build support for conservation and deliver conservation gains consistent with the purpose for which the lands and waters are held.
- 1.5.5.2 Work with regional tourism organisations, other promotional groups, Ngāi Tahu and businesses to create and develop opportunities to promote conservation initiatives, products and services.
- 1.5.5.3 Seek opportunities to work with businesses that are looking for ways to demonstrate their commitment to and engagement with conservation.
- 1.5.5.4 Work with relevant agencies to seek ways to reduce duplication of regulatory controls on public conservation lands and waters and to streamline and seek efficiencies in statutory processes.

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## MILESTONES—OUTPUTS

### **Achieved by the end of Year 3 after CMS approval (2019)**

- Evaluate the extent of, and outcomes aimed at increasing the amount of, conservation achieved with business partners in Otago.

### **Achieved by the end of Year 5 after CMS approval (2021)**

- An increase in the amount of conservation achieved with business partners in Otago.

### **Achieved by the end of Year 10 after CMS approval (2026)**

- A further increase in the amount of conservation achieved with business partners in Otago.
-

## Part Two—Places

This section addresses Places in Otago (refer Map 5) that have been identified for the purposes of integrated conservation management and that require some specific management direction. Each Place has a description, an outcome statement (outcome), policies and milestones.

- Outcomes describe the future state of a Place, including its values, and reflect the expected changes at that Place over the 10-year term of the CMS. They will be used for conservation management and when making decisions, including in the absence of a relevant specific policy for a Place.
- Policies describe the course of action or guiding principles to be used for conservation management and when making decisions. Policies refer to public conservation lands and waters within a Place unless they are addressing matters of advocacy.
- Milestones are specific actions that are measurable steps towards achieving the outcomes and policies.

Part Two must be read in conjunction with Parts One and Three. Where the provisions in Part Two are more specific than the provisions in Part One and/or Part Three, the more specific provisions in Part Two prevail.

The Places in Otago are:

- 2.1 Mount Aspiring National Park/Tititea Place
- 2.2 Te Papanui, Oteake and Hāwea Conservation Parks Place
- 2.3 Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākaihautū Place
- 2.4 Central Otago Uplands Place
- 2.5 Old Man Range/Kopuwai, Old Woman Range, and Garvie Mountains Place
- 2.6 Central Otago Drylands/Manuherikia Place
- 2.7 Eastern Otago and Lowlands/Maukaatua Place
- 2.8 Catlins/Te Ākau Tai Toka Place
- 2.9 Marine/Te Tai o Arai te Uru Place
- 2.10 Freshwater/Wai Māori Place

The above Places have been identified as separate Places because specific management issues relate to them, or they are high-use areas, and/or they are special or distinctive Places warranting specific consideration in this CMS (refer Map 5).

Policies are not included for all of Otago Conservancy's special or distinctive Places; only for those requiring additional consideration, over and above the more generic provisions contained in Part Three of this CMS.

## 2.1 Mount Aspiring National Park/Tititea Place

### Description

This Place (see Maps 5.1 and 5.1.1) incorporates the Otago part of Mount Aspiring National Park and some adjoining public conservation lands and waters, and straddles the spectacular mountains and valleys of north-west Otago at the southern end of the Southern Alps/Kā Tiritiri o te Moana. It is renowned for its beauty, its large core of wilderness, its Ngāi Tahu values, and the wide range of outdoor recreation opportunities it offers. When the national park was declared in 1964, it comprised an area of less than 200 000 hectares. Some 155 000 hectares have since been added, the most recent addition occurring in 1990 for the remote Olivine Range, upper Cascade River and Red Hills Range areas.

Public conservation lands and waters within the Place are mostly part of the Te Wāhipounamu—South West New Zealand World Heritage Area. In 1997, the wilderness qualities of the Park's central section were recognised by gazettal of the Olivine Wilderness Area.

Three priority ecosystem units (see Appendix 4) are located within this Place: Pyke Valley, Arawhata-Waipara and Red Mountain. Threatened and at-risk species include kea, mohua/yellowhead, tōrea pango/variable oystercatcher, tōrea/South Island pied oystercatcher and scarlet mistletoe.

The area covered by the park contains several well-known ara tawhito (traditional trails), which crossed the main divide of the Southern Alps/Kā Tiritiri o te Moana and were used by Ngāi Tahu and their forebears for mahinga kai/food gathering and pounamu trading. There are many places of spiritual or cultural significance to Ngāi Tahu within the park.

Ngāi Tahu's spiritual connection to the park has been recognised in part by three Tōpuni: Tititea (Mount Aspiring), Pikirakatahi (Mount Earnslaw) and Te Koroka (Dart/Slip Stream) (see 1.4 Treaty partnership with Ngāi Tahu). Te Koroka (Dart/Slipstream) is also a Specially Protected Area, and Pikirakatahi (Mount Earnslaw) straddles the park boundary.

Wilderness areas provide visitors with the opportunity to immerse themselves in the natural environment, engaging all their senses and experiencing solitude in a place that is unmodified and unaffected by humans and rarely visited, including by departmental staff, and where management activities are minimal and usually undetectable. Aircraft use is restricted to that necessary for emergencies and park management purposes such as the control of animals that have adverse effects on indigenous natural values.

The Routeburn Track 'Great Walk' is an Icon destination and the Matukituki River West Branch tracks and Rees/Dart Track are Gateway destinations.

There is one actively conserved historic place within the Mount Aspiring National Park/Tititea Place (Earnslaw Hut—see Appendix 10).

Mount Aspiring National Park is managed in accordance with the Mount Aspiring National Park Management Plan, which was approved in 2011.

Several areas of existing public conservation lands and waters have been identified as potential additions to the park, such as Lower Dart Conservation Area (partly covered by the Pikirakatahi (Mount Earnslaw) Tōpuni) and part of the Shotover Conservation Area in the Snowy Creek catchment, as identified in the Mount Aspiring National Park Management Plan (2011).

## Outcome, policies and milestones for the Mount Aspiring National Park/Tititea Place

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### OUTCOME

The Mount Aspiring National Park/Tititea Place is preserved in perpetuity as far as possible in its natural state. This includes the landscapes, indigenous ecosystems and natural features of the Place, particularly priority ecosystem units and threatened and at-risk species.

Ngāi Tahu values for Tititea (Mount Aspiring), Pikirakatahi (Mount Earnslaw) and Te Koroka (Dart/Slipstream) are protected by their Tōpuni and the Te Koroka (Dart/Slipstream) Specially Protected Area overlaid status, and the special connections that Ngāi Tahu have with the Place's lands and waters are recognised.

Protect and maintain the values described in the statement of outstanding universal value of Te Wāhipounamu—South West New Zealand World Heritage Area.

In addition to providing premier tramping, hunting, alpine climbing and wilderness exploration opportunities, this Place provides for the benefit, use and enjoyment of the public through a range of opportunities including the Icon destination of the Routeburn Track and the Gateway destinations of Rees/Dart Track and Matukituki River West Branch tracks.

Recreation-based business opportunities, such as guided walking, climbing, fishing and use of aircraft, complement the scenic, ecological and natural values of the national park, while maintaining its varied visitor settings and existing recreational opportunities.

Mount Aspiring National Park has been added to, to include adjoining public conservation lands and waters.

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### POLICIES

- 2.1.1 Manage Mount Aspiring National Park in accordance with its national park management plan (including the visitor management and aircraft provisions).
- 2.1.2 Manage (including when considering concession applications) those parts of the Mount Aspiring National Park/Tititea Place that are within the Te Wāhipounamu—South West New Zealand World Heritage Area in accordance with the criteria for which the World Heritage Area was nominated and the statement of outstanding universal value (see Appendix 14).
- 2.1.3 Manage public conservation lands and waters adjoining Mount Aspiring National Park to be complementary to and not detracting from the national park's values.
- 2.1.4 Work to include within Mount Aspiring National Park the proposed land additions as set out in the Mount Aspiring National Park Management Plan 2011.
- 2.1.5 Seek extension of the Te Wāhipounamu—South West New Zealand World Heritage Area overlay status to include any additions to Mount Aspiring National Park.
- 2.1.6 Seek the stopping or resumption of the unformed legal road in the Pyke River valley remote visitor management setting in the Mount Aspiring National Park.
- 2.1.7 May grant concessions for the Olivine Wilderness Area in accordance with the Mount Aspiring National Park Management Plan 2011 until such time as a review of that Plan is approved. Beyond that time, if provision is made for concessions, they are considered only where necessary or desirable for the preservation of the area's indigenous natural resources. Concession activity that meets this test will:
  - a) demonstrate that the activity is necessary or that it actively benefits the preservation of the area's indigenous natural resources;



- b) not use vehicles, motorised watercraft or motorised aircraft in the area other than in accordance with Policy 3.20.6;
- c) not establish encampments or defined tracks, routes or trails;
- d) not involve the erection or maintenance of buildings or machinery;
- e) not involve the taking or use of animals or livestock in the area;
- f) be consistent with the outcome and policies for a Place in which the activity is proposed to occur (if within a Place in this CMS) or any applicable management plan;
- g) be consistent with relevant aircraft access zones shown on Map 4 and visitor management zones as described in Appendix 12 and shown on Map 3 in this CMS, or in any applicable management plan;
- h) be indistinguishable from independent users of the wilderness area; and
- i) be self-reliant.

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## MILESTONES—OUTPUTS

### Achieved by the end of Year 3 after CMS approval (2019)

- Commence an investigation to add the Lower Dart Conservation Area and part of the Shotover Conservation Area, Snowy Creek to Mount Aspiring National Park.

### Achieved by the end of Year 5 after CMS approval (2021)

- An assessment of activities in Mount Aspiring National Park in preparation for the national park plan review.
- Report on the review of the Mount Aspiring National Park Management Plan.

### Achieved by the end of Year 10 after CMS approval (2026)

- Nil.
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## 2.2 Te Papanui, Oteake and Hāwea Conservation Parks Place

### Description

This Place (see Map 5.2) covers Otago’s three inland conservation parks, at Te Papanui, Oteake and Hāwea, the latter two straddling the Otago–Canterbury boundary. The Place also includes public conservation lands and waters adjacent to the parks, including marginal strips, scenic reserves and a scientific reserve. Adjoining lands are also addressed where management of such lands affects public conservation lands and waters.

Te Papanui Conservation Park was created in 2003, and Oteake and Hāwea Conservation Parks in 2009, from long-held conservation areas and former pastoral lease lands via tenure review. Conservation parks are managed so that their natural and historic resources are protected, and subject to this, to facilitate public recreation and enjoyment.

Collectively, the three conservation parks encompass nearly 160 000 hectares of tussock grassland and forest, block and rugged mountain landscapes. These features characterise much of Otago. Each park has a distinctive ecosystem and landscape character, along with historic sites and diverse recreational opportunities.

The Te Papanui, Oteake and Hāwea conservation parks are part of the vast inland region that was utilised by Ngāi Tahu for settlement and mahinga kai purposes through to the start of

the 20th century. Subsequent events have diminished the Ngāi Tahu ability to gather food from the area. There are no priority ecosystem units on public conservation lands and waters within this Place. Threatened grand and Otago skinks are present on the Hawkdun, St Marys and Lammerlaw ranges.

This Place provides important ecosystem services, such as protecting water quality and quantity and water yield for townships and rural irrigation. Te Papanui Conservation Park is the source for Dunedin's water supply and the economic value of this to Dunedin and nearby communities is considerable.

Threats to public conservation lands and waters within the Place include pest plants (including wilding trees), pest animals and wild animals, unauthorised grazing, and fire. Pest plant control is coordinated with adjoining landowners where possible. Potential threats have come from other various activities, including from and adjoining the public conservation lands and waters.

Recreation opportunities vary between parks and according to the seasons. Popular activities include tramping, four-wheel driving, hunting, mountain biking and backcountry skiing. Other activities include fishing, motorbike touring, horse riding, picnicking and visiting historic sites. Minimising conflict between recreation users, particularly motorised and non-motorised activities, may become an important management issue as more people visit the Place.

The Place has potential to increase recreational opportunities without compromising natural and historic values and the visitor experience, including for commercial recreation, particularly within public conservation lands and waters with conservation park or conservation area status. In some cases, activities not available in Mount Aspiring National Park may be available in the adjoining Hāwea Conservation Park.

### ***Te Papanui***

Te Papanui Conservation Park, an area of 20 882 hectares centred on the Lammerlaw and Lammermoor ranges, about 45 minutes' drive west of Dunedin, is one of the lesser-known treasures of Otago. Te Papanui is the Ngāi Tahu name for the Lammerlaw Range. Archaeological sites in the vicinity include rock shelters, and pits which were probably utilised as umu tī. The Park has the adjoining or nearby Deep Creek, Stony Stream and Bowlers Creek scenic reserves, the Black Rock Scientific Reserve, and the Glendhu Tussock Reserve and other conservation areas. Numerous marginal strips adjoin rivers and streams in the Place. The Rocklands, Lammerlaw Stream and the Glendhu Forest High Altitude Tussock Covenant areas adjoin the Park.

The Park and adjoining areas includes mountain to low alpine environments from about 500 to 1160 metres altitude. The gentle topography formed as part of an ancient peneplain. It is snow-laden in winter and often into spring.

The Lammerlaw and Lammermoor ranges are recognised as an outstanding natural landscape (see Appendix 9). Their ecological and landscape values are increasingly being recognised and appreciated. While dominated by tussock grassland communities, depressions at the head of fledging creeks and streams support distinctive species-rich wetland communities such as fens, bogs, seeps and snowbanks. Both tussocklands and wetlands have plant and invertebrate species that are threatened such as the Naturally Uncommon plants *Hebejeebie trifida* and *Gingidia baxterae*. Many ecosystem values extend beyond the public conservation lands and waters.

Rare indigenous freshwater fish also inhabit the many small streams that have their origins in the upland wetlands. These include the threatened Dusky galaxias, Eldon's galaxias and the Teviot and Taieri flathead galaxias.

The distinctive landscapes and ecosystems of Te Papanui Conservation Park and its proximity to Dunedin mean it is increasingly being used for educational and scientific purposes. It is also the headwater catchment for the Taieri River and two of its main tributaries.

Evidence of historical gold rushes remains throughout Te Papanui Conservation Park and includes a system of water races that once fed Gabriel's Gully and the Lake Mahinerangi areas. Pastoral farming historic relics include a musterers' hut and fence line remains. There are no actively conserved historic places in Te Papanui Conservation Park.

Te Papanui Conservation Park provides a variety of backcountry recreation opportunities, including tramping and fishing. Apart from one four-wheel drive road, this area has no formed tracks or huts. It provides challenging day trips given the lack of prominent physical features and changeable weather. Red deer and pigs are present and a degree of control is achieved through recreational hunting.

Vehicle access on the maintained four-wheel drive road, in part on legal road through the park, or on the several other unformed legal roads through the park, is not desirable when ground conditions are unsuitable, usually from June, or whenever the first snowfall occurs, until October.

The proximity to roads has resulted in low demand for aircraft landings and use is low and this level of activity, particularly in winter, maintains high natural quiet.

### ***Oteake***

Oteake Conservation Park, an area of 31 490 hectares within Otago, and adjoining public conservation lands and waters centre on the St Bathans, Ewe, Hawkdun, Ida and St Marys ranges and parts of the upper Manuherikia River basin. The Park includes natural landform sequences from braided riverbeds through to low angle outwash and alluvial fans, to range slopes and ancient erosion plain summits.

The range crests are the remains of one of New Zealand's most ancient land surfaces and encompass the transition zone between Otago's schist and Canterbury's greywacke (Torlesse sandstone). Large areas are identified as outstanding natural landscapes (see Appendix 9). The flat-topped Hawkdun Range is the centrepiece and often features in paintings, photography and writings.

The Hawkdun and St Marys ranges ecosystems have extensive tussock grasslands, successional shrublands, subalpine grasslands, wetlands, scree slopes, braided river ecosystems and glacial outwash surfaces. Intact altitudinal vegetation sequences are present on both the St Bathans and Hawkdun ranges.

Threatened and at-risk plant, bird, invertebrate, lizard and fish species are present (see Appendix 5). Some species reach the northern or southern limits of their range within Oteake Conservation Park and adjoining areas. Bird species include the threatened pohowera/banded dotterel, tarapirohe/black-fronted tern and tarāpuka/black-billed gull. The invertebrates include at least 56 species of endemic moth and several large weevil species. Lizard species include the threatened green, scree and cryptic skinks, the large Otago and moko kākārīki/jewelled geckos and the more common skinks.

Endemic and threatened freshwater fish species have been recorded in waterways inaccessible to trout and salmon. Central Otago roundhead galaxiids and Taieri flathead galaxiids are present in the upper Manuherikia River and the Kye Burn.

A particular threat issue is the spread of wilding trees from plantations at Naseby. Red deer and pigs are present and a degree of control is achieved through recreational hunting, with some commercial hunting.

Oteake (place of the ake) was named by Ngāi Tahu after the akeake/shrub daisy (*Olearia avicennifolia*) found throughout the park; it is also the Ngāi Tahu name for the Kye Burn. Oteake has long been important to Ngāi Tahu from coastal Otago for mahinga kai, and archaeological sites have been identified here. Stone resources were quarried in the upper Manuherikia River.

European history includes pastoral farming and gold mining. The Buster Diggings, straddling the Otago–Canterbury boundary, at 1200 m is one of the highest-altitude goldfield mining relics in New Zealand. It is the only actively conserved historic place in Oteake Conservation Park (see Appendix 10). Evidence of pastoral farming history includes huts, yards, fences and tracks, with some of the huts and tracks being maintained for recreational use.

Four-wheel driving on roads, both touring and for access, is very popular during summer, with four longer roads linking Otago and Canterbury. Many roads are closed to vehicles during winter and at other times of the year if road conditions make them impassable. Vehicle access is controlled in places to protect historic values. During winter months when snow covers the ranges, Oteake Conservation Park in Otago is a peaceful Backcountry destination where natural quiet and a sense of isolation are high. Aircraft use is low and this level of activity, particularly in winter, maintains the high natural quiet.

The proximity of Oteake Conservation Park to Dunedin, Oamaru, Naseby and St Bathans makes it an ideal destination for visitors to experience a range of recreation opportunities in a natural setting.

### **Hāwea**

Hāwea Conservation Park is an area of 105 493 hectares and links Mount Aspiring National Park and Ahuriri Conservation Park. Part of Hāwea Conservation Park is within Te Wāhipounamu—South West New Zealand World Heritage Area. The Place adjoins State Highway 6—the Haast Pass/Tioripatea Highway.

The Park and adjoining public conservation areas encompass an altitudinal range from the main divide of the Southern Alps/Kā Tiritiri o te Moana and the McKerrow and Young ranges to the Hunter River valley floor, with resultant altitudinal vegetation sequence.

Several sites of geological significance are present in the Hāwea area, including the Lake Hāwea folded schist sequence (see Appendix 9).

Hāwea Conservation Park straddles the transition zone between the glaciers of Mount Aspiring National Park and the drier grasslands of the Lindis Pass area; a geological, climatic and floristic transition zone with diverse habitats, flora and fauna.

The steep faces rising to the east of Lake Hāwea include several small forest and shrubland areas included in conservation covenants.

Threatened and at-risk plants present include the small tree, pitpat, red flowering mistletoes, tree daisy, Cypress hebe and slender coral broom.

Beech forests support bird species including the threatened kākā, kea, pīwauwau/rock wren, mohua/yellowhead and kārearea/New Zealand falcon. Hunter River provides habitats for braided riverbed-nesting birds, including the threatened ngutu pare/wrybill and tarapirohe/black-fronted tern.

Lizard species include the threatened moko kākārīki/jewelled gecko and grand and Otago skinks, and other lizard species. Feral cats and mustelids pose a serious threat to all lizard species (see Appendix 6).

Water bodies support a range of indigenous fish species, including the threatened Clutha flathead galaxiid and tuna/longfin eel, and the introduced salmonid sports fish—salmon, brown trout and rainbow trout.

The Hāwea area was well explored and occupied by Ngāi Tahu. The ancient trail Te Ara a Tamatea curved around Lake Hāwea and up the Dingle Burn and over the saddle into Ahuriri River valley. Manuhaea Conservation Area, an ancient whare wānanga, settlement and food gathering site, is located at The Neck between lakes Hāwea and Wanaka. Manuhaea Conservation Area is regarded as a spiritual and cultural centre for Ngāi Tahu and is central to many traditional and cultural stories, making it an ideal site within the wider whenua tūpuna to interpret some of these stories.

Braided river habitat disturbance, particularly during the bird breeding season, can occur from grazing animals, jet boats and vehicles in the Hunter River valley. Queenstown Lakes District Council has established speed restrictions for the jet boats. The Department has granted concessions for cattle and sheep grazing on parts of the valley floor. All these disturbances may need monitoring or management to reduce adverse effects.

Hāwea Conservation Park and the adjoining lands are within the defined feral range for tahr, controlled in accordance with the Himalayan Thar Control Plan (1993). Control measures are to prevent further dispersal westward into Mount Aspiring National Park.

European exploration followed, and there is a long history of pastoral farming as well as timber milling, flax milling and gold mining. There is one actively conserved historic place within Hāwea Conservation Park (Ben Avon Hut—see Appendix 10).

The mountains and river valleys of Hāwea Conservation Park and adjoining areas offer a myriad of recreation opportunities for trampers, hunters, climbers and anglers, which complement those found in adjoining Places.

Recreational facilities include hut and track networks in the river valleys of the Hunter, Dingle and Timaru, and elsewhere. Te Araroa Trail<sup>15</sup> passes through the Timaru River valley and mountain biking occurs on the Lake Hāwea Track. Kidds Bush is a Gateway destination.

Most public access to the park is from the southern and western boundaries—the Wanaka area and the Haast Pass/Tioripatea Highway respectively. Road access along the western shore of Lake Hāwea from just beyond the Hunter River valley homestead requires permission from the pastoral lessee. Boating is popular on Lake Hāwea and jet boats have restricted use in the Hunter River.

Aircraft activity in the Hāwea Conservation Park and Hunter River Conservation Area has traditionally been used by anglers and hunters in the Hunter and Dingle River valleys, and on the McKerrow and Hunter ranges for heli-skiing.

Commercial hunting and fishing guides operate within this Place. Recreational hunting for deer is popular year round and particularly during the ‘roar’ in March–April. Hunters use this area to hunt for trophy deer, venison, chamois, pigs and game birds. Aerially assisted trophy hunting for tahr and chamois occurs during part of the year.

## **Outcome, policies and milestones for the Te Papanui, Oteake and Hāwea Conservation Parks Place**

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### **OUTCOME**

The Te Papanui, Oteake and Hāwea Conservation Parks Place is valued for its outstanding natural features and expansive landscapes, and special biodiversity. Communities value the

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<sup>15</sup> [www.teararoa.org.nz](http://www.teararoa.org.nz)

services that ecosystems provide. It is a Place where people seek recreation experiences in the vastness, natural quiet and solitude of the South Island high country.

The history of the Place is protected and brought to life at the Ngāi Tahu site of Manuhaea Conservation Area at The Neck and at the Buster Diggings actively conserved historic site. Removal of stock grazing, wild animal control and avoidance of fire are enabling ecosystem recovery. Valley floor to mountain altitudinal vegetation sequences are intact, particularly in Oteake and Hāwea conservation parks.

Threatened and at-risk species are secure in their range, especially where intensive management is occurring. Indigenous fish populations retain their migratory waterways, or where possible have natural barriers protecting non-migratory populations from predatory introduced fish.

Wilding trees have been reduced in extent or are at zero density under sustained control, especially within Te Papanui and Oteake conservation parks.

Prominent landscape and geological features (ridgelines, plateaus, rock tors and mountain tops) remain in their natural state, or are unmodified beyond their state at the time of becoming public conservation lands and waters. Within public conservation lands and waters away from prominent landscapes and geological features, structures may be present where well-blended into the landscape.

Visitors enjoy a wide range of experiences from challenging, solitude-seeking activities, to easily accessible walking and vehicle use areas. Aircraft activity is occasional, except at designated locations in Hāwea Conservation Park and Hunter River Conservation Area. Motorised vehicle users access public conservation lands and waters within the Place only on identified roads. Mountain bikes and electric power-assisted pedal cycles use designated tracks within Te Papanui and Hāwea conservation parks, and wider areas within Oteake Conservation Park.

A network of Local Treasure and Backcountry destinations providing access and accommodation facilities is maintained by the Department and community organisations within Hāwea and Oteake conservation parks in accordance with facility provision priorities, and design requirements. The conservation parks complement Mount Aspiring National Park by providing opportunities for recreational activities which are not provided for in the park.

Occasional large events, such as sporting events, occur within the conservation parks. Business assists in providing quality recreation services and helps to expand recreation opportunities, particularly in Te Papanui and Oteake conservation parks.

High community awareness and appreciation of the landscapes, ecosystems and ecosystem services of the Te Papanui, Oteake and Hāwea Conservation Parks Place encourage the protection of other tussock grassland ecosystems in Otago.

### ***Te Papanui***

The unmodified tussock grassland landscapes of Te Papanui Conservation Park, and the sense of isolation and natural quiet experienced by visitors, prevail.

The ecosystems of Te Papanui Conservation Park are healthy and functioning. Tussock grassland remains vital in its role of water capture and yield. Tussock grassland and wetland bird species are secure in their range and the calls of secretive species, such as the matuku-hūrepo/Australasian bittern and mātātā/South Island fernbird, can be heard.

People enjoy recreational activities in keeping with the frontcountry and backcountry character of Te Papanui Conservation Park. Only occasional vehicle noise close to the access road is experienced.

Te Papanui Conservation Park is valued and used by Otago schools and tertiary education institutions for scientific studies in ways that support the values of the Place.

### ***Oteake***

The mountain ranges and lower slopes of Oteake Conservation Park remain a distinctive natural backdrop to both Waitaki District and Central Otago.

Intact altitudinal vegetation sequences from the valley floor to the summit range provide landscape and habitat continuity, enhancing ecological values and people's enjoyment of the Place.

Shrublands, tussock grasslands and other indigenous vegetation communities are healthy and naturally recovering. The Place remains free of wallabies.

Recreational hunting is encouraged and the Department works in collaboration with hunting groups, with some commercial wild animal recovery, to control introduced animals to densities that support the management of ecosystem priorities.

The historic Buster Diggings is a protected and actively managed accessible visitor site.

Four-wheel drive opportunities are maintained for summer-time use on four existing roads linking Otago and Canterbury, plus two shorter access roads, along with numerous biking and horse riding opportunities beyond these roads.

Away from four-wheel drive routes and during winter, Oteake Conservation Park remains a place of solitude and challenge for recreationalists and people have few encounters with others.

### ***Hāwea***

Hāwea Conservation Park is protected and maintains the values described in the statement of outstanding universal value of Te Wāhipounamu—South West New Zealand World Heritage Area and links Mount Aspiring National Park and the Ahuriri Conservation Park within Canterbury.

The Hunter River's braided river landscapes and ecosystems are healthy, and riverbed-nesting birds are secure in their range and not significantly affected by grazing animals, vehicles and jet boats. Threatened species are secure in their mountain, forest and river environments, particularly mohua/yellowhead, kea and the western Otago populations of grand and Otago skinks.

Tahr are controlled within a defined feral range at no greater population densities than prescribed within the Himalayan Thar Control Plan (1993), and are controlled to zero density outside that feral range. Deer and chamois are primarily controlled through the combined efforts of recreational hunters, commercial wild animal recovery, and aerially assisted trophy hunting. The Department undertakes the primary control operations for tahr.

Track and hut networks, including a section of the Te Araroa Trail, support the varying recreational opportunities. Kidds Bush is managed as a Gateway destination. New recreational opportunities that complement the park's natural values are available in the most accessible parts of Hāwea Conservation Park, leaving the north-western areas at the head of the Hunter River valley and along the main divide of the Southern Alps/Kā Tiritiri o te Moana for users that appreciate the remoteness and natural quiet.

Within Hāwea Conservation Park and adjoining areas, people encounter regular levels of aircraft in the Hunter River and Dingle Burn valleys for angling and hunting access, and with frequent encounters in the McKerrow and Hunter ranges and parts of the Young Range

during the winter heli-skiing season. Other than for wild animal control, aircraft are not encountered in the headwaters of the Hunter River valley.

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## POLICIES

- 2.2.1 Work with Ngāi Tahu on options to achieve an actively conserved historic place and/or Ngāi Tahu historic interpretation at Manuhaea Conservation Area on The Neck.
- 2.2.2 When tenure reviews have been substantially completed, undertake a review of the existing public conservation land status and the inclusion within the respective conservation parks of adjoining public conservation lands and waters within the Place, in accordance with the Conservation Act 1987, Reserves Act 1977 and National Parks Act 1980, to better reflect its values.
- 2.2.3 Reclassify public conservation lands and waters adjoining Oteake Conservation Park to better reflect its values, having regard to all land status options under the Conservation, Reserves and National Parks Acts.
- 2.2.4 In providing recreational opportunities in Oteake Conservation Park, consider the creation of new linkages, such as for cycling, horse riding and walking, with the Otago Central Rail Trail, Alps 2 Ocean Cycle Trail and the Te Araroa Trail.
- 2.2.5 Seek opportunities to improve public access along the western shore of Lake Hāwea, to the Hunter River Conservation Area, consistent with the protection of Hunter River braided riverbed and riparian habitats.
- 2.2.6 Should allow motorised vehicle and non-motorised bike use only on tracks and roads purposely formed and maintained for vehicle use on public conservation lands and waters identified, and in accordance with any criteria in Table 2.2, and subject to Policies 3.2.1–3.2.12 and 3.3.1– 3.3.12 in Part Three.
- 2.2.7 Should allow aircraft access within the public conservation lands and waters, only as identified on Map 4, and in Policies 3.6.1–3.6.9 and Table 3.6.2 in Part Three.
- 2.2.8 Should allow horse or pack-animal use as identified in Table 2.2, and subject to compliance with Policies 3.9.1–3.9.4 in Part Three.
- 2.2.9 Should not allow grazing on public conservation lands and waters within the Place, except where that grazing may be authorised for public conservation lands and water adjoining the Hunter River, but only in accordance with Policy 11.2 of the Conservation General Policy 2005 and with concession conditions to avoid adverse effects on riverbed-nesting birds and their habitats and on riparian and wetland areas.
- 2.2.10 Work with Queenstown Lakes District Council to maintain appropriate controls on jet boat use of the Hunter River.
- 2.2.11 Continue programmes aimed at controlling wilding trees at zero density using sustained control, on and off public conservation lands and waters, and in cooperation with adjoining landowners, councils and community groups, contribute to efforts to control and remove wilding trees from other lands, where they have the potential to adversely affect public conservation lands and waters.
- 2.2.12 Manage the parts of this Place within the World Heritage Area to maintain the values described in the statement of outstanding universal value (see Appendix 14) of the Te Wāhipounamu–South West New Zealand World Heritage Area.



**Table 2.2: Access to Te Papanui, Oteake and Hāwea Conservation Parks Place**

<b>MOTORISED VEHICLE ACCESS ON OR THROUGH PUBLIC CONSERVATION LANDS AND WATERS</b>
In some cases, vehicle access may use legal road, or additional adjoining legal road access may exist, in which cases see Policy 3.1.8
<b>Hāwea Conservation Park and adjacent public conservation lands and waters</b>
Hunter River valley 4WD roads (parts on public conservation lands and waters)
Boundary Creek camping area access road
Stodys Hut 4WD access road
<b>Oteake Conservation Park and adjacent public conservation lands and waters</b>
Falls Dam access road
Mt Buster 4WD Road
Mt Kyeburn 4WD Road
Johnstones Creek 4WD Road
Hut Creek 4WD Road
Manuherikia River West Branch 4WD Road
Manuherikia River East Branch 4WD Road
<b>Te Papanui Conservation Park</b>
Te Papanui Conservation Park access road
<b>NON-MOTORISED BIKE ACCESS ON PUBLIC CONSERVATION LANDS AND WATERS<sup>16</sup></b>
Where motorised vehicles are provided for in this table as above—Motorised vehicle access
<b>Scenic reserves</b>
Boundary Creek Scenic Reserve
<b>Conservation areas</b>
Breast Creek Conservation Area
Conservation Area – Grandview Creek
Gladstone Conservation Area
Hāwea Conservation Area
Hunter River Conservation Area
Lake Hāwea Conservation Area
Manuhaea Conservation Area
Pakituhi Conservation Area
Rocky Point Conservation Area
Timber Creek Conservation Area
Turihuka Conservation Area
<b>Conservation parks</b>
Hāwea Conservation Park
Oteake Conservation Park
Te Papanui Conservation Park
<b>Recreation reserves</b>
All recreation reserves in this Place
<b>Marginal strips</b>
All marginal strips in this place

<sup>16</sup> This information applies to the access on public conservation lands and waters only; access to the public conservation lands and waters may be across private land and require landholder permission.

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**HORSE AND PACK-ANIMAL ACCESS ON PUBLIC CONSERVATION LANDS AND WATERS<sup>17</sup>**

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Hāwea Conservation Park and adjacent public conservation lands and waters

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Breast Creek Conservation Area

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Conservation Area – Grandview Creek

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Hāwea Conservation Park (Public access easements may restrict horse access)

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Oteake Conservation Park and adjacent public conservation lands and waters

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Existing formed tracks only

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Te Papanui Conservation Park

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Existing formed tracks only

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**MILESTONES—OUTPUTS****Achieved by the end of Year 3 after CMS approval (2019)**

- Progress actively conserved historic site status and Ngāi Tahu historic interpretation for Manuhaea Conservation Area.

**Achieved by the end of Year 5 after CMS approval (2021)**

- Control and containment of tahr in the Hāwea Conservation Park and adjoining public conservation lands and waters.
- Adverse effects on the Hunter River braided river habitats from grazing animals, jet boats and vehicles are reduced.

**Achieved by the end of Year 10 after CMS approval (2026)**

- Reclassification of public conservation lands and waters adjoining Oteake Conservation Park to better reflect its values.
  - Tahr in the Hāwea Conservation Park and adjoining public conservation land and waters are controlled and contained.
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## 2.3 Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākaihautū Place

### Description

This Place incorporates the tussock-covered ranges and lakes west of the Central Otago block mountains and the popular visitor destinations of Queenstown, Arrowtown and Wanaka. Public conservation lands and waters in this Place includes the Albert Burn, Mt Alta, Matatiaho, Motatapu, The Stack, Black Peak, Shotover, Caples, Humboldt, Greenstone, The Remarkables, and Taka Rā Haka conservation areas; the Mt Crichton Scenic Reserve and the Mt Aurum Recreation Reserve as well as some smaller conservation areas and other reserves (see Maps 5.3 and 5.3.1). It does not include Mount Aspiring National Park, which much of this Place borders (see 2.1 Mount Aspiring National Park Place/Tititea), or Hāwea Conservation Park (see 2.2 Te Papanui, Oteake and Hāwea Conservation Parks Place).

It is an area of spectacular glaciated mountain ranges, with a core of permanent snow and ice. Below the snowline, a complete sequence of indigenous vegetation exists from high alpine fellfield and low-alpine snow tussock lands, through to mixed shrublands and beech forest to tussock grassland on the flat valley floors. It includes significant geological features such as the limestone Tertiary deposits at Fortune or Bobs Cove and other limestone outcrops along the Moonlight Thrust-Fault.

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<sup>17</sup> This information applies to the access on public conservation lands and waters only; access to the public conservation lands and waters may be across private land and require landholder permission.

Mountain crests, such as The Remarkables, form a transition between the broader, semi-arid landscape of Central Otago and the continuous chain of snow-capped mountains, deep valleys, and extensive beech forests of the main divide of the Southern Alps/Kā Tiritiri o te Moana.

The lakes and rivers are outstanding landscape features highly valued for their recreational and scenic qualities. The islands within the lakes provide important refuges and habitat for indigenous species. The lakes and rivers not fed by glaciers have high water clarity. The Dart River/Te Awa Whakatipu, Rees, Matukituki and Shotover braided rivers are outstanding landscape features and provide nesting and breeding habitats for threatened birds such as ngutu pare/wrybill and tarapirohe/black-fronted tern.

The outstanding values of the Kawarau River and many of its tributaries are formally recognised and protected by the Water Conservation (Kawarau) Order 1997, covering the main stem of the river, and many of its headwaters and tributaries.

The Department has identified five priority ecosystem units on public conservation lands and waters within this Place (see Map 5.3). Many threatened species are present (see Appendix 5). The Dart River/Te Awa Whakatipu catchment supports a wide range of wildlife, including threatened and at-risk species such as lizards, pekapeka/bats, mohua/yellowhead, kākā, kākārīki/parakeets, kakaruai/South Island robin and kārearea/New Zealand falcon, and at higher altitudes there are pīwauwau/rock wren, whio/blue duck and kea.

Ngāi Tahu has strong traditional and present associations with Lakes Wakatipu (Whakatipu-wai-māori), Wanaka and Hāwea, with Manuhaea Conservation Area at The Neck being one of the most significant sites (see 2.2 Te Papanui, Oteake and Hāwea Conservation Parks Place).

Ngāi Tahu ancestors traversed the Place in search of food and minerals, the most prized being pounamu. The locality names and oral history of Ngāi Tahu reflect the exploration and use of the region. Its cultural significance is reflected in part by the Pikirakatahi (Mount Earnslaw) Tōpuni (see 1.4 Treaty partnerships with Ngāi Tahu), which is partly within this Place.

Throughout this Place there are reminders and physical remnants of the journeys made by both Ngāi Tahu and early European explorers and settlers. More recently, trampers and hunters have rediscovered routes through the mountains and some of the old trails are now part of the backcountry track network.

Remnants of Ngāi Tahu settlement exist at the Dart River/Te Awa Whakatipu bridge and elsewhere. Old stone buildings, water races, tree plantings, tailings and sluicing all illustrate the area's gold mining and pastoral farming heritage associated with Māori, early European and Chinese settlement. The Arrowtown Chinese Settlement Historic Reserve is an Icon destination and historic Icon site (see Appendices 10 and 11).

There are 11 actively conserved historic places in the Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākahautū Place (see Map 5.3.1 and Appendix 10).

A number of pastoral leases occupy eastern parts of this Place. Tenure review processes provide opportunities to protect natural and historic values and improve public access links and corridors; which may occur by transferring some areas to public conservation lands and waters. The most appropriate land classification of such areas would require consideration under the Reserves Act 1977, Conservation Act 1987 or National Parks Act 1980 once the tenure reviews are substantially completed. The most suitable conservation lands and waters status would need to take into account adjoining Places, particularly those in Southland.

This Place has outstanding landscape, ecological, cultural and recreational values.

The mountain, lake and river landscapes and rich history have long attracted people for recreation in this Place. Outdoor recreation and tourism activities are highly valued with outdoor activities such as tramping, mountain climbing, hunting, kayaking and angling largely occurring on or from public conservation lands and waters. Mountain biking is popular and community initiatives have seen many new walking and cycling tracks near Queenstown and Wanaka both on and off public conservation lands and waters. The Matukituki River West Branch tracks, Twelve Mile Delta Recreation Reserve, Skippers and the Greenstone Caples Track are all Gateway destinations.

Queenstown and Wanaka are focal places for a large number of visitors and the areas around these settlements are important nationally for commercial tourism. Three commercial ski fields (Coronet Peak, The Remarkables and Treble Cone), bungee jumping and rope swing operations are all located on public conservation lands and waters. Highly valued jet boating, rafting, helicopter, four-wheel driving, guided walking, historic appreciation and filming activities also use public conservation lands and waters. Approximately 20% of departmental concession activities nationally were located in this Place as at 2012.

Pest plants and animals, habitat modification, and fire are the most immediate threats to conservation values. Wilding trees, in particular, threaten the character of landscapes and indigenous ecosystems. The combined effort of the Department, central and local government, communities and landowners (in Lake Wakatipu (Whakatipu-wai-māori) area, through the Wakatipu Wilding Conifer Control Group) is working to reduce or eliminate wilding trees.

Introduced plants and animals threaten indigenous habitats and species. Predators, particularly mustelids, cats and rats, challenge the survival of threatened species in this Place, including whio/blue duck, kākārīki/parakeet, mohua/yellowhead, kea and pīwauwau/rock wren.

Maintaining linkages between ecosystems and habitats utilised by indigenous species may now become more important due to climate change.

Goats, once found in high numbers in parts of this Place, have been greatly reduced by coordinated control programmes by the Department, landowners and hunting groups. A small population of tahr is located in the Thomson Mountains. Annual control operations are conducted to prevent the spread of tahr beyond their current feral range (as per the Himalayan Thar Control Plan 1993). The northern part of this Place, west of Lake Wanaka, lies within the southern exclusion zone for tahr management.

White-tail deer are present on public conservation lands and waters in the Lower Dart and Mt Alfred conservation areas. A long-standing verbal moratorium in place on hunting this deer population has been lifted. However, the area remains closed to hunting until an agreed hunting system is in place. Other deer are present in low numbers in some areas and control occurs through recreational hunting and occasional wild animal control.

Subdivision and other land use changes, particularly around lakes Wanaka and Wakatipu (Whakatipu-wai-māori) catchments, are changing landscapes and have resulted in the modification of important wildlife habitats, such as grey shrublands.

### ***Greenstone-Caples-Humboldt***

The Greenstone-Caples-Humboldt area includes a number of large and smaller conservation areas, recreation reserves, and marginal strips in the Greenstone and Caples River valleys and surrounding mountains (see Maps 5.3 and 5.3.1).

A component of the settlement between the Crown and Ngāi Tahu relates to the defined 'High Country Stations', a transfer of freehold title of the Greenstone Routeburn and Elfin Bay

pastoral leases to Ngāi Tahu. Ngāi Tahu contemporaneously gifted back to the people of New Zealand mountain tops known as Ka Whenua Roimata (the land of tears) in recognition of the suffering of the Ngāi Tahu people. Ngāi Tahu also leased a large area of land to the Crown in perpetuity for conservation purposes (the Leaseback Lands). A leaseback of part of this latter area to Ngāi Tahu for grazing purposes is subject to an agreed monitoring programme requiring Ngāi Tahu to assess grazing impacts. Ngāi Tahu retains the right to veto commercial activities on the Leaseback Lands.

Several agreements between Ngāi Tahu and the Crown provide for both public access and farming access. A Cooperation Agreement between the Minister of Conservation and Ngāi Tahu, as provided for in the Ngāi Tahu Deed of Settlement 1997, sets out the obligations of both parties for management of the High Country Stations.

The Greenstone and Caples River valleys and surrounding mountains are valued for their scenic, ecological, Ngāi Tahu cultural and outdoor recreational values. The Greenstone River valley was part of an ara tawhito providing access to the west and south. On their own, and in combination with adjoining areas, they form part of the spectacular mountain, valley and river landscapes near the head of Lake Wakatipu (Whakatipu-wai-māori) and are recognised as outstanding landscapes in the Queenstown Lakes District Plan (see Appendix 9).

The valleys, similar in character to parts of adjoining areas of Mount Aspiring National Park, have extensive intact sequences from valley floor to alpine vegetation.

The valleys provide important habitat for many indigenous forest, grassland and water bird species, including mohua/yellowhead, kākā, kākārīki/parakeet, kārearea/New Zealand falcon, whio/blue duck, pārerā/grey duck, pūtakitaki/paradise shelduck, pīhoihoi/New Zealand pipit and tarāpuka/black-billed gull. The alpine zone is important for kea and pīwauwau/rock wren. A diverse insect fauna is also present, with the Humboldt Mountains a type locality for indigenous beetle, caddis and moth species.

Indigenous fish species present in this area include kōaro, upland bully (*Gobiomorphus breviceps*) and tuna/longfin eel. The Greenstone and Caples Rivers are recognised as waterbodies with outstanding amenity and intrinsic values to be preserved in their natural state under the Water Conservation (Kawarau) Order 1997. Both rivers have an international reputation for angling.

Visible reminders of European exploration and settlement remain in the old homesteads and historic timber milling sites on the shores of Lake Wakatipu (Whakatipu-wai-māori). There are currently no actively conserved historic places in the Greenstone and Caples River and Humboldt Mountain area.

Tramping, hunting and angling are the most popular activities, with a wide range of tramping opportunities suiting both families and experienced backcountry trampers. Covenants provide for foot access across Ngāi Tahu land in the Greenstone and Caples River valleys, with other forms of access (e.g. mountain biking) requiring landowner approval (Ngāi Tahu). Horse riding occurs in the main lower Greenstone River valley, also requiring permission from the landowner (Ngāi Tahu).

The Greenstone and Caples tracks have been identified as a Gateway destination by the Department (see Appendix 11) and have become increasingly popular with trampers and walkers, including international visitors. Facilities have been upgraded to support this increased use. Retaining the backcountry character of the Greenstone and Caples River valleys and tracks is important for providing a lower-cost, family-orientated tramping and walking experience compared with the Routeburn Track Great Walk experience.

Away from the Greenstone and Caples River valleys, the surrounding peaks of the Humboldt, Ailsa and Thomson Mountains, and side valleys such as the Steele, Fraser, Kay and Scott

creeks, provide more challenging and remote recreational experiences, with only a few basic huts and tramping tracks.

Commercial guided walks take place on the Greenstone Track and link through to the Routeburn Track. There is one concessionaire lodge and one hut managed by the New Zealand Deerstalkers' Association on public conservation lands and waters in the Greenstone River valley.

Previously, guided activities have not been authorised in the Caples River valley, to provide a place free from commercial activity and a point of difference with the Greenstone River valley and nearby Routeburn Track. However, the Department may now authorise commercial activities in the Caples River valley. The intention is to enable commercial activity while retaining the backcountry tramping experience. There is one hut managed by the New Zealand Deerstalkers' Association on public conservation lands and waters in the upper Caples River valley.

The Greenstone Recreational Hunting Area<sup>18</sup> (RHA) (commonly known as the Greenstone/Caples RHA) (see Map 5.3.1) provides nationally important hunting for fallow deer. Recreational hunting is only authorised in the RHA between 1 April to 30 September, by permit and a ballot system.

Cattle grazing of valley floors can adversely affect forest edges, wetlands, river margins and water quality. The Department is working with land managers and Ngāi Tahu to avoid or minimise these adverse effects.

### ***Richardson-Upper Shotover***

The Richardson-Upper Shotover area includes the Shotover, Whakaari, Black Peak and Ballarat Creek conservation areas, Mt Aurum Recreation Reserve and a number of small conservation areas and marginal strips in the vicinity of Macetown and Arrowtown (see Maps 5.3 and 5.3.1).

The scenic, mountainous landscape of this area includes outstanding natural landscapes recognised in regional and district plans (see Appendix 9) including the upper Shotover River—The Branches area, Lochnagar (the lake and surrounds) and the Richardson Mountains.

Ecological values are high throughout this area, especially to the north, where natural values are the least modified. Extensive intact tussock grasslands are present, with a widespread and diverse shrubland belt in upper catchments.

Grey shrublands, particularly those in steep, shaded gullies unaffected by fire and browsing animals, are important wildlife habitats and have high landscape values; shrublands in the upper Shotover River are thought to pre-date human arrival and contain one of the largest known populations of the threatened plant Cypress hebe. Many shrubland areas are also present on Crown pastoral lease land. Maintaining connectivity and minimising the adverse effects of grazing and fire are high priorities.

Lochnagar, the margin of which is public conservation lands and waters, has high scientific interest. This lake, formed as a result of a rockslide, has exceptionally high water quality and clarity, and has several distinguishing features, notably an absence of fish, low indigenous plant diversity, and the absence of introduced vegetation within the lake.

The Water Conservation (Kawarau) Order 1997 recognises and protects the outstanding qualities of the Shotover River, its tributaries, and Lochnagar.

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<sup>18</sup> 18 000 hectares in size and includes most of the forested areas of the Greenstone and Caples valleys, and Steele Creek. It also includes the Fraser and Kay creek catchments and parts of the southern Humboldt Mountains.

The Richardson-Upper Shotover area has a rich mining and pastoral farming history. Historic sites include buildings, tracks, water races, flumes, tunnels, batteries and suspension bridges. Six actively conserved historic places are located in Richardson-Upper Shotover area including Macetown Historic Reserve and a variety of sites at Mt Aurum Recreation Reserve, Whakaari Conservation Area, and Arrowtown (see Map 5.3.1 and Appendix 10).

Recreational opportunities range from climbing, tramping, heli-skiing and hunting in the Richardson Mountains to, in more accessible and popular places like Skippers and Macetown, historic appreciation, mountain biking, four-wheel driving, horse riding, camping and picnicking. Tramping and short walks, mountain biking and horse riding are popular activities in Whakaari Conservation Area. Skippers is managed as a Gateway destination (see Appendix 11). There are some issues related to traffic management at the site that need resolving.

Commercial tourism activities include rafting and jet boating on the Shotover River and scenic tours in the Skippers area and Macetown. Heli-skiing occurs on public conservation lands and waters in Whakaari Conservation Area, the Richardson Mountains and Mt Aurum Recreation Reserve. Heli-biking operations are located at Whakaari Conservation Area.

Aircraft access to the more remote areas of the Richardson Mountains is managed seasonally to enable heli-skiing in winter and protect the natural quiet values during summer.

Preventing the spread of wilding trees and goats are priorities. The upper Shotover River catchment, Mt Aurum Recreation Reserve and Whakaari Conservation Area are the most vulnerable sites to wilding tree spread. Goats are controlled to low numbers in the upper Shotover River catchment with ongoing control necessary to reduce adverse effects to grey shrublands and prevent their spread into Mount Aspiring National Park. Fire is a particular concern in the drier and high-use areas of the Shotover River catchment and at Macetown.

Historic sites and tracks at Skippers and Macetown have been damaged by indiscriminate trail bike and four-wheel drive use. Many vehicle users respect these sites and work with the Department to reduce adverse effects and repair damaged areas, but limits to motorised vehicle access may become necessary should adverse effects from motorised vehicles increase. There are some introduced trees in the Mt Aurum Recreation Reserve and Macetown Historic Reserve that are valued for their historic and amenity values.

### ***Remarkables-Hector***

The Remarkables-Hector area includes The Remarkables and Tāpuae-o-Uenuku/Hector Mountains and the Nevis River valley. While each area is distinct in its own right, together they comprise a large area with high natural, recreational and historic values (refer Maps 5.3 and 5.3.1).

The Remarkables and Tāpuae-o-Uenuku/Hector Mountains include several large conservation areas, and the Rastus Burn Recreation Reserve in which The Remarkables ski field is located. Marginal strips extend along most of the Nevis River with large areas contained within Crown pastoral leases.

Many parts of The Remarkables-Hector area, both on and off public conservation lands and waters, have distinct and outstanding landscapes. Perhaps the best known is the west face of The Remarkables, a spectacular mountain backdrop to Lake Wakatipu (Whakatipu-wai-māori) catchment and Queenstown.

The Remarkables and Tāpuae-o-Uenuku/Hector Mountains contain high ecological values due in part to the area's location in a transition zone between the wetter west and the drier Central Otago mountains and valleys. Tussock grasslands are extensive and largely unmodified. The alpine and subalpine vegetation includes the eastern extent of several

species including mountain snow tussock, cut-leaved alpine buttercup and Birleys hebejeebie. The area has a wide range of habitats—rock bluffs, boulderfields, cushionfields, tussockland, wetlands, lakes, forest and shrubland—extending from 350 m to 2320 m. Wye Creek is a priority ecosystem unit (see Appendix 4).

The north branch of the Wye Creek valley has one of the largest remaining altitudinal sequences of indigenous vegetation (310 m to 2320 m) outside of Mount Aspiring National Park. The valley contains an important area of subalpine shrubland and the beech forest, which supports three species of whipcord hebe and several threatened plants including Cypress hebe.

Lake Alta (1807 m) is notable for its spectacular cirque setting below Double Cone, and for the absence of aquatic plants and fish, although plankton and invertebrates are seasonally abundant.

Kea are present on The Remarkables, at their eastern limit. The area supports high invertebrate diversity, including endemic and threatened species, such as several species of giant weevil, two black cicadas, a flightless stonefly and a rock-bluff moth.

The Nevis River valley is an example of a relatively unmodified and virtually treeless Central Otago high-altitude basin. It has high ecological values, a feature being the threatened Nevis galaxias, endemic to the Nevis River, Nevis skink and distinctive plant communities on the valley terraces, including red tussock (*Chionochloa rubra*) grasslands, Muellers sedge (*Carex muelleri*) and *Galium* and button daisy (*Leptinella conjuncta*) species. Schoolhouse Flat in the Nevis River valley has been identified as a priority ecosystem unit.

The Nevis River's wild, scenic and recreational values are well known and recognised, and protected by the Water Conservation (Kawarau) Order 1997.

As in many parts of Central Otago, gold mining and pastoral farming are evident in the lower Nevis River valley. The Nevis River valley is part of an ara tawhito through Otago and Southland, often referred to as Te Ara a Tamatea. It provided a crucial link for Māori, through to the Kawarau River valley.

The Nevis River valley is regarded as the most intact goldfield landscape remaining in Otago and is identified as an outstanding natural landscape in the Central Otago District Plan (see Appendix 9).<sup>19</sup>

The highest level of recreational use occurs in and around The Remarkables ski field. The ski field road provides access to The Remarkables and Tāpuae-o-Uenuku/Hector Mountains year round.

Parapenting, hang-gliding and scenic flights occur in some parts. Tramping, climbing (including ice-climbing), backcountry camping and ski touring are available in the upper Wye Creek valley, easily accessible from The Remarkables ski field. Currently two heli-biking operations, authorised by concessions, occur in the Remarkables Conservation Area over summer.

Away from the busy ski field area, and particularly in the southern Tāpuae-o-Uenuku/Hector Mountains and Nevis River valley, a sense of solitude prevails in this backcountry area. Tramping, climbing, camping, kayaking, cross-country skiing and angling are popular activities. The historic road through the valley from Nevis Crossing to Garston is popular with four-wheel drivers.

The Remarkables, with its close proximity to Queenstown, and outstanding landscape and recreational values, is subject to many development proposals. Providing recreational and

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<sup>19</sup> This classification was agreed to by parties involved in an Environment Court hearing on the Nevis River in November 2012. Prior to this agreement, the Nevis River valley was classified as a Special Natural Landscape.



tourism opportunities for a growing number of visitors to some parts of The Remarkables, while ensuring protection of outstanding landscapes, indigenous ecosystems and natural character, is an ongoing challenge.

The natural, historic, cultural and recreational values in the Nevis River and surrounding valley will be managed as a contrast to The Remarkables with low levels of development and commercial activity.

## **Outcome, policies and milestones for the Western Lakes and Mountains /Ngā Puna Wai Karikari a Rākaihautū Place**

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### **OUTCOME**

The mountains, lakes and rivers are cherished natural wonders that draw international and domestic visitors and provide an outstanding backdrop to and locations for a wide range of outdoor adventures and activities while supporting distinctive indigenous ecosystems and species.

Priority ecosystem units are recovering or in a healthy and functioning state as a result of integrated programmes that include intensive weed, pest, predator and wild animal control. Intact mountain to valley altitudinal vegetation sequences link habitats and ecosystems providing wildlife corridors across the landscape.

Further local extinctions have not occurred and populations of threatened and at-risk species are improving within their natural range, and are becoming more common sights.

The Department, Ngāi Tahu, landowners and community are working collaboratively to retain the natural, historic and recreational values of this Place, and protect it from fire, pests (especially wilding trees) and adverse effects caused by vehicles. The Matukituki River valley protection project has increased conservation outcomes and similar projects have commenced across the Place.

Tahr within the southern exclusion zone are controlled to zero density. Highly valued landscapes, ecosystems, habitats and historic sites are free of wilding trees and goats. Goats are removed from areas adjoining Mount Aspiring National Park. White-tail deer within the Lower Dart Conservation Area are contained, primarily by recreational hunters, at densities that support the management of ecosystem priorities and the values of Mount Aspiring National Park. The impacts of introduced animals on the natural values of the Dart River/Te Awa Whakatipu valley are much reduced as a result of pest management programmes. The abundance of other pest plants and animals elsewhere in this Place is being progressively reduced or contained.

Parts of this Place remain an integral part of the Te Wāhipounamu—South West New Zealand World Heritage Area. Elsewhere, this place complements Mount Aspiring National Park and the Te Wāhipounamu—South West New Zealand World Heritage Area by providing opportunities for activities that are compatible with protection of the natural values but that may not be so compatible with national park or world heritage area values.

Prominent landscape and geological features (ridgelines, and mountain tops) remain in their natural state, or are unmodified beyond their state at the time of becoming public conservation lands and waters. Within public conservation lands and waters away from prominent landscapes and geological features, structures may be present where well-blended into the landscape or where buildings already exist.

More people enjoy a wide range of recreational opportunities and experiences within the recreation settings across the Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākaihautū Place, provided by the Department, the community and many commercial

providers. The range of experiences and opportunities enables people to choose between remote, quiet and tranquil locations and busy, highly visited sites.

The Matukituki River West Branch Gateway destination, an entrance to Mount Aspiring National Park, draws thousands of visitors each year to explore the numerous tracks and routes leading from the valley floor and enjoy the increasingly abundant wildlife.

A network of Local Treasure and Backcountry destinations providing access and accommodation facilities is maintained by the Department and community organisations in accordance with facility provision priorities, and design requirements. Walking and biking tracks at the Twelve Mile Delta Recreation Reserve Gateway destination are enjoyed and highly utilised by domestic and international visitors. New cycleway initiatives and bike tracks enable more people to appreciate the values of the Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākaihautū Place and create links between public conservation lands and waters. Collaboration with communities results in the provision of integrated recreation opportunities across this Place.

In and around Queenstown people experience frequent aircraft activity and noise, much associated with over-flights and the Queenstown Airport. Frequent aircraft activity for commercial and recreation activities occurs at the Glenorchy airstrip. Regular to frequent encounters with aircraft occur in heli-skiing blocks during winter, and at specified scenic landing sites throughout this Place based on the visitor management zones those sites are located in. Aircraft are not encountered at Morning Star Beach Recreation Reserve, Moke Lake Recreation Reserve, Ben Lomond Scenic Reserve (part), Twelve Mile Delta Recreation Reserve (part) and Mou Tapu Scenic Reserve (Lake Wanaka). Elsewhere, visitors can generally expect occasional encounters with aircraft on public conservation lands and waters.

The Remarkables, Coronet Peak and Treble Cone ski fields provide for intensive use and are highly valued recreation and tourism opportunities enabling access to high-altitude areas. Recognition of the ski fields' location on public conservation lands and waters, and conservation interpretation, are readily apparent to visitors. Ski fields are managed in a precautionary approach in terms of new and additional structures and terrain modification. Further development of existing ski fields may occur, in preference to any new ski fields. Disturbed areas are restored to an agreed standard comparable with that which was present prior to any development. Public conservation lands and water in the Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākaihautū Place is highly valued for many commercial filming activities. Cooperative working relationships with the filming industry have resulted in continued access to a range of locations in a manner that safeguards the natural values of this Place, and benefits both conservation and business.

Collaborations and partnerships with Ngāi Tahu, business, communities and other interested parties have helped achieve more conservation and enhanced prosperity across this Place. Tourism concessionaires continue to contribute to conservation via sponsorships, donations, staff involvement in projects and raising awareness of the value of conservation through their tours and activities.

### ***Greenstone-Caples-Humboldt***

The Department and Ngāi Tahu are working in partnership to implement obligations in the Ngāi Tahu Claims Settlement Act 1998, in particular Ka Whenua Roimata and the leaseback of conservation areas. Natural, cultural, historic and recreational values of the Greenstone and Caples River valleys are protected and enhanced as a result, and contribute to positive visitor experiences.

The outstanding natural qualities of the Greenstone and Caples Rivers are preserved in their natural state in accordance with the Water Conservation (Kawarau) Order 1997, and enjoyed by all who visit these valleys.

Community groups, including hunting groups, assist with predator control programmes in the area to improve the health of populations of threatened mohua/yellowhead, kea, pīwauwau/rock wren, kārearea/New Zealand falcon, kākā and whio/blue duck.

The Greenstone and Caples tracks, a Gateway destination, are cherished for recreation activities, such as fishing, tramping and hunting. The tracks offer year-round, easy, family-friendly walking opportunities and, together with the nearby Routeburn Track, offer premier multi-day tramping opportunities.

Independent walkers encounter guided groups along the Greenstone and Caples tracks year round, except in public huts during the peak summer season. Guided recreational opportunities in the Greenstone and Caples River valleys enable the area to be enjoyed by a wider range of visitors.

Backcountry opportunities in the surrounding mountains and the side valleys of the Greenstone and Caples River valleys are enjoyed by the more adventurous. Structures in these side valleys are limited to backcountry facilities.

The Greenstone RHA continues to be an important site for recreational hunting. The Department and recreational hunters are working together to control deer populations to densities that support the management of ecosystem priorities. Recreational hunting is supported by provision for aircraft landings.

Visitors in the main Greenstone and Caples River valleys expect to see and hear frequent aircraft activity from commercial and scenic over-flights. Aircraft are also frequently encountered at heli-skiing locations during winter. Regular aircraft encounters occur in the Humboldt Mountains at specified scenic landing sites and occasionally in the RHA and Greenstone and Caples River valleys and side valleys for fishing and hunting access.

### ***Richardson-Upper Shotover***

Local communities, landowners and business appreciate, support, and are actively involved in conservation initiatives in Richardson-Upper Shotover alongside the Department.

The health and connectivity of indigenous grey shrublands in the Shotover River catchment have improved as a result of sustained goat control and other conservation initiatives. Wilding trees have been removed from Mt Aurum Recreation Reserve and other tussock grassland areas.

The diverse historic heritage of Macetown Historic Reserve and Mt Aurum Recreation Reserve is protected, well-interpreted and enjoyed by a wide range of people. Visitor experiences at Skippers and Macetown are enhanced by concessionaires who raise awareness of the history of the area, and their associated conservation values. The massive sluice faces and mining areas in Skippers are fully revealed. Features of the historic gold mining settlement of Bullendale are restored and preserved in partnership with the Wakatipu Heritage Trust. Activities at these sites complement the natural and historic values present.

The restored Arrowtown Chinese Settlement Historic Reserve Icon site and Icon destination takes visitors on a journey through a part of New Zealand's Chinese gold mining history. It is an integral part of an Arrowtown visit.

A wide range of recreational activities complements the natural and historic heritage of the Richardson-Upper Shotover area. Secure public walking access is available to public conservation lands and waters in the Richardson Mountains and upper Shotover River valley

(above Skippers) and these areas remain tranquil places where people enjoy nature on its own terms with few or no recreational facilities.

More people enjoy the magnificent Shotover River valley and the centrepiece Gateway destination at Skippers (township). Independent and guided visitors enjoy a range of short stay and overnight experiences, including walking and camping, at historic Skippers township. The Skippers Road driving experience is enhanced through on-site interpretation, in association with Queenstown Lakes District Council, concessionaires and other partners.

Four-wheel driving opportunities at Skippers Creek are maintained in partnership with users.

Visitors regularly encounter aircraft activity and landings on public conservation lands and waters around Skippers and Lochnagar, and during winter in the Richardson Mountains for heli-skiing. Occasional encounters occur elsewhere for scenic landings and activities such as heli-biking.

### ***Remarkables-Hector***

The outstanding natural landscapes and ecological values of The Remarkables and Tāpuae-o-Uenuku/Hector Mountains are intact and enjoyed by more people. Wilding trees and feral goats are being controlled to zero density by sustained control.

A range of recreational experiences is available in The Remarkables-Hector area ranging from largely unmodified environments where a sense of solitude and remoteness can be found in a largely unmodified environment (Wye Creek valley), to The Remarkables busy ski field.

The unmodified natural character of the upper Wye Creek valley (including its alpine tarns and basins) remains free of built structures and developments. It is easily accessible by walking and people enjoy the natural quiet and the indigenous ecosystems and landscapes.

The Nevis River valley's outstanding natural landscapes, indigenous ecosystems and freshwater species, intact altitudinal sequences, and historic heritage remain. The historic significance of the Nevis Road, as an important route between Southland and Otago for Māori and early settlers, is recognised and protected. The Nevis River, protected by the Water Conservation (Kawarau) Order 1997, remains in its natural state and many people appreciate its natural and recreational values.

Regular to frequent aircraft activity is experienced at specified landing sites in northern areas, particularly the ridgeline of The Remarkables and the Ben Cruachan-Doolans Creek area. Visitors to the Tāpuae-o-Uenuku/Hector Mountains experience occasional to regular aircraft activity during the summer.

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## **POLICIES**

- 2.3.1 Once tenure reviews have been substantially completed, undertake a review of existing status of public conservation lands and waters within this Place in accordance with the Conservation Act 1987, Reserves Act 1977 and National Parks Act 1980 to better reflect their values.
- 2.3.2 Should allow motorised vehicle and non-motorised bike use only on tracks and roads purposely formed and maintained for vehicle use on public conservation lands and waters identified, and in accordance with any criteria in Table 2.3, and subject to Policies 3.2.1–3.2.12 and 3.3.1–3.3.12 in Part Three.
- 2.3.3 Should allow aircraft access within the public conservation lands and waters, only as identified on Map 4, and in Policies 3.6.1–3.6.9 and Table 3.6.2 in Part Three.

- 2.3.4 Should allow horse or pack-animal use as identified in Table 2.3 and subject to compliance with Policies 3.9.1-3.9.4 in Part Three.
- 2.3.5 Continue programmes aimed at controlling wilding trees at zero density using sustained control, on and off public conservation lands and waters, and in cooperation with adjoining landowners, councils and community groups, contribute to efforts to control and remove wilding trees from other lands, where they have the potential to adversely affect public conservation lands and waters.
- 2.3.6 May consider applications for one-off permits/authorisations for over-snow vehicles outside of the designated area in accordance with Policy 3.2.11.
- 2.3.7 Should allow over-snow vehicle use only for the purpose of ski field management within ski field lease/licence areas subject to the provisions of the lease/licence and in accordance with Policies 3.2.12 and 3.25.6.
- 2.3.8 Work closely with Ngāi Tahu, agencies and community to identify priorities that will guide future direction to any extensions to cycleways within this Place as identified in 3.3 Biking.

### ***Greenstone-Caples-Humboldt***

- 2.3.9 Work closely and cooperatively with Te Rūnanga o Ngāi Tahu and station managers to ensure traditional, spiritual and cultural values are respected and upheld on station management issues such as stock intrusion onto conservation land, and to give effect to the requirements of the Leaseback Conservation Area lease agreement and adjoining public conservation land areas.
- 2.3.10 For the protection of the outstanding and undeveloped landscapes, natural values, backcountry character and cultural values of these valleys, should not authorise new structures or roads in the Greenstone and Caples River valleys, except where provided for in the leaseback agreement between the Crown and Ngāi Tahu, or where appropriate to maintain an existing visitor facility and experience.
- 2.3.11 May allow guided parties under concession in the Caples and Greenstone River valleys, only in accordance with the following criteria, to protect the backcountry character and tramping experience in these valleys:
  - a) the activity is limited to a maximum party size of 15 people (including guides) (refer Appendix 12);
  - b) for overnight guided trips, camping only occurs in the vicinity of the huts; and
  - c) only at 50% of available bunk space (unless otherwise unoccupied); and
  - d) review the use of huts by guided parties if evidence shows that adverse effects are occurring.
- 2.3.12 Work collaboratively with Ngāi Tahu station managers and hunting groups over future management of the Greenstone RHA, including hut and track maintenance and predator control programmes within the RHA.
- 2.3.13 Work collaboratively with the hunting groups to monitor the impact of deer populations in the Greenstone RHA on biodiversity values and adapt management in response to findings.

### ***Richardson-Upper Shotover***

- 2.3.14 Work with adjoining landowners, hunting groups and the community to reduce goat numbers to allow regeneration of fully diverse forest, tall tussock and shrubland communities, and to prevent the spread of goats into Mount Aspiring National Park.

- 2.3.15 Manage exotic tree removal within Mt Aurum Recreation Reserve and Macetown Historic Reserve to distinguish between trees to be removed and those to be retained as part of the historic or amenity values.
- 2.3.16 Any structures in the Mt Aurum Recreation Reserve, the Whakaari Conservation Area or the Ballarat Creek Conservation Area should not adversely affect the natural and historic values of these areas, in particular:
- a) the undeveloped natural landscapes and isolated character of the Richardson Mountains and upper Shotover River valley;
  - b) the quality and integrity of its indigenous ecosystems, habitats and species; and
  - c) the avoidance of adverse effects on the following values:
    - i) the natural, historic and cultural landscapes;
    - ii) existing recreational values and uses;
    - iii) natural quiet.
- 2.3.17 Develop and implement, in consultation with the community, a vehicle management plan for the Skippers road end at Mt Aurum Recreation Reserve<sup>20</sup> to cater for periods of high visitor use including consideration of limits on vehicle numbers or types of vehicles able to park at this site.
- 2.3.18 Seek opportunities to improve public access to public conservation lands and waters in the Richardson Mountains and upper Shotover River valley (above Skippers).
- 2.3.19 Work with the community in incorporating the Arrowtown Chinese Settlement Historic Reserve Icon site and Icon destination as part of the proposed Chinese Heritage Trail.

***Remarkables-Hector***

- 2.3.20 Should not allow new permanent utilities, structures or facilities (both recreational and commercial) in the upper Wye Creek valley to protect the unmodified and high natural character of this valley.
- 2.3.21 When considering, applications for new utilities, structures or facilities throughout this Place (with the exception of the upper Wye Creek valley), should have particular regard to the potential adverse effects on:
- a) natural ecosystems, landscapes and natural character, particularly in areas where structures and facilities are currently absent;
  - b) catchment water quality and quantity, including in Lake Alta;
  - c) priority ecosystem units and threatened species;
  - d) natural quiet;
  - e) current recreational uses; and
  - f) opportunities available for such structures or developments off public conservation lands and waters.
- 2.3.22 May allow further development and/or expansion of The Remarkables ski field (with the exception of the upper Wye Creek valley) in accordance with Policies 3.25.1–3.25.6 in Part Three, provided that adverse effects (including cumulative effects) are avoided, remedied or mitigated on the following values:
- a) the outstanding natural landscapes and ecological values of The Remarkables and the Tāpuae-o-Uenuku/Hector Mountains;

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<sup>20</sup> Commonly referred to as ‘Skippers roadend’.

- b) the landscape and ecological (including water quantity and quality) values of the priority ecosystem unit at Lake Alta;
- c) the recreational experiences of other users; and
- d) the ability of users to access the area year round.

**Table 2.3: Access to Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākaihautū Place**

<b>MOTORISED VEHICLE ACCESS ON OR THROUGH PUBLIC CONSERVATION LANDS AND WATERS<sup>21</sup></b>
In some cases, vehicle access may use legal road, or additional adjoining legal road access may exist, in which cases see Policy 3.1.8
Arrow River Marginal Strip and Macetown Historic Reserve <ul style="list-style-type: none"> <li>– Macetown Road (part on public conservation lands and waters)</li> </ul>
Coronet Peak Recreation Reserve <ul style="list-style-type: none"> <li>– Coronet Peak ski field road (parts on public conservation lands and waters)</li> </ul>
Diamond Lake and Lake Reid Wildlife Management Reserve <ul style="list-style-type: none"> <li>– Diamond Lake (Wakatipu) amenity area access road</li> </ul>
Dublin Bay—Outlet—Albert Town Recreation Reserve <ul style="list-style-type: none"> <li>– Formed 4WD road</li> </ul>
Earnslaw Burn Recreation Reserve <ul style="list-style-type: none"> <li>– Earnslaw Burn amenity area access road</li> </ul>
Hikuwai Conservation Area <ul style="list-style-type: none"> <li>– Wanaka Outlet track car park access road</li> </ul>
Lochy River Marginal Strip <ul style="list-style-type: none"> <li>– On-farm track that crosses marginal strip (part on public conservation lands and waters)</li> </ul>
Lower Dart and Dans Paddock Conservation Area <ul style="list-style-type: none"> <li>– Dart Road</li> </ul>
Matatiaho Conservation Area <ul style="list-style-type: none"> <li>– Skyline 4WD Road</li> </ul>
Moke Lake Recreation Reserve <ul style="list-style-type: none"> <li>– Moke Lake campsite road</li> </ul>
Motatapu Conservation Area and Treble Cone Access Road Conservation Area <ul style="list-style-type: none"> <li>– Treble Cone ski field road</li> </ul>
Mt Aspiring/Tititea Conservation Area and adjacent marginal strip <ul style="list-style-type: none"> <li>– Aspiring Hut 4WD access road</li> </ul>
Mt Aurum Recreation Reserve <ul style="list-style-type: none"> <li>– ‘Tiger Trail’—between the Skippers township and the confluence of the left and right branches of Skippers Creek</li> <li>– Sainsbury Terrace Road</li> <li>– Skippers Bridge to Pleasant Terraces</li> </ul>
Mt Crichton Scenic Reserve <ul style="list-style-type: none"> <li>– New Mt Crichton access road</li> </ul>
Rees River Marginal Strip <ul style="list-style-type: none"> <li>– On-farm track that crosses marginal strip (part on public conservation lands and waters)</li> </ul>

<sup>21</sup> In some cases, landholder permission may be required for the most practical access, or for parts of roads not on public conservation land. Some roads are inaccessible or closed over winter and/or may require keys for locked gates or other access arrangements.

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Reko Point Conservation Area

- MClutha River/Mata-Au access 4WD road

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Remarkables Conservation Area and adjacent public conservation lands and waters

- The Remarkables ski field access road (part on public conservation lands and waters)

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Shotover River Marginal Strip

- The Branches Road (part on public conservation lands and waters)

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Taka Rā Haka Conservation Area/Te Kere Haka Scenic Reserve

- Te Kere Haka Track (along old farm track on lakeside)

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Twelve Mile Delta Recreation Reserve

- Twelve Mile Delta access road

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**NON-MOTORISED BIKE ACCESS ON PUBLIC CONSERVATION LANDS AND WATERS<sup>22</sup>**

Where motorised vehicles are provided for in this table as above—Motorised vehicle access

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Scenic reserves

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Arthurs Point Gorge Scenic Reserve

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Ben Lomond Scenic Reserve

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Glen Allen Scenic Reserve

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Lake Dispute Scenic Reserve

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Mt Crichton Scenic Reserve, excluding:

- Mt Crichton Loop Track

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Mt Iron Scenic Reserve

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Routeburn Scenic Reserve

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Te Kere Haka Scenic Reserve

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Conservation areas

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Albert Burn Conservation Area

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Conservation Area – Albert Town

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Conservation Area – Big Beach / Shotover River

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Conservation Area – Buckler Burn

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Conservation Area – Clutha River / North Side

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Conservation Area – Dan’s Paddock

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Conservation Area – Drift Bay

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Conservation Area – Glenorchy

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Conservation Area – Greenstone, subject to:

- Minimum impact and limited access to the Greenstone Track

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Conservation Area – Hanley Faces

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Conservation Area – Hospital Creek

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Conservation Area – Kinloch Foreshore

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Conservation Area – Kinloch Scenic Reserve

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Conservation Area – Lower Shotover

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Conservation Area – McChesneys

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<sup>22</sup> This information applies to the access on public conservation lands and waters only; access to the public conservation lands and waters may be across private land and require landholder permission.



Conservation Area – Mt Creighton, subject to: – Outcomes of recreational opportunities feasibility study
Conservation Area – Mt Iron
Conservation Area – Precipice Creek
Conservation Area – Pt Run 701, excluding: – Glenorchy Lagoon Walkway
Conservation Area – Rees River
Conservation Area – Rees Valley Road
Conservation Area – Seven Mile Creek
Conservation Area – Treble Cone Access Road
Conservation Area – Tuckers Beach
Devils Creek Conservation Area
Glendhu Bluff Conservation Area
Glenorchy Foreshore Conservation Area
Hector Mountain Conservation Area <sup>23</sup>
Hikuwai Conservation Area
Lower Dart Conservation Area
Matakitaki Bluff Conservation Area
Matatiaho Conservation Area
Motatapu Conservation Area
Mt Aspiring/Tititea Conservation Area
North Motatapu Conservation Area
Remarkables Conservation Area
Shotover Creek Conservation Area
Station Creek Conservation Area
Taka Ra Haka Conservation Area
The Stack Conservation Area, excluding: – Roys Peak Track – Summit Track
Wakatipu Tributary Conservation Area
Whakaari Conservation Area – Existing <sup>24</sup> tracks only
<b>Wildlife reserves</b>
Diamond Lake and Lake Reid Wildlife Management Reserve
Glenorchy Lagoon Wildlife Management Reserve, excluding: – Boardwalk sections of the Glenorchy Lagoon Walkway
Tuckers Beach Wildlife Management Reserve

<sup>23</sup> Note that part of this parcel is within the area covered by the Southland CMS. The entry of this parcel in this table only enables cycling to be considered on that part of the parcel that is covered by the Otago CMS.

<sup>24</sup> As at the approval date of this CMS.

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**Historic reserves**

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Arrowtown Chinese Settlement (Pt)

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**Other reserves**

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Remarkables Skifield Access Road

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**Recreation reserves**

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Bobs Cove Recreation Reserve, excluding:

- Picnic Point Track
- 

Greenstone Road Recreation Reserve, excluding:

- The Cherry Gardens (Sawmill Settlement) as defined by Heritage New Zealand Pouhere Taonga
- 

Lake Rere Recreation Reserve, subject to:

- Minimum impact and limited access to the Rere Lake Walk
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Moke Lake Recreation Reserve, excluding:

- The peninsula portion of the Moke Lake Loop Track
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All other recreation reserves in this Place

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**Marginal strips**

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Marginal Strip – Dart River/Te Awa Whakatipu, excluding:

- Paved village site
- 

All other marginal strips in this Place

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**HORSE AND PACK-ANIMAL ACCESS ON PUBLIC CONSERVATION LANDS AND WATERS<sup>25</sup>**

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Beach Bay Recreation Reserve

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Big Beach Conservation Area

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Caples Conservation Area and adjacent marginal strip

- Access over freehold land and use of stock tracks on public conservation lands and waters requires prior approval from Ngāi Tahu and the Department
  - Access to the Caples Conservation Area is via the Caples stock track
  - No access beyond the fence line at mid Caples hut
- 

Chinamans Bluff Road

- Access beyond Chinamans Creek on formed track only
  - No access on the Dart walking track
- 

Dart and Rees valleys outside Mount Aspiring National Park

- No access to Glenorchy Wildlife Management Reserve, Diamond Lake track and north shore of Diamond Lake
- 

Greenstone Conservation Area and reserves

- Access over freehold land and use of stock tracks on public conservation lands and waters requires prior approval from Ngāi Tahu and the Department
  - Access to the Greenstone Conservation Area is via Lake Rere stock track to Passburn Hut, with no access in forested sections of the Greenstone Track beyond this point
  - No access beyond fence line below McKellar hut
  - No access in Steel Creek
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Greenvale/Allendale Tenure Review land, Te Kere Haka and Glen Allen scenic reserves

- Access on formed tracks
  - No access on the Shirt Trail walking track
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Lower Shotover Conservation Area

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<sup>25</sup> This information applies to the access on public conservation lands and waters only; access to the public conservation lands and waters may be across private land and require landowner permission.

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Macetown Historic Reserve

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Minaret Burn Mouth Conservation Area

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Mt Aurum Recreation Reserve—Skippers

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Remarkables Conservation Area

- Nevis River valley
  - Doolans valley
  - No access on the Doolans water race track
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Tuckers Beach to the Shotover Bridge Delta reserves and conservation areas

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Whakaari Conservation Area

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## MILESTONES—OUTPUTS

### Achieved by the end of Year 3 after CMS approval (2019)

- Control and containment of feral goats and tahr.
- An evaluation of the level of recreation opportunities at the Skippers township.
- A programme established to manage wilding tree control within Macetown Historic Reserve while considering historic and amenity values.

### Achieved by the end of Year 5 after CMS approval (2021)

- An evaluation of community management options for the Greenstone Recreational Hunting Area.
- Priorities identified for extensions to the cycleway network.
- Commence an investigation to reclassify public conservation lands and waters in The Remarkables and surrounding public conservation lands and waters to better reflect their value.

### Achieved by the end of Year 10 after CMS approval (2026)

- Collaborative initiatives are established to retain the natural, historical and recreational values.
  - Progress the reclassification of public conservation lands and waters in The Remarkables and surrounding public conservation lands and waters.
  - Feral goats and tahr are controlled and contained.
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## 2.4 Central Otago Uplands Place

### Description

The Central Otago Uplands Place (see Maps 5.4 and 5.4.1) comprises the upland areas of Central Otago—the Pisa Range, Rock and Pillar Range and Dunstan Mountains, the broad plateau of the upper Manorburn, and further north the Kakanui Mountains. While similar to the block mountain ranges within Te Papanui, Oteake and Hāwea Conservation Parks Place (see section 2.2) and Old Man Range/Kopuwai, Old Woman Range, and Garvie Mountains Place (see section 2.5), each mountain range has its own distinct character. The Place includes some of the outstanding ecosystems and landscapes that epitomise Central Otago.

Public conservation lands and waters in this Place include conservation areas, scenic and historic reserves, a wildlife management reserve, and marginal strips. Several conservation covenants adjoin the public conservation lands and waters.

Central Otago's dry continental climate creates seasonal extremes with hot summers and cold winters giving rise to specially adapted ecosystems and species unique to Otago.

This Place is characterised by predominantly schist block mountains, rolling inter-montane tussock grassland basins, high-altitude wetlands and cushionfields, distinctive tor features, rocky dryland landscapes and, in the Kakanui Mountains, volcanic features. Shrublands and smaller areas of taller, mostly beech forest remain in some areas. Overall it is a place of high, vast, open landscapes and skies. In the downlands between the St Marys Range and Kakanui Mountains and the Waitaki River is a band of limestone that forms distinctive landscape features. Although now profoundly modified by pastoral farming, some sites retain Relict indigenous vegetation that include a group of the most threatened plants in New Zealand e.g. Holloways broom and Kawarau cress, schist cress. Some are important as sites of early Māori occupation, Māori rock art, and for geopreservation of fossils. One such site at Gards Road has recently been purchased and reclassified as public conservation land, Gards Road Scenic Reserve, to protect its many ecosystems, archaeological and geological values.

The Clutha River/Mata-Au, Manuherikia, Taieri and smaller rivers flow between and connect the mountain ranges. They have ecological, historic, cultural, recreational, landscape and economic value.

Eight priority ecosystem units are on public conservation lands and waters within the Place (see Map 5.4 and Appendix 4). The uplands provide habitats for a variety of plants and animals, with some endemic to specific mountain ranges. For example, the Rock and Pillar Range has three endemic plants, Rock and Pillar daisy, *Kelleria villosa* var. *barbata* and dwarf daisy.

Threatened species in the Place include many indigenous plants and invertebrates adapted to living in climatically extreme environments. Further investigation is needed into unclassified invertebrates endemic to Central Otago.

The vast tussock grasslands of the Place provide important ecosystem services, such as protecting water quality, quantity and yield for townships and rural irrigation.

Since human settlement, the indigenous vegetation patterns of the place have been modified on a landscape scale. Māori explored the ranges and valleys seeking food and minerals. Archaeological sites and place names reflect their use of the area. The Clutha River/Mata-Au, Roaring Meg (Te Waio Koroiko) and Kawarau rivers and valleys were all ara tawhito, giving access into the interior. Whatatorere Historic Reserve, vested in Ngāi Tahu, was the location of a natural rock-arch 'bridge' (now collapsed) across the Kawarau River.

Early gold mining sites exist throughout the Place, but are less well-known than in lower-altitude areas where resultant landscape-scale changes are more evident. Historic remnant shelters, huts, water races and reservoirs, waterwheels, pathways, stamper batteries and other equipment still exist.

The Clutha River/Mata-Au also has an extensive history of gold mining and dredging, with historic sites scattered along much of its length. Community group and agency involvement is seeing the protection and restoration of some of these historic sites.

High-country farming has had a 150-year history in the Place and has shaped the landscapes throughout that time. Buildings, stock yards, gardens, musterers' huts, pack tracks and fences are reminders of this history; many are now located on public conservation lands and waters.

Several huts associated with Otago's early climbing, skiing, tramping or hunting heritage also remain. These include the historic Big Hut and the re-built Leaning Lodge in the Rock and Pillar Conservation Area, owned by the Rock and Pillar Hut and the Leaning Lodge trusts respectively, and maintained by them for public use.

Historic roads and tracks follow routes used by Māori, gold miners and early settlers (e.g. the Old Dunstan Road).

There are six actively conserved historic places in this Place (refer Map 5.4.1 and Appendix 10).

The Central Otago Uplands Place provides recreation opportunities for mountain biking, tramping, hunting, backcountry skiing, fishing and horse trekking. Backcountry huts, tracks and roads, and frontcountry facilities are present.

The climatic extremes provide seasonal variation in recreational opportunities. In winter the broad summits, rolling terrain and reliable snow cover are ideal conditions for backcountry skiing, dog sledding and skijoring, providing opportunities for multi-day trips in largely unmodified environments. In summer, four-wheel driving and trail bike touring on roads, and mountain biking are popular.

The Pisa Range in particular has a higher level of recreation than other areas of the Place. Concessionaire and adjoining commercial activities include heli-biking, sporting events and filming. The adjacent Snow Farm ski field, operated by the Pisa Alpine Charitable Trust and a council-owned recreation reserve, complements recreation opportunities on the public conservation lands and waters, especially during winter, and facilitates public vehicle and foot access to the Pisa Range. Popular four-wheel driving opportunities occur in northern sections of the Range. Aircraft activity disturbance does occur from both over-flights to and from Queenstown Airport and a low to moderate level of aircraft landing activity on public conservation lands and waters, largely associated with summer activities.

South of Kurow, the Alps 2 Ocean Cycle Trail passes through the Place en route to Oamaru, and utilises parts of the public conservation lands and waters in this area.

Managing vehicle use and impacts, and conflicts between motorised and non-motorised activities, is a challenge in this Place.

Four-wheel drive and trail bike touring is suitable on some formed roads or routes within public conservation lands and waters in summer. Motorised vehicles need to remain on the roads to minimise impacts to sensitive natural and historic values. There are, however, numerous legal roads that bisect public conservation lands and waters and management and use of these legal roads, while still needing to minimise adverse effects, involve district council responsibilities. Vehicle use in areas traditionally used by walkers or mountain bikers can contribute to crowding at huts and alter the experience for, or result in displacement of, people who are seeking a quieter backcountry experience. In winter, roads may need to be closed to vehicles (for reasons of public safety and to protect the road surface), as is done by Dunedin City and Central Otago District councils for the Old Dunstan Road over the Rock and Pillar Range, and councils elsewhere.

There is interest in snowmobiling and this occurs within the Snow Farm on the Pisa Range, and on private lands, and is provided for within public conservation lands and waters on the Old Man Range/Kopuwai (see 2.5 Old Man Range/Kopuwai, Old Woman Range, and Garvie Mountains Place). The management of snowmobile use on legal roads through public conservation lands and waters will be a management challenge if it is desired to retain non-motorised winter recreation opportunities with isolation and natural quiet values.

Off public conservation lands and waters, the Place is facing land use intensification, for example farming, exotic forestry, and energy developments. All have the potential to change ecological, values, landscape and recreational use of the Central Otago Uplands Place, while in some instances providing potential significant regional and national benefits.

Fire is an ongoing threat to public conservation lands and waters, especially where the land units are small and surrounded by rural and residential activity. Fire-damaged sites at higher altitudes can take many years to recover.

Pest plants, particularly wilding trees, are a threat to the open grasslands and highly specialised indigenous communities, species and water yield of the uplands. Control to zero

density of wilding trees needs constant and coordinated efforts by multiple agencies and landowners.

There has long been community interest in seeking legal and physical protection of more extensive areas within and adjoining the Place, for landscape, indigenous biodiversity and recreational values. Important considerations are the protection of high-altitude lands and continuous links between Mount Aspiring National Park, the Central Otago Uplands and the lower-altitude drylands, thus retaining ecological corridors. The latter may become more important as climate change impacts on indigenous ecosystems and species. Maintaining and developing recreational opportunity linkages between public use areas could also be beneficial to the Place.

While some new public conservation lands and waters may arise in the Place from tenure review and other processes, and thus provide for natural and historic values protection and recreational opportunities, there is also scope for community and landowner actions. If additional public conservation lands and waters arise, it may be desirable for best recognition and management of their values, and locality identification, to determine the most suitable conservation land status for such lands within this Place, in conjunction with adjoining Places, including those in Southland.

## **Outcome, policies and milestones for the Central Otago Uplands Place**

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### **OUTCOME**

The individual character, vast open landscapes, natural, historic, cultural, and recreational and ecosystem service values of the Central Otago Uplands Place are retained. Conservation initiatives off public conservation lands and waters are integrated with purposes for which conservation lands and waters are held, to contribute to securing these values.

The Department, Ngāi Tahu, landowners and the community are working cooperatively to retain the natural, historic and recreational values throughout this Place, and protect them from fire, pests (especially wilding trees) and damage from vehicles.

Priority ecosystems are recovering or are in a healthy functioning state as a result of integrated programmes that include intensive weed, pest and predator management. Threatened species populations are improving where intensive management is occurring either on or off public conservation lands and waters.

Intact altitudinal vegetation sequences link the uplands to the lowlands, and provide wildlife corridors and improved habitat and ecosystem connectivity.

Prominent landscape and geological features (ridgelines, plateaus, and mountain tops) remain in a predominantly natural state. Within public conservation lands and waters away from prominent landscapes and geological features, structures may be present where well-blended into the landscape or where buildings already exist.

Visitors gain an appreciation of the rich historic heritage of the area by exploring historic sites which bring to life the history of this area.

Representative examples of Otago's historic places, reflecting Ngāi Tahu occupation, exploration, gold mining and pastoral farming, are retained and interpreted through integrated Department, Ngāi Tahu and community efforts.

More people enjoy the range of summer and winter recreational activities in the Place. In winter, recreational uses such as backcountry skiing, dog sledding, skijoring and hunting occur and natural quiet and solitude prevail. Four-wheel drive and motorbike touring, mountain biking, horse riding and tramping occur within and through defined parts of the public conservation lands and waters during summer.

Motorised vehicle activity occurs mostly on legal roads adjoining or through the public conservation land. Any adverse effects are managed in cooperation with district councils and the community, including four-wheel drive and motorbike users, and vehicles keep to formed roads at sustainable activity levels to minimise impacts on sensitive ecosystems and species.

Four-wheel drive and motorbike touring roads, existing biking and walking tracks, along with new cycleway initiatives and bike tracks enable more people to appreciate the values of the Central Otago Uplands Place and create links between public conservation lands and waters. Public conservation lands and waters within this Place have been investigated for the creation of a 'tussock grassland park'.

Public conservation lands and waters on the Rock and Pillar Range, Kakanui Mountains, upper Manorburn and Dunstan Mountains are managed for predominately backcountry recreation, where natural quiet prevails and the largely undeveloped natural character is retained. Encounters with aircraft activity are occasional in the Rock and Pillar Range and upper Manorburn and rare in the Kakanui Mountains and Dunstan Mountains.

A network of Local Treasure and Backcountry destinations providing access and accommodation facilities is maintained by the Department and community organisations in accordance with facility provision priorities, and design requirements. Two huts in the Rock and Pillar Range are maintained for public use by community trusts.

The Pisa Range, both on and off public conservation lands and waters, is more intensely used for recreation, including commercial and concessionaire activity, within the Central Otago Uplands Place. Motorised vehicle opportunities on and through public conservation lands and waters are provided for in the north of the range, leaving the southern part free from motorised vehicles.

Opportunities for solitude and self-reliance are still retained in the Pisa Range. Natural quiet is high in winter and in summer away from defined motorised vehicle roads. Encounters with aircraft activity on public conservation lands and waters are occasional during summer and less frequent during winter, although noise from over-flights associated with Queenstown Airport is experienced year-round.

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## POLICIES

- 2.4.1 Advocate for the creation of a 'tussock grassland park' or parks in the interests of integrated conservation management, centred on the higher-altitude lands within this Place (and potentially extending to adjoining ranges), by:
- a) providing advice for tenure reviews;
  - b) engaging with the community, including landowners; and
  - c) for existing the public conservation lands and waters, having regard to the land status options under the Conservation Act 1987 and Reserves Act 1977.
- 2.4.2 Once tenure reviews have been substantially completed, review land status of public conservation lands and waters within this Place in accordance with the Conservation Act 1987, Reserves Act 1977 and National Parks Act 1980 to better reflect the values.
- 2.4.3 Encourage further investigations and research into poorly known indigenous species, such as plants, fungi and animals of Central Otago to ensure that the proliferation and number of these species are better understood.
- 2.4.4 Work with Heritage New Zealand Pouhere Taonga and the community, including pastoral farmers and landowners, to best protect a representative range of historic places that represent early exploration, gold mining and pastoral farming history.

- 2.4.5 Should allow motorised vehicle and non-motorised bike use only on tracks and roads purposely formed and maintained for vehicle use on public conservation lands and waters identified, and in accordance with any criteria in Table 2.4, and subject to Policies 3.2.1–3.2.12 and 3.3.1–3.3.12 in Part Three.
- 2.4.6 Should allow aircraft access within the public conservation lands and waters, only as identified on Map 4, and in Policies 3.6.1–3.6.9 and Table 3.6.2 in Part Three.
- 2.4.7 Should allow horse or pack-animal use as identified in Table 2.4, and subject to compliance with Policies 3.9.1–3.9.4 in Part Three.
- 2.4.8 Work with the community, including local authorities, to raise awareness of the vulnerability of upland wetlands and other habitats with respect to the adverse effects of vehicle use, and to gain their active involvement in initiatives to restore damaged areas.
- 2.4.9 Consider the management options for legal roads as in Policy 3.1.8 in Part Three, and also work with the Pisa Alpine Charitable Trust, relevant agencies, other landowners and the community on the management of public vehicle access from their lands onto the Pisa Range.
- 2.4.10 Work with the Alps 2 Ocean Cycle Trail Trust on the provision of access for the Trail through public conservation lands and waters.
- 2.4.11 Work closely with Ngāi Tahu, agencies and community to identify priorities that will guide future direction on any extensions to cycleways within this Place as identified in 3.3 Biking.
- 2.4.12 May consider applications for one-off permits/authorisations for over-snow vehicles outside of the designated area in accordance with Policy 3.2.11.
- 2.4.13 Continue undertaking programmes aimed at controlling wilding trees at zero density using sustained control, on and off public conservation lands and waters. In cooperation with adjoining landowners, councils and community groups, contribute to efforts to control and remove wilding trees from other lands, where they have the potential to adversely affect public conservation lands and waters.

**Table 2.4: Access to Central Otago Uplands Place**

**MOTORISED VEHICLE ACCESS ON OR THROUGH PUBLIC CONSERVATION LANDS AND WATERS<sup>26</sup>**

In some cases, vehicle access may use legal road, or additional adjoining legal road access may exist, in which cases see Policy 3.1.8

Awa Nohoaka Conservation Area

- Formed 4WD road

Bendigo Conservation Area

- Mount Moka Road

Dry Creek Conservation Area and Neinei-i-kura Conservation Area

- Formed 4WD road

Lauder Basin Conservation Area

- Lauder Basin Conservation Area 4WD Road

Lindis Conservation Area

- Formed 4WD road

<sup>26</sup> In some cases, landholder permission may be required for the most practical access, or for parts of roads not on public conservation land and waters. Some roads are inaccessible or closed over winter and/or may require keys for locked gates or other access arrangements.



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Manorburn Conservation Area  
– Southern and Western boundary roads

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Pisa Conservation Area (part) and Te Wai-o-Koroiko Scenic Reserve (excludes southern section)  
– Formed 4WD roads

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Reko Point Conservation Area<sup>27</sup>  
– Clutha River/Mata-Au access 4WD road

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Rock and Pillar Conservation Area and Rock and Pillar Scenic Reserve  
– Rock and Pillar 4WD Road (part on public conservation land and waters)  
– Kinvara to Rock and Pillar Ridge Road  
– Western Block Access Track

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Sutton Salt Lake Scenic Reserve  
– Sutton Salt Lake Access Road

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Trotters Gorge Scenic Reserve<sup>28</sup>  
– Trotters Gorge access road

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**NON-MOTORISED BIKE ACCESS ON PUBLIC CONSERVATION LANDS AND WATERS<sup>29</sup>**

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Where motorised vehicles are provided for in this table as above— Motorised vehicle access

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Scenic reserves

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Autaia Scenic Reserve

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Kane Scenic Reserve

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Lindis Pass Scenic Reserve

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Newcastle Scenic Reserve

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Pātītī Scenic Reserve

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Rock and Pillar Scenic Reserve

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Te Wai-o-Koroiko Scenic Reserve

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The Nook Scenic Reserve

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Trotters Gorge Scenic Reserve

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Conservation areas

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Awa Nohoaka Conservation Area

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Bendigo Conservation Area

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Conservation Area – Access to Kawarau River (Gibbston)

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Conservation Area – Bluenose

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Conservation Area – Clutha River / Island Block

---

Conservation Area – Clutha River / Kanes

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Conservation Area – Clutha River / South Lindis

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Conservation Area – Clutha River Islands

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Conservation Area – Dead Horse Pinch “Reserve”

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Conservation Area – Gibbston

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<sup>27</sup> Administrative correction only – this parcel is currently listed in Table 2.3 under Western Lakes and Mountains Place but is located in the Central Otago Uplands Place.

<sup>28</sup> Administrative correction only – this parcel is currently listed in Table 2.3 under Western Lakes and Mountains Place but is located in the Central Otago Uplands Place.

<sup>29</sup> This information applies to the access on public conservation lands and waters only; access to the public conservation lands and waters may be across private land and require landholder permission.

Conservation Area – Kane Reserve
Conservation Area – Lepidium Kawarau Habitat
Conservation Area – Lower Lindis
Conservation Area – Maerewhenua River
Conservation Area – Otekaieke Access Strip
Conservation Area – Otekaieke River
Kakaunui Conservation Area
Kakaunui Conservation Area – Additions
Lauder Basin Conservation Area
Lindis Conservation Area
Neinei i Kura Conservation Area
Pisa Conservation Area
Reko Point Conservation Area
Rock and Pillar Conservation Area
Sandy Point Conservation Area
The Larches Conservation Area
Scientific reserves
Mata-au Scientific Reserve – 4WD road only
Recreation reserves
All recreation reserves in this Place
Marginal strips
All marginal strips in this Place
<b>HORSE AND PACK-ANIMAL ACCESS ON PUBLIC CONSERVATION LANDS AND WATERS</b>
Ardgour Conservation Area
Awa Nohoaka Conservation Area
Bendigo Conservation Area
Kakaunui Conservation Area – Access on existing formed tracks during summer only
The Larches Conservation Area
Lauder Basin Conservation Area
Lindis Conservation Area
Long Gully Conservation Area
Manorburn Conservation Area
Mt Bengier Scenic Reserve
Neinei i Kura Conservation and Dry Creek Conservation Area
Pisa Conservation Area and Te Wai-o-Koroiko Scenic Reserve
Rock and Pillar Conservation Area – Western Block Access Track
Serpentine Scenic Reserve

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Trotters Gorge Scenic Reserve<sup>30</sup>

– Along existing vehicle track<sup>31</sup> up main valley only from picnic area / campsite

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Waikerikeri Conservation Area

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## MILESTONES—OUTPUTS

### Achieved by the end of Year 3 after CMS approval (2019)

- Investigations have commenced to determine the best way to create a ‘tussock grassland park’.

### Achieved by the end of Year 5 after CMS approval (2021)

- Collaborative initiatives are encouraged and supported for conservation management and advocacy to progress the creation of a ‘tussock grassland park’.
- Collaborative initiatives are established for the restoration and enhancement of historic sites.
- Priorities identified for extensions to the cycleway network.

### Achieved by the end of Year 10 after CMS approval (2026)

- Collaborative partnerships are established to progress the creation of a ‘tussock grassland park’.
  - An increased knowledge and understanding of the plants, fungi and animals.
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## 2.5 Old Man Range/Kopuwai, Old Woman Range, and Garvie Mountains Place

### Description

This Place includes conservation areas and a scenic reserve on Old Man Range/Kopuwai and Old Woman Range, marginal strips within the Garvie Mountains, the Young Australian and Mitchell’s Cottage historic reserves, Gorge Creek Recreation Reserve, and small conservation areas on the Carrick Range (see Map 5.5). Three conservation covenants over privately owned land adjoin the conservation areas.

Although broadly similar to the Central Otago Uplands Place (see section 2.4), this Place is identified because of its distinctive landscape, ecological and recreational values. These values extend beyond the public conservation lands and waters, including into Southland’s Waikaia River catchment to the south.

The ranges were favoured hunting grounds, including for moa, and Ngāi Tahu has a strong connection with the natural resources of this area. Ara tawhito associated with gathering pounamu pass nearby, and historic rock shelters, ovens, taonga find spots and place names are tangible reminders of the occupation and activity of Ngāi Tahu tūpuna in the area. For Ngāi Tahu, the Old Man Range/Kopuwai is a wāhi taonga, with the prominent rock outcrop, the Obelisk, the focal point of a traditional story and located at the centre of the Kopuwai Historic Reserve vested in Ngāi Tahu.

This area of schist block mountains comprises broad, rolling summits and basins, rock tors and, in places, tundra-like vegetation seldom seen elsewhere. Specific geological features are

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<sup>30</sup> Administrative correction only – this parcel is currently listed in Table 2.3 under Western Lakes and Mountains Place but is located in the Central Otago Uplands Place.

<sup>31</sup> As at the approval date of this CMS.

of international (Old Man Range/Kopuwai and Obelisk Range summit tors and sheath folds) and national (Garvie Mountains and Old Man Range/Kopuwai peneplain, and the Old Woman Range patterned ground and solifluction stripes) significance (see Appendix 9).

Together the ranges form an impressive landscape feature of Central Otago. Views from the ranges are spectacular, while the experience within the ranges is one of vastness and openness.

Running generally north-south, the ranges create a rain shadow that blocks southerly fronts from reaching parts of Central Otago, creating a marked contrast between often very cold conditions on the range crests and a milder climate in surrounding lowland areas.

There is one priority ecosystem unit—Old Man Range/Kopuwai on public conservation lands and waters (see Appendix 4)—although a much larger, ecologically important area exists off public conservation lands and waters.

Typical alpine ecosystems are well represented, although shrublands are confined to the wetter parts of the area or as remnants around rock tors. The at-risk shrub Poppelwells pimelea is locally common in wet areas. Aquatic ecosystems are diverse, including blanket and string bogs, tarns, torrents and waterfalls. They support many aquatic insects, including several rare species such as the locally endemic stonefly *Zelandobius alatus* and a flightless *Hydrobiosis* caddis.

Vegetation is dominated by extensive areas of rolling tussock grasslands, cushion and fellfields, wetlands and a variety of low-stature alpine communities. There are small areas of beech forest. The wetlands are numerous and diverse and provide bird habitat. Alpine string bog wetlands, including a portion of the internationally significant Nokomai wetland complex which extends into Southland in the southern Garvie Mountains, are a feature of this Place.

In addition, the Nevis River wetland (part of the Nokomai wetland complex in the southern branch of Roaring Lion Creek) is recognised for its outstanding amenity and intrinsic values and required to be preserved as far as possible in its natural state under the Water Conservation (Kawarau) Order 1997. The main stem of the Nevis River is protected under the Order.

Threatened and at-risk species present, similar to other block mountain systems in Otago, include plant and invertebrate species, several of which are endemic to small areas within this Place. They include Enys aniseed, woodrush and hebejeebie. Insect fauna of the grasslands and herbfields is also diverse and grasshopper, beetle, fly, wasp and moth species abound.

Later historic sites include those of 19th century gold mining (e.g. localities such as the basin of the Earnsclough or Fraser River and Omeo Creek gully on the Old Man Range/Kopuwai), and of pastoral farming.

For the early gold miners, crossing and working on the ranges was challenging and harsh winters and tough working conditions killed many. Remains of the old snow pole route from Otago to Southland are still visible on the Old Man Range/Kopuwai.

Four actively conserved historic places are the Alpine Stamper Battery in the basin of the Earnsclough or Fraser River, the Young Australian Waterwheel, Mitchell's Cottage, and Gorge Creek Recreation Reserve (see Appendix 10).

The Place, including on private lands accessed with landowner permission, offers a range of recreational opportunities, which vary with the seasons. In summer, tramping, mountain biking, hunting, camping, sightseeing, historic heritage appreciation, horse trekking and four-wheel drive and motorbike touring are popular activities. Several legal roads, some only developed to four-wheel drive standard, provide summer vehicle access to and through public

conservation lands and waters and other lands on parts of the Old Man Range/Kopuwai, including through to the Potters gold mining site in Southland.

In winter, the rolling terrain and reliable snow cover are ideal conditions for backcountry skiing, dog sledding and skijoring. The three major ranges combine in winter to form a large area and provide opportunities for multi-day trips in largely unmodified environments with little avalanche risk. The vast size of this Place gives a sense of isolation, the natural quiet and outstanding landscapes, which combine to provide an experience unparalleled elsewhere in New Zealand.

In Otago there is also a need for designated areas for over-snow vehicle use. Public conservation lands and waters provide opportunity for over-snow vehicle activity where adverse effects on natural values and other recreational users are avoided or minimised. Increasing levels of over-snow vehicle use have occurred for some years in parts of the Old Man Range/Kopuwai and Old Woman Range. Winter-time four-wheel drive road access is required to suitable snow, which can be accessed from the Waikaia Bush Road, Symes Road and Duffers Saddle or by arrangement with adjoining landowners. In some instances, over-snow vehicles are delivered by helicopter, thereby limiting the four-wheel adverse effects.

Legal roads, sometimes formed, provide four-wheel drive vehicle access to and along parts of the Old Man Range/Kopuwai and Old Woman Range crests, but damage to wetlands and other sensitive areas on and adjacent to roads has occurred. The wetter soils have a propensity to become damaged by erosive tracking, from which they recover slowly. The Department is working with the community, including four-wheel drive clubs and users to confine vehicle use to formed roads to prevent further damage and allow recovery of damaged areas.

There has long been community interest in seeking legal and physical protection of more extensive areas within and adjoining the Place, to maintain landscape, indigenous biodiversity and recreational values present. In part, this interest reflects that predominantly indigenous flora and fauna, especially at higher altitudes, are still present after over 150 years of pastoral farming, and that landowners have allowed some public access and recreation on their private lands. While some new public conservation lands and waters may arise in these areas from the tenure review process, an alternative or additional vision may be to consider a 'park' approach under a variety of land tenures, with a whole landscape and combined community and landowner approach.

## **Outcome, policies and milestones for the Old Man Range/Kopuwai, Old Woman Range, and Garvie Mountains Place**

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### **OUTCOME**

The natural landscapes, ecological, historic, cultural and recreational values, within Otago, of the Old Man Range/Kopuwai, Old Woman Range, and Garvie Mountains and their lowland connections are retained.

Prominent landscape and geological features (ridgelines, plateaus and mountain tops) remain in a predominantly natural state, or are unmodified beyond their state at the time of becoming public conservation lands and waters. Within public conservation lands and waters away from prominent landscapes and geological features, structures may be present where well-blended into the landscape or where buildings already exist.

Priority ecosystems are recovering or are in a healthy functioning state as a result of integrated programmes that include intensive weed, pest and predator management.

Threatened species populations are improving where intensive management is occurring either on or off public conservation lands and waters.

Progress has been made in having the wetland complex situated on Nokomai Station recognised as a Wetland of International Importance.

Ngāi Tahu values on public conservation lands and waters are recognised through historic site protection, interpretation of values to visitors, and by land management having regard to the adjoining Kopuwai Historic Reserve.

A network of Local Treasure and Backcountry destinations providing access and accommodation facilities is maintained by the Department and community organisations in accordance with facility provision priorities, and design requirements. Public conservation lands and waters within this Place have been investigated for the creation of a 'tussock grassland park'.

A representative range of historic sites that illustrate the gold mining and pastoral farming history of the area, including old trails across the ranges, are actively conserved and interpreted, in cooperation with the community and landowners.

More people enjoy a range of recreational opportunities consistent with the area's vulnerable environment, distinct landscapes, sense of isolation, and cultural and historic values.

Recreational opportunities reflect the extreme climate and seasonal variations, particularly the much greater sense of isolation and solitude during winter.

In summer, people enjoy a wider range of activities. Motorised vehicle use is undertaken responsibly on formed roads or routes.

In winter, backcountry skiing, dog sledding and skijoring are enjoyed across the ranges. Over-snow vehicle activity occurs in a defined area on the Old Man Range/Kopuwai and users follow a code of conduct to minimise their impact on other users and values. Away from areas where over-snow vehicle activity occurs, natural quiet is high, especially during winter. People have only occasional encounters with aircraft.

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## POLICIES

- 2.5.1 Advocate for the creation of a 'tussock grassland park' centred on the higher-altitude lands within this Place (and potentially extending to adjoining ranges), by:
- a) providing advice for tenure reviews;
  - b) engaging with the community, including landowners; and
  - c) for the existing public conservation lands and waters, having regard to the land status options under the Conservation Act 1987 and Reserves Act 1977.
- 2.5.2 Once tenure reviews have been substantially completed, review land status of public conservation lands and waters within this Place in accordance with the Conservation Act 1987, Reserves Act 1977 and National Parks Act 1980 to better reflect the values.
- 2.5.3 With the approval of landowners and with the support of the community, seek formal recognition of the wetland complex situated on Nokomai Station as a Wetland of International Importance and support physical protection of the wetland's ecosystem, features and functions.
- 2.5.4 Work with communities, including local authorities and four-wheel drive and motorbike users, to raise awareness of the vulnerability of upland wetlands and other habitats to the adverse effects of motorised vehicle use, and to obtain their active involvement in initiatives to restore damaged areas.

- 2.5.5 Consider the management options for legal roads as in Policy 3.1.8 in Part Three.
- 2.5.6 Should allow motorised vehicle and non-motorised bike use only on tracks and roads purposely formed and maintained for vehicle use on public conservation lands and waters identified, and in accordance with any criteria in Table 2.5, and subject to Policies 3.2.1–3.2.12 and 3.3.1–3.3.12 in Part Three.
- 2.5.7 Should allow over-snow vehicles only within the designated area, Old Man Range/Kopuwai, as shown in Table 2.5 and Map 5.5.
- 2.5.8 May consider applications for one-off permits/authorisations for over-snow vehicles outside of the designated area in accordance with Policy 3.2.11.
- 2.5.9 Should allow aircraft access within the public conservation lands and waters, only as identified on Map 4, and in Policies 3.6.1–3.6.9 and Table 3.6.2 in Part Three.
- 2.5.10 Should allow horse or pack-animal use, as identified in Table 2.5 and subject to compliance with Policies 3.9.1–3.9.4 in Part Three.
- 2.5.11 Continue programmes aimed at controlling wilding trees at zero density using sustained control, on and off public conservation lands and waters. In cooperation with adjoining landowners, councils and community groups, contribute to efforts to control and remove wilding trees from other lands, where they have the potential to adversely affect public conservation lands and waters.

**Table 2.5: Access to Old Man Range/Kopuwai, Old Woman Range, and Garvie Mountains Place**

<b>MOTORISED VEHICLE ACCESS ON OR THROUGH PUBLIC CONSERVATION LANDS AND WATERS<sup>32</sup></b>
In some cases, vehicle access may use legal road, or additional adjoining legal road access may exist, in which cases see Policy 3.1.8
Bain Block (Old Man Range) Conservation Area <ul style="list-style-type: none"> <li>– Hyde Rock turnoff to Waikaia Bush Road (part on public conservation lands and waters)</li> <li>– Waikaia Bush Road to Bains Block Eastern Boundary</li> </ul>
Gorge Creek Recreation Reserve <ul style="list-style-type: none"> <li>– Gorge Creek access road</li> </ul>
Kopuwai Conservation Area <ul style="list-style-type: none"> <li>– Hyde Rock to Boundary Hut gate</li> <li>– Boundary Hut gate to Carrick boundary gate</li> <li>– Symes Road to Hyde Rock turnoff</li> </ul>
Old Woman Range Conservation Area <ul style="list-style-type: none"> <li>– Old Woman Hut access road</li> <li>– Duffers Saddle through to Hyde Rock</li> </ul>
<b>DESIGNATED OVER-SNOW VEHICLE AREA</b>
Kopuwai/Old Woman Conservation Area as detailed on Map 5.5
<b>NON-MOTORISED BIKE ACCESS ON PUBLIC CONSERVATION LANDS AND WATERS<sup>33</sup></b>
Where motorised vehicles are provided for in this table as above—Motorised vehicle access
<b>Scenic reserves</b>

<sup>32</sup> In some cases, landholder permission may be required for the most practical access, or for parts of roads not on public conservation land and waters. Some roads are inaccessible or closed over winter and/or may require keys for locked gates or other access arrangements.

<sup>33</sup> This information applies to the access on public conservation lands and waters only; access to the public conservation lands and waters may be across private land and require landholder permission.

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Barn Creek Scenic Reserve

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Old Man Range/Kopuwai Scenic Reserve

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Conservation areas

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Bain Block (Old Man Range/Kopuwai) Conservation Area

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Conservation Area – Long Gully / Mt Difficulty

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Conservation Area – Slapjacks Creek / Mt Difficulty

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Kopuwai Conservation Area

---

Old Woman Range Conservation Area

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Potters Creek Conservation Area

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Historic reserves

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Historic Reserve – Obelisk

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Young Australian Historic Reserve

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Recreation reserves

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All recreation reserves in this Place

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Marginal strips

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All marginal strips in this Place

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**HORSE AND PACK-ANIMAL ACCESS ON PUBLIC CONSERVATION LANDS AND WATERS<sup>34</sup>**

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Bain Block (Old Man Range) Conservation Area

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Kopuwai Conservation Area

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Old Woman Range Conservation Area

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Young Australian Historic Reserve

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## MILESTONES—OUTPUTS

### Achieved by the end of Year 3 after CMS approval (2019)

- Initiation of monitoring the use and effects of over-snow vehicle activities.
- Investigations have commenced to determine the best way to create a ‘tussock grassland park’.

### Achieved by the end of Year 5 after CMS approval (2021)

- Collaborative initiatives are encouraged and supported for conservation management and advocacy to progress the creation of a ‘tussock grassland park’.
- Collaborative initiatives are established for conservation management and advocacy of the threats to wetlands and other habitats.

### Achieved by the end of Year 10 after CMS approval (2026)

- Collaborative partnerships are established to progress the creation of a ‘tussock grassland park’.
  - Review over-snow vehicle activity in the Old Man Range/Kopuwai.
- 

<sup>34</sup> This information applies to the access on public conservation lands and waters only; access to the public conservation lands and waters may be across private land and require landowner permission.



## 2.6 Central Otago Drylands/Manuherikia Place

### Description

The Central Otago Drylands/Manuherikia Place covers the lower-altitude dryland areas of Central Otago (see Maps 5.6 and 5.6.1). Distinct landscapes and geological features, unusual and threatened biodiversity, important historic places and a wide range of recreation opportunities, including the popular Otago Central Rail Trail, are features of this Place.

Within this Place there are relatively few areas of public conservation lands and waters and, although generally small, they are highly significant. This is reflected in the land status classification of these lands, which includes two nature reserves and four scientific reserves.

The Central Otago Drylands/Manuherikia Place is part of a chain of dryland ecosystems that lie in the rain shadow of the main mountain ranges along eastern New Zealand. These areas contain some of the most threatened and least protected indigenous ecosystems and species. Central Otago is so arid that evaporation exceeds precipitation, except for a few months in winter. The arid conditions are protecting natural ecosystems by limiting agricultural use and weed encroachment.

The Central Otago Drylands/Manuherikia Place is characterised by semi-natural and agricultural landscapes and wide open spaces set amongst rolling hills and the backdrop of the Central Otago uplands (see 2.4 Central Otago Uplands Place). Schist rock formations (tors) often feature prominently in the landscape and can be refuges for threatened plants and animals.

A highly distinctive feature of the Central Otago Drylands/Manuherikia Place is the inland saline ecosystems. Scattered, tiny pockets of salty soil habitats with their own special salt-tolerant communities occur between Earnsclough or Fraser River flats and Maniototo. Only a handful of these are intact. Tiny threatened plants such as salt pan cress and salt grass and a range of insects at these sites are threatened by weed invasion and land use changes. The Chapman Road and Springvale scientific reserves feature these values.

New Zealand's only salt lake in Sutton Salt Lake Scenic Reserve is on the southern edge of the Strath Taieri Plain. It is an inland ephemeral saline wetland contained within an impervious schist depression. The area surrounding the lake is part of a scenic reserve.

Six priority ecosystem units are located on public conservation lands and waters in this Place (see Map 5.6 and Appendix 4). Most of these sites are small. The Department seeks to work alongside landowners where priority ecosystems extend into private land.

Several large river systems are a feature of the Central Otago Drylands/Manuherikia Place (including the Clutha River/Mata-Au, and Manuherikia and Taieri rivers), which have landscape, ecological, recreational, cultural and economic importance to the region.

The Taieri River, New Zealand's fourth-longest river, originates in the Central Otago block mountains and traverses the Central Otago Drylands/Manuherikia Place following a giant S-shaped course to the sea not far from Dunedin. Extensive tussock grasslands, wetlands and bogs in the upper catchment store water and release it slowly into the river. The Taieri River has many special characteristics, including a diversity of indigenous fish species and several geological sites and landforms of international, national and regional significance; these include the Taieri River gorge, Taieri River meanders (commonly called the Taieri River scroll plain), Taieri River mouth psilomelane<sup>35</sup> and Taieri River mouth gorge (see Appendix 9). The Taieri River main stem supports a significant sports fishery of regional importance.

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<sup>35</sup> Also known as hematite. A group name for hard, black manganese oxides.

The scroll plain of the Taieri River is New Zealand's only scroll plain and is a large natural wetland full of loops, oxbows, ponds and channels lying in the centre of the Maniototo and Styx Creek basins. It is of national and international significance (see Appendix 9) and presents a dramatic image, especially when viewed from the air. Only a few parts of the wetland are protected and the area has undergone changes associated with land conversion, drainage and river engineering works. The Paerau and Patearoa hydroelectric power scheme is located near the scroll plain of the Taieri River.

The indigenous ecosystems and landscapes of the Central Otago Drylands/Manuherikia Place have been modified extensively due to human settlement, gold mining, pastoral farming, and more recently new activities such as cropping, viticulture, horticulture, dairying, forestry and lifestyle blocks. This has reduced, fragmented and often disconnected indigenous habitats, affecting landscape and ecological integrity and causing loss of some indigenous, dryland-adapted plants and animals through habitat loss or competition.

Manaaki Whenua/Landcare Research, the Department and other agencies are conducting important research on how dryland ecosystems function and can be restored.

A joint community–Department initiative, Project Gold,<sup>36</sup> encourages Otago people to grow and look after kōwhai trees and aims to strengthen enthusiasm for dryland forest restoration. The project is working with organisations, communities, business and individuals throughout Otago. A highlight will be widespread planting of kōwhai along the length of the Otago Central Rail Trail.

Dryland ecosystems are important habitats for a range of unusual and threatened species, including lizards, galaxiid fishes, invertebrates, and many distinctive plants and plant communities. Nearly 90% of Otago's threatened plants are present in dryland habitats. Threatened species include the endemic Cromwell chafer beetle, grand and Otago skinks and the Central Otago roundhead galaxiid. Unclassified invertebrates endemic to Central Otago are in need of further investigation.

Currently grand and Otago skinks exist in less than 10% of their former range. Two reserves at Macraes and near Alexandra are important strongholds. At both of these locations, predator-proof fences (along with intensive predator trapping at Macraes) protect the lizards and provide valuable research information. One of these is the Mokomoko Dryland Sanctuary (0.3 hectares) in the Aldinga Conservation Area, established by the Central Otago Ecological Trust to be a focus to promote awareness about indigenous biodiversity in the district. Genetically distinct, isolated populations of both species also occur in Hāwea Conservation Park (see 2.2 Te Papanui, Oteake and Hāwea Conservation Parks Place).

Threats to many dryland species include habitat modification, predation, fire and pest plants and animals. Control of wilding trees is particularly important for maintaining the open landscapes and indigenous habitats of the Central Otago Drylands/Manuherikia Place. Working closely with landowners and community groups is essential if the Department is to succeed in its endeavours.

Building regional agency, landowner and community interest and involvement in dryland conservation and protection of a representative range of dryland areas, where opportunities arise, is a priority.

Many ara tawhito were established by Ngāi Tahu tūpuna who followed the valley systems of the Shag River (Waihemo), Taieri River and the Clutha River/Mata-Au to the plains and valleys of Central Otago, with subsidiary trails following other awa (rivers).

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<sup>36</sup> <http://www.doc.govt.nz/projectgold>

The widespread network of Māori cultural and archaeological sites including ara tawhito, rock shelters, umu and mineral collection and rock working throughout this Place is a tangible reminder of the iwi connections with this significant whenua tūpuna.

Gold mining, pastoral farming and early settlement history is evident throughout the Central Otago Drylands/Manuherikia Place landscape and contributes greatly to the distinct character of Central Otago. Gold miners made landscape-scale changes by sluicing, diverting rivers, and creating reservoirs and tailing heaps. They left reminders of their work in shelters, buildings, water races, shafts, waterwheels, stamper batteries and other equipment, orchards, and pathways and roads. The Clutha River/Mata-Au has an extensive history of gold mining and dredging. Historic sites are scattered along much of its length.

There are 10 actively conserved historic places in the Central Otago Drylands/Manuherikia Place (see Map 5.6.1 and Appendix 10).

Central Otago's distinctive landscapes and continental climate, its large rivers, dramatic autumn colours and rich history have long attracted visitors. Mountain biking, walking, kayaking, rafting, hunting and scenic appreciation are all popular activities for locals and increasingly for national and international visitors.

The Otago Central Rail Trail (the Rail Trail), one of the most popular recreation attractions in the Central Otago Drylands/Manuherikia Place, provides for walking, biking and horse riding for people of all ages and abilities on an unsealed surface. The Department manages the trail in partnership with the Otago Central Rail Trail Trust. The Trust raises funds for trail enhancement and promotes it through a range of activities. It is supported by the Department with infrastructure maintenance and administrative support.

The Rail Trail has provided new opportunities and substantial economic benefits to local communities. It is a pivotal recreation asset to the community and is managed as an Icon destination and a historic Icon site.

Several other historic sites are also popular visitor attractions and several are managed as Gateway destinations, including Bannockburn, St Bathans and Bendigo (see Appendices 10 and 11). These destinations present opportunities to raise awareness of conservation values and issues in the Central Otago Drylands/Manuherikia Place.

## **Outcome, policies and milestones for the Central Otago Drylands/Manuherikia Place**

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### **OUTCOME**

Central Otago's indigenous dryland ecosystems are highly valued, and better protected and understood by those who live in and visit this Place.

Priority ecosystems are recovering or are in a healthy functioning state as a result of integrated programmes that include intensive weed, pest and predator management. Threatened species populations are improving where intensive management is occurring either on or off public conservation lands and waters.

The Department is supporting Ngāi Tahu, regional agencies, landowners, communities and business on a range of natural, historic and cultural programmes.

Conservation initiatives on public and private land result in the protection of a representative range of dryland ecosystems, corridors for wildlife, ecological connections between the Central Otago Drylands/Manuherikia Place and Central Otago Uplands Place, and recognition of the ecosystem services that they provide. Pest plants and animals are controlled, and kōwhai flower abundantly.

Distinctive Central Otago dryland threatened species (e.g. grand and Otago skinks, Cromwell chafer beetle, galaxiid fishes and plants) are secure in their natural habitats. Lesser-known habitats (e.g. saline ecosystems) and associated tiny threatened plants and invertebrates are valued and protected in collaboration with the community. Successful programmes at the Mokomoko Dryland Sanctuary and Macraes mean that grand and Otago skinks are increasing in their number and range and opportunities exist to further expand their range through translocation.

The Department is working with others (including river users) to protect and restore the outstanding natural features of the Taieri River scroll plain. Progress has been made in having the Taieri River scroll plain recognised as a Wetland of International Importance.

A network of Local Treasure and Backcountry destinations providing access and accommodation facilities is maintained by the Department and community organisations in accordance with facility provision priorities, and design requirements. Recreation opportunities on public conservation lands and waters in the Central Otago Drylands/Manuherikia Place are centred on historic sites, biodiversity viewing and the Otago Central Rail Trail. Cyclists, horse riders and walkers with a wide range of abilities enjoy the Otago Central Rail Trail, which is managed as an Icon destination and historic Icon site in partnership with the Otago Central Rail Trail Trust. A distinct relaxed, natural and peaceful setting prevails along the Trail, within the scenic backdrop of the rural Otago landscape. The Rail Trail has become a corridor of restored dryland indigenous vegetation through initiatives such as Project Gold.

Along but outside the immediate Otago Central Rail Trail corridor, businesses and communities provide quality services to Trail users that complement the Trail's distinctive recreational, scenic, biodiversity and historic character.

Other cycleway initiatives and bike tracks enable more people to appreciate the values of the Central Otago Drylands/Manuherikia Place and create links between public conservation lands and waters.

The history of the Central Otago Drylands/Manuherikia Place is brought to life. Ngāi Tahu and local communities are actively involved in advocating for, protecting and restoring historical features in the landscape, and telling the stories to visitors and their communities.

People experience only occasional encounters with aircraft when visiting public conservation lands and waters in the Central Otago Drylands/Manuherikia Place, with no landings encountered along the Rail Trail corridor. Recreational access from the drylands and linkages to opportunities in the uplands areas has improved.

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## POLICIES

- 2.6.1 Work collaboratively with others to achieve active management to protect dryland habitats including:
- a) indigenous or semi-indigenous riparian vegetation;
  - b) habitats of threatened indigenous plants and animals or naturally rare ecosystems;
  - c) areas of indigenous vegetation that link with indigenous ecosystems or adjoining upland areas, providing wildlife corridors, altitudinal vegetation sequences and landscape integrity;
  - d) saline and limestone ecosystems; and
  - e) wetlands and their margins.

- 2.6.2 Once tenure reviews have been substantially completed, review land status of public conservation lands and waters within this Place in accordance with the Conservation Act 1987, Reserves Act 1977 and National Parks Act 1980 to better reflect the values.
- 2.6.3 Encourage further investigations into the unclassified invertebrates endemic to Central Otago.
- 2.6.4 Work in consultation with others to protect and restore the Taieri River scroll plain.
- 2.6.5 With the approval of landowners and with the support of the community, seek formal recognition of the Taieri River scroll plain as a Wetland of International Importance.
- 2.6.6 Provide interpretation about dryland habitats, species and threats at Icon and Gateway destinations and Flat Top Hill, to increase public awareness of dryland indigenous biodiversity conservation.
- 2.6.7 In partnership with the Otago Central Rail Trail Trust, and in cooperation with local communities and businesses, manage the Otago Central Rail Trail to protect its distinctive recreational, scenic, biodiversity and historic character.
- 2.6.8 Up to four competitive sporting events may be permitted on the Otago Central Rail Trail in any year, provided that public access and use of the trail are maintained, and provided that these activities do not occur over the 3 weeks beginning 26 December, and over any public holiday weekend.
- 2.6.9 Any new structures (including advertising material) in support of business and services should be located off the Otago Central Rail Trail and public conservation lands and waters.
- 2.6.10 Should allow motorised vehicle and non-motorised bike use only on tracks and roads purposely formed and maintained for vehicle use on public conservation lands and waters identified, and in accordance with any criteria in Table 2.6, and subject to Policies 3.2.1–3.2.12, and 3.3.1–3.3.12 in Part Three.
- 2.6.11 Should allow aircraft access within the public conservation lands and waters, only as identified on Map 4, and in Policies 3.6.1–3.6.9 and Table 3.6.2 in Part Three.
- 2.6.12 Work closely with Ngāi Tahu, agencies and community to identify priorities that will guide future direction on any extensions to cycleways within this Place as identified in 3.3 Biking.
- 2.6.13 May consider applications for one-off permits/authorisations for over-snow vehicles outside of the designated area in accordance with Policy 3.2.11.
- 2.6.14 Should allow horse or pack-animal use as identified in Table 2.6, and in accordance with Policies 3.9.1–3.9.4 in Part Three.
- 2.6.15 Investigate and implement a conservation lands and waters classification for the reserves at Macraes, to ensure that the classifications adequately reflect the natural values of the area.
- 2.6.16 Continue programmes aimed at controlling wilding trees at zero density using sustained control, on and off public conservation lands and waters. In cooperation with adjoining landowners, councils and community groups, contribute to efforts to control and remove wilding trees from other lands, where they have the potential to adversely affect public conservation lands and waters.

**Table 2.6: Access to Central Otago Drylands/Manuherikia Place****MOTORISED VEHICLE ACCESS ON OR THROUGH PUBLIC CONSERVATION LANDS AND WATERS<sup>37</sup>**

In some cases, vehicle access may use legal road, or additional adjoining legal road access may exist, in which cases see Policy 3.1.8

Bendigo Historic Reserve

- Bendigo Historic Reserve road

Blue Lake Recreation Reserve and adjacent reserves and conservation area

- Blue Lake amenity area access road
- St Bathans Domain

Danseys Pass Recreation Reserve

- Road access to picnic and camping area

Mt Bengier Scenic Reserve

- Mt Bengier Road

Serpentine Scenic Reserve

- Serpentine Scenic Reserve 4WD road

**NON-MOTORISED BIKE ACCESS ON PUBLIC CONSERVATION LANDS AND WATERS<sup>38</sup>**

Where motorised vehicles are provided for in this table as above— Motorised vehicle access

Scenic reserves

Bendigo Scenic Reserve

Scenic Reserve – Flat Top Hill

Conservation areas

Aldinga Conservation Area

Blackstone Hill Conservation Area

Conservation Area – Clutha River Islands

Conservation Area – Taieri River / Middlemarch

Flat Top Hill Conservation Area

Historic reserves

Bannockburn Sluicings Historic Reserve

Bendigo Historic Reserve

Earnsclough Dredge Tailings Historic Reserve

Golden Point Historic Reserve

Local purpose reserves

Clyde Bridge Reserve

Recreation reserves

All recreation reserves in this Place

Marginal strips

All marginal strips in this Place

<sup>37</sup> In some cases, landholder permission may be required for the most practical access, or for parts of roads not on public conservation land and waters. Some roads are inaccessible or closed over winter and/or may require keys for locked gates or other access arrangements.

<sup>38</sup> This information applies to the access on public conservation lands and waters only; access to the public conservation lands and waters may be across private land and require landholder permission.

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**HORSE AND PACK-ANIMAL ACCESS ON PUBLIC CONSERVATION LANDS AND WATERS<sup>39</sup>**

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Bendigo Historic Reserve

- On formed roads only

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Bendigo Scenic Reserve

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Blackstone Hill Conservation Area

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Blue Lake Recreation Reserve

- On vehicle road to lake foreshore only

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Otago Central Rail Trail Recreation Reserve

- Otago Central Rail Trail

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St Bathans Domain

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**MILESTONES—OUTPUTS****Achieved by the end of Year 3 after CMS approval (2019)**

- Collaborative initiatives are encouraged and supported for the restoration and enhancement of dryland ecosystems.
- The Otago Central Rail Trail remains successful.

**Achieved by the end of Year 5 after CMS approval (2021)**

- Priorities identified for extensions to the cycleway network.
- The Otago Central Rail Trail remains successful.

**Achieved by the end of Year 10 after CMS approval (2026)**

- Collaborative initiatives are established for the restoration and enhancement of dryland ecosystems.
  - The Otago Central Rail Trail remains successful.
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## 2.7 Eastern Otago and Lowlands/Maukaatua Place

### Description

This Place (see Maps 5.7 and 5.7.1) extends from just south of the Waitaki River to the Clutha River/Mata-Au, and incorporates Dunedin City, including Otago Peninsula, and the coastal environment inland of the coastal marine area (see 2.9 Marine/Te Tai o Arai te Uru Place for land below Mean High Water Spring (MHWS) and offshore islands). Coastal and lowland wetlands and forests, within a predominantly rural landscape, extend inland to a series of ranges, including those of The Silverpeaks and Maungatua. Across the Place's coastal boundary there is, naturally, some movement of species, sediments and waters.

Public conservation lands and waters within the Place include nature, scientific, scenic, historic, recreation and wildlife management reserves, wildlife refuge, conservation areas and marginal strips.

Public conservation lands and waters are generally small and scattered, within a predominant farming and forestry landscape. Consequently, the remaining indigenous forests and wetlands generally have high ecological and landscape significance. Larger areas of public conservation lands and waters are the Maukaatua and Silverpeaks scenic reserves.

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<sup>39</sup> This information applies to the access on public conservation lands and waters only; access to the public conservation lands and waters may be across private land and require landowner permission.

Two Tōpuni within the Place cover Maukaatua Scenic Reserve at Maungatua, and Matakaea Recreation Reserve and Onewhenua Historic Reserve at Shag Point/Matakaea. Ngāi Tahu regard Maukaatua Scenic Reserve as a wāhi taonga, standing guard over the interior of Otago, with an urupā on its slopes. Shag Point/Matakaea is one of Otago's earliest settlement sites and is the site of numerous urupā and wāhi tapu.

Goat Island/Rakiriri Scenic Reserve in Otago Harbour takes its Māori name from a traditional story, and is significant to Ngāi Tahu, who wish its natural and cultural values to be undisturbed.

Seven priority ecosystem units are in this Place (see Map 5.7 and Appendix 4). They include wetlands, coastal and semi-coastal forests and shrublands, saltmarshes and herbfields and dunelands.

The Aramoana Ecological Area includes the saltmarsh, which is the largest and most intact saltmarsh in the Dunedin region and one of the best examples on the South Island's east coast. It contains a suite of plants ranging from those that enjoy long daily inundation (e.g. glasswort) through to those submerged for less time (e.g. remuremu and māakoako) and those in the upper saltmarsh (e.g. oioi and saltmarsh ribbonwood). These and other marsh plants provide food for over 80 indigenous moth species.

Community initiatives to protect or restore lowland and coastal indigenous biodiversity are being undertaken by trusts, e.g. the Yellow-eyed Penguin Trust, at sites, for instance the predator-proof fenced Orokonui Ecosanctuary, and through cooperative efforts such as at the Lakes Waihola and Waipori wetlands. Other examples include those by Ngāi Tahu, individual landowners, businesses and Dunedin City Council. The protection and, in some cases, restoration of remaining natural or semi-natural wetlands, saltmarshes and rivers in the lowlands will require inter-agency and community cooperation if their multiple natural values are not to be lost.

There are few public conservation lands and waters along the Otago coast apart from those on Otago Peninsula, so what is present is important for threatened species, including the rāpoka/whakahao/New Zealand sea lion, hoiho/yellow-eyed penguin and toroa/northern royal albatross, all breeding at locations along the coast.

Pest plants and animals are impacting on the coastal environment, e.g. marram grass has displaced the indigenous pīngao on many beaches. Several pest plant and animal control and habitat revegetation programmes are underway, including re-establishment of pīngao in several areas, through Department, Ngāi Tahu and community actions.

Careys Creek Conservation Area, and the Silverpeaks and Chalkies scenic reserves provide a distinctive backdrop to Dunedin. They are part of a larger geological unit based on Otago schist and overlain in places by rocks of volcanic origin. Along with Maungatua, The Silverpeaks form an ecological transition zone between the wetter areas to the south and the drier areas of north Otago. Towards the north, the effects of past fires have been greater than in the wetter south, with more profound transformation of forests to grassland and shrubland communities. Beech forest remnants in both areas are significant in that they are at their extremity in eastern Otago and are important markers of Otago's vegetation history.

In The Silverpeaks and adjoining area, a diverse range of forest types is present, including the *Libocedrus* cloud forests (e.g. at Leith Saddle Track), tawai/silver beech, and podocarp broadleaf forest containing kāmahi and kānuka. Shrublands and tussock grassland communities contain species including upland *Ozothamnus* and *Dracophyllum*.

Adjoining the Silverpeaks and Chalkies scenic reserves are Dunedin City Council-administered reserves, some of which have high natural and recreation values complementing values in the scenic reserves.



Maungatua is the south-eastern extremity of Otago schist. The summit bogs form the lowest-altitude cushion plant assemblages in Otago, and are a priority ecosystem unit. It has an unbroken altitudinal vegetation sequence, from the valley floor podocarp broadleaved forests, through tawai/silver beech forest and montane shrubland, to low-alpine snow-grass and cushion bog communities at its summit plateau.

Typical forest and Otago block-mountain insects are found here; the rare moths *Asaphodes obarata*, *Harmologa pontifica* and *Notoreas regilla* being of note. Of importance in the Waipori River gorge are several large populations of at least three mistletoe species.

Around Waitahuna Hill, gully shrublands, herbfIELDS and copper tussockland species that are usually part of upland vegetation communities are present at comparatively low altitudes. An assemblage of usually alpine indigenous insects is also found at relatively low altitude, including the scarce stonefly *Zelandobius kuscheli* and the moths *Asterivora barbiger* and *Scythris nigra*.

Otago's coast is varied and often wild and scenic. Many significant geological features and outstanding landforms and landscapes are located in this Place; for example, Shag Point/Matakaea, Moeraki Point, Moeraki Boulders/Kaihinaki, Taieri River gorge, Brighton marine terraces, Tunnel Beach and features on Otago Peninsula (see Appendix 9).

In Maungatua, and to a lesser extent The Silverpeaks, the spread of pest plants, particularly wilding trees, gorse and broom, is the greatest threat to conservation values. Spread of pines from surrounding pine plantations requires ongoing control in both areas. Small, discrete areas of Spanish heath are present in Maungatua and are a priority for control. In The Silverpeaks, the extent of this weed makes its control impractical at this time.

Five actively conserved historic places (see Map 5.7.1 and Appendix 10) are present in this Place, reflecting settlement, whaling, farming and industry activities. Some small-scale gold mining ventures occurred in and around The Silverpeaks and Maungatua hills.

The Place is a whenua tūpuna of immense significance to Ngāi Tahu, providing favourable locations for settlement with its abundant kaimoana. Numerous ara tawhito, wāhi ingoa (areas that have names that are significant to Ngāi Tahu Whānui), pā, kāinga, tauranga waka (a mooring/berthing area where a waka is brought ashore) and mahinga kai are associated with the area's waterways.

The Otago coast was a major highway and trade route, particularly where land travel was difficult. Tauranga waka occur in their hundreds, linked to settlements, kaimoana resources, ara tawhito or mahinga kai.

The Lakes Waihola and Waipori wetlands were one of the most significant food sources of Otago and are highly valued by Ngāi Tahu today.

Permanent Ngāi Tahu kāinga in the region today are based at the traditional Ngāi Tahu settlement sites of Moeraki, Puketeraki and Ōtākou.

Archaeological sites along the coast (including urupā sites) are being exposed by wave and wind erosion. Where these are on public conservation lands and waters, the Department liaises with Ngāi Tahu and Heritage New Zealand Pouhere Taonga to ensure appropriate site information and recovery.

The Eastern Otago and Lowlands/Maukaatua Place presents many recreational opportunities. Wildlife tourism is now an integral part of Otago's economy, with Dunedin widely proclaimed as the 'Wildlife Capital of New Zealand'.

Taiaroa Head (Pukekura) and Moeraki Boulders/Kaihinaki Icon destinations, and Sandymount Recreation Reserve tracks Gateway destination, provide many recreational opportunities. Local Treasure destinations including Gabriel's Gully Historic Reserve, an

actively conserved historic site, and the Aramoana Ecological Area and the Aramoana Recreation Reserve are also sought out by visitors. Recreational use is predominantly walking, picnicking, camping, mountain biking, tramping, hunting, fishing and surfing, with most activity along accessible parts of the coast.

Coastal lands are the focus, particularly during summer, for a wide range of recreational opportunities such as walking, tramping, rock climbing, mountain biking, camping, beach combing, photography and wildlife viewing, and as a base for swimming, surfing, boating, diving and fishing. Newer pursuits such as parapenting are becoming popular. Providing for recreational use whilst ensuring wildlife and their habitats are protected is an ongoing challenge in some places. Matakaea Recreation Reserve, a resting place and haul out site for marine mammals and penguins, deserves a reserve classification that better reflects its conservation values, including management for public use.

On Quarantine Island/Kamau Taurua Recreation Reserve in Otago Harbour, the St Martin Island Community leases part of the reserve and its historic buildings, and provides an opportunity to experience a sense of sanctuary within the island's natural and historic values setting.

On Dunedin's back door, the Careys Creek Conservation Area, and Silverpeaks and Chalkies scenic reserves have long been a popular area for trampers and day walkers. Opportunities are diverse, ranging from quite challenging tramps and tracks to short or day walks close to the city. Jubilee Hut and the Philip J Cox Memorial Hut enhance opportunities for weekend tramping trips.

The recreational opportunities available in the Maukaatua, Mill Creek and Waipori Falls scenic reserves and adjacent public conservation lands and waters are less known and, compared with The Silverpeaks area, there are fewer visitors. Hunting and day tramping are the most common activities, typically attracting people who value solitude and self-sufficiency.

In both The Silverpeaks and Maungatua areas, use of motorised vehicles is not appropriate on public conservation lands and waters due to the nature of the terrain, soils and damage caused by erosive tracking. There are few suitable areas for mountain biking for the same reasons, but many opportunities for mountain biking exist around Dunedin. For the same reasons, it is desirable that unformed legal roads through both The Silverpeaks and Maungatua areas have the same or similar vehicle use constraints.

Developments and structures (e.g. telecommunication, navigational or energy projects) may adversely affect natural character, landscape, cultural and biodiversity values of The Silverpeaks and Maungatua. There are already established telecommunication and navigational facilities in The Silverpeaks area. Such facilities are absent on public conservation lands and waters in Maungatua, and although there have been wind-farm proposals for the Maungatua hills in recent years, these have not progressed.

## **Outcome, policies and milestones for the Eastern Otago and Lowlands/Maukaatua Place**

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### **OUTCOME**

Lowland and coastal forests, shrublands, coastal turfs, dunes and aquatic ecosystems (including wetlands, estuaries and saltmarshes) remain prominent features of the Eastern Otago and Lowlands/Maukaatua Place. Ecological functioning and habitat connectivity are considerations in land management and the extent of protected lowland ecosystems has increased.

Priority ecosystems are recovering or are in a healthy functioning state as a result of integrated programmes that include intensive weed, pest and predator management. Threatened species populations are improving where intensive management is occurring either on or off public conservation lands and waters.

Otago's rich and varied coastline retains its predominantly natural, and often wild, character. Otago communities are strong advocates for greater protection and care of the coastal environment and are actively engaged in protecting their local areas. At various locations on land along the coast, marine mammals and seabirds are breeding and surviving well, including where they are observed by people.

People value the natural, cultural and ecosystem service values of wetlands generally and are involved in their protection throughout the lowlands. The complex of wetlands, large and small along the Otago coastline, is protected and sustainably managed and provides an ecological and migratory wildlife corridor and pathway between freshwater and the marine environments. Measures to address sea-level rise effects have been planned on public conservation lands and waters, and for other lands, the community is planning for coastal ecosystem retreat.

Lakes Waihola and Waipori wetlands are restored and functioning, for mahinga kai, conservation and other purposes with the cooperation of adjoining landowners, and have international status recognition. Community initiatives on and off public conservation lands and waters have enhanced habitats of indigenous species, increased indigenous biodiversity and improved water quality throughout the rural lowlands.

Indigenous shrublands and wildlife corridors in the Maukaatua, Mill Creek and Waipori Falls scenic reserves vicinities are linking the lowlands with the uplands, with the adjacent landowners valuing and helping to protect their indigenous biodiversity.

The Department, Ngāi Tahu, councils, landowners and others are working together to control pest plants and animals, enabling indigenous species to flourish. Alpine and subalpine plant communities are free of wilding trees.

At Maukaatua Scenic Reserve, Matakaea Recreation Reserve and Onewhenua Historic Reserve, the Ngāi Tahu cultural values, including of Tōpuni, are recognised and protected, and are accurately portrayed in public information to visitors.

Icon destinations at Moeraki Boulders/Kaihinaki and Taiaroa Head (Pukekura), and the Gateway destination of Sandymount Recreation Reserve tracks, are places where people experience the contrasting coastal environments of Otago. Recreation opportunities and interpretation have increased public appreciation of these areas and an increased awareness of coastal and marine issues.

A network of Local Treasure destinations providing access and accommodation facilities is maintained by the Department and community organisations in accordance with facility provision priorities, and design requirements. Taiaroa Head (Pukekura) and the adjoining Pukekura Reserves are integrated in their management. Taiaroa Head Nature Reserve is protecting the toroa/northern royal albatross colony and providing for restricted public access and viewing.

Coastal Otago remains an international destination for wildlife tourism and opportunities to quietly enjoy coastal landscapes and wildlife. Concessionaires and permit holders improve public awareness and appreciation of conservation values and operate while managing any adverse effects on wildlife.

Quarantine Island/Kamau Taurua Recreation Reserve in Otago Harbour provides an opportunity to experience a sense of sanctuary within the island's natural and historic values setting.

The Careys Creek Conservation Area, the Silverpeaks and Chalkies scenic reserves, and Dunedin City's Silverstream Reserve remain treasured recreational areas for Dunedin people, providing a range of accessible and non-motorised outdoor challenges.

More people are enjoying these areas and existing and new opportunities inspire more people to enjoy and become aware of Silverpeaks Scenic Reserve and other public conservation lands and waters.

New cycleway initiatives and bike tracks enable more people to appreciate the values of the Eastern Otago and Lowlands/Maukaatua Place and create links between public conservation lands and waters.

Visitors to public conservation lands and waters within Maukaatua, Mill Creek and Waipori Falls scenic reserves experience a backcountry setting with a sense of isolation. Maukaatua Scenic Reserve is free of built structures and utilities, while Waipori Falls Scenic Reserve has structures associated with the generation and transmission of electric power from the Waipori Falls power generation facility.

On public conservation lands and waters elsewhere in this Place, developments only occur where natural character has already been highly modified or structures are already present. Sites of high natural character or in distinctive landscapes, at significant cultural sites, or in areas that are important for threatened and at-risk species, marine mammals or seabirds, remain free of structures.

Visitors encounter low levels of aircraft landings on public conservation lands and waters throughout this Place, although noise from over-flights associated with Dunedin airport is experienced year round. No aircraft are encountered at Taiaroa Head Nature Reserve, Every's Scientific Reserve and Sandfly Bay Conservation Area.

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## POLICIES

- 2.7.1 Work with others to achieve active management to protect eastern lowland and coastal habitats including:
- a) indigenous or semi-indigenous riparian vegetation;
  - b) habitats of threatened and at-risk indigenous plants and animals or naturally rare ecosystems;
  - c) areas of indigenous vegetation that link indigenous ecosystems or adjoining upland areas, providing wildlife corridors;
  - d) forest and shrub ecosystems;
  - e) wetlands and their margins; and
  - f) coastal turfs, herbfields and duneland ecosystems.
- 2.7.2 Manage Taiaroa Head Nature Reserve in accordance with the Pukekura (Taiaroa Head) Reserves Management Plan (2012), in conjunction with Dunedin City Council, Te Rūnanga o Ōtākou and the Korako Karetai Trust and the management of their adjoining lands.
- 2.7.3 Actively involve Ngāi Tahu in the management of the Tōpuni for Maukaatua Scenic Reserve, Matakaea Recreation Reserve and Onewhenua Historic Reserve, and at Goat Island/Rakiriri Scenic Reserve, and encourage public and concessionaire appreciation of the Ngāi Tahu values of the reserves in accordance with the Specific Principals (see Appendix 13).

- 2.7.4 If appropriate, reclassify the following public conservation lands and waters within this Place, having regard to all land status options under the Conservation Act 1987, Reserves Act 1977 and the National Parks Act 1980 at the following sites to better reflect the values present:
- a) Matakaea Recreation Reserve at Shag Point/Matakaea;
  - b) Shag River Coal Reserve;
  - c) Waipori Falls Conservation Area;
  - d) Mill Creek Conservation Area; and
  - e) Silverpeaks Conservation Area.
- 2.7.5 Work with Ngāi Tahu, the community and adjoining landowners to seek integrated management for mahinga kai, conservation and other purposes of the Lakes Waihola and Waipori wetlands, and their recognition as Wetlands of International Importance.
- 2.7.6 Work with the St Martin Island Community as leaseholders for part of Quarantine Island/Kamau Taurua Recreation Reserve, with respect to the management of the natural, historic and recreational values of the island.
- 2.7.7 Prioritise statutory advocacy for the implementation of the New Zealand Coastal Policy Statement (2010) and the protection of priority ecosystem units and threatened species.
- 2.7.8 Work with communities, including the Dunedin City Council and four-wheel drive and motorbike users, to raise awareness of the vulnerability of upland wetlands and other habitats to the adverse effects of vehicle use, and to gain their active involvement in initiatives to restore damaged areas. Consider implementing appropriate management options for legal roads as in Policy 3.1.8 in Part Three.
- 2.7.9 Work with the community to ensure that vehicle access along beaches avoids adverse effects on fragile dunes, nesting birds, marine mammals and threatened species.
- 2.7.10 Work with the community (including regional agencies) to raise awareness of the threats posed to wildlife by dogs, and implement dog control provisions to protect vulnerable wildlife in accordance with Policies 3.8.3–3.8.9 in Part Three.
- 2.7.11 Work with local authorities to achieve the integrated management of recreational opportunities, linkages and facilities on public conservation lands and waters with Council-owned lands in The Silverpeaks and adjoining areas within this Place.
- 2.7.12 Should not authorise new skyline or ridge-top structures or utilities (including for telecommunication and navigation) on the Maungatua or The Silverpeaks, unless for The Silverpeaks they are co-located on existing sites/structures or utilities.
- 2.7.13 Should allow motorised vehicle and non-motorised bike use only on tracks and roads purposely formed and maintained for vehicle use on public conservation lands and waters identified, and in accordance with any criteria in Table 2.7, and subject to Policies 3.2.1–3.2.12 and 3.3.1–3.3.12 in Part Three.
- 2.7.14 Should allow aircraft access on public conservation lands and waters, only as identified on Map 4, and in Policies 3.6.1–3.6.9 and Table 3.6.2 in Part Three.
- 2.7.15 Should allow horse or pack-animal use as identified in Table 2.7 and in accordance with Policies 3.9.1–3.9.4 in Part Three.

- 2.7.16 Continue programmes aimed at controlling wilding trees at zero density using sustained control, on and off public conservation lands and waters. In cooperation with adjoining landowners, councils and community groups, contribute to efforts to control and remove wilding trees from other lands, where they have the potential to adversely affect public conservation lands and waters.

**Table 2.7: Access to Eastern Otago and Lowlands/Maukaatua Place**

<b>MOTORISED VEHICLE ACCESS ON OR THROUGH PUBLIC CONSERVATION LANDS AND WATERS<sup>40</sup></b>
In some cases, vehicle access may use legal road, or additional adjoining legal road access may exist, in which cases see Policy 3.1.8
Trotters Gorge Scenic Reserve – Trotters Gorge access road
Conservation Area—Waipori Falls “Scenic Reserve” (Pt) – Waipori picnic area road
Sandymount Recreation Reserve – Sandymount Road
Conservation Area—Boulder Beach/Highcliff Block – McMeeking Road
Conservation Area—Glencoe “Scenic Reserve” – Glencoe Scenic Reserve access road
Pigeon Bush Scenic Reserve and Trotters Block/Pigeon Bush Conservation Area – Pigeon Bush Scenic Reserve access road
Katiki Point Historic Reserve – Katiki Point Road
<b>NON-MOTORISED BIKE ACCESS ON PUBLIC CONSERVATION LANDS AND WATERS<sup>41</sup></b>
Where motorised vehicles are provided for in this table as above—Motorised vehicle access
Scenic reserves
Burns Park Scenic Reserve
Goodwood Scenic Reserve
Grahams Bush Scenic Reserve
Heyward Point Scenic Reserve
Mill Creek Scenic Reserve
Moeraki Boulders/Kaihinaki Scenic Reserve
Mount Cargill Scenic Reserve
Orokonui Scenic Reserve
Silverpeaks Scenic Reserve
Taiari Gorge / Outram Glen Scenic Reserve (Part)
Taiari River Scenic Reserve
Waihemo Scenic Reserve

<sup>40</sup> In some cases, landholder permission may be required for the most practical access, or for parts of roads not on public conservation land and waters. Some roads are inaccessible or closed over winter and/or may require keys for locked gates or other access arrangements.

<sup>41</sup> This information applies to the access on public conservation lands and waters only; access to the public conservation lands and waters may be across private land and require landholder permission.

Waipori Falls Scenic Reserve (Pt)
Conservation areas
Allison Conservation Area
Big Bush Conservation Area
Careys Creek Conservation Area
Conservation Area – Aramoana Farm
Conservation Area – Boulder Beach / Highcliff Block
Conservation Area – Boulder Beach / WWF Block
Conservation Area – Brinns Point
Conservation Area – Bushy Beach
Conservation Area – Gabriels and Munros Gully Bush Reserves
Conservation Area – Gabriels Gully
Conservation Area – Heyward Point
Conservation Area – Kakanui Beach Road
Conservation Area – Long Beach
Conservation Area – Manuka Gorge
Conservation Area – Mihiwaka
Conservation Area – Moeraki
Conservation Area – Moeraki Power Boat / Yacht Club
Conservation Area – Moeraki Public Access
Conservation Area – Mt Cargill Scenic Reserve (Proposed addition)
Conservation Area – Organ Pipes car park (Mt Cargill)
Conservation Area – Orokonui
Conservation Area – Round Hill
Conservation Area – Sandfly Bay
Conservation Area – Shag River
Conservation Area – Shag River / Glenpark
Conservation Area – Tuapeka West Scenic Reserve
Conservation Area – Waianakarua River
Conservation Area – Waikouaiti River Mouth
Conservation Area – Waipori Falls
Conservation Area – Waitāhuna River
Onewhenua Conservation Area
Historic reserves
Gabriels Gully Historic Reserve
Wildlife reserves
Lake Waipori Wildlife Management Reserve
Waipori/Waihola Wildlife Management Reserve
Other reserves

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Hawksbury Lagoon Wildlife Refuge Government Purpose Reserve

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Hereford / Monmouth Streets Public Purpose Reserve (Hampden)

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Hereford / Shewsbury Streets Public Purpose Reserve (Hampden)

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Tuapeka Punt Site

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Recreation reserves

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All recreation reserves in this Place

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Marginal strips

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All marginal strips in this Place, excluding:

- Moeraki Foreshore Marginal Strip south of Moeraki township
- Marginal Strip – Tunnel Beach
- Waianakarua to Kakaho Creek Coastline Marginal Strip
- Te Hakaupureirei Beach Marginal Strip

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**HORSE AND PACK-ANIMAL ACCESS ON PUBLIC CONSERVATION LANDS AND WATERS<sup>42</sup>**

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Trotters Gorge Scenic Reserve

- Along existing vehicle track up main valley only from picnic area / campsite
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## MILESTONES—OUTPUTS

### Achieved by the end of Year 3 after CMS approval (2019)

- Collaborative initiatives are established to promote and increase awareness of threats to the wetlands and other habitats, fragile dunes, nesting birds, marine mammals and threatened species.

### Achieved by the end of Year 5 after CMS approval (2021)

- Initiation of the reclassification of Matakaea Recreation Reserve, Shag River Coal Reserve, Waipori Falls Conservation Area, Mill Creek Conservation Area and Silverpeaks Conservation Area to better reflect their values.

### Achieved by the end of Year 10 after CMS approval (2026)

- Integrated management initiatives are established for linkages of recreation opportunities and facilities in The Silverpeaks and adjoining areas.
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## 2.8 Catlins/Te Ākau Tai Toka Place

### Description

The Catlins/Te Ākau Tai Toka Place is located in the south-eastern corner of Otago (see Maps 1 and 5.8). It includes coastal land above MHWS while land below and offshore islands are included in the Marine/Te Tai o Arai te Uru Place (see section 2.9). It includes a large number of reserves of various classifications, conservation areas, and part of Catlins Conservation Park, which straddles the Otago–Southland boundary. A number of small reserves and conservation areas extend along the coast from Nugget Point/Tokatā in the north to Porpoise Bay in the south.

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<sup>42</sup> This information applies to the access on public conservation lands and waters only; access to the public conservation lands and waters may be across private land and require landowner permission.



The Catlins Conservation Park, centred on the Tautuku and Maclellan River catchments, comprises one of the largest areas of eastern indigenous lowland forest in the South Island. It includes three ecological areas—Tautuku, Ajax and Craig Rankin (as per section 21 of the Conservation Act 1987).

This Place includes a wide range of landscapes and ecosystems, including subalpine tops, mature podocarp-hardwood and tawai/silver beech forests, and wild coastlines, with unmodified estuaries, sand dunes, coastal wetlands, and features such as an ancient dune hollow lake and an intact peat dome in the Tahakopa River valley.

Nugget Point/Tokatā is a Deed of Recognition site (see 1.4 Treaty partnership with Ngāi Tahu).

Aside from the Catlins Conservation Park, public conservation lands and waters in the Catlins/Te Ākau Tai Toka Place are small and fragmented, and other important lowlands with high conservation values are in private ownership. Private reserves such as the Lenz and Te Rere reserves (owned by the Royal Forest and Bird Protection Society) and Long Point/Irahuka Reserve (jointly owned by the Yellow-eyed Penguin Trust and the Department<sup>43</sup>) have been established in The Catlins. There are other areas with high biodiversity values on private land, including approximately 3000 hectares of SILNA (South Island Landless Natives Act) land held in Ngāi Tahu<sup>44</sup> ownership. Establishing links between discrete areas with high biodiversity values would greatly enhance the values of the wider area. Fencing of reserves and maintenance of existing fences, where practical, is needed to prevent stock incursion.

The Catlins/Te Ākau Tai Toka Place includes eight priority ecosystem units, including the extensive Maclellan Range and Beresford Range and other smaller sites (see Map 5.8 and Appendix 4). The dominant forest types are kāmahī, tawai/silver beech, southern rātā, lowland podocarp-broadleaved and upland pāhautea and pink pine forest. Upland shrubland consists of mānuka kahikātoa, *Olearia* spp., *Ozothamnus* and bog pine dominated areas together with large areas of sphagnum, cushion plant, red tussock and wire rush wetland. Threatened and at-risk plant species include the heart-leaved kōhūhū, scarlet mistletoe, and three species of *Olearia* tree daisies.

The Beresford Range supports a large population of the threatened mohua/yellowhead. Threatened pekapeka/long-tailed bats and kārearea/New Zealand falcons are also present. This area has been subject to an intensive predator control programme, primarily to protect mohua/yellowhead.

Tuna/eels and various galaxiids, including the threatened Clutha flathead galaxiid, the at-risk giant kōkopu and other whitebait species, are present in a number of waterways. The Catlins River system is a regionally important trout fishery.

Water quality in the naturally tannin-stained rivers and streams on the whole is high. Some rivers have well-developed estuaries, often associated with sand dunes and wetland areas behind them (e.g. Tahakopa and Tautuku rivers).

Threatened and at-risk saltmarsh and dune insects are present at Tahakopa Bay and Tautuku and Waipati beaches and include a large pink and green moth *Meterana* n. sp. and a flightless chafer beetle (*Prodontria praeletella*). Several species have limited distribution and some are still scientifically undescribed.

The coast provides important feeding and breeding habitat for marine mammals, and sea and wading birds. Unmodified habitats and limited public access allow marine mammals and birds to inhabit coastal areas with little or no disturbance. The threatened hoiho/yellow-eyed

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<sup>43</sup> The Yellow-eyed Penguin Trust manages the reserve on a day-to-day basis.

<sup>44</sup> This land is now dealt with under Part 15 of the Ngāi Tahu Claims Settlement Act 1998.

penguin breeds at seven colonies along the coastline, the largest being at Falls Creek and Long Point/Irahuka. Kekeko/New Zealand fur seals and rāpoka/whakahao/New Zealand sea lions haul out all along the coast and breed at several locations, and ihupuku/southern elephant seals and popoiangore/leopard seals are regular occasional visitors to the area.

Protecting and restoring the biodiversity values of The Catlins coast and forests is a high priority, with a focus on controlling pest animals and plants and wild animals in areas containing threatened species such as mohua/yellowhead. Some forest species including mistletoe are susceptible to possum browse. Possum control carried out by the TBfree New Zealand as part of the national tuberculosis vector control programme has had a positive conservation benefit. Eradication of tuberculosis and any potential future redirection of TBfree New Zealand operations could have a profound impact on ecosystem health if control to this level is not maintained.

Pigs were until recently confined to small areas in The Catlins forest, but are becoming more widespread, possibly due in part to illegal liberations. Pigs impact on invertebrates and ground-nesting birds, e.g. hoiho/yellow-eyed penguin.

In the past, Māori journeyed through, settled and gathered food from coastal areas, wetlands, estuaries and forests of The Catlins. Evidence of major settlements has been found in this Place and seasonal hunting camps were plentiful. An ara tawhito extended from Waikawa to Curio Bay. Catlins Lake (Kumamea) was a significant mahinga kai and waka building area. Many archaeological and Ngāi Tahu cultural sites are present and continue to be exposed by wave and wind erosion. The middens at Pounawea and Papatowai contain abundant artefacts and archaeological information about early Māori settlement and resource use. Other smaller sites occur at regular intervals along the forested sections of The Catlins coast.

Early European settlement was based around whaling and timber milling, and pastoral farming soon followed. These activities modified the diverse coastal forests. Although sawmilling was a big part of The Catlins history, inaccessibility and the methods used mean that large areas of vegetation remain that were not cleared for timber or farming.

Historic sites remain evident throughout the landscape, including Tunnel Hill Historic Reserve at Owaka and the Trail's tractor at Tautuku. There are currently no actively conserved historic sites in the Catlins/Te Ākau Tai Toka Place.

Today, The Catlins attracts many domestic and international visitors travelling the Southern Scenic Route, which extends through to Invercargill and on to Te Anau. There are opportunities to observe marine mammals and birds in spectacular coastal settings, and to enjoy the peace and quiet. Nature-based tourism ventures provide economic benefits for communities throughout The Catlins. The spectacular scenery has attracted interest from the film and advertising industries. The proximity to tertiary education institutions in Dunedin and Invercargill encourages educational and research opportunities.

Nugget Point/Tokatā is managed as an Icon destination and provides a dramatic experience where visitors get immersed in the scenery, experience the elements, and may observe kekeko/New Zealand fur seals, hoiho/yellow-eyed penguins and kōtuku-ngutupapa/royal spoonbills. It has become one of the most visited sites in The Catlins and so provides a valuable opportunity to promote conservation and cultural awareness. Visitor facilities and interpretation are provided to help people enjoy and understand conservation values.

Wildlife viewing contributes to regional tourism and also provides an opportunity to raise awareness of conservation issues such as the adverse effects of vehicles and dogs on indigenous species and their habitats. However, increasing numbers of visitors have the potential to increase disturbance of seabirds and marine mammals when they come ashore. Management of visitors, visitor numbers or types of activities may be necessary at some sites to ensure that the values that attract visitors remain in a healthy state.

Traditional Kiwi camping opportunities exist at Papatowai Recreation Reserve, managed as a Gateway destination, and at campsites at Pūrākaunui Bay Scenic Reserve and Tawanui in Catlins Conservation Park, managed as Local Treasure destinations. The Catlins River Track at Tawanui and backcountry facilities such as MacLennan Hut enables use and enjoyment of the inland forest and river environments for activities such as tramping and hunting.

Walking tracks provide access through bush reserves to beaches and along the coast; for example, at Local Treasure destinations at Tautuku Bay Nature Walk and Tautuku Estuary Track. Community, tourism and environmental groups have developed a multi-day walk linking the Catlins River Track, forestry roads and informal tracks. There is an opportunity to establish an extended coastal walk.

The coast provides many other opportunities for recreation including walking, viewing wildlife, scenery, swimming, surfing, kayaking and canoeing.

The Catlins has long been used by school groups as venues for outdoor education programmes. The Tautuku Outdoor Education Centre, operated by the Otago Youth Adventure Trust, located in William King Scenic Reserve, provides a hub for these programmes.

At present, there are limited opportunities for vehicle use on public conservation lands and waters in this Place due to unsuitable soils and the wet climate.

Changes in land uses continue to adversely affect the character and health of ecosystems in The Catlins. Increased awareness, private conservation efforts and contributions from nature-based tourist ventures are all helping to counteract this.

Coastal subdivision and development along Otago's coast have been relatively low, compared with some other regions. Careful management is needed to maintain the natural character and wildlife habitat values of the Catlins/Te Ākau Tai Toka Place.

### **Outcome, policies and milestones for the Catlins/Te Ākau Tai Toka Place**

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#### **OUTCOME**

The Catlins/Te Ākau Tai Toka Place is a haven for indigenous marine, coastal and terrestrial wildlife, and is widely valued as a place to observe and experience nature on its own terms. People appreciate and respect the natural values of The Catlins and work together to retain and enhance these. Marine mammals, hoiho/yellow-eyed penguins and other seabirds are observed at numerous locations and remain secure and undisturbed as they come ashore to feed, breed and rest.

Integrated and cooperative management of public conservation lands and waters and adjoining areas of indigenous vegetation has created an extensive network of protected indigenous vegetation, wildlife corridors and riparian margins linking the coast with the inland forests and ranges in many places. Forest, wetland and coastal ecosystems support flourishing populations of threatened and at-risk species.

Priority ecosystem units are recovering or are in a healthy functioning state as a result of integrated programmes that include intensive weed, pest and predator control. Threatened species populations are improving where intensive management is occurring either on or off public conservation lands and waters.

The Department, Ngāi Tahu, TBfree New Zealand and the community (including landowners) are working together to maintain and improve ecosystem health, and protect forest and coastal ecosystems through collaborative pest animal and wild animal control at many places, and to increase awareness of the conservation values and threats in The Catlins.

Removal of stray or trespassing stock, and awareness and avoidance of fire are enabling ecosystem recovery.

The naturally scenic land and seascapes of The Catlins are valued. Authorised structures and developments are of a scale and form that blend unobtrusively into the landscape and are not easily visible along the coastline or ridge tops.

A range of walking tracks on public conservation lands and waters complements those on private land and provides opportunities to appreciate The Catlins and its coastline, forests, rivers and diverse history. People visiting the coast respect its values, and their activities while viewing wildlife, undertaking mahinga kai and walking through coastal habitats cause minimal adverse effects and disturbance.

Unobtrusive nature- and culture-based appreciation and tourism provide economic benefit to The Catlins communities, who, along with other interested parties, actively contribute to the conservation of the natural, historic and cultural treasures of The Catlins.

In association with Ngāi Tahu, Nugget Point/Tokatā is managed as an Icon destination and visited by many people. It is a wild, natural and culturally important place where the elements dominate. People of all ages safely observe and enjoy the coastal environment, its plants and animals, cultural and historic values, and impressive seascapes. It is a place where visitors learn about and appreciate these values.

A network of Local Treasure destinations providing access and accommodation facilities is maintained by the Department and community organisations in accordance with facility provision priorities, and design requirements. Papatowai is managed as a Gateway destination, with short walks and a campsite providing for a traditional Kiwi camping experience. Interpretive facilities complement the unspoilt, peaceful, natural and undeveloped character of the coastal environment in this area.

On public conservation lands and waters, visitors experience occasional encounters with aircraft, except at some coastal locations where encounters are rare and do not adversely affect ecological or cultural values or the experience of ground-based visitors. No aircraft will be encountered at Nugget Point/Tokatā.

The Department works with local councils and communities to manage vehicle use to avoid impacts on beaches and dunelands that provide habitat for vulnerable wildlife.

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## POLICIES

- 2.8.1 Work with others to achieve active management to protect indigenous ecosystems at the Catlins/Te Ākau Tai Toka Place including:
- a) indigenous or semi-indigenous riparian vegetation;
  - b) habitats of threatened and at-risk indigenous plants and animals or naturally rare ecosystems;
  - c) areas of indigenous vegetation that link indigenous ecosystems or adjoining upland areas, providing wildlife corridors;
  - d) forest and shrub ecosystems;
  - e) wetlands and their margins; and
  - f) coastal turfs, herbfields and duneland ecosystems.
- 2.8.2 May reclassify public conservation lands and waters adjoining Catlins Conservation Park to better reflect their values, having regard to all land status options under the Conservation Act 1987, Reserves Act 1977 and the National Parks Act 1980.

- 2.8.3 Prioritise statutory advocacy for the implementation of the New Zealand Coastal Policy Statement (2010), and the protection of priority ecosystem units and threatened species.
- 2.8.4 Work collaboratively with Ngāi Tahu and the community (including landowners) to identify and achieve community-led programmes that protect, connect and restore ecosystems, habitats and indigenous species, and protect historic and cultural values in The Catlins.
- 2.8.5 In collaboration with Ngāi Tahu, manage the Nugget Point/Tokātā Icon destination site to cater for high numbers of short-stay visitors, while protecting its natural, historic and cultural values, by:
- a) retaining its wild, natural character;
  - b) avoiding disturbance to and adverse effects on marine mammals, hoiho/yellow-eyed penguins and seabirds; and
  - c) focusing interpretation and visitor information on natural, historic and cultural values of the site, and an appreciation and awareness of marine mammals, hoiho/yellow-eyed penguins and seabirds.
- 2.8.6 May consider development of new recreational tracks on public conservation lands and waters in the Catlins/Te Ākau Tai Toka Place (including community-led initiatives for new public walking tracks) where adverse impacts on natural, cultural and historic values can be avoided, remedied or mitigated. When considering proposals, give preference to potential track developments that:
- a) link with opportunities on adjacent private land; and
  - b) protect and enhance priority ecosystems or threatened species.
- 2.8.7 Should allow motorised vehicle and non-motorised bike use only on tracks and roads purposely formed and maintained for vehicle use on public conservation lands and waters identified, and in accordance with any criteria in Table 2.8, and subject to Policies 3.2.1–3.2.12 and 3.3.1–3.3.12 in Part Three.
- 2.8.8 Should allow aircraft access within the public conservation lands and waters only in accordance with Map 4, and Policies 3.6.1–3.6.9 and Table 3.6.2 in Part Three.
- 2.8.9 Should allow horse or pack-animal use as identified in Table 2.8 and subject to compliance with Policies 3.9.1–3.9.4 in Part Three.
- 2.8.10 Work with Ngāi Tahu and the community (including regional agencies and hunting groups) to raise awareness of adverse effects of pigs and to encourage pig hunting to limit their population growth and spread. Undertake active pig control in areas of high ecological value.
- 2.8.11 Work closely with and monitor concessionaires and permit holders operating in the coastal and marine environment, to ensure that a high standard of education and interpretation is provided, and that they operate in a way that does not disturb or cause adverse effects to marine mammals, seabirds and other wildlife and their habitats.
- 2.8.12 Work with the community (including regional agencies) to raise public awareness of the threat posed by uncontrolled dogs on beaches to marine mammals and hoiho/yellow-eyed penguins through provision of public awareness programmes and signage, in accordance with Policies 3.8.3 and 3.8.9 in Part Three.
- 2.8.13 Manage (including when considering concession applications) the Tautuku, Ajax and Craig Rankin ecological areas to maintain the values for which they are held.

- 2.8.14 Work with communities and local councils to ensure vehicle access along beaches avoids adverse effects on fragile dunes, nesting birds, marine mammals and threatened species.

**Table 2.8: Access to Catlins/Te Ākau Tai Toka Place**

<b>MOTORISED VEHICLE ACCESS ON OR THROUGH PUBLIC CONSERVATION LANDS AND WATERS<sup>45</sup></b>
In some cases, vehicle access may use legal road, or additional adjoining legal road access may exist, in which cases see Policy 3.1.8
Catlins Conservation Park <ul style="list-style-type: none"> <li>– Catlins Road</li> <li>– Back Stream Road</li> <li>– Tawanui Campsite Road</li> </ul>
<b>NON-MOTORISED BIKE ACCESS ON PUBLIC CONSERVATION LANDS AND WATERS<sup>46</sup></b>
Where motorised vehicles are provided for in this table as above—Motorised vehicle access
Scenic reserves
Table Hill Scenic Reserve
William King Scenic Reserve
Conservation areas
Conservation Area – SH 92
Conservation Area – Table Hill
Conservation Area – Waitepeka Wildlife Management Reserve
Conservation parks
Catlins Conservation Park, limited to: <ul style="list-style-type: none"> <li>– The northern part of the Beresford Range between Maclennan Hut and the Tawanui Campsite; and</li> <li>– That part of the parcel adjacent to Tawanui and Puketiro Roads</li> </ul>
Historic reserves
Tunnel Hill Historic Reserve
Recreation reserves
All recreation reserves in this Place, excluding: <ul style="list-style-type: none"> <li>– Catlins Heads Recreation Reserve</li> <li>– False Islet Recreation Reserve</li> </ul>
Marginal strips
All marginal strips in this Place, excluding: <ul style="list-style-type: none"> <li>– Marginal Strip – Cannibal Bay</li> <li>– Marginal Strip – Catlins Lake (Kuramea)</li> <li>– Marginal Strip – Catlins River</li> </ul>

<sup>45</sup> In some cases, landholder permission may be required for the most practical access, or for parts of roads not on public conservation lands and waters. Some roads are inaccessible or closed over winter and/or may require keys for locked gates or other access arrangements.

<sup>46</sup> This information applies to the access on public conservation lands and waters only; access to the public conservation lands and waters may be across private land and require landholder permission.

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**HORSE AND PACK-ANIMAL ACCESS ON PUBLIC CONSERVATION LANDS AND WATERS<sup>47</sup>**

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Tahakopa Bay Scenic Reserve

- Existing ‘Old Coach Track’ only, avoiding historic midden sites
- 

Papatowai Scenic Reserve

- Excluding Kings Rock Track
- 

Tautuku Bay Scenic Reserve

- Excluding Tautuku Estuary and Lake Wilkie board walk
- 

Waipati Scenic Reserve

- Excluding Cathedral Caves track
- 

Glenomaru Valley Scenic Reserve

- Limited by topography and vegetation
- 

William King Scenic Reserve

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Table Hill Scenic Reserve

- Excluding Matai Falls Walk
- 

Purakaunui Bay Scenic Reserve

- Horses must be tethered away from campers and Purakaunui Stream
- 

Catlins Conservation Park

- Kaihiku Range
- 

Tawanui and Wisp Campsite and picnic areas

- Horses must be tethered away from campers and Catlins River
- 

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**MILESTONES—OUTPUTS****Achieved by the end of Year 3 after CMS approval (2019)**

- Collaborative initiatives are established for conservation management of or advocacy for the threats to the fragile dunes, nesting birds, marine mammals and threatened species.
- Identification, in conjunction with Ngāi Tahu, relevant agencies and the community, of improvements to visitor facilities.

**Achieved by the end of Year 5 after CMS approval (2021)**

- Progress the reclassification of public conservation lands and waters adjoining the Catlins Conservation Park to better reflect their value.
- Integrated management initiatives are in place to control the growth and spread of pig populations.

**Achieved by the end of Year 10 after CMS approval (2026)**

- Visitor facilities have been enhanced.
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<sup>47</sup> This information applies to the access on public conservation lands and waters only; access to the public conservation lands and waters may be across private land and require landowner permission.

## 2.9 Marine/Te Tai o Arai te Uru Place

### Description

This Place is the coastal marine area, which is generally the area below Mean High Water Spring (MHWS) stretching from adjacent to the Waitaki River in the north to Waikawa Harbour in the south and offshore to 12 nautical miles (22.2 km) (see Map 5.9).

This is a boundary for this document and its management, recognising that marine and coastal influences, and species, continuously move across this boundary (e.g. seals, sea lions and penguins breed or rest on shore, tuna/eels move between freshwater and the sea, rivers move sediments, and tides influence rivers). In addition, marine values within New Zealand's 200-nautical mile Exclusive Economic Zone may be considered where they are related to the Department's statutory functions to protect wildlife within the Exclusive Economic Zone, under the Marine Mammals Protection Act 1978 and some species under the Wildlife Act 1953.

The Marine/Te Tai o Arai te Uru Place also includes offshore stacks and islands (see Map 5.9 and Appendix 3). These can have high conservation values because of their isolation and importance for marine species that use them for refuge, feeding or breeding. Islands may also support rare plants and invertebrates, and have significant Ngāi Tahu cultural values. The Māori-owned Maukiekie Island at Moeraki supports breeding colonies of threatened Stewart Island shags, at-risk kōtuku-ngutupapa/royal spoonbills, and a number of other indigenous species that have become rare on mainland New Zealand. Cosgrove Island off The Catlins coast has wildlife refuge status which overlies Crown land. Ngāi Tahu's association with the Otago marine area includes significant traditions and histories, place names, landscape features, settlements, urupā, routes, resources and mahinga kai, and links between past and present generations along the eastern coast.

The tradition of the waka *Arai te Uru* and its sinking at the mouth of the Shag River (Waihemo) led to the Otago coastal area being known as Te Tai o Arai te Uru. Accounts of the foundering, wreckage and survivors of this waka are marked by numerous landmarks along the coast. The Moeraki Boulders/Kaihinaki and the Moeraki pebbles are associated with the cargo of gourds, kūmara and taro seeds that spilled when *Arai te Uru* foundered.

The whole of the marine area offered a bounty of mahinga kai, including a range of kaimoana, estuarine freshwater fish and marine mammals. The coast was also a major highway and trade route, particularly where land travel was difficult.

In addition to the East Otago Taiāpure, there are two mātaimai reserves present in Otago at Moeraki and Puna-wai Tōriki (Hays Gap). Another is adjacent to the Otago–Southland boundary at Waikawa Harbour.

Otago's marine environment lies within the Southern South Island marine biogeographic region, which encompasses the entire coastline of the lower third of the South Island (including Stewart Island/Rakiura)<sup>48</sup> (see Appendix 8). Within this region, there are four distinct biogeographic sub-units:

- North Otago—sedimentary rock coast with offshore reefs supporting giant bladder kelp
- Otago Peninsula—Black Head to Karitāne, an area with volcanic headlands, deep water and strong currents, a narrow shelf and offshore canyons

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<sup>48</sup> Ministry of Fisheries & Department of Conservation. 2008: Marine protected areas classification, protection standard and implementation guidelines. Ministry of Fisheries & Department of Conservation, Wellington.



- Clutha—Nuggets to Blackhead: wide, shallow, schist-based shelf, strongly influenced by discharge of freshwater and sediment from Clutha River/Mata-Au
- The Catlins—the Murihiku Terrace and Southland Syncline: a reasonably steep shelf influenced by strong tidal currents and discharges from Foveaux Strait (Te Ara a Kiwa).

The Otago coast and marine shelf are exposed to winds and large oceanic swells originating from the east and southeast. The most significant hydrological feature is the Southland current, which flows north along the shelf break and outer shelf. It is formed by subtropical surface water from the Tasman Sea flowing through Foveaux Strait (Te Ara a Kiwa) and around Stewart Island/Rakiura. It is bounded by inshore waters and by cold subantarctic surface water to the east.

The marine environment is strongly influenced by the region's large rivers, particularly the Taieri and Clutha River/Mata-Au, which discharge sediments and nutrients that stimulate communities within the water column and on the inner shelf seabed.

Relatively little is known of marine habitats and ecosystems compared with our knowledge of terrestrial environments, despite the fact that approximately 80% of New Zealand's total biodiversity may be present in the marine environment.<sup>49</sup>

Otago has rich and diverse marine ecosystems: marine cliffs, estuaries, kelp forests, shelf platforms, deep rocky reefs and offshore canyons, and flat areas of seabed sediments. The sea is bounded by a diverse, scenic and, in places, wild coastline with headlands, cliffs, sandy bays, cobble beaches, coastal lagoons, wetlands and saltmarshes.

Rocky offshore platforms out from Katiki Beach are important refuges for marine plants and animals. Kelp forests adjacent to Kaitiki Beach, Karitāne, Nugget Point/Tokatā and north of Otago Peninsula provide important habitats for a range of communities distinctive to Otago's cold temperate waters. Otago is an area of transition where many marine organisms reach their northern or southern limits.

Otago's marine and coastal ecosystems support a diverse range of plant and animal species, including threatened marine mammals, penguins and seabirds for which Otago is renowned.

Marine mammals found along Otago's coastline include four seal species: popoiangore/leopard seal, kekeno/New Zealand fur seal, ihupuku/southern elephant seal and the Nationally Critical rāpoka/whakahao/New Zealand sea lion. Popoiangore/leopard seals are seasonal vagrants, whereas ihupuku/southern elephant seals, kekeno/New Zealand fur seals and rāpoka/whakahao/New Zealand sea lions breed here. The return of rāpoka/whakahao/New Zealand sea lions to breed on the Otago coastline is significant and of public interest. Several dolphin and whale species are resident or migrate along the coast, including the Nationally Endangered tohorā/southern right whale and tūpoupou/Hector's dolphin. Tūpoupou/Hector's dolphins are highly valued by the public and are a particular feature of the Waikouaiti and Moeraki coastlines. It is thought that the Blueskin Bay population is increasing; however, there are concerns that the north Otago populations may be declining. The latter inhabit coastal waters from Otago Peninsula to Moeraki, and the southern parts of The Catlins near Waikawa Harbour/Porpoise Bay. Marine mammals are protected under the Marine Mammals Protection Act 1978. There are also provisions for marine taonga species (see 1.4 Treaty partnership with Ngāi Tahu and Appendix 13).

Otago's seabirds form another important group of marine animals. These species spend much of their time at sea, but cliffs and seashores on the mainland and offshore stacks and islands support breeding colonies of many species (e.g. shags, gulls, shearwaters, prions,

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<sup>49</sup> New Zealand Biodiversity Strategy, February 2000.

penguins and terns). Threatened Stewart Island shag breed on Kinakina Island adjacent to The Catlins coast, and kawau pāteketeke/spotted shag breeding colonies can be found scattered along the entire coastline.

The breeding colony of the at-risk toroa/northern royal albatross at Taiaroa Head (Pukekura) is one of the few mainland colonies worldwide and certainly the most accessible (see also 2.7 Eastern Otago and Lowlands/Maukaatua Place). This long-living bird spends considerable periods at sea and is a global traveller. Hoiho/yellow-eyed penguin (a threatened species) and kororā/little penguin colonies in north Otago, in The Catlins and on Otago Peninsula are also highly valued by local communities.

Seabirds, marine reptiles, several large marine fishes (especially sharks and grouper) and corals are protected under the Wildlife Act 1953. Protection under both the Marine Mammals Protection and Wildlife Acts extends to 200 nautical miles offshore. Protection of mangō-taniwha/great white sharks, mangō-reremai/basking sharks and oceanic whitetip sharks is extended to New Zealand fishing vessels operating on the high seas under the Fisheries Act 1996.

The stalked barnacle, brachiopod and an unclassified polychaete worm from Moeraki are threatened marine invertebrates.

Many people enjoy and benefit from the intrinsic, cultural, economic, recreational and tourism values of Otago's marine environment. Popular marine recreational activities include fishing, boating, kayaking, wildlife watching, photography, snorkelling and scuba-diving, swimming, and surfing and windsurfing. The New Zealand Coastal Policy Statement (2010) recognises four nationally significant surf breaks in Otago—Karitāne, Whareakeake, The Spit (Aramoana) and Papatowai.

Icon (Moeraki Boulders/Kaihinaki, Taiaroa Head (Pukekura) and Nugget Point/Tokatā) and Gateway (Sandymount Recreation Reserve and Papatowai Scenic Reserve) destinations located in and adjacent to the marine area provide recreational opportunities where the sea is an integral part of the activity (see Map 5.9 and 2.7 Eastern Otago and Lowlands/Maukaatua Place and 2.8 Catlins/Te Ākau Tai Toka Place).

Tourism in Otago is based in large part on the coastal and marine environment and especially with respect to nature-based and wildlife viewing tourism activities (see 2.7 Eastern Otago and Lowlands/Maukaatua Place and 2.8 Catlins/Te Ākau Tai Toka Place).

Our understanding of how the marine environment functions and contributes to the region's prosperity and well-being is currently poor.

The Department seeks to protect marine biodiversity in various ways, including a national network of marine protected areas representative of New Zealand's marine ecosystems and habitats. This network may use a range of protective measures. There are currently two mātaītai and a taiāpure area in Otago (East Otago Taiāpure, and the Moeraki and Puna-wai-Tōriki (Hays Gap) Mātaītai). These customary managed sites can be complemented by marine protected areas or marine reserves, providing protection for representative examples of the Otago marine habitats and ecosystems, and for those with outstanding, rare, distinctive or internationally important marine habitats and ecosystems.

Most marine fish species are managed by the Ministry for Primary Industries (MPI) under the Fisheries Act 1996. Fisheries legislation provides for the sustainable utilisation of marine and coastal fisheries resources. Conservation concerns relate to direct and indirect adverse effects of activities on marine mammals, seabirds and sensitive seabed communities, and the management of marine mammal sanctuaries.

Many human activities, such as pollution (including oil spills), plastics and non-biodegradable debris, set net entrapment, marine farming, kelp harvest, invasive species and

disturbance, are significant issues for marine species. Natural events (e.g. disease, predation, cyclic changes in ocean productivity) are known to affect some species. Locally two invasive species are present: Asian kelp, undaria, and a sea squirt. Land use can also affect the functioning of the marine environment. Fertiliser, pesticide, sediment, stormwater and effluent runoff flow along rivers to the sea affecting its physio-chemical and biological processes. The large rivers (e.g. Clutha River/Mata-Au and Taieri) that drain large catchments cause adverse effects to the marine environment, as well as terrestrial and freshwater habitats. Hydroelectric dams and changes in land use in the river catchments have altered the types and volume of sediments carried to the sea, affecting coastal water quality, the supply of sands and gravel to the marine shelf, and perhaps changing coastal erosion patterns.

The Otago Harbour contains a major port at Port Chalmers. Proposals to dredge the shipping channel have involved extensive public discussions. Recent years have seen increased interest in offshore oil exploration; this requires careful assessment for potential adverse marine ecosystem effects. Shipwrecks and oil spills are an ongoing risk for which there are multi-agency contingency plans.

The protection of birds and marine mammals that use both the marine and coastal areas provides a variety of management challenges, including predator control and human impact. If not well managed, wildlife tourism has potential to impact on sensitive wildlife, especially sea lions and penguins. Greater awareness of how to behave around marine mammals and birds that come ashore to rest and breed is important.

A number of authorised permit holders associated with marine mammal viewing activities operate in the marine environment. Such activities may enhance people's enjoyment and awareness of marine wildlife but in some areas the number of marine permits issued may need to be limited to ensure that there are no adverse effects caused to wildlife and their habitats. In some particularly sensitive areas (for example, where animals gather to breed) permits to view wildlife under the Marine Mammals Protection legislation are unlikely to be authorised.

The many things that people value about the marine environment—its diverse and inspiring wildlife; cultural, commercial, recreational and tourism opportunities; and its wild and scenic values—all depend on maintaining water quality, and the interconnected nature of marine life and ecosystems. Raising the awareness of the fragility of these ecosystems and the threats they face (including global pressures) is a priority.

## **Outcome, policies and milestones for the Marine/Te Tai o Arai te Uru Place**

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### **OUTCOME**

Marine environments are healthy and nationally threatened species, including hoiho/yellow-eyed penguin, kekeno/New Zealand fur seal and rāpoka/whakahao/New Zealand sea lion, thrive in Otago waters. They are valued and cared for by the local community.

A comprehensive network of marine protected areas is identified and established within Otago and it is representative of ecosystems, habitats and species requiring protection.

A range of mechanisms for protection of marine ecosystems complement existing methods, such as mātaimai and taiāpure.

Offshore islands and stacks, including Taieri Island/Moturata, Green Island and Wharekakahu Island nature reserves, provide safe refuges for seabirds, marine mammals and penguins to rest and breed, and support flourishing populations of their vulnerable plant

species. Habitat restoration and protection of historic values are occurring in collaboration with Ngāi Tahu.

People have the opportunity to observe marine mammals and seabirds (including penguins) at various locations along the coast, and increased public awareness ensures that these wildlife remain safe and undisturbed. Coastal Icon and Gateway destinations are places where visitors learn about and appreciate the marine environment and its natural values.

The public recognise the extent to which land uses affect the marine environment. The Department, Ngāi Tahu, regional agencies and the community (including landowners) are working cooperatively, including through commissioning research, to address issues and associated activities affecting water quality, and the health of the marine environment.

Offshore mineral/oil/gas exploration and other developments avoid adverse effects on marine ecosystems, and on marine mammals and their passages along the coast.

The East Otago Taiāpure Management Committee, the Yellow-eyed Penguin Trust, the New Zealand Sea Lion Trust and other such community groups are supported to continue their work to protect the marine environment and its inhabitants.

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## POLICIES

- 2.9.1 Work with MPI, Ngāi Tahu and the community to implement the decisions, as ratified by the Ministers, of the South-East Marine Protection Forum/Roopu Manaaki ki te Toka.
- 2.9.2 Work with Ngāi Tahu and the community, including relevant agencies, to raise awareness of (and advocate for):
  - a) the marine environment and the marine mammals, penguins, seabirds and other species living in it;
  - b) marine values and threats; and
  - c) methods to enhance those values and reduce threats.
- 2.9.3 Maintain and establish new relationships with research and tertiary education institutions and others to work collaboratively with the Department to maximise the benefits of monitoring and research on marine species and ecosystems.
- 2.9.4 Take a precautionary approach to authorising marine mammal and other wildlife viewing. Ensure that any adverse effects on marine mammals, other protected wildlife, and their habitats can be avoided or are minimised, including by having regard to the number and effect of existing commercial operations in accordance with Policies 3.12.1–3.12.3 in Part Three.
- 2.9.5 Green and Wharekakahu Island concessions should only be issued for the purposes of research and filming with the purpose of fostering an appreciation of the island's nature reserve values. All such approved visitors must be accompanied by departmental staff.
- 2.9.6 Work with and support Ngāi Tahu to develop a visitation plan for iwi visits to Green Island and Wharekakahu Island nature reserves to undertake kaitiaki responsibilities or cultural activities.
- 2.9.7 Seek the allocation of the Cosgrove Island Crown land to the Department as reserve with an appropriate status under the Reserves Act 1977, recognising the values of the island.

- 2.9.8 Seek that vulnerable wildlife (particularly ground-nesting birds) and kekeno/New Zealand fur seals are able to carry out their natural behaviours without disturbance from humans or domestic animals.
- 2.9.9 Monitor and report on meeting the Government’s obligations under the Convention on the Conservation of Migratory Species of Wild Animals (1999), in respect of Otago coastal margin wildlife migrations.
- 2.9.10 Prioritise statutory advocacy for:
- a) the implementation of the New Zealand Coastal Policy Statement (2010);
  - b) the protection of Areas of Significant Natural Value;
  - c) the protection of priority ecosystem units and threatened species; and
  - d) achieving consistent district and regional plan provisions to address cross-boundary issues for the coastal marine areas.

## MILESTONES—OUTPUTS

### Achieved by the end of Year 3 after CMS approval (2019)

- Collaborative initiatives are established to improve integrated management or advocacy for the marine environment in Otago.
- Assessment of the effectiveness of statutory advocacy and the implementation of the New Zealand Coastal Policy Statement (2010) in Otago.

### Achieved by the end of Year 5 after CMS approval (2021)

- Implement the outcomes resulting from the South-East Marine Protection Forum/Roopu Manaaki ki te Toka.

### Achieved by the end of Year 10 after CMS approval (2026)

- Implement the outcomes from the South-East Marine Protection Forum/Roopu Manaaki ki te Toka.
- An increased knowledge and understanding of marine species and ecosystems of Otago.
- Improve integrated management or advocacy for the marine environment in Otago.

## 2.10 Freshwater/Wai Māori Place

### Description

Freshwater is an important natural resource in Otago and has been designated as a Place in this CMS to provide an overview of freshwater management issues and policies in Otago. Unlike other geographically based Places in Part Two—Places, the Freshwater/Wai Māori Place covers the whole of Otago from the mountains to the sea—ki uta ki tai (see Map 5.10). Other Places in Part Two should be read in conjunction with this Place and may also include specific outcomes or policies for freshwater.

There are many priority ecosystem units in Otago on public conservation lands and waters that are either wholly or partly related to freshwater (see Map 5.10 and Appendix 4).

Several agencies, along with the Department, have a role in freshwater management. The Otago Regional Council leads freshwater management in Otago pursuant to the Resource Management Act 1991, and Otago and South Canterbury Fish and Game Councils manage

sports fish and game birds and their habitats under the Conservation Act 1987 and Wildlife Act 1953.

The importance of freshwater to Ngāi Tahu is set in their Te Rūnanga o Ngāi Tahu Freshwater Policy (1999).

The rivers, lakes, wetlands and waterways are integral to the Ngāi Tahu identity in Otago, and they play a unique role in the traditional economy and culture. They have collective and individual significance as whenua tūpuna. All of the water bodies are significant for their values and associations with tūpuna, many are ara tawhito, and all freshwater is ultimately associated with mahinga kai. This is well illustrated by the detailed records of mahinga kai and associated kāinga nohoanga (seasonal settlements; see Appendix 13.5) collected and mapped by Ngāi Tahu kaumatua, H.K. Taiaroa.

The Ngāi Tahu traditional and present associations with water bodies, including public conservation lands and waters, is reflected in the Waihola/Waipori wetlands Deed of Recognition. There is also recognition for freshwater taonga species (see 1.4 Treaty partnership with Ngāi Tahu).

The outstanding values of the Kawarau and Nevis rivers and their tributaries are formally recognised and protected by the Water Conservation (Kawarau) Order 1997, which applies to the main stem of the river and many of its headwaters and tributaries, including rivers originating at the main divide of the Southern Alps/Kā Tiritiri o te Moana, in Mount Aspiring National Park.

Lake Wanaka has its own special legislation, the Lake Wanaka Preservation Act 1973, which established the Guardians of Lake Wanaka. The purpose of the Act and the Guardians is to maintain natural flows and water levels, and the natural state of the shoreline, and to improve lake water quality.

Otago's freshwater habitats link the mountains to the sea and are influenced by the land around them. They have strong links with human history and activities for transport, food, minerals, recreation and supporting settlement or pastoral farming. Today, water generates new wealth and well-being from agriculture, farming, hydroelectricity generation and a variety of recreational and tourism pursuits.

Otago's freshwater habitats are rich and diverse, including upland and lowland wetlands, scroll plains, large lakes and reservoirs, large rivers flowing through dryland environments, braided rivers, and a myriad of smaller streams supporting distinct and threatened species.

Public conservation lands and waters contain a small fraction of Otago's freshwater resources. Those with freshwater values have predominantly indigenous vegetation that provides cool shade and cover for fish.

Many rivers, lakes and wetlands and their margins have ecological, cultural, landscape and recreational values that contribute greatly to biodiversity and people's well-being and prosperity. In the past, most large and small rivers in Otago have been worked for gold and many have extensive historic values.

A diverse range of indigenous plants, indigenous fish, invertebrates and birds rely on freshwater habitats. Many are endemic to New Zealand and some are found only in Otago.

Otago river catchments, particularly those of the Clutha River/Mata-Au and Taieri River, are strongholds for threatened endemic galaxias species. Thirteen non-migratory species have been confirmed, with one species sometimes being confined to one catchment. Departmental monitoring over the last decade has shown that the small, fragmented populations of these fish with restricted ranges are vulnerable to catastrophic decline, and are disappearing. Threats vary, but protection from trout predation and competition, security of water quantity

and quality, protection of wetlands, and increased public awareness about these species are critical to their long-term future.

Many of New Zealand's indigenous fish (e.g. whitebait, tuna/eel, kanakana/lamprey, redfin bully) migrate to and from the sea as part of their life cycle. Maintaining connections between freshwater habitats and migration routes is essential. Dams, poorly designed culverts, weirs and floodgates all block fish passage, but new engineering solutions are available. Freshwater Fisheries Regulations 1983 made under the Conservation Act 1987 and administered by the Department can be used to ensure or control fish passage in freshwater habitats.

Threatened birds such as ngutu pare/wrybill and pohowera/banded dotterel rely on specific freshwater habitats throughout Otago. The ngutu pare/wrybill is at its southern limit in Otago on the Dart River/Te Awa Whakatipu, and Hunter, Makarora and Matukituki rivers. Threatened tarapirohe/black-fronted terns and tarāpuka/black-billed gulls also depend on braided riverbeds for breeding. Wetlands support koitareke/marsh crake, pūweto/spotless crake, and matuku-hūrepo/Australasian bittern. Threatened whio/blue duck are present in western Otago.

Public conservation lands and waters provide valuable environmental services through the maintenance of water quality and supply in headwater catchments, indigenous tussock grasslands or wetlands that collect, purify or store water, releasing it slowly to rivers, streams and wetlands at lower altitudes (e.g. Te Papanui Conservation Park supports the provision of good-quality water to Dunedin City).

Some of New Zealand's largest rivers flow through Otago. The Clutha River/Mata-Au catchment is the largest in New Zealand, draining some 20.5 million hectares of land. It is the country's second-longest river and its lower reaches have extensive natural and historic resources. The Clutha River/Mata-Au is important for hydroelectric power generation and farming, and supports salmon, brown trout and whitebait fisheries of regional significance. A variety of tributaries feeds into the river during its progress to the sea, which have important natural and scenic values in their own right.

Tributaries of the Shotover River flow through unstable schist country, resulting in discolouration and a high sediment load. The Shotover River has a rich gold mining history, and whitewater rapids and spectacular gorges in its middle and lower reaches are valued for whitewater kayaking, rafting and jet boating. The Greenstone, Caples, Hunter, Dingle Burn, Lochy and Von rivers all have magnificent natural values and support sports fisheries of international renown.

The upper reaches of the Nevis River have largely unmodified string bogs similar to those usually found in sub-polar regions. The main river flows through largely unmodified tussock grassland country containing populations of various species of indigenous fish, including a new species of threatened galaxias that is only found in this catchment. It also supports a quality sports fishery, has historic gold mining features, and in its lower gorge provides extreme whitewater kayaking opportunities.

The catchment of the Taieri River is Otago's second-largest and New Zealand's fourth longest river (refer 2.6 Central Otago Drylands/Manuherikia Place). The Taieri River has a regionally important sports fishery and a whitebait fishery in its lower reaches.

Many, smaller lowland rivers in east and north Otago (e.g. Shag River (Waihemo), Kauru and Kakanui (Kakaunui River) catchments) are mostly modified farmland. Their waterways still support indigenous fish populations, locally important sports fisheries, and whitebait fisheries in the lower reaches. Retaining adequate flows and good water quality in these lowland streams and rivers is essential for these fisheries.

A number of rivers in The Catlins (including Fleming, Tautuku, Catlins, Tahakopa, Waipati and Maclennan) flow through unmodified or relatively unmodified catchments. These freshwater ecosystems have high instream and riparian values.

Otago's lakes include alpine lakes and tarns, large glacier-formed lakes (e.g. Wakatipu (Whakatipu-wai-māori), Wanaka and Hāwea), lakes created by hydro or irrigation developments (e.g. Dunstan, Roxburgh, Poolburn, Mahinerangi, Manorburn), and shallow lowland and coastal lakes (e.g. Waihola). These lakes provide habitats for indigenous animals, and many have landscape and scenic values that contribute to their appeal as recreational and tourist destinations. Water bodies and wetlands on farmland may have lesser scenic values but still provide valuable wildlife habitat and recreational opportunities.

Wetlands of significance in Otago have been identified in the Otago Regional Council's Water Plan.<sup>50</sup> A few outstanding examples are the wetland complex situated on Nokomai Station, the upper Taieri River scroll plain, Maungatua River cushion bogs, and the wetland complex of Lakes Waihola-Waipori and Matukituki valley wetlands management area. These wetlands have ecological, landscape and scenic values. Many face ongoing threats and few are formally protected.

The Taieri scroll plain is a large, natural wetland at the upper reaches of the Taieri River in the centre of the Maniototo and Styx Creek basins. It is of national and international significance and the only one of its kind in New Zealand (see 2.6 Central Otago Drylands/Manuherikia Place and Appendix 9).

On the Otago coast near Dunedin, the Lakes Waihola-Waipori wetland complex is approximately 2000 hectares in size and is of national and international importance for wildlife (see 2.7 Eastern Otago and Lowlands/Maukaatua Place and Appendix 9). It forms part of a chain of wetlands, estuaries and shallow lakes (including Lake Tuakitoto, Kaikorai Stream estuary, Tomahawk Lagoon, Aramoana saltmarsh within the Aramoana Ecological Area, Catlins River estuary, Blueskin Bay, Hawksbury Lagoon and the Shag River (Waihemo) estuary). These wetland habitats are inhabited by wildlife including migratory waders and waterfowl.

The Sinclair Wetlands/Te Nohoaka o Tukiauau is owned by Ngāi Tahu, and protected under a Queen Elizabeth II Open Space Covenant. A number of agencies, including Otago Fish and Game Council, Otago Regional Council, Clutha District Council and the Department, have responsibilities for or are involved with wetland management.

Wetland systems located close to Dunedin provide opportunities for important scientific and educational values. An established wetland education centre at Sinclair Wetlands/Te Nohoaka o Tukiauau is a focus for wetland restoration programmes and the University of Otago undertakes research on aquatic ecosystems, and species at a range of locations.

While many waterways (especially in upland areas in the west) remain largely unmodified, adverse effects on freshwater values occur as a result of land use intensification. Activities include irrigation, wetland drainage, stock access into rivers, wetlands and their margins, wilding tree spread, which all affect changes to river flows. This also has the potential to increase pressure on and conflicts over Otago's water resources.

Of particular concern are the ongoing pressures on rivers flowing through drier eastern catchments of north Otago and in Central Otago rivers such as the Manuherikia and Lindis. Intensive farming and forestry, burning and wilding tree invasions reduce water quantity and quality and diminish natural, scenic and recreational values of waterways.

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<sup>50</sup> Otago Regional Council. 2012: Regional plan—water for Otago. <http://www.orc.govt.nz/Publications-and-Reports/Regional-Policies-and-Plans>



There is increasing public awareness of the need to protect and restore wetlands using various methods. Success will depend on cooperation between agencies, Ngāi Tahu, landowners and local communities, and an ongoing commitment to sustainable land uses in catchments. Wetland management plans are being implemented in some locations (e.g. Lakes Waihola-Waipori, Tuakitoto wetlands).

Fencing from stock helps protect fish spawning sites and reduces enrichment from effluent, and the runoff of sediments. Government-funded, landowner and local community initiatives have contributed to fencing and riparian restoration programmes on stream banks, and around wetlands. For example, River-Estuary Care: Waikouaiti-Karitāne and Kāti Huirapa Rūnaka have worked on habitat protection since 1999 by planting thousands of flaxes, sedges and trees, to improve water quality and fish habitat.

Water weeds are an increasing threat to the health of lakes, rivers and wetlands. Didymo and lagarosiphon are already established in many rivers and lakes, affecting both natural and recreational values. Willows and *Glyceria* are having adverse effects on wetlands and lakes, such as Lake Waihola and the Sinclair Wetlands/Te Nohoaka o Tukiauau. Barriers to colonisation by trout or other such predatory fish species are threats to endemic galaxiids.

Jet boats assist public access to public conservation lands and waters, where in accordance with navigational safety bylaws, but if not carefully managed can have adverse effects.

Climate change will make the eastern South Island warmer and drier, with rain events less frequent but perhaps more intense. This will increase water demand, put aquatic species under stress and change their distribution or community compositions, possibly leading to local extinctions.

## **Outcome, policies and milestones for the Freshwater/Wai Māori Place**

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### **OUTCOME**

Otago's freshwater environments (rivers, wetlands, estuaries and lakes and their margins, from the mountains to the sea—ki uta ki tai) are healthy and vibrant and supporting the range of Otago's indigenous habitats and species. They are cherished for their natural, historic, cultural, recreational and economic values. Otago communities are advocates for, and actively engaged in, caring for, understanding, protecting and restoring freshwater riparian and aquatic ecosystems, and the services and recreation opportunities they provide.

Priority ecosystem units are recovering or are in a healthy functioning state as a result of integrated programmes that include intensive weed, pest and predator management. Threatened species populations (including non-migratory galaxiids) are improving where intensive management is occurring either on or off public conservation lands and waters. The Department, Ngāi Tahu, fish and game councils and the community (including landowners) are working together to maintain and improve freshwater ecosystem health, and to increase awareness of the conservation values, and to manage threats (including didymo and wilding trees) to freshwater ecosystems.

Indigenous vegetation is protected and being restored on the margins of lakes, rivers and wetlands, creating new wildlife habitats and corridors, and enhancing landscape and aquatic values.

Otago's large river systems and lakes, including the Clutha River/Mata-Au, Dart River/Te Awa Whakatipu, and Taieri and Kawarau rivers, and lakes such as Wakatipu (Whakatipu-wai-māori), Wanaka and Hāwea, are recognised for their ecological, cultural, landscape and recreational values and their contribution to conservation and the region's well-being and prosperity.

The intrinsic values of wetland ecosystems (including the lesser known and valued upland mires and bogs) are recognised and valued by communities, who are actively involved in their ongoing protection and enhancement.

Tussock grasslands are valued and protected for the role they play in water storage and yield and in protecting catchment water quality and quantity.

Water quality, flows and natural character in lowland waterways are allowing Otago's distinctive freshwater species to thrive while also providing for recreational activities. Mahinga kai and food of good quality can be obtained from freshwaters throughout Otago. Fish species have unimpeded access up and down rivers from their sources to the sea to complete their breeding life cycles, and threatened non-migratory fish are protected from invasions of predators and competitors.

Public access to and along rivers, lakes and wetlands is enabling recreational opportunities, which support and link rural communities and increase public awareness of, and support for, freshwater habitats and values. There are opportunities to walk and bike alongside the Clutha River/Mata-Au linking the western mountains with the Pacific Ocean and recreating part of Otago's exploration and journeying history. Aircraft landings occur occasionally along some rivers and in their headwaters. Aircraft landings are rare across the wider Place and do not adversely affect ecological or cultural values or the experience of visitors.

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## POLICIES

- 2.10.1 Work with Ngāi Tahu and the community, including relevant agencies, and Fish and Game Councils, adjacent landowners and relevant industries to raise awareness about the connection between land use activities, freshwater ecosystems and the coastal environment, to ensure:
- a) the stewardship, conservation, protection and enhancement of freshwater ecosystems;
  - b) indigenous and recreational freshwater fisheries, freshwater fish habitats and riparian ecosystems;
  - c) land use activities do not adversely affect freshwater ecosystems;
  - d) the high-quality water yield from tussocklands is retained or enhanced; and
  - e) the National Policy Statement for Freshwater Management (2011) is implemented.
- 2.10.2 Prioritise statutory advocacy for:
- a) the implementation of the New Zealand Coastal Policy Statement (2010); in particular, the retention of river flows that maintain natural river mouth opening cycles and natural coastal processes;
  - b) the protection of priority ecosystem units and threatened species;
  - c) district and regional plan provisions to address freshwater and estuarine ecosystems functioning and protection;
  - d) the maintenance of fish passage for fish species, and avoiding their diversion into artificial water systems; and
  - e) maintaining the integrity of Water Conservation (Kawarau) Order 1997 provisions.

- 2.10.3 In association with Ngāi Tahu, and through provision of information, encourage greater public awareness of the importance of the freshwater resources to Ngāi Tahu and protection of natural, cultural and historic resources valued by Ngāi Tahu.
  - 2.10.4 Investigate the maintenance and restoration of indigenous-only fishery streams, in consultation with Ngāi Tahu and Fish and Game Councils, including through the use of artificial barriers for introduced fish species and the removal of existing barriers for migratory indigenous fish species.
  - 2.10.5 With respect to river and lake beds, work with Land Information New Zealand to achieve integrated management where Crown river and lake beds extend into, or are surrounded by, conservation land, or seek the allocation of the beds to be included within public conservation lands and waters.
  - 2.10.6 Work collaboratively with Ngāi Tahu and the community (including regional and territorial authorities and fish and game councils) to increase awareness of freshwater values and issues and to achieve agreed ecological flow regimes in Otago's waterways that ensure ongoing protection of freshwater species.
  - 2.10.7 Through advocacy and the provision of public information, seek to raise public awareness and appreciation of the distinctive freshwater galaxiids unique to Otago's waterways and of the ongoing threats to the survival of these and other species (including tuna/eels).
  - 2.10.8 Encourage and, where possible, support Ngāi Tahu, the community, business or other conservation initiatives that are protecting or restoring freshwater and riparian habitats, giving priority to those that benefit priority ecosystem units or threatened species.
  - 2.10.9 Seek protection, and recognition as Wetlands of International Importance, for the Lakes Waipori and Waihola wetlands complex, the upper Taieri River scroll plain and the wetland complex situated on Nokomai Station (see 2.7 Eastern Otago and Lowlands/Maukaatua Place, 2.6 Central Otago Drylands/Manuherikia Place and 2.5 Old Man Range/Kopuwai, Old Woman Range, and Garvie Mountains Place).
  - 2.10.10 Provide information and work cooperatively with the New Zealand Walking Access Commission and Fish and Game Council on matters relating to public access to and along rivers.
  - 2.10.11 Encourage research and tertiary education institutions, and others to work collaboratively with the Department, to maximise the benefits of monitoring and research on freshwater species and ecosystems.
  - 2.10.12 Should authorise grazing on public conservation lands where consistent with Policies 3.15.1–3.15.3 in Part Three.
  - 2.10.13 Monitor and report on the Departments meeting the Government's obligations under the Convention on the Conservation of Migratory Species of Wild Animals (1999), in respect of Otago coastal margin wildlife migrations.
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## MILESTONES—OUTPUTS

### **Achieved by the end of Year 3 after CMS approval (2019)**

- Assessment of the effectiveness of statutory advocacy and the implementation of the Otago Regional Council's 'Water for Otago' (the Water Plan) on river conservation values.
- Collaborative initiatives are established for management or advocacy of freshwater ecosystems in Otago.
- Investigations undertaken to determine the best way of protecting priority indigenous ecosystems off public conservation lands and waters in Otago, such as Lakes Waihola and Waipori, the Taieri River scroll plain and the wetland complex situated on Nokomai Station.

### **Achieved by the end of Year 5 after CMS approval (2021)**

- Assessment of the effectiveness of statutory advocacy and the implementation of the Otago Regional Council's 'Water for Otago' (the Water Plan) on river conservation values.
- Progress the non-migratory galaxiid and tuna/longfin eel work programmes.
- Progress the maintenance and restoration of indigenous-only fishery streams.

### **Achieved by the end of Year 10 after CMS approval (2026)**

- Assessment of any increased effectiveness of statutory advocacy and the implementation of the Otago Regional Council's 'Water for Otago' (the Water Plan) on river conservation values.
  - Progress investigations to determine the best way of protecting priority indigenous ecosystems off public conservation lands and waters in Otago, such as Lakes Waihola and Waipori, the Taieri River scroll plain and the wetland complex situated on Nokomai Station.
  - Collaborative initiatives have improved freshwater ecosystems in Otago.
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# Part Three—Specific policy requirements for Otago

This section implements the requirements of the Conservation General Policy 2005 and other legislative requirements. The policies of this section apply to all public conservation lands and waters covered by this CMS. Where the provisions in Part Three are more specific than the provisions in Part One, or where there is any ambiguity between provisions, then the more specific provisions in Part Three prevail. Where the provisions in Part Two Places are more specific than the provisions in Part Three, the more specific provisions in Part Two prevail.

Changes to this CMS may be required from time to time during its term. This may require changes to be made by the amendment or review processes under section 17H or 17I of the Conservation Act 1987. These situations may include where additional land area is to be managed under a CMS, or limitations changed on an activity that occurs on lands or waters managed under the CMS.

## 3.1 General

### *Policies*

- 3.1.1 Will follow the relevant process under the provisions of the Conservation Act 1987 where a change to the CMS is required, including to impose or increase limits on any use or activity or to include new species or land.
- 3.1.2 Consider changing the classification of public conservation land and water where required for effective management or protection of its values.
- 3.1.3 Restrict or close access to:
  - a) Mount Aspiring National Park where necessary for the preservation of indigenous plants and animals or the welfare in general of the park;
  - b) reserves where necessary consistent with the conditions and restrictions of use of the reserve; and
  - c) conservation areas where necessary for reasons of public safety or emergency or to:
    - i) protect natural, historic or cultural values;
    - ii) control biosecurity risks;
    - iii) enable the control or eradication of pests using aerial bait operations;
    - iv) allow military exercise operations; or
    - v) allow tree felling.
- 3.1.4 When undertaking work or activities that are covered by Appendix 1, determine if they meet the requirements of section 4(3) of the Resource Management Act 1991 for exemption from land use consents.
- 3.1.5 Manage recreation opportunities, including those provided by concessionaires, in accordance with the visitor management zones shown on Map 3 and as described in Appendix 12.

- 3.1.6 Establish and review bylaws and regulations where necessary to enable better management of public conservation lands and waters (including departmental wharves).
- 3.1.7 Encourage people and businesses undertaking activities on public conservation lands and waters to comply with activity-specific minimum impact codes (care codes) as notified from time to time on the Department's website.
- 3.1.8 In respect of legal roads, where actual or potential activity on or near these legal roads creates difficulties in achieving integrated management of adjoining public conservation lands and waters, work with Land Information New Zealand, New Zealand Walking Access Commission, territorial local authorities, other agencies and the community to:
  - a) seek that the public voluntarily manage their use of legal roads running through public conservation land and waters in a way that is compatible with or recognises adjoining public conservation lands and waters management;
  - b) enable the Department to manage the roads and facilitate recreation on them in a way that is compatible with or recognises adjoining public conservation lands and waters management;
  - c) seek that local authorities actively manage the roads and facilitate recreation on them in a way that is compatible with or recognises adjoining public conservation lands and waters management; or
  - d) stop or resume legal roads running through public conservation lands and waters and add the stopped or resumed road lands to the adjoining public conservation lands and waters, except where the adjoining lands are stewardship areas under the Conservation Act 1987 (unless those adjoining lands are part of an action or policy to confer additional protection or preservation under section 18 of the Conservation Act 1987, or under the National Parks Act 1980 or the Reserves Act 1977).

### **Authorisations (General)**

Unless enabled by other legislation,<sup>51</sup> anyone wishing to undertake an activity for specific gain or reward (including carrying out a trade, occupation or business) on public conservation lands and waters or undertake other activities such as research or collection of resources of any kind, or the construction of a structure, requires an authorisation. The most common authorisation is a concession under Part 3B of the Conservation Act 1987. The Department aims to allow for a range of authorisations that are consistent with relevant legislation and policy, the protection of natural resources and historic and cultural values, and the recreational settings and planned outcomes and policies for specific Places (Part Two).

Authorisations can add value to visitors' experiences by connecting them with natural, historical and cultural values, and providing opportunities to visit places which may not otherwise be easily accessible.

A wide range of authorisations has been granted in Otago, from multi-million dollar businesses through to small businesses. Three ski fields (Coronet Peak, Treble Cone and The Remarkables) have authorisation to operate on public conservation lands and waters (see 3.25 Ski fields). Recreation concessions exist for guiding or related activities (such as transport links at the beginning and end of popular tracks), and for adventure tourism. These occur throughout Otago with a concentration in Mount Aspiring National Park and in the western

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<sup>51</sup> Examples are the Electricity Act 1992 and Cadastral Survey Act 2002.

lakes and mountains. There are a growing number of guiding concessions in the coastal area, many focused on wildlife viewing.

Authorisations for grazing, sand and shingle removal, mining for gold and minerals (refer relevant sections), and water-take structures have also been granted. There are a number of telecommunication facilities on public conservation lands in Otago. Suitable sites for telecommunication facilities are limited and tend to be on high-altitude lands, with many high areas having significant cultural values associated with them and being important to Ngāi Tahu.

The monitoring of authorised activities is required. Where emerging or cumulative effects on the environment or other users are becoming unacceptable, it may be necessary to establish limits for authorisations.

### ***Policies***

- 3.1.9 Process authorisations in accordance with the relevant legislation, this CMS and the provisions of the Conservation General Policy 2005 and the General Policy for National Parks 2005.
- 3.1.10 Monitor authorised activities and their effects, including cumulative effects, on a regular and ongoing basis.
- 3.1.11 Should not grant authorisations that are inconsistent with the objectives, outcomes and policies in Part One, the outcomes and policies for Places in Part Two—Places, or the policies in Part Three.
- 3.1.12 May grant authorisations for sporting events or filming activities that do not meet the limits and/or criteria for the Yellow, Green or Orange aircraft access zones and/or the prescriptions for visitor management zones in Appendix 12 based on their merits and subject to an assessment of:
  - a) the activity being consistent with the purpose for which the lands and waters concerned are held;
  - b) the activity being consistent with the outcomes and policies for the Place in which it is proposed to occur;
  - c) the adverse effects and the extent to which it is possible to avoid, remedy or mitigate those effects—examples of mechanisms that may be used to address any adverse effects include:
    - i) informing neighbours and potential visitors to the site that the activity is to occur or is occurring;
    - ii) avoiding peak visitor times; and
    - iii) avoiding or protecting sites with high natural, historic or cultural values;
  - d) cumulative effects on the values at the site;
  - e) the activity being consistent with Policy 2.1.1 if the activity is in a wilderness area; and
  - f) the need for public notification.
- 3.1.13 Manage (including when considering concession applications) those parts of Otago that are within the Te Wahipounamu—South West New Zealand World Heritage Area in accordance with the criteria for which the World Heritage Area was nominated and the statement of outstanding universal value.
- 3.1.14 Manage (including when considering concession applications), those parts of Otago that are identified as Wetlands of International Importance under the Convention

on Wetlands of International Importance 1971 (also referred to as the Ramsar Convention) in accordance with the criteria for which those Wetlands of International Importance were nominated and New Zealand's obligations under the Convention.

## 3.2 Vehicles

Vehicle use is part of the range of recreational opportunities that are only allowed on public conservation lands and waters in locations identified in this CMS. In this context, vehicles include motorised and non-motorised land vehicles; fixed-wing, helicopter and non-powered aircraft; and motorised and non-motorised watercraft. Further discussion about vehicle use can be found in Part Two—Places.

Many public conservation lands and waters in Otago are easily accessible by vehicle, helping to facilitate the use and enjoyment of these areas.

### **Motorised vehicles (other than aircraft and watercraft)**

Motorised vehicle use<sup>52</sup> is not generally allowed off formed roads on public conservation lands and waters in Otago, unless specifically provided for in accordance with the outcomes, policies and Tables in this CMS.

There are many opportunities for vehicle touring on public conservation lands and waters, especially on roads running through areas that were formerly pastoral leasehold lands.

The use of motorised vehicles off formed roads or marked routes can adversely affect conservation values through damage to fragile ecosystems, historic and cultural sites and disturbance to wildlife. Their use may also have effects on natural quiet and the experiences of other people. Restricting use to formed roads or marked routes, seasonal closures, and advocacy and compliance work can help prevent damage and minimise conflict and public safety issues.

Motorised vehicles include over-snow vehicles and in Otago there is demand for land suitable for their use. Recreational over-snow vehicle use has occurred on public conservation lands and waters in parts of the Old Man Range/Kopuwai where there is suitable road access and terrain. The adverse effects on ecological values of this activity are minimal where there is sufficient snow cover. Social effects can result from conflict between different use and user types in the same area and are mainly related to the effect of noise and speed on non-motorised recreationists such as backcountry skiers. Over-snow vehicles are used in the day-to-day management of ski fields, including search and rescue.

### ***Policies***

- 3.2.1 Should allow motorised vehicles only on the roads (including designated parking areas) identified in:
  - a) Part Two—Places; or
  - b) Mount Aspiring National Park Management Plan 2011.
- 3.2.2 Consider provision for use of motorised vehicles outside of areas provided for by Policy 3.2.1 only where such use is identified at sites listed in Part Two—Places and subject to Policy 3.2.4.

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<sup>52</sup> Any motor vehicle taken onto public conservation lands and waters must be registered and/or licensed, where it is required to be registered and/or licensed under the Land Transport Act 1998.



- 3.2.3 May allow motorised vehicles on public conservation lands and waters for the construction, operation and/or maintenance of authorised utilities, farming operations, and restoration activities.
- 3.2.4 Should follow the statutory CMS amendment or review process when considering the use of motorised vehicles on public conservation lands and waters other than in accordance with Policies 3.2.1 and 3.2.3 and apply the following criteria to the activity:
- a) is consistent with the purposes for which the lands and waters concerned are held;
  - b) is consistent with the outcome and policies for the Place where the road or site is located;
  - c) is consistent with the visitor management zones on Map 3 and as described in Appendix 12;
  - d) adverse effects (including cumulative adverse effects) on the road or site and surrounding natural, historic or cultural values are, or can be, avoided, remedied or mitigated;
  - e) adverse effects (including cumulative adverse effects) on the safety and enjoyment of other recreational users are, or can be, avoided, remedied or otherwise mitigated (including conflicts between motorised vehicles/mountain bikes and horses);
  - f) risks of fire and biosecurity are avoided or otherwise carefully managed; and
  - g) the ongoing management implications of providing motorised vehicle access (e.g. in terms of ongoing maintenance costs) are taken into account.
- 3.2.5 Liaise with four-wheel drive and other motorised vehicle user groups to identify opportunities for involvement in conservation programmes, and may enable these groups to maintain the roads that they are permitted to use.
- 3.2.6 Monitor the effects of motorised vehicles on natural, historic and cultural values, and on other recreational users.
- 3.2.7 Review motorised vehicles use where monitoring shows that adverse effects are occurring, in consultation with relevant motorised vehicle user clubs(s) and the community.
- 3.2.8 May restrict motorised vehicle access at any time in the following situations:
- a) there is a health and safety risk;
  - b) there is fire risk;
  - c) adverse effects are evident or likely on conservation resources;
  - d) priorities change for the provision of the formed roads or designated vehicular route; or
  - e) where damage to the structure of the road is evident or likely.
- 3.2.9 Work with councils, the New Zealand Police and relevant agencies to manage motorised vehicle use on beaches and riverbeds to protect conservation values.
- 3.2.10 May allow over-snow vehicles within the designated area, Old Man Range/Kopuwai, as shown in Table 2.5 and Map 5.5.
- 3.2.11 May consider applications for one-off permits for over-snow vehicles in other areas of Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākaihautū Place, Central Otago Uplands Place, Old Man/Kopuwai, Old Woman Range, and Garvie

Mountains Place and Central Otago Drylands/Manuherikia Place subject to the following:

- a) is consistent with the purpose for which the lands and waters concerned are held;
- b) occurs when it is unlikely to disturb other users in the area;
- c) is of short duration (generally not more than one day); and
- d) can be demonstrated that there are no other suitable locations where the activity could occur.

3.2.12 The use of over-snow vehicles for the purpose of ski field management within ski field lease/licence areas is permitted and subject to the provisions of the lease/licence and in accordance with Policy 3.25.6.

### 3.3 Biking

Multiple opportunities exist for biking<sup>53</sup> on public conservation lands and waters in Otago using existing walking, purpose-built and vehicle tracks, including farm tracks from ex-pastoral lease lands where vulnerable conservation values are not threatened. There is a range of views about mixed pedestrian and biking use of tracks, and caution is needed where visibility is restricted, and with higher-speed and higher-impact downhill biking. Where the means exist (e.g. ski field roads, helicopters, gondola/ski lifts) to easily take (shuttle) downhill bikers to higher altitudes, this can result in increased adverse effects, and more caution is required when considering this activity.

Otago, particularly Central Otago, Wānaka and Queenstown, is a popular centre for all forms of biking. The development of bike tracks has largely been led by community groups both on and off public conservation lands and waters. Government policy promoting a national cycleway network has recognised the tourism potential and community and public health benefits that biking opportunities such as the Otago Central Rail Trail provide. Bike tracks, including The Queenstown Trail, Roxburgh Gorge Trail, Around the Mountains Cycle Trail and Clutha Gold Trail, have been developed by community groups or local government and continue to be expanded. Large parts of these are on public conservation lands and waters and the Department has provided considerable support. Other bike tracks are under development.

The financial benefits recorded by small communities along the well-established Otago Central Rail Trail have revitalised these townships, created new businesses and created positive attitudes towards conservation and tourism.

Many initiatives are driven by established clubs working with the Department; for example, the Queenstown Mountain Bike Club has developed bike tracks on Seven Mile Recreation Reserve and proposes other bike tracks around Queenstown. Other examples include trusts such as the Upper Clutha Tracks Trust based in Wānaka, which has developed an array of bike tracks in partnership with the Department. Such partnerships include clubs or trusts being responsible for ongoing trail maintenance of these bike tracks.

Many concessionaires offer guided biking trips on public conservation lands and waters in Otago. Other concession activities include use of bike tracks for heli-biking ventures and regular or one-off events (e.g. The Peak to Peak in Queenstown, Challenge Wānaka and Otago Central Rail Trail Duathlon).

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<sup>53</sup> See Glossary.

## *Policies*

- 3.3.1 Only allow independent biking, and should only grant concessions for guided biking, on tracks and roads purposely formed and maintained for biking use within the areas identified in:
- a) tables in Part Two—Places; or
  - b) Mount Aspiring National Park Management Plan.
- 3.3.2 May grant concessions for sporting events (including competitive events) involving biking in accordance with:
- a) the assessment criteria in Policy 3.1.12; and
  - b) Policies 3.22.1–3.22.7.
- 3.3.3 Where biking is allowed in accordance with Policies 3.3.1 and 3.3.2 bikers must remain on the formed and maintained bike tracks or roads at all times.
- 3.3.4 Undertake the following when assessing whether to develop a new bike track and provide for biking, and should undertake the following when deciding whether to grant authorisation for a new bike track and biking, on public conservation lands and waters identified in Part Two—Places:
- a) consideration of adverse effects (including cumulative adverse effects) of biking on:
    - i. natural ecosystems as described in Appendix 2, geological features, landforms and landscapes including those described in Appendix 9, and natural character, particularly in areas where structures and facilities are currently absent;
    - ii. species, particularly threatened species, and habitats;
    - iii. historic and cultural values, including places of importance to Ngāi Tahu; and
    - iv. the safety and enjoyment of, including potential conflicts with, other people;and whether these identified adverse effects can be avoided, remedied or mitigated;
  - b) consideration of any carbon emissions associated with the biking activity and the long-term effects of climate change, including flooding, fire and coastal erosion;
  - c) engagement with rūnaka and Te Rūnanga o Ngāi Tahu to inform the assessment of the proposed bike track; and
  - d) consultation with relevant conservation boards.
- 3.3.5 Determine (for developments initiated by the Department) and should determine (for developments needing authorisation), following engagement with rūnaka and Te Rūnanga o Ngāi Tahu and consultation with relevant conservation boards, whether the following are required (having regard to the location, size and scale of the proposed development):
- a) preparation of specialist reports, to assess the adverse effects of the proposed bike track, including but not limited to:
    - i. ecological values;
    - ii. archaeological and heritage values;
    - iii. geological, landform and landscape values;

- iv. risks and natural hazards; and
    - v. recreation values;
  - b) public consultation on the proposed bike track once the route and facilities are known;
  - c) consultation with relevant Fish and Game Councils;
  - d) consultation with interest groups, concessionaires, local authorities, adjacent landowners and other affected parties; and
  - e) an assessment of:
    - i. the style of biking proposed on public conservation lands and waters, such as downhill, freestyle and dirt jumping;
    - ii. whether demand is evident and expected to be sustained; and
    - iii. the ability to generate adequate funding for the construction and ongoing maintenance of the proposed bike track.
- 3.3.6 Construct and maintain, and may grant authorisations to construct and maintain, new bike tracks, subject to:
- a) Policies 3.3.4 and 3.3.5 and whether any identified adverse effects regarding the construction and maintenance can be avoided, remedied or mitigated;
  - b) implementing mechanisms to manage the adverse effects, including compliance with the latest version of the Department's cycle trail standards; and
  - c) imposing and implementing conditions necessary to manage identified adverse effects.
- 3.3.7 Should, when considering new bike tracks and biking on public conservation lands and waters in areas not identified in Policy 3.3.1 during the term of this CMS:
- a) follow the statutory amendment or review process;
  - b) undertake consultation with biking clubs, adjoining landowners, tramping clubs, local authorities, other interested parties and the public; and
  - c) apply the following criteria:
    - i. is consistent with the purposes for which the lands and waters concerned are held (which requires considering the extent to which adverse effects (including cumulative effects) of the activity on natural, historic, and cultural values and other people can be avoided, remedied or mitigated); and
    - ii. is consistent with the desired outcome and policies for the Place where the public conservation lands and waters are located.
- 3.3.8 Promote opportunities for biking on approved bike tracks on public conservation lands and waters in Otago via the Department's website, and through liaison with biking advocates and visitor information providers.
- 3.3.9 Implement measures necessary to manage the use of bikes on any bike tracks on public conservation lands and waters, including but not limited to:
- a) trial periods;
  - b) annual and seasonal restrictions;
  - c) daily time restrictions on use (e.g. daylight use only);
  - d) limits on numbers; and
  - e) requiring one-way flow.

- 3.3.10 Monitor the effects of bike use on natural, historic or cultural values, and on other recreational users.
- 3.3.11 Review bike use on tracks or at sites where monitoring shows unacceptable adverse effects may be occurring and take the necessary actions required to eliminate or reduce the adverse effect(s).
- 3.3.12 Liaise with bike clubs, concessionaires and other organisations, to identify opportunities for involvement with conservation and recreation programmes.

### 3.4 Electric power-assisted pedal cycles

The use of electric power-assisted pedal cycles (e-bikes), which is distinct from motorised vehicle and mountain bike use, is a relatively new activity that maybe compatible with other uses at locations where non-motorised vehicles are allowed. In some circumstances, their use may be suitable to enable people with lesser cycling skills, experience and fitness to cycle tracks used by mountain bikes. However, their use is subject to factors including: compatibility with the cycling experience provided (for example, beginner mountain biking opportunities may be suitable for e-bike use); management of conflicts with other users, and where 'enjoying nature on its own terms' without assistance from motorised vehicles is important.

#### *Policies*

- 3.4.1 Should allow independent electric power-assisted pedal cycle use, and may allow guided electric power-assisted pedal cycling, only on the tracks and roads or other areas listed in Part Two Places, subject to the criteria in Policies 3.4.2-3.4.5.
- 3.4.2 Should follow the statutory amendment or review process when considering further opportunities for electric power-assisted pedal cycles use on public conservation lands and waters during the term of this CMS, undertake consultation with cycling clubs, adjoining landowners, tramping clubs, other interested parties and the public and apply the following criteria:
  - a) is consistent with the purposes for which the lands and waters concerned are held;
  - b) is consistent with the desired outcome and policies for the Place where the track or road is, or is proposed to be located;
  - c) adverse effects (including cumulative effects) of electric power-assisted pedal cycle use on natural, historic or cultural values and other recreational users of the track or road (including natural quiet) are, or can be, avoided, remedied or mitigated;
  - d) measures can be applied to manage the use of electric power-assisted pedal cycles, which may include (but are not limited to) trial periods, restricted seasons, daylight riding only, limits on numbers, limits on speed and one-way flow; and there is the ability to provide necessary facilities, including those that may be associated with overnight electric power-assisted pedal cycling opportunities.
- 3.4.3 Monitor the effects of electric power-assisted pedal cycle use on natural, historic and cultural values, and on other recreational users.
- 3.4.4 Review electric power-assisted pedal cycle use on tracks or at sites where monitoring shows that unacceptable adverse effects are occurring.

- 3.4.5 Liaise with bike clubs, concessionaires and other organisations to identify opportunities for involvement with conservation programmes, and may enable these groups to maintain the tracks where electric power-assisted pedal cycles are permitted to be used.

## 3.5 Other forms of transport

### Watercraft

Watercraft control by the Department is currently limited to coastal lagoons covered by protection under the Wildlife Act 1953 (Tomahawk and Hawkesbury Lagoon Wildlife Refuge Government Purpose Reserve) and to water bodies covered by the provisions of the Mount Aspiring National Park Management Plan. Watercraft controls may be exercised by the Department for water bodies within national parks or where a water body is covered by Wildlife Act sanctuary or wildlife refuge status. Outside these areas, other watercraft controls exist through Navigation and Safety Bylaws and Otago and Southland Regional and District Council surface water activity controls.

### Policies

- 3.5.1 Meet the following criteria when considering watercraft use on public conservation lands and waters:
- a) is consistent with the purpose for which the lands and waters concerned are held;
  - b) is consistent with the outcome and policies for the Place where watercraft use is proposed to occur;
  - c) is consistent with the visitor management zones shown on Map 3 and as described in Appendix 12;
  - d) adverse effects on the natural, historic or cultural values are avoided, or otherwise remedied or mitigated; and
  - e) adverse effects on the safety and enjoyment of other recreational users on and off the water are avoided, or otherwise remedied or mitigated.
- 3.5.2 May restrict access across public conservation lands and waters for watercraft use where adverse effects associated with watercraft use may occur to public conservation lands and waters or wildlife.
- 3.5.3 Advocate for the management of watercraft use on waters not managed by the Department in a manner which is consistent with Parts One and Two of this CMS.
- 3.5.4 Work with regional, city and district councils within Otago to manage the use of watercraft in a way that is consistent with Policies 3.5.1–3.5.3 above.

## 3.6 Aircraft

All aircraft require a concession to land on, take off from, or hover above (collectively referred to as landings) any public conservation lands and waters that is not a certified aerodrome, other than for a number of activities, such as: search and rescue; departmental management purposes; emergency situations; maritime navigational-aid management; land survey work; aircraft operated by the New Zealand Defence Force or the Civil Aviation Authority; or any mining activity authorised under the Crown Minerals Act 1991.<sup>54</sup> The Department, acting

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<sup>54</sup> The effects of aircraft use are assessed in accordance with section 61 of the Crown Minerals Act 1991.

under delegated authority from the Minister of Conservation, manages aircraft landing concessions under provisions of the National Parks Act 1980, the Reserves Act 1977 and the Conservation Act 1987, including in accordance with Part 3B of the Conservation Act 1987 (in particular, section 17ZF).

Both recreational and commercial aircraft can facilitate use and enjoyment of public conservation lands and waters by providing access to difficult-to-reach places and for people with limited time. They are also an important tool for the Department's management of public conservation lands and waters, and for search and rescue.

Conversely, aircraft (particularly powered aircraft) activity—including scenic flights and remotely piloted aircraft that do not involve landings—can have adverse effects on public conservation lands and waters, including on its users, impacting on values such as amenity, natural quiet, wildlife and remoteness. Effects most often relate to the presence, behaviour and frequency of the activity and, for powered aircraft, the noise characteristics. Aircraft landings can also cause conflicts between people and their activities where some have used aircraft for access and others have not.

In Otago, most recreational aircraft landings are for scenic landings, heli-skiing and positioning of hunters, anglers, climbers or trampers. Aircraft are also used for commercial wild animal recovery (see 3.20 Wild animals) and other commercial uses, including filming and servicing of concessionaire sites. Most aircraft activity is within the Mount Aspiring National Park/Tititea Place, Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākaihautū Place and, to a lesser extent, the Central Otago Uplands Place.

In order to manage the effects of aircraft landings on public conservation lands and waters, there are four, nationally consistent aircraft access zones (as shown on Map 4). These zones reflect the different management methodologies required, and the likelihood of granting concessions, for aircraft landings.

- Red Zone—areas where a concession application to land an aircraft would most likely be declined. However, concessions may be granted for aircraft landings associated with the construction, operation and/or maintenance of equipment (e.g. meteorological, seismic) or utilities (e.g. communication systems, transmission lines) that have been authorised by the Department, or to support research authorised by the Department. This zone may apply where:
  - i) legislation provides strong direction that concessions should not be granted for aircraft landings (e.g. gazetted wilderness areas);
  - ii) an area is adjacent to (parts of) a national park where there are no aircraft landings;
  - iii) adverse effects on conservation, including recreation, values need to be avoided (e.g. nature and scientific reserves, threatened species habitat, high-use picnic and camping areas);
  - iv) the area is readily accessible by other means; or
  - v) aircraft activity may interfere with management activities.
- Yellow Zone—areas where a concession application to land an aircraft is likely to be granted where it meets the nationally consistent limits for this zone. This zone may apply where there is a need to restrict aircraft use; either where visitors expect a low level of encounters with aircraft or where values of natural quiet predominate, particularly in backcountry and remote areas.
- Green Zone—areas where a concession application to land an aircraft is likely to be granted, subject to any relevant outcome and/or the criteria in the relevant policies. This zone may apply where:

- i) conservation, including recreation, values are unlikely to be affected by landings;
- ii) there are natural limits on sites where landings can actually occur (e.g. forest cover, steep terrain); or
- iii) there is likely to be little demand for aircraft access over the life of this CMS.
- Orange Zone—areas where there are complex issues to be managed, which require the use of limits and/or other criteria to guide whether concessions for aircraft landings may be granted. This zone may apply:
  - i) in situations that involve limited opportunities, areas of intensive aircraft activity or where a precautionary approach is required;
  - ii) where there are historic or legal reasons for an approach that does not fit within the other three zones;
  - iii) to provide for a specific recreational activity (e.g. heli-skiing, heli-fishing, ground-based hunting);
  - iv) to only allow specific types of aircraft (e.g. non-powered aircraft);
  - v) where there are variations in seasonal use;
  - vi) to protect visitor experiences; or
  - vii) where landings do not fit within the circumstances described in the other three zones.

The application of these aircraft access zones manages aircraft on public conservation lands and waters. As a result, there is a spectrum of aircraft landings and over-flights (aircraft encounters) that may be experienced by visitors to public conservation lands and waters, as described in Table 3.6.1 below. Outcomes and/or policies may specify numeric limits for aircraft landings (e.g. daily, monthly, annually), or may use the words ‘rare’, ‘occasional’, ‘regular’ or ‘frequent’ to describe the overall level of aircraft encounters and therefore the visitor experience expected in each aircraft access zone (or part thereof).

**Table 3.6.1: Spectrum of aircraft encounters on public conservation lands and waters**

	← Low <span style="float: right;">High →</span>			
<b>Average percentage of time that aircraft are likely to be encountered</b>	1% or less	5%	25%	50% or more
<b>Likely visitor management zone</b>	Remote and/or backcountry zones		Backcountry and/or front country zones	
<b>Word used in outcomes/policies to describe and achieve this</b>	Rare	Occasional	Regular	Frequent

This spectrum does not take into account aircraft landings associated with the construction, operation and/or maintenance of equipment or utilities authorised by the Department, or wild animal control activities (see section 3.20 and the associated policies). As the Department cannot directly manage over-flights (while aircraft are in the airspace above public conservation lands and waters), there is a need to advocate to aircraft operators to minimise effects on users of public conservation lands and waters, consistent with the aircraft access and visitor management zones.



Within an area of public conservation land and water, aircraft may be able to land anywhere, subject to: the capabilities of the aircraft; the vegetation cover; the terrain; and the conditions of use for the relevant aircraft access zone. For example, helicopters do not need a designated landing site and some fixed-wing aircraft do not need a formed airstrip to land. However, in some areas aircraft landings may be restricted to formed airstrips and/or designated landing sites (e.g. adjacent to huts) in accordance with the aircraft access zone criteria.

A concession to land an aircraft does not include any other activities, such as vegetation removal or earthworks, associated with maintaining an airstrip or designated landing site. A separate authorisation is required for other activities including airstrip/landing site maintenance, in accordance with the purpose for which the land is held, the provisions in Part Two—Places and any relevant Part Three policies. The construction of a new airstrip or designated landing site would also need to take into account the relevant aircraft access zone; such that, it is unlikely that a concession would be granted for a new airstrip/landing site within a Red zoned area. Former airstrips/landing sites that are no longer maintained may eventually become unusable due to vegetation growth or other changes.

There are no maintained airstrips within Otago outside of Mount Aspiring National Park.

### ***Policies***

- 3.6.1 Should apply (but not be limited to) the following criteria when assessing concession applications for all aircraft landings:<sup>55</sup>
- a) is consistent with the outcome and policies for the Place in which the activity is proposed to occur and Table 3.6.1;
  - b) is consistent with the aircraft zoning provisions in this CMS and the aircraft access zones on Map 4;
  - c) is consistent with the purposes for which the lands and waters concerned are held;
  - d) adverse effects on conservation values including adverse effects on natural quiet are avoided, remedied or mitigated;
  - e) adverse effects on other visitors (taking into account the size of zone and the proximity of other ground users) are avoided, remedied or mitigated;
  - f) the need for monitoring the activity using global positioning systems and newer technologies;
  - g) landings near tracks, huts and car parks (unless otherwise specified in an outcome or policy for a Place) are avoided; and
  - h) the need to hold and comply with certification in a noise management scheme approved by the Department, in specified locations.
- 3.6.2 Should not grant concessions for aircraft landings in the Red Zone except:
- a) for the construction, operation and/or maintenance of equipment (e.g. meteorological, seismic), or utilities (e.g. communication systems, transmission lines) authorised by the Department; or
  - b) to support research or collection authorised by the Department.
- 3.6.3 Should grant concessions for aircraft landings in the Yellow Zone only where the landings meet the criteria (a) and (c)–(h) in Policy 3.6.1 and are in accordance with the following limits:

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<sup>55</sup> This includes landings, take-offs and hovering.

- a) for commercial purposes, two landings per concession per day at any one site (defined as any landing site within a 1-kilometre radius of the initial landing site) and a maximum of 20 landings per site per concession per year; or
- b) for recreational purposes, two landings per aircraft per day at any one site (defined as any landing site within a 1-kilometre radius of the initial landing site) and a maximum of 20 landings per aircraft per site per year.
- 3.6.4 May grant concessions for aircraft landings in the Green Zone that meet the criteria (a) and (c)–(h) in Policy 3.6.1.
- 3.6.5 May grant, concessions for aircraft landings in the Orange Zone that meet the criteria (a) and (c)–(h) in Policy 3.6.1 and as set out in Table 3.6.2. Any heli-skiing concession that is approved should be on a one operator per block basis, and may be allocated via a limited opportunity process.

**Table 3.6.2: Orange Zone criteria**

CONSERVATION AREA(S)	ORANGE ZONE CRITERIA—TO BE MANAGED
Mount Aspiring National Park	In accordance with the Mount Aspiring National Park Management Plan
Hāwea Conservation Park (part), Hāwea Conservation Area, Conservation Area—Grandview Creek, Conservation Area—Hospital Creek Catchment, Awa Nohoaka Conservation Area, Long Gully Conservation Area and other adjacent conservation areas and marginal strips	<p>For heli-skiing</p> <p>For regular landings with specified daily limits per operator based on visitor management zones as follows:</p> <ul style="list-style-type: none"> <li>– For frontcountry sites, 10 per operator per day</li> <li>– For backcountry sites, 5 per operator per day</li> <li>– For remote sites, 2 per operator per day</li> </ul> <p>Landings and take-offs in the Hunter River valley (Hāwea) occur within designated landing areas within the river valley flats</p> <p>Landings and take-offs in the Dingle Burn (Hāwea) occur within designated landing areas within the river valley flats and only between 4 January and 31 October, and 5 November and 23 December (inclusive) in any year</p> <p>One-off landing concessions considered on a case-by-case basis</p>
Remarkables Conservation Area (part), Rastus Burn Recreation Reserve and Conservation Area—Ben Nevis Scenic Reserve	<p>For heli-skiing in part of this area</p> <p>For regular landings with specified daily limits per operator based on visitor management zones as follows:</p> <ul style="list-style-type: none"> <li>– For frontcountry sites, 10 per operator per day</li> <li>– For backcountry sites, 5 per operator per day</li> <li>– For remote sites, 2 per operator per day</li> </ul> <p>Some sites have seasonal restrictions on landings</p> <p>Wye Creek ice wall—for climbers’ access to the ice wall only</p> <p>Concessionaire landing site for servicing heli-biking operations</p> <p>One-off landing concessions considered on a case-by-case basis</p> <p>NZ Ski controls aircraft access within the ski field lease area</p>
Ka Whenua Roimata Conservation Area (Ngāi Tahu Giftback) (part), Caples Conservation Area, Ngāi Tahu Leaseback Area (part), Humboldts Conservation Area, Greenstone Conservation Area, Lake Rere Recreation Reserve and adjacent conservation areas,	<p>For heli-skiing</p> <p>For regular landings with specified daily limits per operator based on visitor management zones as follows:</p> <ul style="list-style-type: none"> <li>– For frontcountry sites, 10 per operator per day</li> <li>– For backcountry sites, 5 per operator per day</li> <li>– For remote sites, 2 per operator per day</li> </ul>

CONSERVATION AREA(S)	ORANGE ZONE CRITERIA—TO BE MANAGED
recreation reserve and marginal strips	<p>Consultation with Ngāi Tahu is required for aircraft landings in the Giffback (Ka Whenua Roimata) and Leaseback conservation areas as part of the concession process as per the Deed of Settlement</p> <p>One-off landing concession considered within the Recreational Hunting Area (RHA) for accessing hunting blocks during the ballot period</p> <p>Concessionaire landing site for servicing lodge in the Greenstone River Valley</p>
Mt Alta Conservation Area, West Wanaka Conservation Area, Albert Burn Conservation Area, and other adjacent conservation areas and marginal strips	<p>For heli-skiing</p> <p>For regular landings with specified daily limits per operator based on visitor management zones as follows:</p> <ul style="list-style-type: none"> <li>– For frontcountry sites, 10 per operator per day</li> <li>– For backcountry sites, 5 per operator per day</li> <li>– For remote sites, 2 per operator per day</li> </ul> <p>Concessionaire landing site for servicing lodge in Mt Alta Conservation Area</p> <p>One-off landing concessions considered on a case-by-case basis</p>
North Motatapu Conservation Area, Motatapu Conservation Area (part)	<p>For heli-skiing in part of this area</p> <p>For regular landings with specified daily limits per operator based on visitor management zones as follows:</p> <ul style="list-style-type: none"> <li>– For frontcountry sites, 10 per operator per day</li> <li>– For backcountry sites, 5 per operator per day</li> <li>– For remote sites, 2 per operator per day</li> </ul> <p>Some sites have seasonal restrictions on landings</p> <p>One-off landing concessions considered on a case-by-case basis</p>
Black Peak Conservation Area, Shotover Conservation Area, Shotover/Kimi-akau Conservation Area	<p>For heli-skiing in part of this area</p> <p>For regular landings with specified daily limits per operator based on visitor management zones as follows:</p> <ul style="list-style-type: none"> <li>– For frontcountry sites, 10 per operator per day</li> <li>– For backcountry sites, 5 per operator per day</li> <li>– For remote sites, 2 per operator per day</li> </ul> <p>Some sites have seasonal restrictions on landings</p> <p>One-off landing concessions considered on a case-by-case basis</p>
Mt Aurum Recreation Reserve, Ballarat Creek Conservation Area, Whakaari Conservation Area	<p>For heli-skiing in part of this area</p> <p>For regular landings with specified daily limits per operator based on visitor management zones as follows:</p> <ul style="list-style-type: none"> <li>– For frontcountry sites, 10 per operator per day</li> <li>– For backcountry sites, 5 per operator per day</li> <li>– For remote sites, 2 per operator per day</li> </ul> <p>Concessionaire landing sites for servicing a hut on Mt Larkins</p> <p>Concessionaire landing sites in Whakaari Conservation Area to service heli-biking</p> <p>One-off landing concessions considered on a case-by-case basis</p>

CONSERVATION AREA(S)	ORANGE ZONE CRITERIA—TO BE MANAGED
Mt Crichton Scenic Reserve (part), Hanley Faces Conservation Area (part)	For heli-skiing in part of this area For regular landings with specified daily limits per operator based on visitor management zones as follows: <ul style="list-style-type: none"> <li>– For frontcountry sites, 10 per operator per day</li> <li>– For backcountry sites, 5 per operator per day</li> <li>– For remote sites, 2 per operator per day</li> </ul> One-off landing concessions considered on a case-by-case basis
Glen Allen Scenic Reserve, Te Kere Haka Scenic Reserve, and other adjacent conservation areas, scenic reserves and marginal strips	For heli-skiing in part of this area One-off landing concessions considered on a case-by-case basis
Coronet Peak Recreation Reserve	NZ Ski controls aircraft access within the ski field lease area

- 3.6.6 May grant concessions for aircraft landings associated with sporting events or filming activities that do not meet the limits and/or criteria for the Yellow, Green or Orange zones (excluding wilderness areas), and/or the prescriptions for visitor management zones in Appendix 12, in accordance with Policy 3.1.12 and an assessment of mechanisms that may be used to address any adverse effects, such as:
- a) the use of a remotely piloted aircraft; and
  - b) low-level flying (i.e. hovering) but no actual landing on the ground.
- 3.6.7 May grant concessions for aircraft landings on public conservation lands and waters for:
- a) the construction, operation and/or maintenance of equipment (e.g. meteorological, seismic) or utilities (e.g. communication systems, transmissions lines) authorised by the Department; or
  - b) wild animal control activities (covered by Policies 3.20.1–3.20.7)
- that do not meet the limits and/or criteria for an aircraft access zone and/or the prescriptions for visitor management zones in Appendix 12.
- 3.6.8 Advocate to aviation controllers and aircraft operators to manage flight paths to avoid adverse effects on public conservation lands and waters.
- 3.6.9 Undertake a collaborative approach with aircraft operators overflying public conservation lands and waters, to establish voluntary codes of conduct that reflect the requirements of visitor management zones for those lands and waters.

### 3.7 Animals

Animals are not permitted to be taken onto public conservation lands and waters unless this is consistent with legislation and provided for in this CMS or conservation management plan. This may include giving authorisation by way of signage or other such public notification. Domestic animals and pets can have adverse effects on the natural, historic and cultural values of public conservation lands and waters and can detract from visitor appreciation and enjoyment. Potential effects include killing wildlife, introducing pest plants, introducing disease (such as dogs to seals), browsing indigenous vegetation, increasing erosion and conflicting with other user groups.

The use of animals can also enhance the recreational experience of visitors to public conservation lands and waters.

### ***Policies***

- 3.7.1 Should not permit livestock, other than horses (and pack animals), in accordance with Policies 3.9.1–3.9.4, on public conservation lands unless under a grazing and farming concession or management agreement.
- 3.7.2 Should not permit any other types of animals, including pets, other than dogs in accordance with Policies 3.8.1–3.8.9, on public conservation lands and waters.

## **3.8 Dogs**

The Department controls the use of dogs for recreational and other activities, including hunting, on public conservation lands and waters to protect both indigenous wildlife and people's rights of use and enjoyment. It is illegal to take a dog onto public conservation lands and waters without a permit unless the area is identified as an 'open dog area' where no permit is required pursuant to Part 5C of the Conservation Act 1987. The only dogs that do not require permits on public conservation lands and waters are those used for police, customs, management, and search and rescue purposes, and disability assist dogs. To facilitate the recognition of disability assist dogs, the Department prefers such dogs to wear Disability Assist Dog identification and be registered with the New Zealand Companion Animal Register. Being accompanied by a disability assist dog does not exempt a person from obtaining a permit for entry where these are required (e.g. nature reserves).

A dog used for hunting must be properly trained, under the control of its handler and authorised by a hunting permit. Hunting dogs, and farm dogs on lands adjacent to known habitat for ground-dwelling or nesting indigenous species, are encouraged to be avian aversion trained.

Outside of Mount Aspiring National Park,<sup>56</sup> the taking of dogs onto Otago's public conservation lands and waters, including most former pastoral leasehold lands and most of the inland conservation parks and conservation areas, under the authority of a permit, presents few or no issues. While there is no conflict with other users, in most of these areas caution is still required as ground-nesting birds are present.

Places in Otago where dogs cause problems include coastal areas (where their exclusion or control is necessary to ensure marine mammals and birds are undisturbed), high-use tracks, braided rivers and other areas containing ground-nesting birds or other vulnerable species. There can also be access issues if easements across private land do not allow for dog access.

Taking a dog onto conservation lands and waters can enhance the recreational experience of the owner, but it needs to be well managed to prevent adverse impacts on wildlife and other people. 'Open dog' areas, pursuant to Part 5C of the Conservation Act 1987, have yet to be established within Otago and the Department may initiate a separate public process to determine where these areas are. In the meantime, the Department uses signage to identify where dogs can go onto public conservation lands and waters without a permit.

### ***Policies***

- 3.8.1 Identify through the Department's website and through the use of signs and provision of information where people are permitted to take dogs onto public conservation lands and waters, and under what conditions.

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<sup>56</sup> Refer to Mount Aspiring National Park Management Plan 2011 for provisions relating to dog use in the park.

- 3.8.2 Should ensure that, if a permit is required to take a dog onto public conservation lands and waters, the permit contains conditions that protect the values for which those lands and waters are held.
- 3.8.3 May include the following conditions in a permit to take a dog onto public conservation lands and waters:
  - a) owners must keep the dog under control at all times;
  - b) dogs must not go into or be under public buildings, including huts;
  - c) dogs must be currently certified by an approved avian aversion trainer where there are ground-dwelling or ground-nesting birds; and
  - d) owners are to comply with any identified access arrangements between the Department and adjoining landowners.
- 3.8.4 Should allow disability assist dogs onto public conservation lands and waters without a permit provided the person whom the dog is accompanying keeps the dog under control at all times and complies with reasonable conditions set in relation to the entry and presence of the disability assist dog.
- 3.8.5 Educate the community about the threats that dogs can pose to conservation values.
- 3.8.6 Work with local and regional authorities to ensure consistency in dog control in areas containing protected wildlife and important wildlife habitats.
- 3.8.7 Will apply the relevant provisions in the Mount Aspiring National Park Management Plan 2011 regarding the taking of dogs into Mount Aspiring National Park.
- 3.8.8 May run a public process in the future to establish controlled and open dog areas on public conservation lands and waters, in areas other than Mount Aspiring National Park.
- 3.8.9 Inform the public of the location of controlled and open dog areas on public conservation lands and waters through the Department's website.

### 3.9 Horses and pack animals

In some cases, the use of animals such as horses can enhance the recreational experience of visitors. However, they can have adverse effects, as identified above as well as spreading pest plants and pathogens. Authorisation, by signage or other means, is required to take horses and pack animals onto public conservation lands and waters.

Horses, horse riding and trekking have played an important role in the history of Otago and are recognised today with events such as the Otago Goldfields Heritage Trust Cavalcade. This recreational and tourism activity remains popular in Otago, especially Central Otago (including along the Otago Central Rail Trail) and on former pastoral leasehold lands. Many of these trails follow traditional or historic routes.

#### *Policies*

- 3.9.1 Should allow the use of horses (and pack animals) only at the locations provided as identified at sites listed in Tables within Part Two—Places.
- 3.9.2 Meet the requirements of the following criteria when considering the use of activities utilising horses (and pack animals) on public conservation lands and waters:
  - a) is consistent with the purpose for which the lands and waters concerned are held;

- b) is consistent with the outcome and policies for the Places where the road, track or site is located;
  - c) the potential for horses to introduce or spread pest plants into the area is avoided;
  - d) the potential for horses to accelerate erosion or cause other damage to the area is avoided;
  - e) adverse effects on the natural, historic or cultural values are avoided, remedied or mitigated; and
  - f) adverse effects on the safety and enjoyment of other recreational users, and potential for conflicts with other users of the area are avoided, remedied or mitigated.
- 3.9.3 Liaise with horse-riding groups to identify opportunities for involvement with current or proposed conservation programmes, and may enable these groups to maintain the tracks or routes that they use.
- 3.9.4 Should monitor the scale and effect of the presence and use of horses and pack animals on public conservation lands and waters. If monitoring indicates that there are adverse effects on the natural, historic and cultural values or the experience of other users, will consider options to manage this activity so as to avoid, remedy or mitigate these effects.

### 3.10 Structures and utilities

Most structures on public conservation lands and waters relate to one of the following purposes:

- The Department's operational requirements
- The public's appreciation and enjoyment of the intrinsic, natural, historic and cultural values consistent with the purposes for which the land concerned is held
- Utilities.

Utilities are facilities that provide essential public services, such as: telecommunications; energy generation and transmissions; sewerage; water supply and flood control; oil and gas transmissions; roads and airstrips; hydrological and weather stations; and seismic monitoring.

Structures and utilities can be temporary or intended for long-term use. They can share space (usually a public facility) or require exclusive occupation of space (usually a private facility). Both may be either commercial or non-commercial in nature. Regardless of the nature of the structure, there is a legislative expectation, section 17U(4) Conservation Act 1987, that the necessity for the structure or facility to be constructed on public conservation lands and waters is clearly established.

There are a number of telecommunication facilities on public conservation lands in Otago. Suitable sites for telecommunication facilities are limited and tend to be on high-altitude land that is unmodified and has important landscape associated within them and are important to Ngāi Tahu. As such, co-location of telecommunication sites is preferred to avoid their proliferation and any adverse effects on unmodified landscapes.

#### *Policies*

- 3.10.1 Should apply the following criteria when considering applications to erect or retain structures or utilities or for the adaptive reuse of existing structures on public conservation lands and waters:

- a) the purposes for which the lands and waters concerned are held;
- b) the outcomes and policies for the Places where activity is proposed to occur;
- c) whether the structure could reasonably be located outside public conservation lands and waters;
- d) whether the structure could reasonably be located in another location where fewer adverse effects would result from the activity;
- e) whether the structure adversely affects conservation, including recreational values;
- f) whether the structure is readily available for public use;
- g) whether the structure is consistent with the visitor management zone on Map 3 and as described in Appendix 12;
- h) whether the activity promotes or enhances the retention of a historic structure;
- i) whether the activity is an adaptive reuse of an existing structure;
- j) whether the policies for private accommodation and related facilities should be applied (see Policies 3.11.1 and 3.11.6); and
- k) whether any proposed road in a national park is provided for in the relevant national park management plan.

3.10.2 Telecommunication facilities are encouraged to be co-located to avoid proliferation.

### 3.11 Private accommodation and related facilities

Existing structures on public conservation lands and waters include some private accommodation and related facilities that are not available for use by the general public. Some of these structures have been authorised, but several have been erected and used unlawfully (see Table 3.11.1). Under the Conservation General Policy 2005, the use of private accommodation and related facilities, including encampments solely for private purposes, is to be phased out, except where specifically provided for or allowed in legislation.

**Table 3.11.1: Authorised and unauthorised private accommodation and related facilities in Otago**

LOCATION	NO.	AUTHORISED	EXCEPTION APPLIES <sup>57</sup>	RIGHT OF RENEWAL	NOTES
Brighton/Taieri Mouth Marginal Strip —Bruce Rocks	1	Yes—expires on the death of the Licensee	Yes	Yes	Issued 1948 over Crown land
Quarantine Island/Kamau Taurua Recreation Reserve	1	Yes—expires 21/12/2036	No	No	
Aramoana Conservation Area—Spit Houses	4	No	No	No	
Otago Central Rail Trail	1	Yes—no actual expiry date	No	No	Term of Lease: One year from and inclusive of the commencement date of

<sup>57</sup> Section 7(2) Conservation Amendment Act 1996, section 11(4) Reserves Amendment Act 1996 or section 5(3) National Parks Amendment Act 1996.



LOCATION	NO.	AUTHORISED	EXCEPTION APPLIES <sup>57</sup>	RIGHT OF RENEWAL	NOTES
Recreation Reserve—Hyde					the Lease unless sooner determined under the provisions contained in Schedules B and C hereof and so on from year to year unless or until determined under any of the said provisions.
Otago Central Rail Trail Recreation Reserve—Omakau	1	No	No	No	Previously concessioned, now expired
Otago Central Rail Trail Reserve—Ranfurly	1	Yes—expires 5/3/2017	No	No	
Otago Central Rail Trail Recreation Reserve—Waipiata	1	Yes—no actual expiry date	No	No	Term of Lease: One year from and inclusive of the commencement date of the Lease unless sooner determined under the provisions contained in Schedules B and C hereof and so on from year to year unless or until determined under any of the said provisions.
Kakanui (Kakaunui) Conservation Area	1	No	No	No	Previously concessioned, now expired
Town of Moeraki Marginal Strip and Conservation Area	3	Yes—expires 30/6/2059 (1) No (2)	No	No	
Hāwea Conservation Park—Hunter River Valley Hāwea	2	No	No	No	
Dublin Bay Recreation Reserve—Wanaka	2	No	No	No	
Mt Aurum Recreation Reserve—	1	Yes—expires 31/12/2026	No	No	Right of renewal already completed

LOCATION	NO.	AUTHORISED	EXCEPTION APPLIES <sup>57</sup>	RIGHT OF RENEWAL	NOTES
Sainsbury Cottage					
Kinloch Foreshore Conservation Area	1	Yes—expires 30/6/2015	No	No	
Remarkables Conservation Area—Glen Nevis	1	No	No	No	

### *Policies*

- 3.11.1 Should not authorise new private accommodation and related facilities, including encampments, on public conservation lands and waters.
- 3.11.2 Should phase out all existing private accommodation and related facilities including encampments, on public conservation lands and waters that are not otherwise authorised under section 50 of the National Parks Act 1980<sup>58</sup> or not specifically provided for or allowed in legislation<sup>59</sup> by either:
- phasing in public use of the building(s) (see Policy 3.11.4(a)); or
  - removing the building(s) at the end of the phase-out period (see Policy 3.11.4(b)), unless retained by the Department for public use.
- 3.11.3 Should consult the Otago Conservation Board and the concession applicant when assessing a concession application for existing private accommodation and related facilities, including encampments, to determine whether a concession may be granted and, if so and where relevant, which of the two phase-out methods (Policy 3.11.2(a) or 3.11.2(b)) should be applied.
- 3.11.4 Should specify the following concession conditions if private accommodation and related facilities, including encampments, are to be authorised in accordance with Policy 3.11.2:
- in the case of Policy 3.11.2(a), the building(s) are to be made available for use by the public—with specific conditions on how this requirement will be phased in over time stated in each individual concession, including the requirement that any costs charged to the public are reasonable; or
  - in the case of Policy 3.11.2(b), the building(s) are to be removed<sup>60</sup> within 18 months of the death of the person named on the authorisation as at 26 June 2013, or within 20 years of approval of this CMS, whichever occurs first; and
  - the style and character of all buildings are to remain essentially unmodified; and
  - the floor area and footprint of all building(s) are not to increase beyond that existing at the time of CMS approval; and
  - all buildings must comply with the Building Act 2004 and local authority requirements; and

<sup>58</sup> The exception in section 50 of the National Parks Act 1980 relates to accommodation in a public sense. The only private accommodation it deals with is for staff quarters.

<sup>59</sup> Such as section 7(2) of the Conservation Amendment Act 1996, section 11(4) of the Reserves Amendment Act 1996, or section 5(3) of the National Parks Amendment Act 1996.

<sup>60</sup> Unless retained by the Department for public use/active management of historical and cultural heritage values.

- f) transfer/assignment of the concession to another party should not be authorised; and
  - g) an indemnity to protect the Department is given by the concessionaire and the concessionaire holds adequate insurance (e.g. general public liability insurance, statutory liability insurance, and for the removal of buildings) to cover this indemnity.
- 3.11.5 Should, where an existing authorisation contains a right of renewal, grant the renewal<sup>61</sup> of authorisations for private accommodation and related facilities, including encampments, on public conservation lands and waters only to the existing authorisation holder,<sup>62</sup> if:
- a) the right of renewal is exercised by the authorisation holder before the existing authority expires,<sup>63</sup> and
  - b) (subject to the terms of the authorisation) the person holding the authorisation has complied with all of the terms and conditions of the authorisation.
- 3.11.6 Should not authorise the substantial repair or replacement of private accommodation and related facilities, including encampments, if:
- a) a building falls into substantial disrepair, so that it needs work requiring a building consent under the Building Act 2004,<sup>64</sup> or
  - b) a building is destroyed or so damaged by an event (e.g. fire, flood) as to render it untenable.

### 3.12 Marine mammal viewing

Marine mammals are protected under the Marine Mammals Protection Act 1978 and the Marine Mammals Protection Regulations 1992. Commercial activities involving marine mammals must be authorised by the Director-General of Conservation.

In Otago, marine mammal viewing permits have been issued to permit holders, mostly for shore-based viewing of kekeno/New Zealand fur seals and rāpoka/whakahao/New Zealand sea lions.

The potential benefits of well-run marine viewing operations may be considerable through increased public awareness and appreciation of marine mammals. However, a precautionary approach is taken to granting of marine mammal viewing permits to protect the well-being of marine mammals, consistent with the requirements of the Marine Mammals Protection Regulations 1992.

At some sites, such as Nugget Point/Tokatā, people can view marine mammals from afar, which avoids disturbance to these animals and their habitats, and does not require authorisation.

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<sup>61</sup> Where the existing/previous authorisation does not contain a right of renewal and is due to expire (or has expired) and the authorisation holder applies for a new concession, the application should be considered against the other policies in this section and the relevant General Policy.

<sup>62</sup> I.e. should not grant transfers/assignments to other parties.

<sup>63</sup> In accordance with section 17ZAA of the Conservation Amendment Act 1996.

<sup>64</sup> Minor repair and maintenance using comparable materials does not generally require building consent under this Act.

### *Policies*

- 3.12.1 Support research into and require monitoring of the impacts of human interactions with marine mammals.
- 3.12.2 Take a precautionary approach to the number of commercial operators involved in marine mammal operations in the area, including seeking a moratorium on the issuing of new permits, or suspending, revoking or amending existing permits if research and monitoring indicate that such steps are required.
- 3.12.3 Should not grant permits for marine mammal viewing at marine mammal nursery and crèche sites<sup>65</sup> during seasons when these behaviours occur.

## 3.13 Commercial eeling

The Department is responsible for protecting and preserving tuna/eel and their habitat within public conservation lands and waters as far as practicable. Tuna/eel have an important role to play in ecosystem functioning, being the top predators in freshwater ecosystems. Commercial eeling, habitat loss and hydro development can all have potential adverse effects on tuna/eels. Tuna/longfin eels are Declining.

The Ministry for Primary Industries manages commercial eeling under the Fisheries Act 1996, the Fisheries (Commercial Fishing) Regulations 2001 and other associated regulations. Commercial eel fishers require a concession to access public conservation lands and/or take tuna/eels from waters whose beds are public conservation land. Within areas administered under the Conservation Act 1987, legislative requirements can limit the ability to lawfully grant concessions for commercial eel fishing. For example, an ecological area must be 'managed as to protect the [ecological] value for which the land is held'. Areas held under the Conservation Act 1987 in general are required to be managed so that their natural resources are protected, and tuna/eels are part of those natural resources where they are present. There is no current provision for commercial eeling on public conservation land and waters in Otago.

The commercial take of indigenous fauna such as tuna/eel from reserves administered under the Reserves Act 1977 is also subject to exceptions contained within section 50(1) of that Act.

Commercial eeling in national parks is effectively prohibited. A national park management plan will identify any exceptional circumstance that may exist, that enables the consideration of an application for commercial eeling in national park waters consistent with their preservation in the park. There is no provision for commercial eeling in Mount Aspiring National Park.

### *Policies*

- 3.13.1 Should not grant concessions for:
  - a) commercial eeling on public conservation lands or waters; or
  - b) access over public conservation lands, where it is required to reach a proposed eeling site,to ensure the preservation of tuna/eel species.
- 3.13.2 Work cooperatively with Ngāi Tahu, the Ministry for Primary Industries, commercial eelers and the community to protect indigenous tuna/eel populations and their habitats on and off public conservation lands and waters.

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<sup>65</sup> Crèche sites are those where young marine mammals group together, often when adults are at sea gathering food. Animals gathered at crèche sites are particularly vulnerable to disturbance.

### 3.14 Sports fish and game bird hunting

Waters on public conservation lands are often recognised as a valuable recreational asset for anglers. Where sports fish are legally present, they may be retained. However, in certain circumstances they may be eradicated or controlled with the agreement of the relevant regional fish and game council.

The Otago, Southland and Central South Island Fish and Game Councils manage sports fish and fishing in Otago. Sports fishing is a popular recreational activity with opportunities to fish for trout in highly scenic rivers (in the Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākaihautū Place in particular), attracting locals and other visitors.

The Otago, Central South Island and Southland Fish and Game Councils also manage game birds and game bird hunting. The Minister, however, has a responsibility to regulate game bird hunting on public conservation lands and waters where such hunting is consistent with the purposes for which the lands and waters concerned are held, and does not have adverse effects on protected indigenous species.

#### *Policies*

- 3.14.1 Work with the Otago, Central South Island and Southland Fish and Game Councils to:
- a) preserve indigenous freshwater fisheries;
  - b) protect recreational freshwater fisheries and freshwater fish habitats at risk of loss or decline; and
  - c) provide for sports fishing and game bird hunting on public conservation lands and waters.
- 3.14.2 Work cooperatively with the relevant fish and game councils on statutory advocacy matters relating to protection or restoration of freshwater habitats, riparian vegetation and public access to and along waterways where there are common matters of interest.

### 3.15 Grazing and farming

In 2014 there were 104 concessions for stock grazing and farming on public conservation land in Otago. Some of these are lands that currently have low indigenous biodiversity value. In rare cases, these are in the nature of management agreements where grazing and farming is being used for exotic vegetation control. In some places, grazing and farming is being phased out or is associated with pastoral lease tenure review processes.

The Department also manages many grazing and farming concessions/authorisations (including management agreements) issued over land that has been, in the past, considered to have low natural and historic values. Concessions must be consistent with Policy 11.2 of the Conservation General Policy 2005 and any operative conservation management plan, or in the case of national parks, Policy 10.2 of the General Policy for National Parks 2005 and the relevant national park management plan.

#### *Policies*

- 3.15.1 Should authorise grazing and farming on public conservation lands and waters only where consistent with Policy 3.15.2 and where adverse effects can be avoided, remedied or mitigated against. Consideration should be given, but not limited, to:
- a) the criteria in Policy 11.2(a) of the Conservation General Policy 2005;

- b) the purposes for which the lands concerned are held;
  - c) the outcome and policies for the Place where the grazing and farming are proposed to occur;
  - d) the suitability of the lands for grazing and farming, such as the soil types and sensitivity of the catchments to increased nutrients;
  - e) the flooding risk;
  - f) the ability of the authorisation holder to keep livestock out of waterways;
  - g) adverse effects on freshwater quality, indigenous species and ecosystems;
  - h) adverse effects on cultural values; and
  - i) waterway protection measures contained in Regional Water Plans.
- 3.15.2 Should not grant grazing and farming authorisations for public conservation lands near rivers, or in riparian margins, where:
- a) the lands include priority ecosystem units;
  - b) the lands provide surrogate habitat for indigenous species and habitat corridors, albeit with exotic vegetation, or have future restoration potential;
  - c) the lands contain buffer zones between river ecosystem and highly developed farmland;
  - d) grazing and farming would be inconsistent with regional and district plans; or
  - e) grazing and farming would be inconsistent with agreements with regional councils with respect to the management of flood protection works.
- 3.15.3 Existing authorisations to graze and farm public conservation lands alongside braided rivers should not be renewed where there are adverse effects on ground-nesting birds or the braided river environment.

## 3.16 Mining

Under the Crown Minerals Act 1991, the Minister of Conservation has an approval role for access arrangements and minimum impact activities for all public conservation lands and waters. The Minister of Energy and Resources also has an approval role for access arrangements that relate to Tier 1 permits (as defined in the Act) and significant variations of those access arrangements. No access arrangements are allowable for land in Schedule 4 of the Act (which includes, but is not restricted to, all national parks, wilderness areas, nature reserves, scientific reserves and marine reserves), except in very limited circumstances, which are set out in the Act.

Otago has an extensive history of gold exploration. When gold prices are high, there is an increased demand for Crown Minerals Act permits. Often mining proposals involve public conservation lands and waters previously mined. It is necessary to carefully consider any potential impact on the natural and historic values when decisions are made whether to grant an access arrangement.

The sites may be protected or require additional authority from the Heritage New Zealand Pouhere Taonga Act 2014.

Other minerals such as lignite and scheelite have been mined since the early 20th century and, from time to time, applications to mine these resources are received for public conservation land.

### *Policies*

- 3.16.1 Consider applications for access arrangements on a case-by-case basis, in accordance with the criteria set out in the relevant section (i.e. section 61 or section 61A and section 61B) of the Crown Minerals Act 1991.
- 3.16.2 Review the conditions of access arrangements under the Crown Minerals Act 1991 if monitoring reveals that the effects of mining activities on conservation values and recreation opportunities are greater than expected, or additional adverse effects become apparent.

## **3.17 Sand and shingle extraction**

Sand and shingle extraction from riverbeds and beaches is managed and allocated by regional councils under the Resource Management Act 1991. On public conservation lands and waters, however, these activities also require authorisation from the Department. Currently sand and shingle are extracted from several locations on public conservation lands in the Rees River and Dart River/Te Awa Whakatipu catchments.

Sand and shingle extraction can have adverse effects on natural, cultural, historic and recreational values, such as freshwater quality, fish spawning, nesting birds, landscape values, wāhi tapu and public access. However, taking sand and shingle in the vicinity of the area where it is going to be used, such as for roading, can avoid potential pest plant contamination. Careful consideration needs to be given to the site, timing, proposed extraction volume and methods to ensure that the extraction area's values are protected.

### *Policies*

- 3.17.1 Should allow sand and/or shingle extraction from public conservation lands and waters only where the adverse effects can be avoided, remedied or mitigated.
- 3.17.2 Should use the following criteria when considering sand and/or shingle extraction from public conservation lands and waters:
  - a) is consistent with the purpose for which the lands and waters concerned are held;
  - b) is consistent with the outcome and policies for the Place where the activity is proposed to occur;
  - c) is consistent with the visitor management zones on Map 3 and as described in Appendix 12;
  - d) adverse effects on the landscape and the natural, historic or cultural values are avoided, remedied or mitigated; and
  - e) adverse effects on the safety and enjoyment of other recreational users of the area are avoided, remedied or mitigated.
- 3.17.3 Work with Otago and Southland regional councils to achieve integrated management of sand and/or shingle extraction on and off public conservation lands and waters.
- 3.17.4 May seek offsite mitigation or compensation to assist in indigenous ecosystem management.

### 3.18 Commercial filming and photography

Commercial filming and photography (filming activity) is any photography or filming undertaken on public conservation lands and waters for any specific gain or reward. Filming activities can include some or all of the following—cast, crew, film equipment, vehicles, aircraft, animals, sets and special effects.

Filming involves a range of activities, which may include feature films, documentaries, television commercials or television series. Location filming typically involves different scales of activity. Filming on public conservation lands and waters tends to be of small to medium scale, with some feature films also being shot.

The Conservation General Policy 2005 states that filming should be subject to the same assessment processes and conditions as other uses, and that particular care should be taken so that filming does not adversely affect the values of sites of significance, including those of significance to tangata whenua. Issues with filming include the use of aircraft and animals and the management of any conflict with other users of public conservation lands and waters.

In parts of Otago, notably around Queenstown and Wanaka, filming is an important industry which makes considerable use of the spectacular landscapes and alpine areas, most of which are included within Mount Aspiring National Park and other public conservation lands and waters.

Filming activities within Mount Aspiring National Park are managed according to the Mount Aspiring National Park Management Plan 2011.

The policies below are additional to the policies that apply to all authorisations and do not replace them.

#### *Policies*

- 3.18.1 Should grant concessions for commercial filming and photography (filming activity) on public conservation lands and waters located outside national parks only where the following criteria are met:
- a) any conflicts between recreation/tourism uses and filming activity are avoided (e.g. separated in space and time), remedied or mitigated;
  - b) any adverse effects from filming and associated activities on conservation values, including sites of significance to Ngāi Tahu are avoided, remedied or mitigated;
  - c) aircraft use for filming activity complies with the aircraft Policies 3.6.1–3.6.9;
  - d) vehicle use for filming activity complies with Policies 3.2.1–3.2.12 (motorised vehicles), Policies 3.3.1–3.3.8 (biking) and Policies 3.4.1–3.4.5 (electric power-assisted pedal cycles);
  - e) animal use for filming activity complies with Policies 3.7.1–3.7.2 (other animals), 3.8.1–3.8.9 (dogs) and 3.9.1–3.9.4 (horses and pack animals); and
  - f) the filming activity is consistent with the outcome and policies for Places in which the activity is proposed to occur.
- 3.18.2 May grant concessions for filming activities that do not meet the prescriptions for the visitor management zones in Appendix 12 only in accordance with Policy 3.1.12.
- 3.18.3 Should apply the provisions in section 6.7.3 of the Mount Aspiring National Park Management Plan 2011, to any filming activity in Mount Aspiring National Park.



- 3.18.4 Should include reference to and require compliance with the latest version of the *Code of Practice: Filming on Public Conservation Lands*<sup>66</sup>, in all concessions for filming activity.
- 3.18.5 Draw the attention of filming concession applicants to *A Guideline for Filming within the Takiwā of Ngāi Tahu* (2010).<sup>67</sup>

### 3.19 Collection of material

Applications for the collection of material for research and information needs are addressed in, and must be consistent with, the Conservation General Policy 2005 (Section 12: Research and information needs) and the outcomes and policies for Places in Part Two of this CMS.

#### *Policy*

- 3.19.1 Should allow the collection of material from public conservation lands and waters only in accordance with:
- a) the Conservation General Policy 2005, section 12(d); and
  - b) the outcome and policies for Places within Part Two of this CMS.

### 3.20 Wild animals

Wild animals are introduced animals that are managed to achieve the purpose of the Wild Animal Control Act 1977. The Minister of Conservation has responsibility for the Wild Animal Control Act 1977 through the granting of:

- Concessions for commercial wild animal recovery operations involving aircraft issued under the Conservation Act 1987
- Permits for commercial and recreational hunting
- Permits for holding of wild animals in captivity in safari parks or deer farms.

Where wild animals are held alive in captivity, further permits may be required from the Director-General of Conservation in accordance with the Wild Animal Control Act 1977 requirements. Permits are required to convey any deer species, chamois or tahr outside a species feral range where it is to be kept for the purposes of public display, research, private use, and keeping prior to export.

This CMS is one of several mechanisms the Minister of Conservation must consider when making a decision on applications for commercial wild animal recovery activities. The primary decision-making tool is the Wild Animal Control Act 1977. Consequently, policies in this CMS are considered alongside the Wild Animal Control Act 1977 when making decisions on applications. Any requirements or regulations promulgated under the Game Animal Council Act 2013 are also relevant.

There is a variety of commercial wild animal control activities, each with its own management issues. The Department has grouped these into three main categories according to the management issues and potential effects associated with each activity. This categorisation was developed in consultation with the industries and stakeholders involved. The three categories are:

1. Deer, pig, chamois and goat carcass recovery and live capture
2. Tahr carcass recovery and live capture
3. Aerially assisted trophy hunting.

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<sup>66</sup> Jointly developed by the Department of Conservation and Film New Zealand.

<sup>67</sup> Te Rūnanga o Ngāi Tahu and Screen Producers and Directors Associations of New Zealand.

Concessions are issued separately for the three types of activity. However, all three types of activity above are assessed similarly against the criteria in the Wild Animal Control Act 1977 and other legislation. Other concessions may be required under the Conservation Act 1987; for example, for aircraft access for recreational hunting.

### ***Policies***

#### **Deer, pig, chamois and goat live capture and carcass recovery**

- 3.20.1 Should assess concession applications for deer, pig, chamois and goat carcass recovery and deer and chamois live capture on public conservation lands and waters under the Wild Animal Control Act 1977 against the following criteria:
- a) the contribution to concerted action to control wild animals (to achieve the purposes of the Wild Animal Control Act 1977);
  - b) the purpose for which the lands and waters concerned are held;
  - c) adverse effects on conservation values, including priority ecosystem units and species, surrounding lands, and natural quiet;
  - d) the outcome and policies for the Place where the activity is proposed to occur;
  - e) effects on visitors;
  - f) cumulative effects;
  - g) frequency, timing and location of the activity;
  - h) the effect of granting the concession on other authorisations; and
  - i) other relevant matters, including the applicant's ability to obtain required accreditations or certifications from other agencies.
- 3.20.2 Should grant concessions under the Wild Animal Control Act 1977 for the live capture of chamois on public conservation lands and waters only as one-off permits.

#### **Tahr live capture and carcass recovery**

- 3.20.3 Should assess concession applications for tahr live capture and carcass recovery activities on public conservation lands and waters under the Wild Animal Control Act 1977 against the following criteria:
- a) the contribution to concerted action to control wild animals (to achieve the purpose of the Wild Animal Control Act 1977);
  - b) the Himalayan Thar Control Plan (1993) made under the Wild Animal Control Act 1977;
  - c) the purpose for which the lands and waters concerned are held;
  - d) adverse effects on conservation values, including priority ecosystem units and species, surrounding lands, and natural quiet;
  - e) the outcomes and policies for the Places where the activity is proposed to occur;
  - f) effects on visitors;
  - g) cumulative effects;
  - h) frequency, timing and location of the activity;
  - i) the effect of granting the concession on other authorisations; and
  - j) other relevant matters, including the applicant's ability to obtain required accreditations or certifications from other agencies.

- 3.20.4 Should grant concessions under the Wild Animal Control Act 1977 for live tahr capture and carcass recovery on public conservation lands and waters only as one-off permits.

### **Aerially assisted trophy hunting**

- 3.20.5 Should assess concession applications for aerially assisted trophy hunting on public conservation lands and waters against the following criteria:
- a) the contribution to concerted action to control wild animals (to achieve the purpose of the Wild Animal Control Act 1977);
  - b) the Himalayan Thar Control Plan (1993) made under the Wild Animal Control Act 1977;
  - c) the purpose for which the lands and waters concerned are held;
  - d) adverse effects on conservation values, including priority ecosystem units and species, surrounding lands, and natural quiet;
  - e) the outcome and policies for the Place where the activity is proposed to occur;
  - f) effects on visitors;
  - g) cumulative effects;
  - h) frequency, timing and location of the activity;
  - i) the effect of granting the concession on other authorisations; and
  - j) other relevant matters.

### **Wild animal control activities in wilderness areas**

- 3.20.6 May grant concessions for wild animal control activities under the Wild Animal Control Act 1977 in the Olivine Wilderness Area where necessary or desirable for the preservation of the area's indigenous natural resources. A concession that meets this test will:
- a) occur where the density of tahr, chamois or red deer in the Olivine Wilderness Area exceeds management intervention densities in animal control plans or thresholds set for ecosystem management;
  - b) demonstrate its contribution to concerted action against the adverse effects of wild animals by showing that the wild animal control activity is necessary for, or will actively benefit, the preservation of the area's indigenous natural resources;
  - c) consider the outcome and policies for a Place in which the activity is proposed to occur (if within a Place in this CMS or any applicable management plan);
  - d) identify any sites or times where the operation should not occur;
  - e) demonstrate that no visitor group is likely to have their wilderness experience adversely affected by the activity, including through cumulative effects of other similar activities; and
  - f) demonstrate the effectiveness of the hunting by providing the Department with an assessment and analysis of numbers killed and estimated animal densities.
- 3.20.7 Should only allow aircraft movements for hunter access into the Olivine Wilderness Area where it is necessary or desirable for the preservation of the area's indigenous natural resources. Applications that meet this test will:
- a) occur where the densities of deer, chamois, goats and/or pigs in the Olivine Wilderness Area exceed management intervention densities in animal control plans or thresholds set for ecosystem management;

- b) demonstrate that the recreational hunting activity associated with the aircraft landing is necessary for, or will actively benefit, the preservation of the area's indigenous natural resources;
- c) be consistent with the outcomes and policies for the Mount Aspiring National Park/Tititea Place, and section 6.6.5 and section 12 of the Mount Aspiring National Park Management Plan 2011;
- d) occur when hunting is most effective;
- e) not involve the taking in or use of animals in the area;
- f) demonstrate that there is no practical alternative access to the site;
- g) demonstrate that no other visitor group is likely to have their wilderness experience adversely affected by the landings, including by cumulative effects of similar activities;
- h) except for the aircraft landings, be indistinguishable from other independent users of the wilderness area(s);
- i) provide for aircraft landings only at designated sites identified for the most effective animal control; and
- j) demonstrate the effectiveness of the hunting by providing the Department with an assessment and analysis of numbers killed and estimated animal densities.

#### **Wild animals held in captivity**

- 3.20.8 Should assess applications for permits in accordance with the Wild Animal Control Act 1977 to keep wild animals in captivity in safari parks, deer farms, for public display, as pets, for research, and prior to export, in accordance with some or all of the following criteria:
- a) the views of the relevant regional council;
  - b) for deer farms and safari parks, the place of captivity must be within the feral range of tahr or chamois, and, for deer species, in accordance with the most recent deer farming regulations published in the NZ Gazette;
  - c) the place of captivity be equipped with adequate fences for the containment of the animals; and
  - d) the species and number of each to be so kept.

### **3.21 Game animals (see also wild animals)**

Game animals are those animals defined as such in the Game Animal Council Act 2013 for the purposes of the Act, i.e. chamois, deer, tahr and wild pigs. Game birds are defined at Schedule 1 of the Wildlife Act 1953.

The Minister of Conservation may designate any species of game animal in a specified area on public conservation lands to be a 'herd of special interest' (see Glossary definition) if the required criteria are met, including that the Minister considers that:

The animals are of special interest to hunters

- i) The animals can be managed for hunting purposes
- ii) Management of the animals for hunting purposes is consistent with the overriding considerations (see Glossary for definition).

A herd management plan is developed for each herd of special interest proposed for designation, setting out the objectives and strategies for the management of the herd to achieve the expected benefits to be gained from managing the animals for hunting purposes.

As at the date of CMS approval, no herds of special interest within Otago have been gazetted under the Game Animal Council Act 2013.

The Game Animal Council has a range of functions associated with the hunting of game animals. In relation to herds of special interest to hunters specifically, and hunting generally, the Department will work with the Council for the effective management of game animals in a manner that is compatible with the management of public conservation lands and resources generally.

### ***Policy***

3.21.1 Work with the Game Animal Council to facilitate the hunting of game animals on public conservation lands as defined by the Game Animal Council Act 2013<sup>68</sup> to achieve the purposes of the Wild Animal Control Act 1977 and the Game Animal Council Act 2013.

## **3.22 Sporting and other competitive events<sup>69</sup>**

Competitive sporting events, including endurance races, multi-sport or orienteering events, may traverse public conservation lands and waters. These events are part of the spectrum of recreational opportunities. Consideration of applications for these events is likely to focus on whether their effects can be managed in a way that is consistent with the outcomes for the Places. These events present an opportunity to educate participants about conservation values, such as through pre-race information and briefings.

Current knowledge about the adverse effects of competitive sporting events indicates that ground and vegetation damage tends to be minimal when confined to track systems designed and well-maintained for the activity, or open bare-gravel/rock riverbeds in dry conditions (as opposed to inappropriate conditions such as steep slopes). These ideal conditions are seldom available for a whole event on every occasion. Avoidance and remedial measures may be required, including event route change, postponement or cancellation. Adverse effects on wildlife and other users can be variable, again depending on the activities undertaken, location, size and timing of the event.

In managing such events in Otago, the goal is to avoid or minimise damage to indigenous plants and wildlife, historic and cultural values, facilities (e.g. tracks) and conflict with other users of the public conservation lands and waters. On these occasions where event organisers do not disclose routes to participants until race day itself, additional conditions may need to be met to ensure that any potential effects are fully quantified, assessed and avoided, remedied or mitigated. Monitoring of all events is essential.

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<sup>68</sup> Public conservation land means land that is—

- a) held, managed, or administered by the Department of Conservation under the Conservation Act 1987 or an enactment listed in Schedule 1 of the Act; and
- b) owned by the Crown.

<sup>69</sup> For the purposes of this strategy, competitive sporting events are those that are advertised to the general public (as distinct from closed club events or activities involving small groups) or may involve large numbers of people and spectators, or have the potential to have significant adverse effects on conservation values, including effects on other people and other recreational opportunities.

## ***Policies***

- 3.22.1 May authorise organised sporting or other competitive events where:
- a) consistent with the purpose for which the lands and waters concerned are held;
  - b) consistent with the outcomes and policies for Place(s) where the activity is proposed to occur;
  - c) any adverse effects on natural, historic or cultural values are avoided, remedied or mitigated;
  - d) any adverse effects on existing recreational opportunities in the areas are avoided, remedied or mitigated;
  - e) the requirements of policies for associated activities (such as use of vehicles, aircraft, animals and structures) can be met; and
  - f) it can be demonstrated that adequate public notification of the event can occur before the event.
- 3.22.2 May authorise sporting or other competitive events that do not meet the prescriptions for the visitor management zones in Appendix 12 in accordance with Policy 3.1.12.
- 3.22.3 May waive or reduce the requirements for public notification in circumstances where the details of a sporting or other competitive event are not disclosed to participants in advance, if satisfied that the adverse effects will be minimised and following consultation with the Otago Conservation Board on a confidential basis.
- 3.22.4 May require the concessionaire to require participants in a sporting or other competitive event to comply with a code of conduct developed with the concessionaire.
- 3.22.5 Should require monitoring of effects on natural, historic and cultural values.
- 3.22.6 Should require fire safety contingencies in high fire risk areas; such contingencies may include event authorisations being cancelled at short notice.
- 3.22.7 Should require opportunities for conservation education and interpretation; including for Ngāi Tahu cultural values in consultation with Ngāi Tahu.

### **3.23 Recreation activities using fixed anchors**

The practice of placing fixed anchors into rock (sometimes called bolting) is for the purpose of undertaking roped access activities such as rock climbing, abseiling, caving and canyoning. These anchor points are usually drilled or glued in place and remain permanently on the rock face. Management issues around this practice include:

- The adverse effects of the activity on the remote experiences and the accepted ethos of self-management of risk as part of these experiences
- The adverse effects on natural, historic and cultural values, not necessarily from the installation of the anchors themselves, but by the popularisation of areas resulting in the trampling and removal of plants, introduction of pest plants, erosion of landforms and potential for desecration of wāhi tapu
- The potential liability of the Department and others for the safety of users where fixed anchors have been installed by members of the public
- Relationships between users, the Department and others regarding the installation of fixed anchors at sites

- The adverse effects on recreational values and provide for a spectrum of planned recreational opportunities.

The Department works with the New Zealand Alpine Club as a representative advocate for climbers on these issues. The Club developed a *Position on Bolting* (2010) and *NZAC Bolting Technical Guidelines* (2005) to help ensure safe and consistent bolting and environmental responsibility (<http://alpineclub.org.nz>). Liaison with other recreation groups also occurs through authorisation processes.

### **Policies**

- 3.23.1 May authorise the placement of fixed anchors for recreation on public conservation lands and waters subject to the following processes and criteria:
- a) liaise with the New Zealand Alpine Club (NZAC) and other recreation groups as relevant to determine those areas where new or additional fixed anchors are either acceptable or unacceptable to the relevant recreation community, and the Department, based on criteria including:
    - i) avoidance of adverse effects on priority ecosystem units, threatened or at-risk species, and geopreservation sites;
    - ii) avoidance of adverse effects on sites of significance to Ngāi Tahu;
    - iii) the outcome and policies for the Place;
    - iv) consideration of historical recreation use patterns;
    - v) addressing safety concerns; and
    - vi) providing for a range of recreational experiences;
  - b) for areas where fixed anchors are authorised for climbing, the NZAC should be informed and encouraged to take the lead on fixed anchor management in consultation with the Department and the local climbing community, and with recognition of NZAC's *Position on Bolting* (2010) and *Bolting Technical Guidelines* (2005); and
  - c) for areas where fixed anchors are authorised for uses other than climbing, a relevant organisation should be encouraged to take the lead on fixed anchor management in consultation with the Department.
- 3.23.2 Should remove unauthorised or unsafe fixed anchors as part of fixed anchor management.

## **3.24 Fire management**

Under the Forest and Rural Fires Act 1977, the Minister of Conservation is the rural fire authority for all state areas, which generally includes all public conservation lands and waters and a 1-kilometre safety margin around some of those state areas. Some Crown and public conservation lands and waters have been included within an Enlarged Rural Fire District, bringing them under the jurisdiction of Rural Fire District Committees, rather than the Minister, as the rural fire authority.

Fire is a significant threat to natural, cultural, historic and recreational values in Otago. The Department is a partner in the Otago and Southern Enlarged Rural Fire Authority, which manages rural fires in Otago. Fire-fighting is a significant operational activity for staff in support of other rural fire management agencies under a cooperative approach to fire management.

Fire fuel reduction can be a preventative measure to reduce fire threat. Climate change predictions are for drier conditions and a consequential high fire risk in much of Otago,

Increased populations in some rural areas and increases in certain types of recreation, such as four-wheel drive vehicles, are also heightening the fire risk situation. Many small public conservation areas are extremely vulnerable to fire from neighbouring properties. An active public education programme promotes awareness of fire risk and fire permit requirements, identifies and works with individuals and groups undertaking at-risk activities (e.g. four-wheel drive vehicle use, railway maintenance, land management burning).

### ***Policies***

- 3.24.1 Work cooperatively with the Otago and Southern Enlarged Rural Fire Authority, New Zealand Fire Service, landowners and communities to increase awareness of rural fire risks and mitigate them.
- 3.24.2 May undertake actions (assessments and implement) to reduce fire fuels, including by mowing, clearing bare-earth fire breaks or small-scale prescribed burning.
- 3.24.3 Should require fire safety contingencies when authorising gatherings of large numbers of people, such as for sporting events, in high fire risk areas; such contingencies may include event permits being withdrawn at short notice.

## **3.25 Ski fields**

Commercial ski fields typically require considerable infrastructure and terrain modification. This section does not apply to backcountry skiing activities that take place throughout the Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākaihautū Place and the Central Otago Uplands Place, and that do not require infrastructure. Neither does it apply to heli-skiing activities.

Three commercial ski fields (Coronet Peak, The Remarkables and Treble Cone) are authorised on public conservation lands in Otago. All are popular visitor attractions and an integral part of Otago's tourism sector, and have potential for wide-ranging conservation advocacy, in addition to their community engagement with backcountry recreation.

The effects of climate change may result in fields becoming increasingly reliant on snow-making into the future and may look at expanding their winter and summer visitor activities both on the fields and nearby.

These changes will start taking effect during the term of this CMS but may take decades to become fully apparent. In response, both a precautionary and a partnership approach may be needed: precautionary to avoid the risk of abandoned structures and adverse landscape effects; partnership to maintain a ski field's recreation opportunity.

### ***Policies***

- 3.25.1 May allow further development of existing authorised ski fields, where their natural values are already modified, in preference to the development of new ski fields.
- 3.25.2 Should in considering the development of new and existing authorised ski fields apply a precautionary approach to the approval of new structures, accommodation facilities and terrain modification and consider both the likely effects of water use (for snow-making), the likely longevity of the field in the face of climate change, and any appropriate land remediation and facility removal costs should the ski field cease to operate.
- 3.25.3 Process all applications for renewals of existing authorisations for ski fields as concessions.



- 3.25.4 Where practicable, encourage non-skier and/or non-ski season visitor use, and visitor use beyond the ski field consistent with the outcomes at Place.
- 3.25.5 Should provide opportunities for conservation education and interpretation.
- 3.25.6 Should allow over-snow vehicle use for the purpose of ski field management within ski field lease/licence areas subject to the provisions of the lease/licence and in accordance with Policy 3.2.12.

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## MILESTONES—OUTPUTS

### **Achieved by the end of Year 3 after CMS approval (2019)**

- Initiatives to remove or change the status of unauthorised private accommodation and related facilities on public conservation lands and waters in Otago.
- An assessment undertaken of the effectiveness of aircraft management provisions within the CMS, including cumulative and adverse effects.

### **Achieved by the end of Year 5 after CMS approval (2021)**

- Progress the status of unauthorised private accommodation and related facilities on public conservation lands and waters in Otago.
- Review the level of use and effects of aircraft activity, if evidence shows that unacceptable adverse effects are occurring.
- An assessment undertaken on the level of use and effects of electric power-assisted pedal cycles on public conservation lands and waters in Otago, including cumulative effects.
- An assessment undertaken on the level of use and effects of motorised vehicles, mountain bikes, horses and pack animals on public conservation lands and waters in Otago, including cumulative effects, if evidence shows that unacceptable impacts are occurring.

### **Achieved by the end of Year 10 after CMS approval (2026)**

- Review the level of use and effects of electric power-assisted pedal cycles on public conservation lands and waters in Otago, including cumulative effects, if evidence shows that unacceptable adverse effects are occurring.
  - Review the level of use and effects of aircraft activity, if evidence shows that unacceptable adverse effects are occurring.
  - Review the level of use and effects of motorised vehicles, mountain bikes, horses and pack animals on public conservation lands and waters in Otago, including cumulative effects, if evidence shows that unacceptable adverse effects are occurring.
  - Remove unauthorised private accommodation and related facilities on public conservation lands and waters in Otago.
  - Bylaws and/or regulations over public conservation lands and waters (including departmental wharves) have been established or revised where necessary.
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## Part Four—Implementation monitoring and reporting, and review

The Department of Conservation uses many different tools to implement conservation management strategies, including:

- The Department’s business planning processes, where decisions are made about priorities and resourcing for the departmental activities
- Decisions on concessions and other authorisations
- Advocacy for conservation outcomes.

Monitoring implementation will assist in determining the success of the provisions of this CMS. The Department reports regularly to the Otago Conservation Board and Ngāi Tahu on the implementation of this CMS, and the Otago Conservation Board, in turn, reports annually to the New Zealand Conservation Authority. Additional monitoring is identified in the Department’s Statement of Intent and annual reports.

The CMS will have effect for 10 years or until formally amended or reviewed in full or in part. The term of this CMS is from 2016 to 2026.

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### OBJECTIVES

- 4.1.1 To report at least annually on progress in achieving the milestones of the Otago CMS to the Otago Conservation Board and Ngāi Tahu as a means of monitoring and reporting on its implementation.
  - 4.1.2 To identify, at least annually, in a report to the Otago Conservation Board any additional priority ecosystem units and threatened and at-risk species included in this CMS for which work programmes have been approved; and report progress thereafter in meeting outputs identified in the work programme.
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# Glossary

## ***Actively conserved historic site***

Historically significant site that is managed by the Department to preserve and maintain its historic features.

## ***Activity***

Includes a trade, business or occupation (Conservation Act 1987, section 2).

## ***Aerially assisted trophy hunting***

1. A wild animal recovery operation activity, authorised under the Wild Animal Control Act 1977 (whether or not for hire or reward) to carry out the activity of aerially assisted trophy hunting, where an aircraft is used for all of the following purposes and no other:
  - a) To carry by aircraft recreational hunter(s), their guide, associated firearms/ammunition
  - b) The active searching by aircraft for wild animals with trophy potential
  - c) The on-the-ground guiding of the client and killing of the wild animal
  - d) The recovery by aircraft of such wild animals.
2. The activity is still considered to be aerially assisted trophy hunting if one or more of the above components is performed or achieved.

Note: This definition excludes the following activities:

- a) Live capture and carriage of wild animals
- b) The killing of any deer species during the period 23 March to 9 April plus, when it falls outside this period, the 4 days of Easter
- c) The killing and recovery of wild animals or any part thereof for supply to a New Zealand Food Safety Authority-approved processing facility
- d) The carriage or use of a shotgun.

## ***Aircraft***

Any machine that can derive support in the atmosphere from the reactions of the air otherwise than by the reactions of the air against the surface of the earth (Civil Aviation Act 1990). This includes, but is not limited to, the following types of aircraft: powered and non-powered; recreational and commercial; fixed-wing and rotary-wing; manned aircraft and remotely piloted aircraft systems; and any other aircraft that may become regulated by Civil Aviation Rules from time to time.

See also *Aircraft, non-powered* and *Aircraft, remotely piloted*.

## ***Aircraft, control line model***

A model aircraft primarily controlled in flight by a single or multiple wire system operated by the person flying the aircraft and restricted to circular flight about a centre point.

### ***Aircraft, free flight model***

A model aircraft with a maximum wing loading of 62 g/dm<sup>2</sup> (20 oz/ft<sup>2</sup>), with a flight path that, once launched, is uncontrollable.

### ***Aircraft, non-powered***

Any machine not driven by a powered device that can derive support in the atmosphere from the reactions of the air otherwise than by the reactions of the air against the surface of the earth. This is an inclusive definition that includes non-powered gliders, non-powered hang gliders, parachutes, balloons and any other non-powered aircraft that may become regulated by Civil Aviation Rules from time to time.

See also *Aircraft*.

### ***Aircraft, remotely piloted***

An unmanned aircraft that is piloted from a remote station and—

- a) Includes a radio controlled model aircraft, but
- b) Does not include a control line model aircraft or a free flight model aircraft;

or as regulated by Civil Aviation Rules from time to time.

### ***Airstrip***

Any specified area of public conservation land specifically maintained for the landing and take-off of fixed-wing aircraft, which may also be used by rotary-wing aircraft. It does not include a certified aerodrome as defined by the Conservation Act 1987 or an airport as defined by the Airport Authorities Act 1966.

### ***Animal***

Any mammal, bird, reptile, amphibian, fish (including shellfish) or related organism, insect, crustacean, or organism of every kind; but does not include a human being (Reserves Act 1977: section 2; National Parks Act 1980: section 2).

Any member of the animal kingdom other than a human being (Conservation Act 1987, section 2).

### ***Archaeological site***

Subject to section 42(3) Heritage New Zealand Pouhere Taonga Act 2014:

- a) Any place in New Zealand including any building or structure (or part of a building or structure) that:
  - i) was associated with human activity that occurred before 1900 or is the site the wreck of any vessel where the wreck occurred before 1900; and
  - ii) provides or may provide through investigation by archaeological methods, evidence relating to the history of New Zealand; and
- b) includes a site for which a declaration is made under section 43(1).

(Heritage New Zealand Pouhere Taonga Act 2014: section 6)

***At risk (species)***

Taxa that do not meet the criteria for any of the 'Threatened' species categories, but are declining (though buffered by a large total population size and/or a slow decline rate), biologically scarce, recovering from a previously threatened status, or survive only in relictual populations (New Zealand Threat Classification System Manual 2008).

***Authorisation***

Collective term for all types of approvals by the Minister and the Director-General of Conservation provided for in a statutory process (Conservation General Policy 2005).

See also ***Concession***.

***Authorised***

Approved in a statutory process.

***Backcountry destination***

Destination that provides for more challenging adventures, including popular walks and tramps, within the body of large-scale natural settings.

***Bike track***

Any track where biking may occur and which is maintained for biking, including tracks, trails and cycleways. Other activities such as walking and horse riding may also occur on the same tracks, trails and cycleways.

***Biking***

The use of non-motorised bikes.

***Biodiversity***

The variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and ecological complexes of which they are part. This includes diversity within species, between species and of ecosystems (Conservation General Policy 2005).

***Biosecurity***

The exclusion, eradication or effective management of risks posed by pests and diseases to the economy, environment and human health (Conservation General Policy 2005). The Department has functions that it performs under the Biosecurity Act 1993.

***Building***

Has the same meaning as given to it by sections 8 and 9 of the Building Act 2004 (Conservation General Policy 2005).

***Bylaw***

A bylaw made by the Minister of Conservation, under section 56 of the National Parks Act 1980 or section 106 of the Reserves Act 1977. Bylaws may apply to national parks and reserves, whereas regulations may apply to reserves and conservation areas.

### ***Commercial hunting***

Hunting undertaken by professional hunters for their livelihood and intended to maximise the take or kill of animals. It does not include guided recreational hunting, transportation of recreation hunters, or other means of assistance for recreational hunting for which a consideration is paid. (General Policy for National Parks 2005)

### ***Community***

Any individual or group (whether statutory or non-statutory, formal or informal, commercial or non-commercial) having an interest in a particular conservation issue.

### ***Concession***

A lease, licence, permit or easement, granted under Part 3B of the Conservation Act 1987, section 49 of the National Parks Act 1980, section 59A of the Reserves Act 1977, section 22 of the Wild Animal Control Act 1977 or section 14AA of the Wildlife Act and includes any activity authorised by the concession document.

### ***Concessionaire***

A person granted a concession by the Minister of Conservation for a lease, license, permit or an easement.

### ***Conservation***

The preservation and protection of natural and historic resources for the purpose of maintaining their intrinsic values, providing for their appreciation and recreational enjoyment by the public, and safeguarding the options of future generations (Conservation Act 1987, section 2).

### ***Conservation board***

Conservation boards are established under section 6L of the Conservation Act 1987. The primary functions and powers of conservation boards are set out in sections 6M and 6N of the Conservation Act 1987 and section 30 of the National Parks Act 1980. Their functions include overseeing the preparation of conservation management strategies and national park management plans for their areas, approval of conservation management plans (e.g. for conservation parks) and advising the New Zealand Conservation Authority or Director-General of Conservation on conservation matters of importance in their area. They also have an important conservation advocacy role. The relevant conservation board for this CMS is the Otago Conservation Board.

### ***Conservation General Policy***

A policy prepared under section 17C of the Conservation Act 1987 to provide unified policy for the implementation of Conservation, Wildlife, Marine Reserves, Reserves, Wild Animal and Marine Mammals Protection Acts. It provides guidance for the administration and management of all lands and waters and all natural and historic resources managed for the purposes of those Acts, excluding reserves administered by other agencies under the Reserves Act 1977. It also provides guidance for consistent management planning for the wide range of places and resources administered or managed by the Department, including the preparation of CMSs, conservation management plans and sports fish management plans.

### ***Conservation legislation***

A term that applies collectively to the statutes administered by the Department, including the Conservation Act 1987 (and the legislation listed at Schedule 1 of that Act), the Reserves Act 1977, the Wildlife Act 1953, the Marine Reserves Act 1971 and the National Parks Act 1980.

### ***Conservation management***

Any activity that is carried out by the Minister or the Director-General of Conservation (and their contractors and authorised agents) in the exercise of his or her functions, duties or powers under the conservation legislation.

### ***Conservation management plan***

A plan for the management of natural and historic resources and for recreation, tourism and other conservation purposes that implements a conservation management strategy (CMS) and establishes detailed objectives for integrated management within a place or places specified in a CMS (Conservation Act 1987, section 17E).

### ***Conservation management strategy (CMS)***

The purpose of a conservation management strategy is to implement general policies and establish objectives for the integrated management of natural and historic resources, including any species, managed by the Department under the Wildlife Act 1953, the Marine Reserves Act 1971, the Reserves Act 1977, the Wild Animal Control Act 1977, the Marine Mammals Protection Act 1978, the National Parks Act 1980, the Hauraki Gulf Marine Park Act 2000 or the Conservation Act 1987, and for recreation, tourism and other conservation purposes (Conservation Act 1987, section 17D).

### ***Control line model aircraft***

See *Aircraft, control line model*.

### ***Convention on Biological Diversity (CBD)***

An international agreement on biological diversity that came into force in December 1993 following a meeting of governments in Rio de Janeiro. The objectives of the Convention are: the conservation of biological diversity; the sustainable use of its components; and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources (Conservation General Policy 2005).

### ***Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention)***

An intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.

### ***Cultural***

Societal values with an emphasis on New Zealand/European history and Māori tikanga that are handed down through the generations (General Policy for National Parks 2005).

### ***Cumulative effect***

An effect that arises over time or in combination with other effects (Resource Management Act 1991, section 3).

### ***Customary use/take***

Gathering and use of natural resources by tangata whenua according to tikanga (Conservation General Policy 2005).

### ***Department, the***

The Department of Conservation.

### ***Destination management***

A programme aimed at increasing the number of people enjoying public conservation lands and waters. It focuses the Department on five key areas for success: understanding what people want; delivering quality experiences; optimising resources; working with others; and improving marketing and promotion. Destinations are a geographic area and/or group of facilities that are the focus of a single typical visitor trip, and are categorised into Icon, Gateway, Local Treasure and Backcountry destinations. Destination management is the coordinated management of all the elements that make up a destination including its values, attractions, people, infrastructure, access and how the destination is marketed.

### ***Director-General***

The Director-General of Conservation.

### ***Disability assist dog***

A dog certified by one of the following organisations as being a dog trained to assist (or as being a dog in training to assist) a person with a disability:

- a) Hearing Dogs for Deaf People New Zealand
- b) Mobility Assistance Dogs Trust
- c) New Zealand Epilepsy Assist Dogs Trust
- d) Royal New Zealand Foundation of the Blind
- e) Assistance Dogs New Zealand
- f) Perfect Partners Assistance Dogs Trust
- g) An organisation specified in an Order in Council made under section 78D.  
(Dog Control Act 1996, section 2)

### ***Downhill***

An extreme form of biking involving riding down steep slopes and rough terrain, including over obstacles, drops and sharp turns, at maximum speed.

### ***Ecological integrity***

The full potential of indigenous biotic and abiotic factors, and natural processes, functioning in sustainable habitats, ecosystems and landscapes (Conservation General Policy 2005).

### ***Ecosystem***

A biological system comprising a community of living organisms and its associated non-living environment, interacting as an ecological unit (Conservation General Policy 2005).



### ***Ecosystem services***

A wide range of conditions and processes through which natural ecosystems, and the species that are part of them, help sustain and fulfil life (Conservation General Policy 2005).

### ***Effect***

Includes:

- a) any positive or adverse effect; and
- b) any temporary or permanent effect; and
- c) any past, present or future effect; and
- d) any cumulative effect which arises over time or in combination with other effects—regardless of the scale, intensity, duration or frequency of the effect and also includes—
- e) any potential effect of high probability; and
- f) any potential effect of low probability which has a high potential impact.

(Conservation Act 1987, section 2 and Resource Management Act 1991, section 3)

### ***Electric power-assisted pedal cycle***

A bicycle to which one or more auxiliary electric propulsion motors are attached having a combined maximum output not exceeding 300 watts; excluding bicycles with a throttle device controlling the power output.

### ***Emergency (for aircraft)***

A situation where a concession is not required in accordance with section 17ZF of the Conservation Act 1987 only as a result of:

- a) a mechanical or structural or operational defect in the aircraft or its equipment; or
- b) weather conditions or other causes not under the control of the pilot in command.

### ***Encampment***

Non-designated sites used for the purpose of shelter or camping either:

- a) on a permanent or semi-permanent basis by private individuals or groups; or
- b) for more than short-term use by private individuals or groups.

(Conservation General Policy 2005)

### ***Endemic***

A species which is indigenous to, as well as restricted to, a particular natural area (General Policy for National Parks 2005).

### ***Eradicate***

To remove completely (Conservation General Policy 2005).

### ***Facilities, recreational***

Facilities erected on or adjoining public conservation lands and waters by the Department or others that enable people to enjoy a range of recreational opportunities including (but not limited to): visitor and information centres, camping areas, tracks and walkways, bridges, backcountry huts, roads, car-parking areas, toilets, picnic areas, signs and interpretation

panels, viewing platforms, wharves and boat ramps (based on Conservation General Policy 2005).

### ***Fish***

Includes all species of finfish and shellfish, at any stage of their life history, whether living or dead (Fisheries Act 1996).

### ***Fish and Game Council***

Statutory body with functions pertaining to the management, maintenance and enhancement of the sports fish and game resource in the recreational interests of anglers and hunters (Conservation Act 1987, section 26Q(1)).

### ***Fishery***

One or more stocks or parts of stocks or one or more species of freshwater fish or aquatic life that can be treated as a unit for the purposes of conservation or management (Conservation Act 1987, section 2).

### ***Foreshore***

Such parts of the bed, shore or banks of a tidal water as are covered and uncovered by the flow and ebb of the tide at mean spring tides (Conservation Act 1987, section 2).

### ***Four-wheel drive road***

A road that can be traversed by a four-wheel drive vehicle capable of handling conditions including grade and side slopes, width, surface material, waterway fords, entry and exit angles to fords and depressions, and seasonal snow and ice, without causing adverse effects to the adjoining areas or the road. The road, through maintenance and managed traffic densities and/or seasonal closures, can be retained at this four-wheel drive standard, and can be shared with other vehicles, including trail bikes and non-motorised bikes.

See also *Road*.

### ***Free flight model aircraft***

See *Aircraft, free flight model*.

### ***Freshwater fish***

Includes all species of finfish of the classes Agnatha and Osteichthytes, and all shellfish of the classes Mollusca and Crustacea, that must, at any time in the life history of the species, inhabit freshwater; and includes any part thereof and such finfish and shellfish that seasonally migrate into or out of freshwater (Conservation Act 1987, section 2).

### ***Game (other than game animal)***

The wildlife declared to be game specified in the First Schedule to the Wildlife Act 1953. As at the date of CMS approval, all game species are birds, viz: black swan (*Cygnus atratus*), chukar (*Alectoris chukar*), kuruwhengi/Australasian shoveler (*Anas rhynchotis*), pārerā/grey duck (*Anas superciliosa*), mallard duck (*Anas platyrhynchos*), pūtakitaki/paradise shelduck (*Tadorna variegata*), grey partridge (*Perdix perdix*), red-legged partridge (*Alectoris rufa rufa*), peihana/pheasant (*Phasianus colchicus*), pūkeko (*Porphyrio porphyrio melanotus*), bobwhite quail (*Colinus virginianus*), brown quail (*Coturnix ypsilophora*) and koera/Californian quail (*Callipepla californica*).

***Game animal*** (for the purposes of the *Game Animal Council Act 2013 only*)

- a) Means –
  - i) any chamois, deer, or tahr;
  - ii) any pig that is living in a wild state and is not being herded or handled as a domestic animal or kept within an effective fence or enclosure for farming purposes; and
- b) Includes the whole or any part of the carcass of the animal.

(Game Animal Council Act 2013, section 4)

See also ***Wild animal***, ***Herd of special interest*** and ***Overriding considerations***.

***Gateway destination***

A destination that helps to introduce New Zealanders to the outdoors and allows them to learn about conservation. These destinations may provide for a diverse range of activities and include many traditional camping and tramping destinations.

***General Policy for National Parks***

A policy prepared under section 44 of the National Parks Act 1980 to provide unified policy for the implementation of the Act.

***Guide dog***

See ***Disability assist dog***.

***Habitat***

The environment within which a particular species or group of species lives. It includes the physical and biotic characteristics that are relevant to the species concerned (Conservation General Policy 2005).

***Heli-skiing***

Involves the use of an aircraft, usually a helicopter, to position and reposition a guided group on a mountain slope for the purpose of skiing multiple runs on a single day.

***Herd of special interest***

A species of game animal in a specified area designated by the Minister of Conservation as a herd of special interest under section 16 of the Game Animal Council Act 2013 (Game Animal Council Act 2013, section 4).

***Historic and cultural heritage***

Any building or other structure, archaeological site, natural feature, wāhi tapu, or object, associated with people, traditions, events or ideas, that contributes to an understanding of New Zealand history and cultures.

***Historic area***

An area of land that:

- a) contains an inter-related group of historic places; and
- b) forms part of the historic and cultural heritage of New Zealand; and
- c) lies within the territorial limits of New Zealand.

(Heritage New Zealand Pouhere Taonga Act 2014, section 6)

### ***Historic place***

- a) Any of the following that forms a part of the historic and cultural heritage of New Zealand and that lies within the territorial limits of New Zealand:
  - i) land, including an archaeological site, or part of an archaeological site;
  - ii) a building or structure (or part of a building or structure);
  - iii) any combination of land, buildings or structures or associated buildings or structures (or parts of buildings, structures or associated buildings or structures); and
- b) Includes anything that is in or fixed to land described in paragraph (a).  
(Heritage New Zealand Pouhere Taonga Act 2014, section 6)

### ***Historic resource***

A historic place within the meaning of the Heritage New Zealand Pouhere Taonga Act 2014 and includes any interest in a historic resource (Conservation Act 1987, section 2).

### ***Hover***

An aircraft flight at a constant height and position over a surface.

### ***Hovercraft***

A motorised vessel that derives full or partial support in the atmosphere from the reaction of air against the surface of that water over which it operates.

### ***Icon destination***

A high-profile, popular destination that underpins national and international tourism, and provides memorable visitor experiences in New Zealand.

### ***Indigenous species***

Plants and animals that initially established in New Zealand without the assistance of human beings, and without the assistance of vehicles or aircraft. This includes species that are unique to New Zealand as well as those that may be found elsewhere in the world. The words 'indigenous' and 'native' have the same meaning in this CMS (based on the Conservation General Policy 2005).

### ***Integrated conservation management***

The management of natural resources, and historic and cultural heritage, and existing or potential activities in a manner that ensures that priorities are clear and that the effects of each activity on others are considered and managed accordingly (Conservation General Policy 2005).

### ***International Council on Monuments and Sites (ICOMOS)***

An international, non-governmental organisation of heritage professionals engaged in the conservation of places of cultural heritage value and dedicated to the conservation of the world's historic monuments and sites. ICOMOS acts as an advisory body to the World Heritage Committee ([www.icomos.org.nz](http://www.icomos.org.nz), viewed September 2012).

***International Council on Monuments and Sites New Zealand Charter, Te Pūmanawa o ICOMOS o Aotearoa Hei Tiaki i Ngā Taonga Whenua Heke Iho o Nehe***

A set of guidelines on cultural heritage conservation produced by ICOMOS New Zealand. The New Zealand Charter is widely used in the New Zealand heritage sector and forms a recognised benchmark for conservation standards and practice. It is used by central government ministries and departments, by local bodies in district plans and heritage management, and by practitioners as guiding principles ([www.icomos.org.nz/nzcharters.html](http://www.icomos.org.nz/nzcharters.html); viewed September 2012).

***Interpretation***

Conveying information about the origin, meaning or values of natural, historic or cultural heritage via live, interactive or static media in a way that stimulates interest in, increased understanding of and support for conservation.

***Intrinsic value***

A concept that regards the subject under consideration as having value or worth in its own right, independent of any value placed on it by humans (Conservation General Policy 2005).

***Kaitiaki***

Guardian (Conservation General Policy 2005).

***Kaitiakitanga***

The exercise of guardianship by the tangata whenua of an area in accordance with tikanga. In relation to a resource, this includes the ethic of stewardship based upon the nature of the resource itself (Conservation General Policy 2005).

***Ki uta ki tai***

Mountains to the sea.

***Livestock***

Any ass, cattle or other browsing animal (not being a deer or goat or a marine mammal, fish or shellfish), horse, mule, sheep or swine, of whatever age or sex and whether or not neutered; and includes any animal, of whatever age or sex and whether or not neutered, of a class declared to be livestock for the purposes of this Act by the Governor-General by Order in Council (Conservation Act 1987, section 2).

***Local Treasure destination***

Locally important, vehicle-accessible location that provides recreation opportunities for, and grows connections with, nearby communities.

***Mahinga kai***

The customary gathering of food and natural materials and the places where those resources are gathered (Ngāi Tahu Claims Settlement Act 1998, section 167).

***Mana***

Prestige; authority (Conservation General Policy 2005).

### ***Marine mammal***

Includes—

- a) any mammal which is morphologically adapted to, or which primarily inhabits, any marine environment; and
- b) all species of seal (Pinnipedia), whale, dolphin, and porpoise (Cetacea), and dugong and manatee (Sirenia); and
- c) the progeny of any marine mammal; and
- d) any part of any marine mammal.

(Marine Mammals Protection Act 1978, section 2)

### ***Marine protected area***

An area of sea especially dedicated to or achieving the protection and maintenance of biodiversity at the habitat or ecosystem level, and managed through legal or other effective means; includes marine reserves (Conservation General Policy 2005).

### ***Marine reserve***

A marine area constituted as a marine reserve under the Marine Reserves Act 1971 (Conservation General Policy 2005).

### ***Mātaitai reserve***

A management tool created under Part IX of the Fisheries Act 1996 to recognise use and management practices of Māori in the exercise of non-commercial fishing rights. Tangata whenua may apply to the Minister of Fisheries to establish a mātaitai reserve on a traditional fishing ground for the purpose of recognising and providing for customary management practices and food gathering.

### ***Mātauranga Māori***

Māori traditional knowledge (Conservation General Policy 2005).

### ***Mauri***

Essential life force, the spiritual power and distinctiveness that enables each thing to exist as itself (Conservation General Policy 2005).

### ***Milestone***

A specific action that is a measurable step towards achieving an objective or outcome.

### ***Mining***

- a) Means to take, win, or extract, by whatever means:
  - i) mineral existing in its natural state in land; or
  - ii) a chemical substance from a mineral existing in its natural state in land; and
- b) Includes:
  - i) the injection of petroleum into an underground gas storage facility; and
  - ii) the extraction of petroleum into an underground gas storage facility; but
- c) Does not include prospecting or exploring for a mineral or chemical substance referred to in paragraph (a).

(Crown Minerals Act 1991, section 2)

### ***Motor vehicle (includes motorised vehicle)***

A vehicle drawn or propelled by mechanical power. This includes an over-snow vehicle and a trailer, but does not include:

- a) a vehicle running on rails; or
- b) a trailer (other than a trailer designed solely for the carriage of goods) that is designed and used exclusively as part of the armament of the New Zealand Defence Force; or
- c) a trailer running on one wheel and designed exclusively as a speed measuring device or for testing the wear of vehicle tyres; or
- d) a vehicle designed for amusement purposes and used exclusively within a place of recreation, amusement or entertainment to which the public does not have access with motor vehicles; or
- e) a pedestrian-controlled machine; or
- f) a vehicle that the Agency has declared under section 168A is not a motor vehicle; or
- g) a mobility device.

(Land Transport Act 1998, section 2)

For the purpose of this CMS, a motor vehicle does not include any electric power-assisted pedal cycles.

Note: Any motor vehicle (which includes trail and quad bikes, over-snow vehicles) taken onto public conservation lands must be registered and/or licensed, where it is required to be registered and/or licensed under the Land Transport Act 1998.

### ***Mountain bike***

A non-motorised bicycle that can be used off formed roads.

### ***Nationally iconic species***

A plant or animal species that New Zealanders value as nationally significant and contributing to New Zealand's national identity.

### ***Natural***

Existing in or produced by nature (Conservation General Policy 2005).

### ***Natural character***

The qualities of an area that are the result of natural processes and taken together give it a particular recognisable character. These qualities may be ecological, physical, spiritual or aesthetic in nature (Conservation General Policy 2005).

### ***Natural quiet***

Natural ambient conditions in a natural area; the sounds of nature (Conservation General Policy 2005).

### ***Natural resources***

Plants and animals of all kinds, and the air, water and soil in or on which any plant or animal lives or may live, and landscape and landform, and geological features, and systems of interacting living organisms, and their environment, and includes any interest in a natural resource (Conservation Act 1987, section 2).

### ***Natural state***

Unmodified by human activity or introduced plants or animals (Conservation General Policy 2005).

### ***New Zealand Biodiversity Strategy***

A government-approved national strategy (2000) providing an integrated response to New Zealand's declining indigenous biodiversity, prepared in part to meet a commitment under the Convention on Biological Diversity. (Conservation General Policy 2005)

### ***Ngāi Tahu***

For the purpose of this CMS, includes Te Rūnanga o Ngāi Tahu and the Papatipu Rūnanga, as set out in the Te Rūnanga o Ngāi Tahu Act 1996.

### ***Nohoanga***

Nohoanga are entitlements to occupy, temporarily and exclusively, an area of lakeshore or riverbank for the purposes of lawful fishing and the gathering of other natural resources (Ngāi Tahu Claims Settlement Act 1998). See 1.4 Treaty partnership with Ngāi Tahu and Appendix 13 of this CMS.

### ***Non-motorised bikes***

Includes:

- a) bicycles and mountain bikes without any form of mechanical or electric propulsion; and
- b) electric power-assisted pedal cycles (e-bikes).

### ***Non-motorised watercraft***

A vessel or other watercraft that:

- a) is used on or in water; and
- b) is powered solely by hand, solely by sail, or solely by a combination of hand and sail.

### ***Outcome***

A goal or end result of a conservation action or series of actions (Conservation General Policy 2005).

### ***Overriding considerations (for the purposes of the Game Animal Council Act 2013)***

- a) The welfare and management of public conservation land and resources generally;
- b) Any statement of general policy that is made, or has effect as if it were made, under—
  - i) section 17B of the Conservation Act 1987;
  - ii) section 44 of the National Parks Act 1980;
  - iii) section 15A of the Reserves Act 1977;
  - iv) section 14C of the Wildlife Act 1953;
- a) Any CMS made under section 17D of the Conservation Act 1987;
- d) Any conservation management plan made under—
  - i) section 17E of the Conservation Act 1987;
  - ii) section 40B of the Reserves Act 1977;



- e) Any management plan made under—
  - i) section 47 of the National Parks Act 1980;
  - ii) section 41 of the Reserves Act 1977;
- f) Any wild animal control plan made under section 5 of the Wild Animal Control Act 1977;
- g) Any pest management strategy, pest management plan, pathway management plan, or operational plan made under the Biosecurity Act 1993.

(Game Animal Council Act 2013, section 4)

***Over-snow vehicle***

A motorised vehicle that is primarily designed to travel on snow or ice by means of skis, tracks, belts, cleats or low-pressure tyres, or a combination of these means; this includes snowmobiles, snow coaches or buses, and snowcats.

See also ***Motor vehicle***.

***Papatipu Rūnanga***

Means the Papatipu Rūnanga of Ngāi Tahu Whānui referred to in section 9 of the Te Rūnanga o Ngāi Tahu Act 1996.

***Participation***

The contribution of effort, information and ideas towards the work of the Department of Conservation (Conservation General Policy 2005).

***Partnership***

The relationship between individuals or groups that is characterised by mutual cooperation and responsibility, for the achievement of a specific goal (Conservation General Policy 2005).

***Personal mobility device***

A device designed to transport one person that is propelled by hand or a propulsion system with a maximum speed of 15 km per hour, and is ridden by a disabled person (Conservation General Policy 2005). For the purpose of the CMS, does not include an electric power-assisted pedal cycle.

***Personal watercraft***

A motorised vessel that:

- a) has a fully enclosed hull; and
- b) does not take on water if capsized; and
- c) is designed to be operated by a person standing, sitting astride or kneeling on it, but not seated in it.

***Pest***

Any organism, including an animal, plant, pathogen or disease, capable or potentially capable of causing unwanted harm or posing significant risks to indigenous species, habitats and ecosystems or freshwater fisheries (Conservation General Policy 2005).

### ***Place***

An area identified in a CMS or plan for the purposes of integrated conservation management. It may include any combination of terrestrial, freshwater and marine areas and may be determined by a range of criteria including but not limited to: ecological districts, geological features, catchments, internal departmental, regional or district council or rohe/takiwā boundaries, land status, major recreation or tourism destinations, commonality of management considerations, unique management needs (Conservation General Policy 2005). For the purposes of the Otago CMS, the Places are Mount Aspiring National Park/Tititea; Te Papanui, Oteake and Hāwea Conservation Parks; Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākaihautū; Central Otago Uplands; Old Man Range/Kopuwai, Old Woman Range, and Garvie Mountains; Central Otago Drylands/Manuherikia; Eastern Otago and Lowlands/Maukaatua; Catlins/Te Ākau Tai Toka; Marine/Te Tai o Arai te Uru; and Freshwater/Wai Māori.

### ***Pounamu***

Means—

- a) bowenite;
- b) nephrite, including semi-nephrite; and
- c) serpentine including that occurring in its natural condition in the land described in the Schedule of the Ngāi Tahu (Pounamu Vesting) Act 1997.

### ***Preservation***

In relation to a resource, means the maintenance, so far as is practicable, of its intrinsic values (Conservation Act 1987, section 2).

### ***Priority ecosystem unit***

An ecosystem unit identified through the Departments natural heritage prioritising processes as being one of the most effective places to work to ensure that a representative range of ecosystems is protected.

### ***Private accommodation***

Place to live or lodge that is not available to the general public on an open basis (Conservation General Policy 2005).

### ***Protected areas***

Terrestrial, freshwater and marine areas that are protected primarily for the purposes contained in the conservation legislation, including the conservation of natural resources and historical and cultural heritage, using a range of legal mechanisms that provide long-term security of tenure, status or land use purpose, either privately or publicly owned (based on Conservation General Policy 2005).

### ***Protection***

In relation to a resource, means its maintenance, so far as is practicable, in its current state; but includes:

- a) its restoration to some former state; and
- b) its augmentation, enhancement, or expansion.

(Conservation Act 1987, section 2)

### ***Public accommodation***

A place to stay in that is generally available to the public on an open basis.

### ***Public conservation lands and waters***

Lands and water areas administered by the Department of Conservation for their respective legislative purpose, including the preservation and protection of natural and historic resources of those areas covered by this CMS. Reserves administered by other agencies are not included in this definition.

### ***Recreational freshwater fisheries***

Any freshwater fishery where the fishing of sports fish and indigenous freshwater fish is lawfully carried out for recreational purposes (Conservation General Policy 2005).

### ***Regulation***

A regulation made by the Governor-General, by Order in Council, under the relevant section of the conservation legislation.

### ***Related facilities***

Any structure or piece of equipment that is used in conjunction or association with accommodation. Examples include garages, outhouses, and outdoor showers.

### ***Relict***

Populations of a species whose distribution has been severally modified and disturbed with dispersed fragments remaining.

### ***Remotely piloted aircraft***

See *Aircraft, remotely piloted*.

### ***Reserve***

Has the meaning given to the term reserve in section 2 of the Reserves Act 1977 and includes the following categories of reserve: recreation, historic, scenic, nature, scientific, government purpose, local purpose.

### ***Restoration***

The active intervention and management of modified or degraded habitats, ecosystems, landforms and landscapes in order to restore indigenous natural character, ecological and physical processes and their cultural and visual qualities; or for historic heritage, to return a place as nearly as possible to a known earlier state (Conservation General Policy 2005).

### ***Road***

Means:

- a) a road that is formed and maintained for vehicle use by the public;
- b) a route that is marked by the Department for vehicle use by the public or identified in a conservation management strategy or conservation management plan for use by vehicles generally or for a particular type of vehicle (for example a bicycle) or as a vehicle parking area.

(Conservation General Policy 2005)

A road may or may not pass over a defined legal road.

See also *Four-wheel drive road*.

### ***Roar period***

The primary recreational deer hunting period, within the months of March and April.

### ***Rohe***

Geographical territory of an iwi or hapū (Conservation General Policy 2005).

### ***Site***

A defined area within a wider place (Conservation General Policy 2005).

### ***Species***

A group of organisms that has evolved distinct common inheritable features and occupies a particular geographical range, and that is capable of interbreeding freely but not with members of other species (Conservation General Policy 2005).

### ***Sports fish***

Every species of freshwater fish that the Governor-General may declare to be sports fish for the purposes of the Conservation Act 1987; examples are trout and salmon (Conservation General Policy 2005).

### ***Statement of Intent (SOI)***

A document that sets out a rolling 5-year direction for the Department. Its primary purpose is to enable Ministers, select committees, and the central and audit agencies that support them, to assess the performance of government departments.

### ***Structure***

Any building, equipment, device or other facility made by people and that is fixed to land; and includes any raft (Resource Management Act 1991, section 2).

### ***Taiāpure—local fisheries***

A taiāpure is a local management tool established in an area that has customarily been of special significance to an iwi or hapū as a source of food or for spiritual or cultural reasons (Fisheries Act 1996, section 174).

Taiāpure can be established over any area of estuarine or coastal waters to make better provisions for rangatiratanga and for the rights secured under Article Two of the Treaty of Waitangi. Taiāpure provisions are contained within sections 174–185 of the Fisheries Act 1996.

### ***Takiwā***

Place or territory used by or associated with an iwi, hapū or whānau (Conservation General Policy 2005).

### ***Tangata whenua***

Iwi or hapū that has customary authority in a place (Conservation General Policy 2005).

### ***Taonga***

Valued resources or prized possessions held by Māori, both material and non-material. It is a broad concept that includes tangible and intangible aspects of natural and historic resources of significance to Māori, including wāhi tapu and intellectual property (Conservation General Policy 2005).

### ***Tenure review***

Tenure review of pastoral leases and other Crown lands is a process run by Land Information New Zealand (LINZ). It allows for the transfer to freehold title of lands for farming or other purposes subject to the protection of significant inherent values and the securing of public access to those lands or other public conservation lands and waters. Protection of significant inherent values is achieved by return to full Crown ownership as public conservation land, by protective covenants, and, in the case of public access, by access easements.

The Department's role in tenure review is to provide advice to LINZ on the identification of significant inherent values, including public access, and recommendations for their protection and management. The Department does not have a statutory decision-making role in the process, but the outcomes for formal protection and management of significant inherent values and public access predominantly occur under the Conservation Act 1987 and Reserves Act 1977.

### ***Threatened (species)***

Includes all species categorised as 'Nationally Critical', 'Nationally Endangered' or 'Nationally Vulnerable' in the New Zealand Threat Classification System Manual 2008.

### ***Tikanga***

Māori custom, obligations and conditions (Conservation General Policy 2005).

### ***Tōpuni***

Has a number of meanings for Ngāi Tahu, including references to both a type of dog skin cloak and the associated custom of placing such a cloak over an object or individual so as to confer the rangatiratanga of the cloak's owner upon those things. Ngāi Tahu has adopted an additional meaning for the word 'Tōpuni': that of confirming and placing an 'overlay' of Ngāi Tahu values upon a piece of land owned and/or managed by the Crown, while not overriding the powers of land owned and/or managed by the Crown, to manage that land for the purpose for which it is held from time to time.

### ***Translocation***

Movement by human intervention of a species from place to place usually with the intention of improving the status of the species.

### ***Urupā***

Burial ground.

### ***Utilities***

Includes but not limited to these facilities based over or under the ground: structures and infrastructure for telecommunications; energy generation and transmission and distribution; sewerage; water supply and flood control; oil and gas; roads and airstrips; hydrological and weather stations (based on Conservation General Policy 2005).

### ***Vehicle***

- a) Means a contrivance equipped with wheels, tracks, or revolving runners on which it moves or is moved; and
- b) Includes a hovercraft, a skateboard, in-line skates, and roller skates; but
- c) Does not include—
  - i) A perambulator or pushchair
  - ii) A shopping or sporting trundler not propelled by mechanical power
  - iii) A wheelbarrow or hand-trolley
  - iv) A pedestrian-controlled lawnmower
  - v) A pedestrian-controlled agricultural machine not propelled by mechanical power
  - vi) An article of furniture
  - vii) A wheelchair not propelled by mechanical power
  - viii) Any other contrivance specified by the rules not to be a vehicle for the purposes of this definition
  - ix) Any rail vehicle.

(Based on Land Transport Act 1998, section 2)

Note: Any motor vehicle (which includes trail and quad bikes and over-snow vehicles) taken onto public conservation land must be registered and/or licensed where it is required to be registered and/or licensed under the Land Transport Act 1998.

### ***Visitor***

For the purpose of this CMS, visitors are people using areas and facilities managed by the Department. They include adults and children from both New Zealand and overseas, and they may either arrange their own visit or use the services of a concessionaire.

### ***Wāhi tapu***

A place sacred to Māori in a traditional, spiritual, religious, ritual or mythological sense (Heritage New Zealand Pouhere Taonga Act 2014, section 6).

### ***Wetlands***

Permanent or intermittently wet areas, shallow water or land-water margins. They include swamps, bogs, estuaries, braided rivers, and lake margins (Conservation General Policy 2005).

### ***Wetland(s) of International Importance***

A wetland designated under the Convention on Wetlands of International Importance 1971 as meeting the Criteria for Identifying Wetlands of International Importance; either sites containing representative, rare or unique wetland types, or sites of international importance for conserving biological diversity.

### ***Whenua tūpuna***

Large or small contiguous or non-contiguous areas, routes, or other linear landscapes (tangible and intangible) of significance to Ngāi Tahu, who are linked to them by virtue of their whakapapa (ancestry). Attributes of whenua tūpuna include natural features, physical formations, cultural features, ara tawhito (traditional trails), mahinga kai (resource gathering places and practices), mātauranga (knowledge), wāhi tapu (sacred places), taonga (treasures), spiritual values, cultural values, traditions and associations.

### ***Wild animal***

Has the meaning set out in the Wild Animal Control Act 1977 and includes: deer, tahr, wild goats, wild pigs, and chamois. It does not include an animal that is part of a herd of designated to be a herd of special interest under section 16 of the Game Animal Council Act 2013 (Wild Animal Control Act 1977, section 2).

See also ***Game animal***.

### ***Wilderness area***

Any conservation area set aside as a wilderness area under section 18 of the Conservation Act 1987, or any part of a national park set aside as a wilderness area under the National Parks Act 1980, section 14.

### ***Wildlife***

Any animal (as defined in the Wildlife Act 1953) that is living in a wild state; and includes any such animal or egg or offspring of any such animal held or hatched or born in captivity, whether pursuant to an authority granted under the Wildlife Act 1953 or otherwise; but does not include wild animals subject to the Wild Animal Control Act 1977 (Wildlife Act 1953, section 2).

### ***World Heritage Area***

A site designated under the United Nations Educational, Scientific and Cultural Organisation (UNESCO) World Heritage Convention as being of outstanding universal value as a site of cultural or natural heritage (Conservation General Policy 2005).

# Appendix 1

## Work or activities of the Department of Conservation that may meet the requirements of section 4(3) of the Resource Management Act 1991 for exemptions from land use consents in Otago

This table is presented to meet the requirements for enabling exemptions under section 4(3) of the Resource Management Act 1991 (RMA). It does not exclude the need to meet all departmental requirements for the assessment of effects or responsibilities under other legislation (e.g. Building Act 2004, Heritage New Zealand Pouhere Taonga Act 2014). This table does not imply that the facilities included within it will be managed in perpetuity.

Activity scope	Management actions	Environmental impacts	Location
<b>Tracks, roads and car parking areas for visitor purposes</b>			
<ol style="list-style-type: none"> <li>1. Upgrade of existing tracks and roads to meet current departmental service standards using current alignment.</li> <li>2. Service standard upgrades of existing tracks and roads through partial or complete realignment to take advantage of better grades and terrain features or to incorporate elements of natural or historic landscape.</li> <li>3. Construction of new tracks as agreed in consultation with the community.</li> <li>4. Improvements to any existing track as considered necessary in order to mitigate any environmental impact, health and safety concern or visitor risk or to provide improved access for any management purpose.</li> </ol>	<ol style="list-style-type: none"> <li>1. Construction of tracks and roads using cut to fill excavation, cut to waste excavation and levelling using hand tools, motorised equipment and machinery.</li> <li>2. Excavation of batter slopes to a maximum height of 1.5 metres.</li> <li>3. Vegetation removal from the full width of the track corridor and discretionary removal of any vegetation beyond the track and road corridor that is considered hazardous or that may adversely impact upon track components such as batter slopes, drainage or track surface materials.</li> <li>4. Aggregate surfacing including placement and compaction of local and imported materials (from approved weed-free sources).</li> <li>5. Use of local materials in the vicinity of the asset corridor where necessary for obtaining fill/surfacing materials.</li> </ol>	<ol style="list-style-type: none"> <li>1. Soil disturbance including disturbance of the duff layer and subsoil. Disturbance and soil compaction in fill areas.</li> <li>2. Surface water runoff including modification of existing natural watercourses and control and redirection of surface water using various means such as culvert pipes, drainage sumps, cut-outs and cross boards.</li> <li>3. Alterations to land contours and slopes during track construction and upgrade.</li> <li>4. Removal of vegetation from the track corridor and from immediately</li> </ol>	<p><b>Queenstown District</b></p> <ul style="list-style-type: none"> <li>• Dart and Rees Tracks and Mount Earnslaw/Pikirakatahi</li> <li>• Cascade Saddle</li> <li>• Route Burn and Rock Burn valleys</li> <li>• Routeburn Track and associated tracks, structures and buildings</li> <li>• Greenstone and Caples tracks and associated tracks, structures and buildings</li> <li>• Humboldt Mountains</li> <li>• Earnslaw Burn, Mount Alfred/Ari and the area surrounding the head of Lake Wakatipu (Whakatipu-wai-māori)</li> <li>• Richardson Mountains and Whakaari Conservation Area</li> <li>• Shotover River catchment including Mount Aurum Recreation Reserve and Skippers township</li> <li>• Arrow River catchment including Macetown and associated historic sites</li> <li>• Mount Crichton Scenic Reserve, Ben Lomond Scenic Reserve and Queenstown surrounds</li> </ul>



Activity scope	Management actions	Environmental impacts	Location
	<p>6. Ground works of in-ground timber steps including formation and levelling, drainage and timber construction.</p> <p>7. Construction of drainage and redirection of surface water from the track surface to existing natural contours using various means such as culvert pipes, drainage sumps, cut-outs and cross boards.</p> <p>8. Re-formation and widening of roads to provide safe access for two vehicles and road stability to the required standards. Drainage improvement to prevent erosion and deterioration of the road surface and structure, and to provide safe vehicle access.</p> <p>9. Maintenance of historic heritage features associated with the track or road to ensure that they are not adversely impacted.</p>	<p>adjacent to the asset corridor.</p> <p>5. Disturbance of archaeological and historic features, including historical botanicals, on or in the immediate vicinity of the track or road.</p>	<ul style="list-style-type: none"> <li>• Arrowtown and surrounds, including the Arrowtown Chinese Settlement Historic Reserve</li> <li>• Lake Hayes and surrounding areas</li> <li>• The north east shores of Lake Wakatipu (Whakatipu-wai-māori) including the Twelve Mile Delta Recreation Reserve</li> <li>• The Remarkables</li> <li>• Taka Rā Haka Conservation Area, Te Kere Scenic Reserve and Glen Allen Scenic Reserve above Kingston and the Tāpuae-o-Uenuku/Hector Mountains</li> <li>• Gibbston valley</li> <li>• Kawarau Gorge and surrounding ranges</li> <li>• Ski field access roads and associated bridges and structures—The Remarkables ski field</li> <li>• Sections of Te Araroa Trail on public conservation land and waters</li> <li>• Sections of Ngā Haerenga/The New Zealand Cycle Trail on public conservation lands and waters</li> </ul> <p><b>Dunedin District</b></p> <ul style="list-style-type: none"> <li>• Eastern parts of Oteake Conservation Park</li> <li>• Kakanui Mountains and Horse Range</li> <li>• Sections of the Vanished World Trail on public conservation lands and waters</li> <li>• Cape Wanbrow and Oamaru harbour surrounds</li> <li>• Waianakarua Scenic Reserve and area surrounding Herbert</li> <li>• Moeraki Boulders/Kaihinaki, Katiki Point and Trotters Gorge Scenic Reserve</li> <li>• Shag Point/Matakaea and Sir John McKenzie Memorial Historic Reserve</li> </ul>

Activity scope	Management actions	Environmental impacts	Location
			<ul style="list-style-type: none"> <li>• Macraes area including Golden Point Historic Reserve</li> <li>• Hawkesbury Lagoon Wildlife Refuge Government Purpose Reserve, Waikouaiti and Huriawa Pā, Karitāne</li> <li>• Otago Central Rail Trail southern section and associated tracks, structures and buildings</li> <li>• Rock and Pillar Range and surrounding area</li> <li>• Silverpeaks Scenic Reserve and surrounding area</li> <li>• Waitati, Pūrākaunui and Heyward Point</li> <li>• Hills north of Dunedin</li> <li>• Otago Peninsula including Sandymount Recreation Reserve and Taiaroa Head</li> <li>• Tunnel Beach and the coast south of Dunedin</li> <li>• Taieri River Scenic Reserve</li> <li>• Taieri Gorge/Outram Glen Scenic Reserve, Maukaatua Scenic Reserve and the area surrounding Waipori River</li> <li>• The area surrounding Lake Waihola</li> <li>• Te Papanui Conservation Park and the area surrounding Lake Mahinerangi</li> <li>• Gabriels Gully Historic Reserve</li> <li>• Tokomairiro River and surrounding area</li> <li>• Manuka Gorge Scenic Reserve</li> <li>• The Catlins coast including Nugget Point/Tokatā and Papatowai</li> <li>• Area surrounding Ōwaka and The Catlins forest</li> <li>• Catlins Conservation Park and surrounding area</li> <li>• Sections of Ngā Haerenga/The New Zealand Cycle Trail on public conservation land and waters</li> </ul>

Activity scope	Management actions	Environmental impacts	Location
			<p><b>Alexandra District</b></p> <ul style="list-style-type: none"> <li>• Oteake Conservation Park, Mount Ida Conservation Area and surrounds</li> <li>• Dunstan Mountains including all the reserves and conservation areas around Bendigo</li> <li>• St Bathans and surrounding area</li> <li>• Danseys Pass and Kyeburn Diggings</li> <li>• Otago Central Rail Trail northern section and associated tracks, structures and buildings</li> <li>• Cromwell and surrounding area, including Bannockburn Sluicings Historic Reserve</li> <li>• Cairnmuir Mountains and hills around Clyde</li> <li>• Old Man Range/Kopuwai and Old Woman Range</li> <li>• Area surrounding Alexandra</li> <li>• Serpentine Scenic Reserve and Manorburn Conservation Area</li> <li>• Flat Top Hill and Aldinga Conservation Areas</li> <li>• Mount Benger Scenic Reserve</li> <li>• Horseshoe Bend Cemetery Historic Reserve</li> <li>• Sections of Ngā Haerenga/The New Zealand Cycle Trail on public conservation land and waters</li> </ul> <p><b>Wanaka District</b></p> <ul style="list-style-type: none"> <li>• Hunter River valley</li> <li>• Haast Highway, Mount Aspiring National Park</li> <li>• Dingle Burn valley</li> <li>• Hāwea Conservation Park</li> <li>• Shores surrounding Lake Hāwea, including Kidds Bush</li> <li>• Timaru River valley</li> </ul>

Activity scope	Management actions	Environmental impacts	Location
			<ul style="list-style-type: none"> <li>• Sections of Te Araroa Trail on public conservation land and waters</li> <li>• Young and McKerrow ranges</li> <li>• Gillespie Pass Circuit Track, Wilkin, Young and Siberia River valleys</li> <li>• Albert Burn valley</li> <li>• Shores surrounding Lake Wanaka</li> <li>• Mount Burke and surrounds</li> <li>• Blue, Wills, Cameron and Makarora River valleys and surrounds</li> <li>• Cardrona River valley and surrounds</li> <li>• Grandview Mountain ridge and surrounds</li> <li>• Lindis Pass, Pass Burn and Lindis River valleys and surrounds</li> <li>• Islands of Lake Wanaka</li> <li>• Diamond Lake and surrounds</li> <li>• Chain Hills and Cluden Stream</li> <li>• Matukituki River East Branch valley and Rabbit Pass</li> <li>• Tititea (Mount Aspiring) and surrounding area</li> <li>• Matukituki River West Branch track and associated tracks, structures and buildings</li> <li>• Cascade Saddle</li> <li>• Mount Alta Conservation Area</li> <li>• Matukituki River valley and surrounding area</li> <li>• Ski field access roads and associated bridges and structures—Treble Cone ski field</li> <li>• Fern Burn and Motatapu River valleys</li> <li>• The Stack Conservation Area and surrounds</li> <li>• Mount Iron Scenic Reserve and surrounding area</li> <li>• Clutha River/Mata-Au valley from Lake Wanaka to Lake Dunstan</li> </ul>

Activity scope	Management actions	Environmental impacts	Location
			<ul style="list-style-type: none"> <li>• Pisa and Criffel ranges, Alfem Creek Conservation Area and Poison Creek Conservation Area and surrounding Queensberry Hill area</li> <li>• Sections of Ngā Haerenga/The New Zealand Cycle Trail on public conservation land and waters</li> </ul>
<b>Structures<sup>70</sup> and buildings for visitor purposes</b>			
<ol style="list-style-type: none"> <li>1. Upgrade of existing structures and buildings to meet departmental service standards so that visitor group requirements are met, such as minimum access widths and safety barrier heights.</li> <li>2. Scheduled 'like for like' (substantially similar structures and buildings built on the same footprint or within the immediate vicinity) replacement of existing structures and buildings as they reach the end of their projected/economic life.</li> <li>3. Construction of new structures and buildings required to meet service standards for existing tracks, roads, amenity areas and campsites.</li> <li>4. Construction of new structures and buildings as a component of development work for new tracks, roads, amenity areas and campsites.</li> </ol>	<ol style="list-style-type: none"> <li>1. Preparatory site works such as vegetation removal, formation and levelling of structure and building footprints, and excavation of piles and footings.</li> <li>2. Works associated with water reticulation and sewage containment/treatment.</li> <li>3. Construction of drainage and redirection of surface water from structure and building footprint to existing natural contours using various means such as culvert pipes, drainage sumps and cut-outs.</li> <li>4. Construction of structures and buildings such as bridges, boardwalks, stairs, handrails, safety barriers, viewing platforms, huts, shelters, toilets, signage and ladders in accordance with requirements of SNZ 8630:2004 for the relevant visitor group.</li> <li>5. Maintenance of historic heritage features associated with the structure or building to ensure that</li> </ol>	<ol style="list-style-type: none"> <li>1. Soil disturbance, including disturbance of the duff layer and subsoil. Disturbance and soil compaction in fill areas.</li> <li>2. Surface water runoff, including modification of existing natural watercourses and control and redirection of surface water using various means such as culvert pipes and drainage sumps.</li> <li>3. Alterations to land contours and slopes during structure and building construction.</li> <li>4. Removal of vegetation from structure and building footprint and from immediate surroundings.</li> </ol>	<ul style="list-style-type: none"> <li>• Refer to locations for 'Tracks, roads and car parking areas for visitor purposes' above.</li> </ul>

<sup>70</sup> Structures for visitor purposes include viewing platforms, steps/stairs, boardwalks, bridges, handrails, safety fences, stiles, signage, etc.

Activity scope	Management actions	Environmental impacts	Location
<p>5. Improvements to any existing structure and building considered necessary to mitigate any environmental impact and health and safety concern or to provide improved access for any management purpose.</p>	<p>their integrity is not adversely impacted.</p>	<p>5. Aesthetic impact and altered sight-lines from man-made structures in natural areas.</p> <p>6. Disturbance of archaeological and historic features, including historic botanicals, and aesthetic impact on historic landscapes.</p>	
<b>Campsites and amenities for visitor purposes</b>			
<p>1. Upgrade of existing campsites and amenities to meet departmental service standard so that visitor group requirements for campgrounds and amenity areas are met as specified within SNZ 8630:2004 and any other applicable service standard.</p> <p>2. Scheduled 'like for like' (substantially similar campsites and amenities built on the same footprint or within the immediate vicinity) replacement of existing campground and amenity assets as these reach the end of their projected/economic life.</p> <p>3. Construction of new campsites and amenities required to meet service standards for existing campgrounds and amenity areas.</p> <p>4. Construction of new assets such as structures and buildings as a component of development work</p>	<p>1. Preparatory site works such as vegetation removal, formation and levelling of campground and amenities footprint, and excavation of piles and footings.</p> <p>2. Works associated with water reticulation and sewage containment/treatment including effluent dispersal fields and in-ground waste tanks.</p> <p>3. Construction of drainage and redirection of surface water from building and structural campsite and amenities footprint to existing natural contours using various means, such as culvert pipes, drainage sumps and cut-outs.</p> <p>4. Construction of campsites and amenities such as bridges, boardwalks, stairs, handrails, safety barriers, shelters, toilets, showers, signage and ladders.</p>	<p>1. Soil disturbance including disturbance of the duff layer and subsoil. Disturbance and soil compaction in fill areas.</p> <p>2. Surface water runoff including modification of existing natural watercourses and control and redirection of surface water using various means such as culvert pipes and drainage sumps. Fill materials not normally found on the site may be imported (such as scoria).</p> <p>3. Alterations to land contours and slopes during campsite and amenity construction.</p>	<p>1. Refer to locations for 'Tracks, roads, and car parking areas for visitor purposes' above.</p>

Activity scope	Management actions	Environmental impacts	Location
<p>for new campsites and amenity areas.</p> <p>5. Improvements to any existing asset or establishment of new assets considered necessary to manage, meet regulatory requirements for, and mitigate any environmental impact or health and safety concern, or to provide improved access for any management purpose.</p>	<p>5. Maintenance of the historic heritage features, including historic botanicals, associated with the campsite or amenities to ensure that they are not adversely impacted.</p>	<p>4. Removal of vegetation from asset footprint and from immediately around campground and amenities.</p> <p>5. Aesthetic impact and altered sight-lines from man-made structures in natural areas.</p> <p>6. Noise from increased usage of campground and amenities.</p> <p>7. Increased water take for operation of campground campsite and amenities.</p> <p>8. Disturbance of archaeological and historic features, including historic botanicals, on or in the immediate vicinity of the campsite or amenities.</p>	
<b>Historic assets—remedial work and maintenance</b>			
<p>1. Maintenance of historic places to departmental service standards and ICOMOS and HNZPT standards and guidelines.<sup>71</sup></p> <p>2. Stabilisation of condition of historic assets by conservation treatments and land stabilising, e.g. construction of retaining walls.</p>	<p>1. Vegetation management around historic places, maintenance of drainage channels, management of safety issues including barrier construction, and installation of interpretative panels.</p> <p>2. Repairs and conservation treatments as scheduled to concrete, masonry, metal, timber and earthwork structures.</p>	<p>1. Minor soil disturbance of the duff layer and subsoil. Disturbance and soil compaction in fill areas.</p> <p>2. Surface water runoff including modification of existing natural watercourses, and control and redirection of</p>	<ul style="list-style-type: none"> <li>Refer to locations for 'Tracks, roads, and car parking areas for visitor purposes' above.</li> </ul>

<sup>71</sup> ICOMOS = International Council on Monuments and Sites. HNZPT = Heritage New Zealand Pouhere Taonga.

Activity scope	Management actions	Environmental impacts	Location
	3. Maintenance of historic heritage features, including historic botanicals, associated with the historic asset, to ensure that they are not adversely impacted.	surface water using various means, such as culvert pipes and drainage sumps.  3. Removal of vegetation from assets and immediate vicinity.	
<b>Signs</b>			
1. Erection of signage on public conservation land for the purpose of providing information and interpretation to the public.  2. Erect signage on public conservation land for the purpose of informing people about fire-lighting restrictions.	1. Works associated with the erection of signage.	1. Aesthetic impact from man-made structures in natural areas.  2. Removal of vegetation from sign footprint and from immediate vicinity.	<ul style="list-style-type: none"> <li>All public conservation lands and waters within Otago where conservation programmes are being undertaken.</li> </ul>
<b>Biodiversity tracks, roads and structures (including staff accommodation)</b>			
1. Refer to 'Activity scope' for: 'Tracks, roads and car parking areas for visitor purposes', 'Structures and buildings for visitor purposes' and 'Campsites and amenities for visitor purposes'.	1. Refer to 'Management actions' for 'Tracks, roads and car parking areas for visitor purposes', 'Structures and buildings for visitor purposes' and 'Campsites and amenities for visitor purposes'.  NB: Not all visitor standards noted above will apply to biodiversity tracks, roads and structures (including staff accommodation). In some cases, a lesser standard may apply.	1. Refer to 'Environmental impacts' for 'Tracks, roads and car parking areas for visitor purposes', 'Structures and buildings for visitor purposes' and 'Campsites and amenities for visitor purposes'.	<ul style="list-style-type: none"> <li>All public conservation lands and waters in Otago where conservation management programmes are being undertaken.</li> </ul>



Activity scope	Management actions	Environmental impacts	Location
<b>Other management-related activities</b>			
<ol style="list-style-type: none"> <li>1. Erection of fences on public conservation land and its boundaries.</li> <li>2. Habitat enhancement.</li> <li>3. Pest control and/or eradication.</li> </ol>	<ol style="list-style-type: none"> <li>1. Vegetation removal to provide clear lines for fences.</li> <li>2. Some pest animal operations (note: discharge permits will be required for operations utilising pesticides).</li> <li>3. Earthworks and vegetation clearance associated with habitat enhancement, e.g. pond/drain creation or realignment.</li> <li>4. General access required to undertake the activity.</li> </ol>	<ol style="list-style-type: none"> <li>1. Vegetation removal.</li> <li>2. Soil disturbance, including disturbance of the duff layer and subsoil.</li> <li>3. Death and likely eradication of target pest mammals; possible death of non-target species.</li> </ol>	<ul style="list-style-type: none"> <li>• All public conservation lands and waters in Otago where conservation management programmes are being undertaken.</li> </ul>
<b>Hazardous goods</b>			
<ol style="list-style-type: none"> <li>1. Use, transportation, storage and disposal of hazardous substances.</li> </ol>	<ol style="list-style-type: none"> <li>1. Use, transportation, storage and disposal of hazardous substances including but not limited to flammable liquids, pesticides, herbicides and treated timber.</li> </ol>	<ol style="list-style-type: none"> <li>1. Will comply with all relevant legislative requirements.</li> </ol>	<ul style="list-style-type: none"> <li>• All public conservation lands and waters in Otago where conservation programmes are being undertaken.</li> </ul>

## Appendix 2

### Ecosystem and habitat types within Otago<sup>72</sup>

This list has been taken from the Department's national list of around 1000 ecosystem units,<sup>73</sup> which represent the full range of New Zealand's terrestrial and freshwater ecosystems (including priority and non-priority units both on and off public conservation lands and waters). The list is accurate as at the date of approval of this CMS. Its contents may be amended or reviewed during the term of this CMS.

Ecosystem/habitat type		Significant values	Pressures/threats	Administrative status	Management response
Coastal and inland cliffs	Harakeke ( <i>Phormium tenax</i> ), <i>Hebe elliptica</i> flaxland/rockland [CL5]	Coastal rockland and colluvial slopes, with mosaics of scrub of <i>Hebe elliptica</i> and harakeke flaxland, locally with shore spurge, <i>Pimelea urvilleana</i> , coastal carrot, <i>Poa astonii</i> , <i>Asplenium obtusatum</i> , <i>Celmisia lindsayi</i> , kāretu/holy grass ( <i>Hierochloa</i> spp.), <i>Lepidium</i> spp. and halophytic herbs.	Pest plants and animals; fire; human impacts; quarrying; vegetation clearance.	Recreation Reserve. Stewardship Area. National Park. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
	<i>Helichrysum</i> , <i>Melicytus</i> shrubland/tussockland/rockland [CL8]	Rockland and colluvial slopes with mosaics of scrub, shrub, fern and grass species, small-leaved <i>Olearia</i> , <i>Coprosma</i> , <i>Carmichaelia</i> and <i>Hebe</i> , wharariki, tutu, kānuka, mānuka, <i>Corokia cotoneaster</i> , <i>Olearia avicenniifolia</i> , prostrate kōwhai and broadleaf. Several local altitudinal variants occur with associated subalpine species, such as species of <i>Heliohebe</i> , <i>Helichrysum</i> and <i>Pimelea</i> , porcupine shrub, <i>Brachyglottis lagopus</i> and <i>Dracophyllum acerosum</i> , and locally grasses, including bristle tussock, silver tussock and <i>Chionochloa rigida</i> . Local endemics also occur on weakly weathered calcareous parent materials (limestone).	Pest plants and animals; fire; human impacts; quarrying; vegetation clearance.	Recreation Reserve. Stewardship Area. National Park. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.

<sup>72</sup> See Appendix 8 for marine habitats and ecosystems.

<sup>73</sup> For more information about the classification of New Zealand's terrestrial ecosystems, refer to Singers, N. J. D.; Rogers, G. M. 2014: A classification of New Zealand's terrestrial ecosystems. Science for Conservation 325. Department of Conservation, Wellington. 87 p.

Ecosystem/habitat type		Significant values	Pressures/threats	Administrative status	Management response
	Kiokio fernland/rockland [CL10]	Rockland and colluvial slopes, with mosaics of scrub, shrub, fern, herbs and grass species, and locally lianes. Dominants may include species of <i>Blechnum</i> and <i>Hymenophyllum</i> , <i>Schoenus pauciflorus</i> , wharariki, species of <i>Coprosma</i> , <i>Hebe</i> , <i>Olearia</i> and <i>Pseudopanax</i> , tutu, kāmahi and kōtukutuku, and locally southern rātā. Altitudinal variants occur, with subalpine/alpine species such as species of <i>Ourisia</i> , <i>Ranunculus</i> and <i>Chionochoa</i> present, which may be locally dominant. Includes rheophytic herbs, sedges, grasses and bryophytes associated with seepages, streams and rivers, including species of <i>Parahebe</i> , <i>Gunnera</i> and <i>Nertera</i> , and <i>Anaphalioides trinervis</i> .	Pest plants and animals; fire; human impacts.	Recreation Reserve. Stewardship Area. National Park. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
Cold forest and scrub	Pāhautea ( <i>Libocedrus bidwillii</i> ), Hall's tōtara ( <i>Podocarpus cunninghamii</i> ), mountain celery pine ( <i>Phyllocladus alpinus</i> ) and broadleaf forest [CDF1]	Podocarp, broadleaved forest of pāhautea, Hall's tōtara, mountain toatoa/celery pine and broadleaf.	Pest plants and animals; fire; human impacts; quarrying; vegetation clearance.	Conservation Park.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
	<i>Dracophyllum</i> , mountain celery pine, <i>Olearia</i> , <i>Hebe</i> scrub (Subalpine scrub) [CDF2]	Short forest, scrub of a wide range of local variants, with a range of xerophyllus species including species of <i>Dracophyllum</i> (e.g. <i>D. acerosum</i> , <i>D. rosmarinifolium</i> ), <i>Phyllocladus</i> , <i>Ozothamnus</i> , <i>Olearia</i> , <i>Brachyglottis</i> , <i>Hebe</i> , <i>Carmichaelia</i> and <i>Coprosma</i> , and locally snow tōtara and wharariki.	Pest plants and animals; fire; human impacts; quarrying; vegetation clearance; wasps.	Recreation Reserve. Stewardship Area. National Park. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
	Tawairauriki/mountain beech ( <i>Fuscospora cliffortioides</i> ) forest [CDF3]	Beech forest of abundant tawairauriki/mountain beech, with small-leaved <i>Coprosma</i> spp., weeping matipo/ māpou ( <i>Myrsine divaricata</i> ), mountain toatoa/celery pine, snow tōtara ( <i>Podocarpus nivalis</i> ), broadleaf, three-finger ( <i>Pseudopanax</i>	Pest plants and animals; fire; human impacts; quarrying; vegetation clearance; wasps.	Fixed Marginal Strip. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management.

Ecosystem/habitat type	Significant values	Pressures/threats	Administrative status	Management response
	<i>colensoi</i> var. <i>colensoi</i> ), and putaputawētā ( <i>Carpodetus serratus</i> ), and locally Hall's tōtara. Locally also includes scattered tawai/silver ( <i>Lophozonia menziesii</i> ) and tawairaunui/red beech ( <i>Fuscospora fusca</i> ) in humid locations.			Advocacy, consultation and partnership.
Hall's tōtara, pāhautea, kāmahī, southern rātā forest [CDF5]	Broadleaved forest of abundant kāmahī and southern rātā, occasional Hall's tōtara, and locally pāhautea, pink pine, tāwheowheo, broadleaf, <i>Olearia lacunosa</i> , mountain neinei and three-finger.	Pest plants and animals; human impacts; quarrying; vegetation clearance.	National Park. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
<i>Olearia</i> , <i>Pseudopanax</i> , <i>Dracophyllum</i> scrub; "Subalpine scrub" [CDF6]	Short forest, scrub of wide range of local variants, with a range of species of <i>Olearia</i> , <i>Brachyglottis</i> , <i>Pseudopanax</i> , <i>Dracophyllum</i> , <i>Hebe</i> , <i>Coprosma</i> , <i>Hoheria</i> , montane podocarp trees, mānuka ( <i>Leptospermum scoparium</i> ) and wharariki ( <i>Phormium cookianum</i> ).	Pest plants and animals; human impacts; quarrying; vegetation clearance.	National Park. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
Tawairauriki/mountain beech, tawai/silver beech, montane podocarp forest [CDF7]	Beech, podocarp and broadleaved forest of at least two variants: 1. South Island with tawairauriki/mountain and tawai/silver beech, yellow-silver pine ( <i>Lepidothamnus intermedius</i> ), southern rātā ( <i>Metrosideros umbellata</i> ) and <i>Dracophyllum traversii</i> ; 2. Lower altitude tawairauriki/mountain beech and tawai/silver beech, locally yellow silver pine, manoao/silver pine ( <i>Manoao colensoi</i> ), rimu ( <i>Dacrydium cupressinum</i> ), kahikatea ( <i>Dacrycarpus dacrydioides</i> ), miro ( <i>Prumnopitys ferruginea</i> ), pāhautea, Hall's tōtara, pōkākā ( <i>Elaeocarpus hookerianus</i> ).	Pest plants and animals; human impacts; quarrying; vegetation clearance; wasps.	Conservation Park. National Park.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.

Ecosystem/habitat type		Significant values	Pressures/threats	Administrative status	Management response
Cool forest and scrub	Hall's tōtara, mountain celery pine, broadleaf forest [CLF1]	Podocarp, broadleaved forest with Hall's tōtara, mountain celery pine and broadleaf. Locally includes mataī ( <i>Prumnopitys taxifolia</i> ) and kōwhai at lower altitudes. Very small remnants still present in the dry interior of Otago, where it would have historically been common.	Pest animals and plants; fire; grazing lease; human impacts; quarrying; vegetation clearance.	Conservation Park. Scenic Reserve. Stewardship Area. Non-public conservation land.	Active fish capture. Build fish barriers. Fencing. Biosecurity surveillance and management. Advocacy, consultation and partnership.
	Hall's tōtara forest; "Dune forest" [CLF2]	Podocarp forest of abundant tōtara (Hall's and lowland) locally with mataī ( <i>Prumnopitys taxifolia</i> ) on free-draining sandy soils. Very old dunes include broadleaved trees (pōkākā and kāmahī ( <i>Weinmannia racemosa</i> )), rimu and kahikatea.	Pest plants and animals; fire; human impacts; quarrying; vegetation clearance.	Conservation Park. Scenic Reserve. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Fencing. Advocacy, consultation and partnership.
	Podocarp, ribbonwood ( <i>Plagianthus regius</i> ), kōwhai ( <i>Sophora</i> spp.) forest [CLF3]	Podocarp forest of abundant kahikatea, mataī and tōtara, with ribbonwood, narrow-leaved houhere/lacebark ( <i>Hoheria angustifolia</i> ), kōwhai and a wide variety of divaricating shrubs on free-draining soils.	Pest plants and animals; fire; human impacts; quarrying; vegetation clearance.	Fixed Marginal Strip. Local Purpose Reserve. Scenic Reserve. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership. Fencing.
	Kahikatea, tōtara, mataī forest [CLF4]	Podocarp forest of two variants: 1. Northern, with emergent kahikatea, mataī and tōtara, and occasional maire species, kōwhai and ribbonwood; and 2. Southern, with occasional to common emergent mataī and tōtara, and locally Hall's tōtara with narrow-leaved houhere, ribbonwood, kōwhai, māhoe, broadleaf and tarātā. Locally includes rimu in the most humid part of the range, and ngaio and <i>Olearia</i> spp. in coastal Otago.	Pest plants and animals; fire; human impacts; quarrying; vegetation clearance.	Fixed Marginal Strip. Local Purpose Reserve. Scenic Reserve. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.

Ecosystem/habitat type	Significant values	Pressures/threats	Administrative status	Management response
Kāmahi, southern rātā, podocarp forest [CLF 6]	Podocarp, broadleaved forest of several variants: 1. Abundant rimu, kāmahi and southern rātā with occasional miro, Hall's tōtara; 2. Locally pink pine, mountain celery pine and yellow silver pine at higher altitudes and exposed sites; 3. With mataī and kahikatea on alluvial sites; and 4. Broadleaved-dominant, with abundant kāmahi and southern rātā on coastal margins and at higher altitudes.	Pest plants and animals; human impacts; quarrying; vegetation clearance.	Conservation Park. Fixed Marginal Strip. Scenic Reserve. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Active fish capture. Fencing. Advocacy, consultation and partnership.
Tawairaunui/red beech, podocarp forest [CLF9]	Beech, podocarp, broadleaved forest of abundant tawairaunui/red beech of at least two types: 1. Hill slope forest locally with kāmahi in humid parts of the range, occasional rimu, Hall's tōtara, miro and mataī. 2. On alluvial stony terraces, tawairaunui/red beech locally with tawai/silver beech, kāmahi, southern rātā and occasional podocarp trees (rimu, kahikatea, mataī and tōtara)	Pest plants and animals; human impacts; quarrying; vegetation clearance; wasps.	National Park. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Active fish capture. Fencing. Biosecurity surveillance and management. Advocacy, consultation and partnership.
Tawairaunui/red and tawai/silver beech forest [CLF10]	Beach forest and beech, podocarp, broadleaved forest of abundant tawairaunui/red and tawai/silver beech, and locally with podocarp and broadleaved species with at least two local variants: 1. Locally with occasional tawairauriki/black beech ( <i>Fuscospora solandri</i> ) and tawairauriki/mountain beech, Hall's tōtara, pāhautea, kāmahi and tawairaunui/hard beech ( <i>Fuscospora truncata</i> ), as well as rimu, miro and mataī at lower altitudes; and 2. With occasional tawairauriki/black beech and tawairauriki/mountain beech.	Pest plants and animals; human impacts; quarrying; vegetation clearance; wasps.	Scenic Reserve. Conservation Park. Ecological Area. Local purpose Reserve. Marginal Strip. Stewardship Area. National Park.	Pest animal and plant control. Active fish capture. Biosecurity surveillance and management. Advocacy, consultation and partnership.
Tawai/silver beech forest [CLF11]	Beech forest of abundant tawai/silver beech of at least two local variants: 1. Upper mountain slopes locally with mountain toatoa/ celery pine, three-finger, <i>Olearia</i> spp., kōtukutuku ( <i>Fuchsia excorticata</i> ), broadleaf and small-leaved shrubs; and 2. Lower and mid slopes with rimu and kāmahi,	Pest plants and animals; human impacts; quarrying; vegetation clearance; wasps.	Conservation Park. Fixed Marginal Strip. Local Purpose Reserve. National Park. Scenic Reserve. Stewardship Area.	Pest animal and plant control. Fencing. Biosecurity surveillance and management.

Ecosystem/habitat type		Significant values	Pressures/threats	Administrative status	Management response
		occasional southern rātā, Hall's tōtara and miro, and locally with kahikatea on alluvial terraces.		Non-public conservation land.	Advocacy, consultation and partnership.
Dunelands	Pīngao sedgeland [DN3]	Sedgeland of abundant pīngao of two variants (humid and semi-arid) with occasional wīwī/knobby club rush ( <i>Ficinia nodosa</i> ), <i>Carex pumila</i> , panahi/shore bindweed ( <i>Calystegia soldanella</i> ), sand tussock, tātaraheke/sand coprosma, <i>Muehlenbeckia complexa</i> , and locally shore spurge, pūhā/New Zealand sow thistle, southern sand daphne, <i>Carex testacea</i> , <i>Acaena</i> spp., silver tussock and kāretu/holy grass, grading into rear semi-stable dunes with scattered dune scrub. Grades into abundant harakeke, mānuka, <i>Olearia avicenniifolia</i> , in humid areas, and into matagouri ( <i>Discaria toumatou</i> ), <i>Carmichaelia</i> spp., akeake ( <i>Dodonaea viscosa</i> ) and ngaio ( <i>Myoporum laetum</i> ) in semi-arid areas.	Pest plants and animals; fire; human impacts; mining; quarrying; vegetation clearance; vehicles.	Scenic Reserve. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
	Oioi ( <i>Apodasmia similis</i> ), wīwī/knobby clubrush sedgeland [DN5]	Sedgeland, herbfield of several local variants with both dry and ephemerally wet communities of range of successional stages. Dominant species include <i>Carex pumila</i> , species of <i>Gunnera</i> , <i>Selliera</i> , <i>Isolepis</i> , <i>Epilobium</i> , <i>Ranunculus</i> , <i>Leptinella</i> , <i>Lobelia</i> , <i>Colobanthus</i> , <i>Geranium</i> and <i>Hydrocotyle</i> , and locally <i>Lilaeopsis novae-zelandiae</i> , <i>Myriophyllum votschii</i> , <i>Triglochin striata</i> , <i>Limosella lineata</i> and other turf-forming species. Older stages develop into oioi, wīwī/knobby club rush, toetoe ( <i>Austroderia</i> spp.) and harakeke, and locally <i>Cyperus ustulatus</i> , square sedge ( <i>Lepidosperma australe</i> ), silver tussock and <i>Raoulia</i> spp. Locally includes <i>Coprosma propinqua</i> and mānuka in older successions.	Pest plants and animals; fire; human impacts; mining; quarrying; vegetation clearance; vehicles.	Scenic Reserve. Scientific Reserve. Marginal Strip. Stewardship Area. National Park.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.

Ecosystem/habitat type		Significant values	Pressures/threats	Administrative status	Management response
Erosion pavements	Rockland	Bare rockland (erosion pavements) with a sparse cover of lichens and bryophytes, and infrequent prostrate vascular plants generally restricted to crevices. Two broad types associated with silica-rich (sandstone and granite) and base-rich (e.g. limestone) parent materials.	Pest plants and animals; fire; human impacts; mining; quarrying; vegetation clearance; vehicles.	Scenic Reserve. Scientific Reserve. Marginal Strip. Stewardship Area. National Park.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
Exotic	Pasture, Plantation, Willow			Scenic Reserve. Conservation Park. Nature Reserve. Scientific Reserve. Government Purpose Reserve. Sanctuary Area. Local Purpose Reserve. Marginal Strip. Stewardship Area. National Park.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
Frost flats (Cold temperature inversion)	Bog pine ( <i>Halocarpus bidwillii</i> ), mountain toatoa /celery pine scrub/forest [TI1]	Short forest, scrub of abundant bog pine and/or mountain toatoa/celery pine, with species of <i>Dracophyllum</i> , <i>Leucopogon</i> , <i>Coprosma</i> , <i>Hebe</i> , <i>Olearia</i> , <i>Pittosporum</i> , <i>Gaultheria</i> and <i>Pimelea</i> , mountain tauhinu ( <i>Ozothamnus vauvilliersii</i> ), korokio ( <i>Corokia</i> spp.), mountain wineberry ( <i>Aristotelia fruticosa</i> ), snow tōtara and porcupine shrub ( <i>Melicytus alpinus</i> ). Early successional derivatives include short tussock grasslands of species of <i>Poa</i> , <i>Festuca</i> , <i>Deyeuxia</i> , <i>Rytidosperma</i> , with inter-tussock prostrate herbfield species.	Pest plants and animals; fire; human impacts; quarrying; vegetation clearance.	National Park. Scientific Reserve. Scenic Reserve. Conservation Park. Marginal Strip. Stewardship Area.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership. Fencing.
	Kānuka, <i>Olearia</i> scrub/treeland [TI2]	Scrub and treeland of kānuka, and species of <i>Olearia</i> , <i>Carmichaelia</i> and <i>Melicytus</i> , with korokio, matagouri, mountain tauhinu, prostrate kōwhai and lianes (e.g. <i>Muehlenbeckia</i> ) and locally <i>Leonohebe cupressoides</i> . Early successional derivatives include short tussock grasslands of species of <i>Poa</i> , <i>Festuca</i> ,	Pest plants and animals; fire; human impacts; invasive species; quarrying; vegetation clearance.	Conservation Park. Fixed Marginal Strip. Nature Reserve. Scientific Reserve. Stewardship Area. Non-public	Pest animal and plant control. Biosecurity surveillance and management. Advocacy,



Ecosystem/habitat type		Significant values	Pressures/threats	Administrative status	Management response
		<i>Deyeuxia</i> , <i>Rytidosperma</i> , with inter-tussock prostrate herbfield species.		conservation land.	consultation and partnership.
	<i>Coprosma</i> , <i>Olearia</i> scrub [TI4]	Scrub of two different variants: 1. On free-draining stony soils with species including <i>Carmichaelia</i> , <i>Coprosma</i> , <i>Olearia</i> , <i>Hebe</i> , <i>Corokia cotoneaster</i> , mānuka, matagouri and species of the lianes <i>Muehlenbeckia</i> , <i>Rubus</i> and <i>Clematis</i> ; and 2. On poor-draining silty soils, with species such as <i>Coprosma</i> ( <i>C. propinqua</i> , <i>C. pedicellata</i> ), <i>Pittosporum obcordatum</i> , and <i>Olearia</i> ( <i>O. polita</i> , <i>O. virgata</i> ). Early alluvial successions are dominated by short tussock grasslands (species of <i>Poa</i> , <i>Festuca</i> , <i>Deyeuxia</i> and <i>Rytidosperma</i> ).	Pest plant and animals; fire; human impacts; invasive species; quarrying; vegetation clearance.	Conservation Park. Fixed Marginal Strip. National Park. Scenic Reserve. Stewardship Area. Non-public conservation land.	Pest animal and plants control. Fencing. Active fish capture. Biosecurity surveillance and management. Advocacy, consultation and partnership.
High alpine	Gravelfield/stonefield; “Fellfield” [AH1]	Gravelfield/stonefield with a sparse covering of vegetable sheep, sub-shrubs ( <i>Hebe</i> spp.), <i>Celmisia</i> and other herbs, with extensive areas of rock pavement, boulderfield and bluffs, and limited areas of snow banks, cushionfield and herbfield.	Pest plants and animals; human impacts; vegetation clearance; vehicles.	Conservation Park. Stewardship Area.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
	<i>Dracophyllum muscoides</i> cushionfield [AH2]	Cushionfield (with smaller areas of fellfield and rock tors) of prostrate shrubs and herbs dominated by <i>Dracophyllum muscoides</i> , and other cushion/mat forming sub-shrubs, herbs and snow banks dominated by <i>Celmisia haastii</i> and associates, on gently rolling plateaux.	Pest plants and animals; fire; grazing lease; human impacts; vegetation clearance; vehicles.	Fixed Marginal Strip. Scenic Reserve. Stewardship Area. Non-public conservation land.	Animal and plant pest control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
	Gravelfield/stonefield, cushionfield [AH3]	Gravelfield/stonefield with areas of rock pavement, talus, boulderfield and bluffs and locally cushionfield, herbfield and snow banks. At least two regional types including Western Alps, which include a diversity of grasses, small herbs and sub-shrubs, including <i>Aciphylla</i> , <i>Agrostis</i> , <i>Brachyscome</i> ,	Pest plants and animals; human impacts; vegetation clearance; vehicles.	Conservation Park. National Park. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy,

Ecosystem/habitat type		Significant values	Pressures/threats	Administrative status	Management response
		<i>Brachyglottis</i> , <i>Celmisia</i> , <i>Dolichoglottis</i> , <i>Epilobium</i> , <i>Gaultheria</i> , <i>Gentianella</i> , <i>Hebe</i> , <i>Ourisia</i> , <i>Poa</i> , <i>Ranunculus</i> , <i>Trisetum</i> and cushion genera. Includes snow banks of <i>Chionochloa oreophila</i> , <i>C. crassiuscula</i> , <i>C. vireta</i> , blue tussock and <i>Celmisia hectorii</i> .			consultation and partnership.
	Permanent snow and ice	Permanent snow and ice.	Human impacts.	Wilderness Area. Conservation Park. Stewardship Area. National Park.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
Lakes	Glacial	Otago has a range of different lake types and sizes, including glacial lakes such as Lake Wakatipu (Whakatipu-wai-māori) and Lakes Alta, Hayes and Sylvan; shoreline lakes such as Day Bay Lagoon; riverine or swamp lakes such as Lakes Waiholā and Waipori; windform lakes such as those found in the MacLennan Range; and landslide lakes such as Young River Landslide Lake.	Pest plants and animals; adjacent land uses; catchment impacts; human impacts; hydrological alteration; impeded fish passage; lake macrophytes; pest fish; river nutrients; salmonids; sediments and nutrients; water and gravel extraction.	National Park. Scenic Reserve. Conservation Park. Nature Reserve. Marginal Strip. Government Purpose Reserve. Wilderness Area. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Active fish capture. Fencing. Advocacy, consultation and partnership. Biosecurity surveillance and management.
	Landslide				
	Peat				
	Riverine				
	Shoreline				
	Swamp				
	Tectonic				
Windform					
Low alpine	Narrow-leaved ( <i>Chionochloa rigida</i> subsp. <i>rigida</i> ) and slim ( <i>C. macra</i> ) snow tussock tussockland/shrubland [AL1]	Tall tussock grassland, shrubland of abundant <i>Chionochloa rigida</i> subsp. <i>rigida</i> , <i>C. macra</i> and species of <i>Hebe</i> and <i>Dracophyllum</i> with areas of talus, boulderfield and bluffs. At least two regional variants: <ol style="list-style-type: none"> <li>1. Eastern/Central Otago mountains</li> <li>2. Eastern Alps.</li> </ol>	Pest plants and animals; fire; grazing lease; human impacts; vegetation clearance; vehicles.	Conservation Park. Fixed Marginal Strip. National Park. Scenic Reserve. Scientific Reserve. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Fencing. Biosecurity surveillance and management. Advocacy, consultation and partnership.

Ecosystem/habitat type		Significant values	Pressures/threats	Administrative status	Management response
	Mid-ribbed ( <i>Chionochloa pallens</i> ) and narrow-leaved snow tussock tussockland/shrubland [AL6]	Tall tussock grassland, shrubland of abundant <i>Chionochloa pallens</i> subsp. <i>pilosa</i> locally with <i>C. rigida</i> subsp. <i>amara</i> and <i>C. crassiuscula</i> and species of <i>Hebe</i> and <i>Dracophyllum</i> with areas of talus, boulderfield and bluffs.	Pest plants and animals; human impacts; vegetation clearance; vehicles.	National Park. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Fencing. Biosecurity surveillance and management. Advocacy, consultation and partnership.
Mild forests	Mataī, tōtara, kahikatea, broadleaved forest [MF3]	Podocarp, broadleaved forest of two regional variants: 1. A northern type of occasional emergent mataī, tōtara and kahikatea, with broadleaved, ribbonwood, narrow-leaved houhere, tarata, māhoe, five-finger, kaikōmako and locally pōkākā; and 2. A local variant with southern rātā and rimu in humid microclimates.	Pest plants and animals; fire; human impacts; quarrying; vegetation clearance;	Conservation Park. Fixed Marginal Strip. National Park. Scenic Reserve. Scientific Reserve. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Fencing. Biosecurity surveillance and management. Advocacy, consultation and partnership.
	Kahikatea forest [MF4]	Podocarp forest of abundant kahikatea locally with mataī and a sparse subcanopy of ribbonwood and houhere species, and locally kōwhai, pōkākā, māhoe ( <i>Melicytus ramiflorus</i> ) and tarata/lemonwood ( <i>Pittosporum eugenioides</i> ) on alluvial flood plains.	Pest plants and animals; fire; human impacts; quarrying; vegetation clearance.	Scenic Reserve. Scientific Reserve. Non-public conservation land.	Pest animal and plant control. Fencing. Biosecurity surveillance and management. Advocacy, consultation and partnership.
	Rimu forest [MF16]	Podocarp forest with abundant rimu, and occasional miro, kāmahī, tāwhewheo/ quintinia, and southern rātā, and locally Hall's tōtara and kahikatea.	Pest plants and animals; human impacts; quarrying; vegetation clearance.	Scenic Reserve. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.

Ecosystem/habitat type		Significant values	Pressures/threats	Administrative status	Management response
Regenerating	Kānuka scrub/forest [VS2]	Kānuka scrub/forest of a range of variants. Later successional transitions include a wide range of broadleaved and podocarp trees. Dominates in Otago where rainfall is <650 mm per annum.	Pest plants and animals; fire; human impacts; quarrying; vegetation clearance.	Historic Reserve. Scenic Reserve. Conservation Park. Nature Reserve. Ecological Area. Scientific Reserve. Government Purpose Reserve. Sanctuary Area. Marginal Strip. Stewardship Area. National Park.	Pest animals and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
	Mānuka, kānuka ( <i>Kunzea robusta</i> ) scrub [VS3]	Mānuka, kānuka scrub of a range of variants. Later successional transitions include a wide range of broadleaved and podocarp trees, and three ferns.	Pest plants and animals; fire; human impacts; quarrying; vegetation clearance.	Historic Reserve. Scenic Reserve. Conservation Park. Nature Reserve. Ecological Area. Scientific Reserve. Government Purpose Reserve. Sanctuary Area. Marginal Strip. Stewardship Area. National Park.	Pest animals and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
	Broadleaved species scrub/forest [VS5]	Scrub/short forest of a wide range of variants, including species of <i>Coprosma</i> , <i>Coriaria</i> , <i>Pittosporum</i> , <i>Pseudopanax</i> , <i>Meliclytus</i> , <i>Olearia</i> , <i>Hebe</i> and <i>Myrsine</i> , and wineberry ( <i>Aristotelia serrata</i> ), and locally kōtukutuku, kāmahī and tree ferns.	Pest plants and animals; fire; human impacts; quarrying; vegetation clearance.	Historic Reserve. Scenic Reserve. Conservation Park. Nature Reserve. Sanctuary Area. Marginal Strip. Stewardship Area. National Park.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
	Mountain tauhinu <i>Dracophyllum rosmarinifolium</i> scrub [VS7]	Mountain tauhinu and <i>Dracophyllum rosmarinifolium</i> scrub, often associated with short and red tussock grasses, and a wide range of shrub species, including mānuka, kānuka, inaka,	Pest plants and animals; fire; human impacts; quarrying; vegetation clearance.	Scenic Reserve. Conservation Park. Nature Reserve. Marginal Strip.	Pest animal and plant control. Biosecurity surveillance and

Ecosystem/habitat type		Significant values	Pressures/threats	Administrative status	Management response
		<i>Dracophyllum acerosum</i> , matagouri, and species of <i>Hebe</i> , <i>Olearia</i> and <i>Coprosma</i> .		Stewardship Area.	management. Advocacy, consultation and partnership.
	Inaka scrub [VS9]	Inaka scrub, often associated with tall or red/copper tussock grasses, and a wide range of shrub species, including mānuka, kānuka, species of <i>Ozothamnus</i> , <i>Hebe</i> , <i>Olearia</i> , <i>Coprosma</i> and <i>Gaultheria</i> , and locally mountain celery pine.	Pest plants and animals; fire; human impacts; quarrying; vegetation clearance.	Scenic Reserve. Conservation Park. Nature Reserve. Marginal Strip. Stewardship Area.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
	Bracken ( <i>Pteridium esculentum</i> ) fernland [VS10]	Bracken fernland with a range of associates, including mānuka, kānuka and tutu ( <i>Coriaria arborea</i> var. <i>arborea</i> ), locally with matagouri, <i>Coriaria sarmentosa</i> , kōhūhū ( <i>Pittosporum tenuifolium</i> ) and five-finger ( <i>Pseudopanax arboreus</i> ).	Pest plants and animals; fire; human impacts; quarrying; vegetation clearance; vehicles.	Scenic Reserve. Stewardship Area.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
	Short-tussock tussockland [VS11]	Short-tussock grasslands principally of silver and hard tussock, with associated species of <i>Poa</i> , <i>Festuca</i> , <i>Deyeuxia</i> and <i>Rytidosperma</i> , often with inter-tussock prostrate shrub and herbfield species. Later successional transitions include bracken, <i>Dracophyllum</i> spp., mānuka, kānuka and other shrub/scrub species.	Pest plants and animals; fire; human impacts; quarrying; vegetation clearance; vehicles.	Scenic Reserve. Conservation Park. Ecological Area. Scientific Reserve. Government Purpose Reserve. Marginal Strip. Stewardship Area. National Park.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
Rivers	Flowing water which provides a variety of local mosaic habitats for aquatic plants, invertebrates and vertebrates.	Provides habitat for threatened species	Adjacent land uses; catchment impacts; human impacts; hydrological alteration; impeded fish passage; pest plants and animals; pest fish; river	Fixed Marginal Strip. Scenic Reserve. Conservation Park. Scientific Reserve. Government Purpose Reserve. Local Purpose Reserve.	Pest animal and plant control. Fencing. Advocacy, consultation and partnership. Biosecurity

Ecosystem/habitat type		Significant values	Pressures/threats	Administrative status	Management response
			nutrients; salmonids; sediments and nutrients; water and gravel extraction.	Stewardship Area. National Park. Non-public conservation land.	surveillance and management (including for didymo ( <i>Didymosphenia geminata</i> )).
Rock, gravel and stone dominated communities	Gravelfield; "Screes and boulderfields" [SC1]	Mobile gravelfield of predominantly shattered greywacke, argillite, igneous substrates and calcareous substrates on slopes of between 35° and 40° that locally include 26 species of specialised scree plants and associates commonly including <i>Stellaria roughii</i> , <i>Epilobium pycnostachyum</i> , <i>Lignocarpa carnosula</i> and <i>Hebe epacridea</i> .	Pest plants and animals; human impacts; invasive species; quarrying; vegetation clearance.	Conservation Park. National Park. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Fencing. Advocacy, consultation and partnership.
	Hard tussock, scabweed ( <i>Raoulia</i> spp.) gravelfield/stonefield; "Braided rivers" [BR1]	Stonefield, gravelfield with a mosaic of prostrate herbfield and sub-shrubs of scabweed, mats and short-lived herbs (e.g. species of <i>Raoulia</i> , <i>Epilobium</i> , <i>Pimelea prostrata</i> and <i>Muehlenbeckia axillaris</i> ) grading into short-tussock grasslands on fresh alluvium with silver tussock, hard tussock, <i>Anthosachne</i> spp. and long hair plume grass ( <i>Dichelachne</i> spp.) and matagouri scrub (inland South Island) or kānuka scrub on older, more stable soils. Locally includes inland dunes.	Pest plants and animals; adjacent land uses; fire; human impacts; quarrying; vegetation clearance; vehicles; water and gravel extraction.	Fixed Marginal Strip. National Park. Scenic Reserve. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
Saline	Ureure/glasswort ( <i>Sarcocornia quinqueflora</i> ), māakoako/sea primrose ( <i>Samolus repens</i> ) herbfield; "Saltmarsh" [SA3]	Herbfield of sea grass grading into ureure/glasswort and māakoako/sea primrose with remuremu/half star ( <i>Selliera radicans</i> ), sea blite ( <i>Suaeda novae-zelandiae</i> ), <i>Schoenus nitens</i> , arrow grass ( <i>Triglochin palustris</i> ), <i>Puccinellia</i> spp., and shore celery ( <i>Apium prostratum</i> subsp. <i>prostratum</i> var. <i>filiforme</i> ) grading into oioi, three-square ( <i>Schoenoplectus pungens</i> ) and saltmarsh ribbonwood ( <i>Plagianthus divaricatus</i> ). Locally with shell barrier and/or gravel or sand beach ridges with silver tussock, wīwī/knobby clubrush and square sedge.	Pest plants and animals; human impacts; quarrying; sediments and nutrients; vegetation clearance; vehicles.	Fixed Marginal Strip. Recreation Reserve. Scenic Reserve. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Fencing. Biosecurity surveillance and management. Advocacy, consultation and partnership.
	Panahi/shore	Stonefield, gravelfield with halophytic herbs, sedges	Pest plants and	Government Purpose	Pest animal and plant

Ecosystem/habitat type		Significant values	Pressures/threats	Administrative status	Management response
	bindweed, wīwī/knobby clubrush gravelfield/stonefield [SA4]	and vines including ureure/glasswort ( <i>Sarcocornia quinqueflora</i> subsp. <i>quinqueflora</i> ), half star, shore celery, arrow grass, shore spurge, wīwī/knobby club rush, and panahi/shore bindweed grading into a coastal scrub-vineland of <i>Coprosma</i> , <i>Muehlenbeckia</i> , and locally species of <i>Melicytus</i> , <i>Pimelea</i> and <i>Ozothamnus</i> and harakeke.	animals; human impacts; quarrying; sediments and nutrients; vegetation clearance; vehicles.	Reserve. Non-public conservation land.	control. Fencing. Biosecurity surveillance and monitoring. Advocacy, consultation and partnership.
	Herbfield; “Coastal turf” [SA5]	Herbfield of a wide range of prostrate species including remuremu/half-star, māakoako/sea primrose, shore celery, <i>Zoysia minima</i> , <i>Isolepis cernua</i> , <i>Centella uniflora</i> , <i>Colobanthus muelleri</i> , <i>Hydrocotyle novae-zeelandiae</i> and species of <i>Leptinella</i> , <i>Crassula</i> , <i>Ranunculus</i> , <i>Myosotis</i> , <i>Epilobium</i> , <i>Mazus</i> and <i>Nertera</i> .	Pest plants and animals; human impacts; quarrying; sediments and nutrients; vegetation clearance; vehicles; water and gravel extraction.	Fixed Marginal Strip. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Fencing. Riparian planting Advocacy, consultation and partnership.
	Ice plant, glasswort herbfield/loamfield [SA7]	Mosaic of herbfield of glasswort, ice plant, pigweed, shore groundsel, sea primrose, shore celery, and <i>Lepidium</i> spp., and locally oioi, knobby clubrush, toetoe and <i>Poa</i> spp., with a scattered scrub/vineland of locally taupata, houpara, flax, ngaio, shrubby <i>Melicytus</i> , <i>Hebe</i> spp. and small-leaved pōhuehue interspersed with bare ground, bird burrows and guano deposits.	Pest plants and animals; fire; human impacts; vegetation clearance; vehicles;	Recreation Reserve. Scenic Reserve. Scientific Reserve. Non-public conservation land.	Pest animal and plant control. Fencing. Biosecurity surveillance and management.
	Kirk’s scurvy grass herbfield/loamfield [SA11]	Herbfield, loamfield with a sparse cover of least 15 indigenous halophytic herbs and grasses, including Kirk’s scurvy grass.	Pest plants and animals; fire; human impacts; vegetation clearance; vehicles.	Recreation Reserve. Scenic Reserve. Scientific Reserve. Non-public conservation land.	Pest animal and plant control. Fencing. Biosecurity surveillance and management.
Ultramafic	Conifer, beech, mānuka forest /scrub/rockland [UM2]	Mosaic of short forest, scrub and rockland of a wide variety of podocarp trees (rimu, Hall’s tōtara, yellow silver pine, pink pine, silver pine and mountain celery pine), beech, southern rātā and kāmahi	Pest plants and animals; fire; human impacts; vegetation clearance; vehicles.	Recreation Reserve. Scenic Reserve. Scientific Reserve. Non-public	Pest animal and plant control. Fencing. Biosecurity

Ecosystem/habitat type		Significant values	Pressures/threats	Administrative status	Management response
		interspersed with areas of low mānuka scrub and bare ground/rock.		conservation land.	surveillance and management.
	Tussockland/stonefield/rockland [UM3]	Stonefield, rockland of two local variants: 1. With occasional <i>Chionochloa defracta</i> tall tussock grassland, shrubland with mountain tauhinu, <i>Dracophyllum pronum</i> and <i>D. filifolium</i> ; and 2. With locally mānuka, <i>D. pronum</i> , blue tussock, bristle tussock and <i>Poa</i> spp.	Pest plants and animals; fire; grazing lease; human impacts; vegetation clearance; vehicles.	Conservation Park. National Park. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
Warm forest	Tōtara, mataī, ribbonwood forest [WF2]	Podocarp forest of abundant tōtara and mataī, with occasional kahikatea, ribbonwood and kōwhai, and a wide range of divaricating shrubs. Locally includes occasional tawa, tītoki and maire species in northern and more humid part of range and in inland examples, with occasional riparian black beech and red beech. Early successional derivatives on younger alluvial sites include kānuka, kōwhai, cabbage tree treeland and forest.	Pest plants and animals; fire; grazing lease; human impacts; vegetation clearance; vehicles.	Conservation Park. National Park. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
Wetland	Lesser wire rush ( <i>Empodisma minus</i> ), tangle fern ( <i>Gleichenia dicarpa</i> ) restiad rushland/fernland [WL6]	Restiad rushland of abundant wire rush and tangle fern, with occasional sedges, including <i>Machaerina tenax</i> and square sedge often with <i>Sphagnum</i> spp. and tussock grasses. May include pools and gradations to shrub bogs (especially small podocarp trees), mānuka, <i>Dracophyllum</i> spp. and mountain tauhinu or red tussock fens.	Pest plants and animals; adjacent land uses; catchment impacts; fire; human impacts; hydrological alteration; river nutrients; quarrying; sediments and nutrients; vegetation clearance.	Conservation Park. Scientific Reserve. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.
	Herbfield/mossfield/sedgeland [WL8]	Mossfield, herbfield, sedgeland with sphagnum and other mosses, short-statured sedges ( <i>Carex</i> , <i>Isolepis</i> spp. and <i>Carpha alpina</i> ) and a range of herbs (species of <i>Epilobium</i> , <i>Euphrasia</i> and <i>Gentianella</i> ). Often contains numerous small pools with associated aquatic species.	Pest plants and animals; adjacent land uses; catchment impacts; fire; human impacts; hydrological alteration; quarrying; sediments and	Conservation Park. Fixed Marginal Strip. Scientific Reserve. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Fencing. Biosecurity surveillance and management. Advocacy,



Ecosystem/habitat type		Significant values	Pressures/threats	Administrative status	Management response
			nutrients; vegetation clearance; vehicles; hydrological alteration.		consultation and partnership.
	Cushionfield [WL9]	Cushionfield with species of <i>Oreobolus</i> , <i>Donatia</i> , <i>Gaimardia</i> , <i>Centrolepis</i> , <i>Carpha alpina</i> and <i>Phyllachne</i> and often <i>Androstoma empetrifolia</i> , <i>Pentachondra pumila</i> and <i>Lepidothamnus laxifolius</i> . Locally includes scattered treeland with mānuka, pink pine, tawairauiki/mountain beech and yellow silver pine.	Pest plants and animals; adjacent land uses; catchment impacts; human impacts; hydrological alteration; quarrying; sediments and nutrients; vegetation clearance; vehicles; hydrological alteration.	Fixed Marginal Strip. Non-public conservation land. Scenic Reserve. Stewardship Area.	Pest animal and plant control. Biosecurity surveillance and management. Fencing. Advocacy, consultation and partnership.
	Oioi restiad rushland/ reedland [WL10]	Restiad rushland with abundant oioi, locally with large <i>Machaerina</i> , <i>Bolboschoenus</i> spp., kuta ( <i>Eleocharis sphacelata</i> ) and lake clubrush ( <i>Schoenoplectus tabernaemontani</i> ), and often with occasional raupō ( <i>Typha orientalis</i> ), and scattered harakeke grading into wetland scrub on margins.	Pest plants and animals; adjacent land uses; human impacts; hydrological alteration; river nutrients; quarrying; sediments and nutrients; vegetation removal.	Fixed Marginal Strip. Government Purpose Reserve. Recreation Reserve. Scenic Reserve. Non-public conservation land.	Pest animal and plant control. Fencing. Biosecurity surveillance and management. Advocacy, consultation and partnership.
	<i>Machaerina</i> sedgeland [WL11]	Sedgeland, rushland with a high water table dominated by species of <i>Machaerina</i> , square sedge, <i>Eleocharis</i> and <i>Juncus</i> , often with scattered harakeke and <i>Carex</i> spp. Locally includes oioi, tangle fern and <i>Gahnia</i> spp., which can be locally dominant. Lagg margins often grade into mānuka scrub fens.	Pest plants and animals; human impacts; hydrological alteration; river nutrients; quarrying; sediments and nutrients; vegetation clearance.	Stewardship area. Non-public conservation land.	Acquisition and disposals. Pest animal and plant control. Fencing. Biosecurity surveillance and management. Advocacy, consultation and partnership.
	Herbfield; “Ephemeral wetland”	Herbfield and/or low sedgeland dominated by a wide range of predominantly montane short-	Pest plants and animals; human	Fixed Marginal Strip. Government Purpose	Pest animal and plant control.

Ecosystem/habitat type	Significant values	Pressures/threats	Administrative status	Management response
[WL14]	statured herbs, grasses and sedges. Dominants may include species of <i>Leptinella</i> , <i>Lobelia</i> , <i>Hydrocotyle</i> , <i>Euchiton</i> , <i>Epilobium</i> , <i>Plantago</i> , <i>Ranunculus</i> , <i>Myriophyllum</i> , <i>Elatine</i> , <i>Glossostigma</i> , <i>Isolepis</i> , <i>Eleocharis</i> , <i>Carex</i> and <i>Deschampsia</i> .	impacts; hydrological alteration; quarrying; sediments and nutrients; vegetation clearance; vehicles.	Reserve. Historic Reserve. Nature Reserve. Scenic Reserve. Stewardship Area. Non-public conservation land.	Biosecurity surveillance and management. Fencing. Advocacy, consultation and partnership.
Herbfield: "Lakeshore turf" [WL15]	Herbfield and/or low sedgeland of two broad variants (coastal and inland), which often have species in common. Coastal variant is often brackish, commonly includes <i>Selliera radicans</i> , and species of <i>Isolepis</i> , <i>Limosella</i> and <i>Lilaeopsis</i> , and grades into saltmarsh with increasing salinity. Inland variant commonly includes <i>Glossostigma elatinooides</i> , species of <i>Lilaeopsis</i> , <i>Carex</i> , <i>Eleocharis</i> , <i>Lobelia</i> , <i>Centrolepis</i> , <i>Hydrocotyle</i> , <i>Myriophyllum</i> , <i>Plantago</i> , <i>Ranunculus</i> and <i>Crassula</i> , and other herb species.	Pest plants and animals; human impacts; hydrological alteration; quarrying; sediments and nutrients; vegetation clearance; vehicles;	Fixed Marginal Strip. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Fencing. Advocacy, consultation and partnership.
Red tussock, <i>Schoenus pauciflorus</i> tussockland [WL16]	Tussockland with abundant red tussock, locally with cushionfield, sedgeland and shallow pools with <i>Schoenus pauciflorus</i> , <i>Oreobolus</i> spp., <i>Carpha alpina</i> , <i>Carex coriacea</i> and <i>C. sinclairii</i> , and locally sphagnum, wirerush and scattered shrubs (e.g. <i>Hebe odora</i> and bog pine).	Pest plants and animals; adjacent land uses; fire; human impacts; hydrological alteration; quarrying; sediments and nutrients; vegetation clearance; vehicles.	Fixed Marginal Strip. Government Purpose Reserve. Scenic Reserve. Stewardship Area. Non-public conservation land.	Active fish capture. Pest animal and plant control. Fencing. Biosecurity surveillance and management. Advocacy, consultation & partnership.
<i>Schoenus pauciflorus</i> sedgeland [Alpine seepages/flushes] [WL17]	Low stature sedgewood, mossfield, herbfield, with abundant mosses, liverworts and sedges, and a wide range of herbs, including <i>Schoenus pauciflorus</i> and <i>Carpha alpina</i> , and locally species of <i>Epilobium</i> , <i>Montia</i> , <i>Ranunculus</i> , <i>Schizeilema</i> , <i>Hydrocotyle</i> and <i>Gentianella</i> .	Pest plants and animals; adjacent land uses; fire; human impacts; hydrological alteration; quarrying; sediments and nutrients; vegetation clearance; vehicles.	Fixed Marginal Strip. Government Purpose Reserve. National Park. Stewardship Area. Non-public conservation land.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership.

Ecosystem/habitat type		Significant values	Pressures/threats	Administrative status	Management response
	Flaxland [WL18]	Flaxland of abundant harakeke, often with toetoe, species of <i>Carex</i> , (e.g. pūkiō ( <i>C. secta</i> )) and <i>Machaerina</i> , and kiokio ( <i>Blechnum novae-zelandiae</i> ) occasional wetland scrub, treeland of tī kōuka /cabbage tree ( <i>Cordyline</i> spp.), <i>Coprosma</i> spp. and mānuka, and locally weeping matipo/māpou and twiggly tree daisy ( <i>Olearia virgata</i> ). Areas with high water tables may be dominated by pūkiō. May grade or succeed into wetland carr with abundant emergent tī kōuka/cabbage trees.	Pest plants and animals; adjacent land uses; fire; human impacts; hydrological alteration; quarrying; sediments and nutrients.	Fixed Marginal Strip. Government Purpose Reserve. Local Purpose Reserve. Non-public conservation land.	Pest animal and plant control. Fencing. Biosecurity surveillance and management. Advocacy, consultation and partnership.
	Raupō reedland [WL19]	Reedland of abundant raupō, locally with species of <i>Bolboschoenus</i> , <i>Schoenoplectus</i> and <i>Machaerina articulata</i> , pūkiō, harakeke, and swamp millet ( <i>Isachne globosa</i> ). A margin of scrub of <i>Coprosma</i> species and tī kōuka/cabbage tree, and locally twiggly tree daisy and mānuka, with scattered kahikatea in unmodified areas. Often occurs on lake margins or includes small ponds with shallow water/pools with floating/rafted aquatics such as water milfoils ( <i>Myriophyllum</i> spp.), buttercups ( <i>Ranunculus</i> spp.), willowherbs ( <i>Epilobium</i> spp.), species of <i>Potamogeton</i> , <i>Isolepis</i> , <i>Azolla</i> and <i>Lemna</i> , and spiked sedges (e.g. kuta).	Pest plants and animals; adjacent land uses; human impacts; hydrological alteration; river nutrients; quarrying; sediments and nutrients; vegetation clearance.	Scenic Reserve. Scientific Reserve. Government Purpose Reserve. Marginal Strip. Stewardship Area. National Park.	Pest animal and plant control. Biosecurity surveillance and management. Advocacy, consultation and partnership. Fencing. Fire management. Hydrological management.
	<i>Carex</i> , <i>Schoenus pauciflorus</i> sedgeland [WL22]	Sedgeland with mosaics of a wide variety of species of <i>Carex</i> including <i>C. secta</i> , <i>C. virgata</i> , <i>C. diandra</i> , <i>C. coriacea</i> , <i>C. sinclairii</i> , and <i>C. gaudichaudiana</i> , and <i>Schoenus pauciflorus</i> with locally small pools, and lakes often with a fringe of raupō. <i>Schoenus</i> becomes more abundant at higher altitudes, while occasional harakeke may be present at lower altitudes. Intact examples have margins of wetland scrub.	Pest plants and animals; adjacent land uses; fire; human impacts; hydrological alteration; quarrying; sediments and nutrients; vegetation clearance.	Fixed Marginal Strip. Government Purpose Reserve. National Park. Stewardship Area. Non-public conservation land.	Acquisition and disposals. Pest animal and plant control. Advocacy, consultation and partnership. Biosecurity surveillance and management. Fencing. Construct weirs, bunds, stock-banks.

## Appendix 3

### Islands administered by the Department of Conservation in Otago

Island	Administrative status	Desired island classification (10-year goal) <sup>74</sup>	Pest mammals	Issues <sup>75</sup>
Green Island	Nature Reserve	Minimum impact	Predator free	Predators and introduced plants (e.g. tree mallow)
Taieri Island/ Moturata (southern half)	Scenic Reserve	Special character	Rats, and occasionally rabbits and dogs	Woody weed management; island is sometimes connected to the mainland—subject to rabbit/dog invasions
Wharekakahu Island	Nature Reserve	Minimum impact	Predator free	Potential rodent and mustelid invasion, management of vegetation and erosion
Tuhawaiki Island	Scenic Reserve	Special character	Probably rats and mice	Potential mustelid invasion, re-establishment of indigenous vegetation community
Cosgrove Island	Bird Sanctuary	Special character	Probably rats and transient mustelids	Potential mustelid invasion, vegetation protection
Rainbow Isles (Rere Kohu)	Bird Sanctuary	Minimum impact	Unknown	Unknown
Silver Island (Lake Hāwea)	Scenic Reserve	Special character	Predator free	Fire, reinvasion of stoats/rats/mice, wilding tree threat
Mou Waho (Lake Wanaka)	Scenic Reserve	Multiple use	Predator free	Fire, dogs, reinvasion of stoats/rats/mice, wilding tree threat
Mou Tapu (Lake Wanaka)	Scenic Reserve	Special character	Predator free	Fire, dogs, reinvasion of stoats/rats/mice, wilding tree threat
Stevensons Island (Lake Wanaka)	Scenic Reserve	Special character	Predator free	Fire, dogs, reinvasion of stoats/rats/mice/rabbits, wilding tree threat

<sup>74</sup> The island classification is aligned with the 10-year term of this strategy and represents the desired future state of the island (Department of Conservation 2010: The Island Strategy: Guidelines for Managing Islands Administered by the Department of Conservation). The island classification is intended for guidance only, and needs to be read in conjunction with the outcome and policies for Places in Part Two of this strategy.

<sup>75</sup> All islands are potentially threatened by mammalian predators.

Tree Island (Lake Wakatipu (Whakatipu-wai- māori))	Conservation Area	Special character	Thought to be mammal-free	Continuing biosecurity issues (predators including mustelids, rodents and cats, and rats/mice from nearby islands), fire, weeds, small size of island
Quarantine Island/ Kamau Taurua	Recreation Reserve	Multiple use	Rats	Reinvasion of stoats/rats, stepping- stone island to a potentially pest-free Otago Peninsula, management of weeds and introduced trees
Goat Island/Rakiriri	Scenic Reserve	Multiple use	Rats	Reinvasion of stoats/rats, within reach of possums from adjacent mainland, stepping-stone island to a potentially pest- free Otago Peninsula, management of weeds and introduced trees
Hinahina Island	Scenic Reserve	Special character	All mainland pests	Close to land so subject to reinvasion by mainland pests, management of vegetation and weeds

## Appendix 4

### Priority ecosystem units on public conservation lands and waters in Otago identified by the Department through natural heritage prioritisation processes

This list has been compiled from the Department's national list of around 1000 ecosystem units, which represent the full range of New Zealand's terrestrial and freshwater ecosystems, and excludes units or parts of units on private land. The table does not necessarily list all nationally significant ecosystems present in Otago. The list is accurate as at the date of approval of this CMS. Its contents may be amended or reviewed during the term of this CMS.

Name of ecosystem unit	Predominant ecosystem and habitat types <sup>76</sup> included within the ecosystem unit	Administrative status	Area (ha)
<b>2.1 Mount Aspiring National Park/Tititea Place</b>			
Arawhata-Waipara	<ul style="list-style-type: none"> <li>Cool forest and scrub: Hall's tōtara, pāhautea, kāmahī, southern rātā</li> <li>Cool forest and scrub: <i>Olearia</i>, <i>Pseudopanax</i>, <i>Dracophyllum</i> scrub "Subalpine scrub"</li> <li>Low alpine: mid-ribbed (<i>Chionochoa pallens</i>) and narrow-leaved snow tussock tussockland/shrubland</li> <li>High alpine: gravelfield/stonefield, cushionfield</li> <li>Frost flats (cold temperature inversion): <i>Coprosma</i>, <i>Olearia</i> scrub</li> <li>Lake: glacial</li> </ul>	National park	3342.0
Red Mountain	<ul style="list-style-type: none"> <li>Ultramafic: tussockland/stonefield/rockland</li> </ul>	National park	822.2
Pyke Valley	<ul style="list-style-type: none"> <li>Cool forest and scrub: tawai/silver beech forest</li> <li>Lakes</li> <li>Rivers</li> <li>Rock, gravel and stone dominated communities: hard tussock, scabweed, gravelfield/stonefield; "Braided rivers"</li> <li>Wetlands: <i>Machaerina</i> sedgeland</li> <li>Wetlands: Herbfield; "Lakeshore turf"</li> <li>Wetlands: Flaxland</li> <li>Wetlands: <i>Coprosma</i>, twiggy tree daisy scrub</li> <li>Wetlands: <i>Carex</i>, <i>Schoenus pauciflorus</i> sedgeland</li> </ul>	National park	290.4
<b>2.3 Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākahautū Place</b>			
Dart River/Te Awa Whakatipu (riverbed)	<ul style="list-style-type: none"> <li>Rock, gravel and stone dominated communities: hard tussock, scabweed (<i>Paoulia</i> spp.) gravelfield/stonefield; "Braided rivers"</li> </ul>	Fixed marginal strip; national park; scenic reserve; stewardship area	620.4
Matukituki Wetland	<ul style="list-style-type: none"> <li>Wetland: <i>Carex</i>, <i>Schoenus pauciflorus</i> sedgeland</li> </ul>	Fixed marginal strip; government purpose reserve; stewardship area	160.6
Mount Aspiring/Tititea	<ul style="list-style-type: none"> <li>Frost flats (cold temperature inversion): <i>Coprosma</i>, <i>Olearia</i> scrub</li> </ul>	Fixed marginal strip; stewardship area	2

<sup>76</sup> See Appendix 2 for further information on these ecosystem habitat types.

Name of ecosystem unit	Predominant ecosystem and habitat types <sup>76</sup> included within the ecosystem unit	Administrative status	Area (ha)
Conservation Area			
Schoolhouse Flat	<ul style="list-style-type: none"> <li>Frost flats (cold temperature inversion): kānuka, <i>Olearia</i> scrub/treeland</li> <li>Wetland: Herbfield “Ephemeral wetland”.</li> </ul>	Fixed marginal strip; stewardship area	95.9
Wye Creek	<ul style="list-style-type: none"> <li>Cold forest and scrub: tawairaunui/mountain beech (<i>Fuscospora cliffortioides</i>) forest</li> <li>Regenerating: mountain tauhinu, <i>Dracophyllum rosmarinifolium</i> scrub</li> <li>Regenerating: short-tussock tussockland</li> </ul>	Fixed marginal strip; stewardship area	268.3
<b>2.4 Central Otago Uplands Place</b>			
Locharburn Scenic Reserve	3. Cool forest and scrub: Hall’s tōtara, mountain celery pine, broadleaf forest	Scenic reserve; scientific reserve	198
Long Gully	<ul style="list-style-type: none"> <li>Saline: Kirk’s scurvy grass herbfield/loamfield</li> </ul>	Scientific reserve	178.8
Manorburn	<ul style="list-style-type: none"> <li>Wetland: red tussock, <i>Schoenus pauciflorus</i> tussockland</li> </ul>	Fixed marginal strip; stewardship area	2868.4
Northern Dunstans	<ul style="list-style-type: none"> <li>High alpine: <i>Dracophyllum muscoides</i> cushionfield</li> <li>Low alpine: narrow-leaved (<i>Chionochloa rigida</i> subsp. <i>rigida</i>) and slim (<i>C. macra</i>) snow tussock tussockland/shrubland</li> </ul>	Stewardship area	2887.2
Part Serpentine Scenic Reserve	<ul style="list-style-type: none"> <li>Wetland: red tussock, <i>Schoenus pauciflorus</i> tussockland</li> </ul>	Scenic Reserve	143.4
Rock & Pillar Range	<ul style="list-style-type: none"> <li>Cool forest and scrub: Hall’s tōtara, mountain celery pine, broadleaf forest</li> <li>High alpine: <i>Dracophyllum muscoides</i> cushionfield</li> <li>Low alpine: narrow-leaved (<i>Chionochloa rigida</i> subsp. <i>rigida</i>) and slim (<i>C. macra</i>) snow tussock tussockland/shrubland</li> <li>Regenerating: mountain tauhinu <i>Dracophyllum rosmarinifolium</i> scrub</li> <li>Wetland: herbfield/mossfield/sedgeland</li> </ul>	Government purpose reserve; scenic reserve; stewardship area	5381
Sandy Point	<ul style="list-style-type: none"> <li>Frost flats (cold temperature inversion): kānuka, <i>Olearia</i> scrub/treeland</li> </ul>	Fixed marginal strip; stewardship area	73.4
Poison Creek	<ul style="list-style-type: none"> <li>Frost flats (cold temperature inversion): kānuka, <i>Olearia</i> scrub/treeland</li> </ul>	Stewardship area	31.0
<b>2.5 Old Man Range/Kopuwai, Old Woman Range, and Garvie Mountains Place</b>			
Old Man Range/Kopuwai	<ul style="list-style-type: none"> <li>High alpine: <i>Dracophyllum muscoides</i> cushionfield</li> <li>Low alpine: narrow-leaved (<i>Chionochloa rigida</i> subsp. <i>rigida</i>) and slim snow tussock tussockland/shrubland</li> <li>Wetland: cushionfield</li> </ul>	Fixed marginal strip; scenic reserve; stewardship area	15 596.1
<b>2.6 Central Otago Drylands/Manuherikia Place</b>			
Cromwell Chafer Beetle Nature Reserve	<ul style="list-style-type: none"> <li>Frost flats (cold temperature inversion): kānuka, <i>Olearia</i> scrub/treeland</li> </ul>	Nature reserve	81.8
Fiddlers Flat–Home Hills	<ul style="list-style-type: none"> <li>Frost flats (cold temperature inversion): kānuka, <i>Olearia</i> scrub/treeland</li> </ul>	Fixed marginal strip; stewardship area	49.5
Mahaka Katia	<ul style="list-style-type: none"> <li>Frost flats (cold temperature inversion): kānuka,</li> </ul>	Scientific reserve	27.1

Name of ecosystem unit	Predominant ecosystem and habitat types <sup>76</sup> included within the ecosystem unit	Administrative status	Area (ha)
Scientific Reserve (Pisa Flats)	<ul style="list-style-type: none"> <li><i>Olearia</i> scrub/treeland</li> <li>Saline: Kirk's scurvy grass herbfield/loamfield</li> </ul>		
Manuherikia River saline sites	<ul style="list-style-type: none"> <li>Saline: Kirk's scurvy grass herbfield/loamfield</li> </ul>	Scientific reserve	13.9
Nenthorn wetland	<ul style="list-style-type: none"> <li>Wetland: Herbfield "Ephemeral wetland"</li> </ul>	Fixed marginal strip; historic reserve; nature reserve; scenic reserve; stewardship area	2086.2
Sutton Salt Lake Scenic Reserve	<ul style="list-style-type: none"> <li>Exotic: pasture</li> <li>Lake: riverine</li> <li>Wetland: Herbfield "Ephemeral wetland"</li> </ul>	Scenic reserve	147.5
<b>2.7 Eastern Otago and Lowlands/Maukaatua Place</b>			
Aramoana	<ul style="list-style-type: none"> <li>Saline: ureure/glasswort (<i>Sarcocornia quinqueflora</i>), māakoako/sea primrose (<i>Samolus repens</i>) herbfield; "Saltmarsh"</li> <li>Intertidal</li> </ul>	Stewardship area	82.5
Hoopers Inlet	<ul style="list-style-type: none"> <li>Saline: ureure/glasswort (<i>Sarcocornia quinqueflora</i>), māakoako/sea primrose (<i>Samolus repens</i>) herbfield; "Saltmarsh"</li> <li>Wetland: oioi restiad rushland/ reedland</li> </ul>	Government purpose reserve; recreation reserve	27.6
Garden Bush	<ul style="list-style-type: none"> <li>Cool forest and scrub: podocarp, ribbonwood (<i>Plagianthus regius</i>), kōwhai forest (<i>Sophora</i> spp.)</li> <li>Exotic: pasture</li> <li>Regenerating: mānuka or kānuka (<i>Kunzea robusta</i>) scrub</li> </ul>	Stewardship area	30.8
Sandfly Bay	<ul style="list-style-type: none"> <li>Coastal cliff: harakeke (<i>Phormium tenax</i>), <i>Hebe elliptica</i> flaxland/rockland</li> <li>Dunelands: oioi (<i>Apodasmia similis</i>), wīwī/knobby clubrush sedgeland</li> <li>Dunelands: pīngao sedgeland</li> <li>Exotic: pasture</li> </ul>	Recreation reserve; stewardship area	355.7
Taieri River Scenic Reserve	<ul style="list-style-type: none"> <li>Cool forest and scrub: podocarp, ribbonwood (<i>Plagianthus regius</i>), kōwhai (<i>Sophora</i> spp.) forest</li> </ul>	Scenic reserve	471.4
Waikouaiti River	<ul style="list-style-type: none"> <li>Saline: ureure/glasswort (<i>Sarcocornia quinqueflora</i>), māakoako/sea primrose (<i>Samolus repens</i>) herbfield; "Saltmarsh"</li> <li>Exotic: pasture</li> <li>Intertidal</li> </ul>	Fixed marginal strip; government purpose reserve; stewardship area	13.8
Waipori Falls Scenic Reserve	<ul style="list-style-type: none"> <li>Cool forest and scrub: podocarp, ribbonwood (<i>Plagianthus regius</i>), kōwhai (<i>Sophora</i> spp.) forest</li> <li>Cool forest: tawai/silver beech forest</li> <li>Exotic: pasture</li> <li>Lake: generic lake</li> <li>Regenerating: broadleaved species scrub/forest</li> <li>Regenerating: mānuka or kānuka (<i>Kunzea robusta</i>) scrub</li> <li>Regenerating: short-tussock tussockland</li> </ul>	Fixed marginal strip; local purpose reserve; scenic reserve; stewardship area	2306.3



2.8 Catlins/Te Ākau Tai Toka Place			
Beresford Range	<ul style="list-style-type: none"> <li>• Frost flats (cold temperature inversion): <i>Coprosma</i>, <i>Olearia</i> scrub</li> <li>• Cool forest and scrub: kāmahī, southern rātā, podocarp forest</li> <li>• Cold forest and scrub: tawairauriki/ mountain beech (<i>Fuscospora cliffortioides</i>) forest</li> <li>• Cold forest and scrub: pāhautea (<i>Libocedrus bidwillii</i>), Hall's tōtara (<i>Podocarpus cunninghamii</i>), mountain celery pine (<i>Phyllocladus alpinus</i>) and broadleaf forest</li> <li>• Cool forest and scrub: tawai/silver beech forest</li> <li>• Wetland: lesser wire rush (<i>Empodisma minus</i>), tangle fern (<i>Gleichenia dicarpa</i>) restiad rushland/fermland</li> </ul>	Conservation park; fixed marginal strip; stewardship area	14 093
Catlins Mouth	<ul style="list-style-type: none"> <li>• Exotic: pasture</li> <li>• Mild forests: mataī, tōtara, kahikatea, broadleaved forest</li> <li>• Wetland: oioi restiad rushland/reedland</li> </ul>	Fixed marginal strip; scenic reserve	25.4
Maclennan Range	<ul style="list-style-type: none"> <li>• Frost flats (cold temperature inversion): <i>Coprosma</i>, <i>Olearia</i> scrub</li> <li>• Cool forest and scrub: Hall's tōtara, mountain celery pine, broadleaf forest</li> <li>• Cool forest and scrub: kāmahī, southern rātā, podocarp forest</li> <li>• Cold forest: pāhautea (<i>Libocedrus bidwillii</i>), Hall's tōtara (<i>Podocarpus cunninghamii</i>), mountain celery pine (<i>Phyllocladus alpinus</i>) and broadleaf forest</li> <li>• Lake: windform</li> <li>• Saline: ureure/glasswort (<i>Sarcocornia quinqueflora</i>), māakoako/sea primrose (<i>Samolus repens</i>) herbfield; "Saltmarsh"</li> <li>• Wetland: oioi restiad rushland/ reedland</li> </ul>	Conservation park; scenic reserve; stewardship area	12 640.5
Otanomomo Scientific Reserve	<ul style="list-style-type: none"> <li>• Mild forests: kahikatea forest</li> </ul>	Scientific reserve	37
Pounaweā	<ul style="list-style-type: none"> <li>• Saline: ureure/glasswort (<i>Sarcocornia quinqueflora</i>), māakoako/sea primrose (<i>Samolus repens</i>) herbfield; "Saltmarsh"</li> </ul>	Scenic reserve	11.1
Pūrākaunui (The Catlins)	<ul style="list-style-type: none"> <li>• Frost flats (cold temperature inversion): <i>Coprosma</i>, <i>Olearia</i> scrub</li> </ul>	Scenic reserve	195.4
Roaring Bay saline	<ul style="list-style-type: none"> <li>• Saline: panahi/shore bindweed, wīwī/knobby clubrush gravelfield/stonefield</li> </ul>	Government purpose reserve	1.4
Waikawa Bay	<ul style="list-style-type: none"> <li>• Cool forest and scrub: Hall's tōtara forest, mountain celery pine, broadleaf forest</li> </ul>	Conservation park	8.8

# Appendix 5

## Threatened and at-risk indigenous flora and fauna present in Otago

Several thousand indigenous species are present in Otago. This Appendix lists a selection of these: i.e. vascular plants, freshwater fish, vertebrate animals and invertebrates that are currently classified as ‘threatened’ or ‘at risk’ in accordance with the New Zealand Threat Classification System Manual (2008) and taxa status lists 2008 to 2011. Its contents may be amended or reviewed during the term of this CMS.

### Threatened and at-risk species

Table A5.1. Flora (vascular plants)

Threatened species		
Threat status*	Common name	Scientific name
Nationally Critical	Piripiri/bidibid	<i>Acaena</i> aff. <i>rorida</i> (OTA 59561; Pool Burn)
	A bitter cress	<i>Cardamine</i> (a) (CHR500569; Awahokomo)
	A bitter cress	<i>Cardamine</i> (b) (CHR 312947; “tarn”)
	A bitter cress	<i>Cardamine</i> (d) (CHR 511706; Pisa Range)
	Waitaki broom, Whip broom	<i>Carmichaelia curta</i>
	Holloways broom	<i>Carmichaelia hollowayi</i>
	A herb	<i>Ceratocephala pungens</i>
	Centrolepis	<i>Centrolepis strigosa</i>
	A myrrh	<i>Chaerophyllum basicola</i>
	Mountain myrrh	<i>Chaerophyllum colensoi</i> var. <i>delicatulum</i> (previously <i>Oreomyrrhis colensoi</i> var. <i>delicatula</i> )
	New Zealand fish-guts plant	<i>Chenopodium detestans</i>
	Woollyhead	<i>Craspedia</i> (a) (CHR 511522; Clutha River/ Mata Au)
	A crassula	<i>Crassula peduncularis</i>
	Hairy willowherb	<i>Epilobium hirtigerum</i>
	Grassland willowherb	<i>Epilobium pictum</i>
	Waipara gentian	<i>Gentianella</i> aff. <i>calcis</i> subsp. <i>waipara</i> (CHR 569771; Earthquakes)
	Cook’s scurvy grass	<i>Lepidium juvenicum</i>
	Salt pan cress	<i>Lepidium kirkii</i>
	Button daisy	<i>Leptinella conjuncta</i> (previously <i>Leptinella</i> (a) (CHR 515297; Clutha River/Mata-Au)
	Yellow forget-me-not	<i>Myosotis albosericea</i>
	A forget-me-not	<i>Myosotis oreophila</i>
	A cress	<i>Pachycladon exile</i>
	A grass	<i>Poa spania</i>
	Kettlehole cudweed	<i>Pseudognaphalium ephemerum</i> (previously <i>Gnaphalium luteoalbum</i> var. <i>compactum</i> )
	Salt grass	<i>Puccinellia raroflorens</i>
	A grass	<i>Simplicia laxa</i>

Threatened species		
Threat status*	Common name	Scientific name
	Marsh arrow-grass	<i>Triglochin palustris</i>
Nationally Endangered	A sedge	<i>Carex uncifolia</i>
	Sneezeweed, centipeda	<i>Centipeda minima</i> subsp. <i>minima</i>
	A crassula	<i>Crassula multicaulis</i>
	A cudweed	<i>Euchiton ensifer</i>
	A lily	<i>Iphigenia novae-zelandiae</i>
	Papataniwha	<i>Lagenifera montana</i>
	Cypress hebe	<i>Leonohebe cupressoides</i>
	Thick-leaved scurvy grass	<i>Lepidium crassum</i>
	Nau/Cook's scurvy grass	<i>Lepidium oleraceum</i>
	Kawarau cress, schist cress	<i>Lepidium sisymbrioides</i> (formerly <i>L. sisymbrioides</i> subsp. <i>kawarau</i> )
	Alexandra cress, matau cress, inland cress	<i>Lepidium solandri</i> (formerly <i>L. sisymbrioides</i> subsp. <i>sisymbrioides</i> & <i>L. sisymbrioides</i> subsp. <i>matau</i> )
	A forget-me-not	<i>Myosotis cheesemaniae</i>
	New Zealand mousetail, bearded mousetail	<i>Myosurus minimus</i> subsp. <i>novae-zelandiae</i>
	Hectors tree daisy, deciduous tree daisy	<i>Olearia hectorii</i>
	Pitpat	<i>Pittosporum patulum</i>
	Alpine buttercup	<i>Ranunculus acraeus</i>
	A buttercup	<i>Ranunculus brevis</i>
Hydatella	<i>Trithuria inconspicua</i> (formerly <i>Hydatella inconspicua</i> )	
Hook sedge	<i>Uncinia strictissima</i>	
Nationally Vulnerable	Water broome	<i>Amphibromus fluitans</i>
	Wind grass, rainbow grass, gossamer grass	<i>Anemanthele lessoniana</i>
	Jersey fern, annual fern	<i>Anogramma leptophylla</i>
	Buchanan's orache	<i>Atriplex buchananii</i>
	Curly sedge	<i>Carex cirrhosa</i>
	Grassy mat sedge, unexpected sedge	<i>Carex inopinata</i>
	A sedge	<i>Carex rubicunda</i>
	Slender coral broom	<i>Carmichaelia crassicaulis</i> subsp. <i>racemosa</i>
	A broom	<i>Carmichaelia juncea</i>
	Climbing broom, Kirk's broom	<i>Carmichaelia kirkii</i>
	Native carrot, New Zealand carrot	<i>Daucus glochidiatus</i>
	Turnip-rooted geranium	<i>Geranium retrorsum</i>
	A herb	<i>Gratiola concinna</i> (previously <i>Gratiola nana</i> )
	Pygmy clubrush	<i>Isolepis basilaris</i>
	Kirkianella	<i>Kirkianella novae-zelandiae</i>
Estuary wind grass	<i>Lachnagrostis tenuis</i>	

Threatened species		
Threat status*	Common name	Scientific name
	An aquatic herb	<i>Lepilaena bilocularis</i>
	New Zealand iris	<i>Libertia peregrinans</i>
	Dwarf musk, matt leaved mazus	<i>Mazus novaezeelandiae</i> subsp. <i>impolitus</i> f. <i>impolitus</i>
	A forget-me-not	<i>Myosotis brevis</i> (formerly <i>Myosotis pygmaea</i> var. <i>minutiflora</i> )
	A forget-me-not	<i>Myosotis glauca</i> (formerly <i>M. pygmaea</i> var. <i>glauca</i> )
	Pōmahaka tree daisy	<i>Olearia fimbriata</i>
	A cress	<i>Pachycladon cheesemanii</i>
	Heart-leaved kōhūhū	<i>Pittosporum obtordatum</i>
	A buttercup	<i>Ranunculus recens</i>
	A buttercup	<i>Ranunculus ternatifolius</i>
	Slender bristle grass	<i>Rytidosperma merum</i>
	Fireweed	<i>Senecio dunedinensis</i>
<b>Declining</b>	Piripiri, bidibid	<i>Acaena buchananii</i>
	Speargrass, Spaniard	<i>Aciphylla subflabellata</i>
	Pirita, piriraki, yellow mistletoe	<i>Alepis flavida</i>
	Climbing groundsel	<i>Brachyglottis sciadophila</i>
	White sedge	<i>Carex albula</i>
	Sea sedge	<i>Carex litorosa</i>
	A carex	<i>Carex tenuiculmis</i>
	Coral broom	<i>Carmichaelia crassicaulis</i> subsp. <i>crassicaulis</i>
	A prostrate broom	<i>Carmichaelia nana</i>
	A slender broom	<i>Carmichaelia uniflora</i>
	Dwarf broom	<i>Carmichaelia vexillata</i>
	Prostrate bluegrass	<i>Connorochloa tenuis</i> (previously <i>Elymus tenuis</i> )
	Trailing bindweed, tussock bindweed	<i>Convolvulus verecundus</i>
	Sand coprosma	<i>Coprosma acerosa</i>
	A shrub	<i>Coprosma intertexta</i>
	A shrub	<i>Coprosma obconica</i>
	A shrub	<i>Coprosma pedicellata</i>
	A shrub	<i>Coprosma virescens</i>
	Bloodwood	<i>Coprosma wallii</i>
	Tufted hair-grass, wavy hair-grass	<i>Deschampsia cespitosa</i>
	Sea holly, coastal eryngo	<i>Eryngium vesiculosum</i>
	Waiū-atua, shore spurge, sea spurge, sand milkweed	<i>Euphorbia glauca</i>
	Pīngao, pikao	<i>Ficinia spiralis</i> (previously <i>Desmoschenus spiralis</i> )
	Short-flowered cranesbill	<i>Geranium sessiliflorum</i> var. <i>arenarium</i>
	A gunnera	<i>Gunnera arenaria</i>
	Shore cress	<i>Lepidium tenuicaule</i>

Threatened species		
Threat status*	Common name	Scientific name
	Hypsela	<i>Lobelia ionantha</i> (previously <i>Hypsela rivalis</i> s.s.)
	Dwarf woodrush	<i>Luzula celata</i>
	Leafless māhoe	<i>Melicytus flexuosus</i>
	Native mint	<i>Mentha cunninghamii</i>
	Scree pea	<i>Montigena novae-zelandiae</i>
	Leafless pōhuehue, leafless muehlenbeckia	<i>Muehlenbeckia ephedroides</i>
	Pygmy forget-me-not	<i>Myosotis pygmaea</i> (formerly <i>M. pygmaea</i> var. <i>pygmaea</i> )
	Fragrant tree daisy	<i>Olearia fragrantissima</i>
	A tree daisy	<i>Olearia lineata</i>
	Tarn speedwell	<i>Parahebe canescens</i>
	Korukoru/pirita, roeroe, scarlet mistletoe	<i>Peraxilla colensoi</i>
	Pikirangi/pīrata, roeroe, pirinoa, red mistletoe	<i>Peraxilla tetrapetala</i>
	Pimelea	<i>Pimelea aridula</i> subsp. <i>aridula</i>
	Cushion pimelea	<i>Pimelea sericeovillosa</i> subsp. <i>pulvinaris</i> (previously <i>Pimelea pulvinaris</i> )
	Sand tussock	<i>Poa billardierei</i> (previously <i>Austrofestuca littoralis</i> )
	A greenhood orchid	<i>Pterostylis tanyпода</i>
	A greenhood orchid	<i>Pterostylis tristis</i>
	A scree buttercup	<i>Ranunculus pilifera</i>
	Scabweed, mat daisy	<i>Raoulia</i> aff. <i>hookeri</i> (AK 239529; 'coast')
	Fan-leaved mat daisy	<i>Raoulia monroi</i>
	Tarn bristle grass	<i>Rytidosperma telmaticum</i>
	Shore pūhā	<i>Sonchus kirkii</i>
	Teucridium	<i>Teucridium parvifolium</i>
	Tāpia/pirita/tupia/white mistletoe	<i>Tupeia antarctica</i>
	Swamp nettle	<i>Urtica linearifolia</i>
	Sea grass	<i>Zostera muelleri</i> ssp. <i>novazelandica</i>
<b>Relict</b>	Crystalwort	<i>Atriplex billardierei</i>
<b>Naturally Uncommon</b>	A dwarf daisy	<i>Abrotanella patearoa</i>
	A dwarf daisy	<i>Abrotanella rostrata</i>
	Piripiri, bidibid	<i>Acaena microphylla</i> var. <i>pauciglochidiata</i>
	Petries needle grass	<i>Achnatherum petriei</i>
	Le Comtes Spaniard	<i>Aciphylla lecomtei</i>
	A speargrass	<i>Aciphylla montana</i> var. <i>gracilis</i>
	A speargrass	<i>Aciphylla spedenii</i>
	A grass	<i>Agrostis petriei</i>
	New Zealand anemone	<i>Anemone tenuicaulis</i>
	A native carrot	<i>Anisotome cauticola</i>

Threatened species		
Threat status*	Common name	Scientific name
	A native carrot	<i>Anisotome lanuginosa</i>
	Lyalls carrot	<i>Anisotome lyallii</i>
	Blue wheatgrass	<i>Anthosachne aprica</i> (previously <i>Elymus apricus</i> )
	A grass	<i>Anthosachne falcis</i> (previously <i>Elymus falcis</i> )
	Pātōtara, parsley fern	<i>Botrychium australe</i>
	A dwarf daisy	<i>Brachyscome humilis</i>
	Native bittercress	<i>Cardamine bilobata</i>
	Allans sedge	<i>Carex allanii</i>
	Berggrens sedge	<i>Carex berggrenii</i>
	A sedge	<i>Carex capillacea</i>
	Carses sedge	<i>Carex carsei</i>
	Edgars sedge	<i>Carex edgariae</i>
	A sedge	<i>Carex lachenalii</i> subsp. <i>parkeri</i>
	A sedge	<i>Carex pterocarpa</i>
	Cromwell broom	<i>Carmichaelia compacta</i>
	Rock & Pillar daisy	<i>Celmisia haastii</i> var. <i>tomentosa</i>
	Hookers mountain daisy	<i>Celmisia hookeri</i>
	Lindsays daisy	<i>Celmisia lindsayi</i>
	Mark's daisy	<i>Celmisia markii</i>
	Eyre Mountains daisy	<i>Celmisia philocremna</i>
	Thomsons Mountain daisy	<i>Celmisia thomsonii</i>
	A herb	<i>Chaerophyllum</i> (a) (CHR 364086; 'minute flower')
	Snow tussock	<i>Chionochloa vireta</i>
	A cushion plant	<i>Chionohebe glabra</i>
	Pin cushion	<i>Colobanthus brevisepalus</i>
	Shingle convolvulus	<i>Convolvulus fracto-saxosa</i>
	Trotters Gorge spider orchid	<i>Corybas</i> aff. <i>trilobus</i> (CHR 534742; Trotters Gorge)
	A herb	<i>Crassula mataikona</i>
	A herb	<i>Crassula ruamahanga</i>
	A grass	<i>Deschampsia pusilla</i>
	A grass	<i>Deyeuxia youngii</i>
	Sprawling inaka, sprawling turpentine scrub	<i>Dracophyllum uniflorum</i> var. <i>frondosum</i>
	Little spotted moa	<i>Drymoanthus flavus</i>
	A herb	<i>Einadia allanii</i>
	Purple willow herb	<i>Epilobium purpuratum</i>
	A cutweed	<i>Euchiton polylepsis</i>
	Otago blue fescue	<i>Festuca matthewsii</i> subsp. <i>pisamontis</i>
	Little gentian	<i>Gentianella lilliputiana</i>
	Geum	<i>Geum pusillum</i>
	Enys aniseed	<i>Gingidia enysii</i> var. <i>enysii</i>
	A herb	<i>Gingidia grisea</i> (previously <i>Gingidia</i> aff. <i>montana</i> ; <i>Pratia</i> )

Threatened species		
Threat status*	Common name	Scientific name
		<i>perpusilla</i> )
	A hebe	<i>Hebe annulata</i>
	Biggars hebe	<i>Hebe biggarii</i>
	A hebe	<i>Hebe dilatata</i>
	A hebe	<i>Hebe pimeleoides</i> subsp. <i>faucicola</i>
	Hebejeebie	<i>Hebejeebie trifida</i>
	None known	<i>Helichrysum selago</i> var. <i>tumidum</i>
	Filmy fern	<i>Hymenophyllum atrovirens</i>
	A fern	<i>Hypolepis amaurorachis</i>
	A lily	<i>Iphigenia novae-zelandiae</i>
	Dwarf mistletoe, leafless mistletoe	<i>Korthalsella clavata</i>
	Dwarf mistletoe, leafless mistletoe	<i>Korthalsella salicornioides</i>
	Sand wind grass	<i>Lachnagrostis ammobia</i>
	Swamp wind grass	<i>Lachnagrostis uda</i>
	A daisy	<i>Lagenifera barkeri</i>
	A button daisy	<i>Leptinella albida</i>
	Dryland button daisy	<i>Leptinella serrulata</i>
	A creeping herb	<i>Lobelia arenaria</i>
	A woodrush	<i>Luzula crenulata</i>
	A woodrush	<i>Luzula leptophylla</i>
	A woodrush	<i>Luzula traversii</i> var. <i>tenuis</i>
	Sand musk	<i>Mazus arenarius</i>
	Native musk, Māori musk, native monkey flower	<i>Mimulus repens</i>
	A herb	<i>Montia angustifolia</i> (previously <i>Neopaxia linariifolia</i> )
	A forget-me-not	<i>Myosotis</i> aff. <i>australis</i> (AK 231051; 'small white')
	A forget-me-not	<i>Myosotis</i> aff. <i>tenericaulis</i> (AK 7570; Garvie)
	Stewart Island forget-me-not	<i>Myosotis rakiura</i>
	A forget-me-not	<i>Myosotis tenericaulis</i>
	A forget-me-not	<i>Myosotis uniflora</i>
	Mountain foxglove	<i>Ourisia confertifolia</i>
	Mountain foxglove	<i>Ourisia spathulata</i>
	An oxalis	<i>Oxalis</i> aff. <i>rubens</i> (AK 234308; 'scree')
	A cress	<i>Pachycladon wallii</i>
	Native oxtongue	<i>Picris angustifolia</i> subsp. <i>merxmuelleri</i>
	Southern sand daphne	<i>Pimelea lyallii</i>
	Poppelwells pimelea	<i>Pimelea poppelwellii</i>
	Pimelea	<i>Pimelea pseudolyallii</i>
	A pimelea	<i>Pimelea sericeovillosa</i> subsp. <i>alta</i> (previously <i>Pimelea</i> (d) (CHR 472016; Pisa)
	A plantain	<i>Plantago obconica</i>

Threatened species		
Threat status*	Common name	Scientific name
	Blanket fern	<i>Pleurosorus rutifolius</i>
	A grass	<i>Poa incrassata</i>
	A grass	<i>Poa pygmaea</i>
	Old Man poa	<i>Poa senex</i>
	Muttonbird poa	<i>Poa tennantiana</i>
	Bristle fern	<i>Polyphlebium colensoi</i>
	Fierce lancewood	<i>Pseudopanax ferox</i>
	Greenhood	<i>Pterostylis auriculata</i>
	Walkers saltgrass	<i>Puccinellia walkeri</i>
	A buttercup	<i>Ranunculus maculatus</i>
	Eyre Mountains buttercup	<i>Ranunculus scritchalis</i>
	Beauverds scabweed	<i>Raoulia beauverdii</i>
	A mat daisy	<i>Raoulia hectorii</i> var. <i>mollis</i>
	Petries scabweed	<i>Raoulia petriensis</i>
	A herb	<i>Schizeilema exiguum</i>
	A groundsel	<i>Senecio carnosulus</i>
	A groundsel	<i>Senecio glaucophyllus</i> subsp. <i>basinudus</i>
	Grassland wheatgrass	<i>Stenostachys laevis</i>
	Fennel-leaved pondweed, sago	<i>Stuckenia pectinata</i>
	Hook sedge	<i>Uncinia longifructus</i>
	Purple bastard grass, tussock hook grass	<i>Uncinia purpurata</i>
	Green bastard grass	<i>Uncinia viridis</i>
	A nettle	<i>Urtica aspera</i>

\* Threat status may change over time.



Table A5.2. Fauna (freshwater fish).

Threatened species		
Threat status*	Common name	Scientific name
Nationally Critical	Lowland longjaw galaxias (Kakaunui River)	<i>Galaxias cobitinis</i>
	Teviot flathead galaxias (Teviot River)	<i>Galaxias</i> “Teviot”
	Clutha flathead galaxias (Clutha River)	<i>Galaxias</i> sp. D
Nationally Endangered	Central Otago roundhead galaxias	<i>Galaxias anomalus</i>
	Eldon’s galaxias	<i>Galaxias eldoni</i>
	Nevis galaxias (Nevis River)	<i>Galaxias</i> “Nevis”
	Alpine galaxias (Manuherikia River)	<i>Galaxias</i> aff. <i>paucispondylus</i> “Manuherikia”
	Dusky galaxias	<i>Galaxias pullus</i>
Nationally Vulnerable	Pomahaka galaxias (Pomahaka River)	<i>Galaxias</i> “Pomahaka”
	Gollum galaxias	<i>Galaxias gollumoides</i>
	Taieri flathead galaxias	<i>Galaxias depressiceps</i>
Declining	Kanakana/lamprey	<i>Geotria australis</i>
	Tuna/longfin eel	<i>Anguilla dieffenbachii</i>
	Piripiripōhatu/torrentfish	<i>Cheimarrichthys fosteri</i>
	Taiwharu/giant kōkopu	<i>Galaxias argenteus</i>
	Kōaro	<i>Galaxias brevipinnis</i>
	Īnanga/whitebait	<i>Galaxias maculatus</i>
	Canterbury galaxias	<i>Galaxias vulgaris</i>
	Bluegill bully	<i>Gobiomorphus hubbsi</i>
Redfin bully	<i>Gobiomorphus huttoni</i>	
Southern flathead galaxias (Southland, Otago)	<i>Galaxias</i> “southern”	

\* Threat status may change over time

Table A5.3. Fauna (vertebrates)

Threatened species		
Threat status*	Common name	Scientific name
Nationally Critical	Pārerā/grey duck	<i>Anas superciliosa</i>
	Kōtuku/white heron	<i>Ardea modesta</i>
	Pekapeka/long-tailed bat (South Island)	<i>Chalinolobus tuberculatus</i> “South Island”
	Tarāpuka/black-billed gull	<i>Larus bulleri</i>
Nationally Endangered	Matuku-hūrepo/Australasian bittern	<i>Botaurus poiciloptilus</i>
	Tarapirohe/black-fronted tern	<i>Chlidonias albostrigatus</i>
	Mātukutuku/reef heron	<i>Egretta sacra sacra</i>
	Tawaki/Fiordland crested penguin	<i>Eudyptes pachyrhynchus</i>
	Southern forest gecko	<i>Mokopirirakau</i> “southern forest”
	Kea	<i>Nestor notabilis</i>
	Burgan skink	<i>Oligosoma burganae</i>
Grand skink	<i>Oligosoma grande</i>	

Threatened species		
Threat status*	Common name	Scientific name
	Otago skink	<i>Oligosoma otagense</i>
	Pīwauwau/rock wren	<i>Xenicus gilviventris</i>
Nationally Vulnerable	Ngutu pare/wrybill	<i>Anarhynchus frontalis</i>
	Lesser knot	<i>Calidris canutus rogersi</i>
	Pohowera/banded dotterel	<i>Charadrius bicinctus bicinctus</i>
	Kārearea/southern falcon	<i>Falco novaeseelandiae</i> "southern"
	Caspian tern	<i>Hydroprogne caspia</i>
	Kōwhiowhio/whio, blue duck	<i>Hymenolaimus malacorhynchos</i>
	Tarāpunga/red-billed gull	<i>Larus novaehollandiae scopulinus</i>
	Stewart Island shag	<i>Leucocarbo chalconotus</i>
	Hoiho/yellow-eyed penguin	<i>Megadyptes antipodes</i>
	Mohua/yellowhead	<i>Mohoua ochrocephala</i>
	Roys Peak gecko	<i>Mokopirirakau</i> "Roys Peak"
	South Island kākā	<i>Nestor meridionalis meridionalis</i>
	Nevis skink	<i>Oligosoma toka</i>
	Lakes skink	<i>Oligosoma</i> aff. <i>chloronoton</i> "West Otago"
	Scree skink	<i>Oligosoma waimatense</i>
Kāmana/southern crested grebe	<i>Podiceps cristatus australis</i>	
Declining	Pīhoihoi/New Zealand pipit	<i>Anthus novaeseelandiae novaeseelandiae</i>
	Mātātā/South Island fernbird	<i>Bowdleria punctata punctata</i>
	Kororā/little penguin	<i>Eudyptula minor</i>
	Tōrea/South Island pied oystercatcher	<i>Haematopus finschi</i>
	Poaka/pied stilt	<i>Himantopus himantopus leucocephalus</i>
	Large Otago gecko	<i>Woodworthia</i> "Otago large"
	Kuāka/eastern bar-tailed godwit	<i>Limosa lapponica baueri</i>
	Jewelled gecko	<i>Naultinus gemmeus</i>
	Green skink	<i>Oligosoma chloronoton</i>
	Cryptic skink	<i>Oligosoma inconspicuum</i>
	Titi/sooty shearwater	<i>Puffinus griseus</i>
	Tara/white-fronted tern	<i>Sterna striata striata</i>
	Recovering	Tōrea pango/variable oystercatcher
Tieke/South Island saddleback		<i>Philesturnus carunculatus</i>
Relict	Buff weka	<i>Gallirallus australis hectori</i>
	Spotted skink	<i>Oligosoma lineoocellatum</i>
	Titi wainui/fairy prion	<i>Pachyptila turtur</i>
	Koitareke/marsh crake	<i>Porzana pusilla affinis</i>
	Pūweto/spotless crake	<i>Porzana tabuensis tabuensis</i>
Naturally Uncommon	Toroa/southern royal albatross	<i>Diomedea epomophora</i>
	Toroa/northern royal albatross	<i>Diomedea sanfordi</i>
	Koekoeā/long-tailed cuckoo	<i>Eudynamys taitensis</i>
	Kōau/black shag	<i>Phalacrocorax carbo novaehollandiae</i>
	Kōtuku-ngutupapa/royal spoonbill	<i>Platalea regia</i>

\* Threat status may change over time

Table A5.4. Fauna (invertebrates)

Threatened species		
Threat status*	Common name	Scientific name
Nationally Critical	A land snail	<i>Alsolemia cresswelli</i>
	A moth	<i>Australothis volatilis</i>
	A nematode	<i>Longidorus waikouaitii</i>
	Ida Valley carabid	<i>Mecodema laeviceps</i>
	A beetle	<i>Mecodema strictum</i>
	A beetle	<i>Megadromus</i> sp. 8 “Omeo Hut”
	A moth	<i>Notoreas</i> “South Shag River”
	A moth	<i>Stathmopoda campylocha</i>
	A moth	<i>Xanthorhoe bulbulata</i>
	A spider	<i>Zealoctenus cardronaensis</i>
	A beetle	<i>Zecillenus chalmeri</i>
Nationally Endangered	A louse	<i>Acidoproctus gottwaldhirschi</i>
	A moth	<i>Gingidiobora subobscurata</i> species complex “eastern Otago”
	A spider	<i>Maniho centralis</i>
	A moth	<i>Meterana</i> “Foveaux Strait”
	Cromwell chafer beetle	<i>Prodontria lewisii</i>
Nationally Vulnerable	A moth	<i>Acroclita discariana</i>
	A moth	<i>Arctesthes</i> sp. “Von”
	A moth	<i>Asaphodes stinaria</i>
	Yellow-eyed penguin louse	<i>Austrogoniodes vanalphenae</i>
	A moth	<i>Cephalissa siria</i>
	A moth	<i>Declana griseata</i>
	A moth	<i>Declana</i> sp. “grey toreuta”
	A moth	<i>Glyphipterix euastera</i>
	A moth	<i>Graphania</i> cf. <i>tetrachroa</i> “Olearia”
	Ghost moth	<i>Heloxycanus patricki</i>
	A moth	<i>Pseudocoremia cineracia</i>
	A moth	<i>Stathmopoda</i> sp. “Olearia”
	A moth	<i>Xanthorhoe frigida</i>
Declining	Katipō spider	<i>Latrodectus katipo</i>
	A beetle	<i>Mecodema chiltoni</i>
	Praying mantis	<i>Orthodera novaezealandiae</i>
Recovering	A moth	<i>Loxostege</i> sp. “salt pan”
	A land snail	<i>Punctidae</i> sp. 279 (NMNZ M. 273934)
	A land snail	<i>Rhytida otagoensis</i>
Relict	A moth	<i>Elachista helonoma</i>
	A moth	<i>Helastia angusta</i>
	A moth	<i>Meterana exquisite</i>
	A moth	<i>Meterana grandiose</i>
	A moth	<i>Meterana pansicolor</i>

Threatened species		
Threat status*	Common name	Scientific name
	A moth	<i>Paranotoreas fulva</i>
Naturally Uncommon	A spider	<i>Anoteropsis arenivaga</i>
	A spider	<i>Anoteropsis forsteri</i>
	A spider	<i>Aorangia poppelwelli</i>
	A beetle	<i>Cerodolus sinuatus</i>
	A louse	<i>Colpocephalum pilgrimi</i>
	A beetle	<i>Duvaliomimus (Duvaliomimus) taiariensis</i>
	A beetle	<i>Duvaliomimus (Duvaliomimus) walkeri brittoni</i>
	A moth	<i>Ericodesma cuneata</i>
	A snail	<i>Flammocharopa "giant pilsbryi" (NMNZ M.79044)</i>
	A snail	<i>Flammocharopa montana</i>
	A louse	<i>Forficuloecus meinertzhageni</i>
	Cromwell ground wētā	<i>Hemiandrus "Cromwell"</i>
	A spider	<i>Huttonia palpimanoides</i>
	A snail	<i>Laoma "ballanceae" (NMNZ M.84406)</i>
	A snail	<i>Litopunctum "brunneum" (NMNZ M.89590)</i>
	A snail	<i>Litopunctum "mayhillae" (NMNZ M.89589)</i>
	A spider	<i>Metafroneta sinuosa</i>
	A beetle	<i>Microbrontes lineatus</i>
	A beetle	<i>Mimopeus lewisianus</i>
	A beetle	<i>Mimopeus rugosus</i>
	A louse	<i>Neopsittaconirmus kea</i>
	A spider	<i>Neoramia nana</i>
	A spider	<i>Neoramia otagoa</i>
	A snail	<i>Pasmaditta aff. "hamiltoni" (NMNZ M.99639)</i>
	A beetle	<i>Prodontria jenniferae</i>
	A beetle	<i>Prodontria modesta</i>
	A beetle	<i>Prodontria pinguis</i>
	A beetle	<i>Prodontria regalis</i>
	A snail	<i>Punctidae sp. 267 (NMNZ M.127727)</i>
	A beetle	<i>Stethaspis pulchra</i>
	A moth	<i>Tmetolophota blenheimensis</i>
	A beetle	<i>Zeadelium chalmeri</i>
A beetle	<i>Zeadelium hudsoni</i>	
A beetle	<i>Zeadelium senile</i>	
A beetle	<i>Zelodes n.sp. 1 (Otago, NZACO4040241)</i>	

\* Threat status may change over time

Table A5.5 Marine species

Threatened species		
Threat status*	Common name	Scientific name
Nationally Critical	Barnacle	<i>Idioibla idiotica</i>
	Ihupuku/southern elephant seal	<i>Mirounga leoninal</i>
	Kera wēra/orca	<i>Orcinus orca</i> Type A
	Rāpoka/whakahao/New Zealand sea lion	<i>Phocarcos hookeri</i>
	Brachiopod	<i>Pumilus antiquatus</i>
Nationally Endangered	Tūpoupou/Hector's dolphin	<i>Cephalorhynchus hectori hectori</i>
	Tohorā/southern right whale	<i>Eubalaena australis</i>
	Polychaete worm	<i>Spio aequalis</i>
Nationally Vulnerable	Octocoral	<i>Paragorgia alisonae</i>
	Oceanic whitetip shark	<i>Carcharhinus longimanus</i>
Declining	Mangō-taniwha/great white shark/white pointer shark	<i>Carcharodon carcharias</i>
	Mangō-reremai/basking shark	<i>Cetorhinus maximus</i>
	Precious coral or red coral	<i>Corallium</i> spp.
	Stony coral	<i>Enallopsammia</i> cf. <i>maranzelleri</i>
	Stony coral	<i>Enallopsammia rostrata</i>
	Red coral	<i>Errina novaezelandiae</i>
	Stony branching coral	<i>Goniocorella dumosa</i>
	Basket starfish	<i>Gorgonocephalus chilensis</i>
	Basket starfish	<i>Gorgonocephalus dolichodactylus</i>
	Basket starfish	<i>Gorgonocephalus pustulatum</i>
	Octocoral	<i>Iridogorgia</i> spp.
	Deep sea bamboo coral	<i>Isidella</i>
	Deep sea bamboo coral	<i>Keratoisis</i> spp.
	Deep sea bamboo coral	<i>Lepidisis</i> spp.
	Zigzag coral (stony coral)	<i>Madrepora oculata</i>
	Octocoral	<i>Metallogorgia</i> .sp
	Kaharoa octopus	<i>Octopus kaharoa</i>
	Octopus	<i>Opisthoteuthis mero</i>
	Sea fan	<i>Paragorgia arborea</i>
	Stony branching coral	<i>Solenosmilia variabilis</i>

\* Threat status may change over time

## Sources

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# Appendix 6

## Threats or pests and wild animals present in Otago

Table A6.1. Pests and wild animals

Note: Where a herd of certain wild animals has been designated as a herd of special interest to hunters under section 16 of the Game Animal Council Act 2013, the terminology changes to game animal (see Glossary for definition of game animal).

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
<b>Birds</b>				
Karoro/black-backed gulls <i>Larus dominicanus</i>	Common throughout Otago, but particularly near urban centres and the coast.	Densities increased by land use changes and other human activities. Moderately significant predator of ground-nesting birds, reptiles and invertebrates.	Control	Based on ecosystem and species management priorities
Canada geese <i>Branta canadensis</i>	Breeding, roosting and moulting aggregations distributed from the high country to coast, in rural and urban contexts.	Principally an agricultural and aviation nuisance; can cause localised trampling and fouling in valuable or sensitive aquatic systems.	Enable control on public conservation land by the principal beneficiaries of management; otherwise site-led control of problem populations for conservation purposes by the Department.	Based on ecosystem and species management priorities
Greylag goose <i>Anser anser</i>	Breeding, roosting and moulting aggregations distributed mainly in the coastal area, in rural and urban contexts.	Can cause localised trampling and fouling in valuable or sensitive aquatic systems.	Support control by public groups.	Coastal lakes and lagoons
Magpies <i>Gymnorhina tibicen</i>	Widespread throughout Otago.	Aggressively territorial; predate nests and indigenous birds, reptiles and invertebrates.	Control.	Based on ecosystem and species management priorities

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
<b>Invertebrates</b>				
German wasp <i>Vespula germanica</i> Common wasp <i>V. vulgaris</i>	Subject to seasonally variable irruptions in density, especially in the beech forests of western and alpine Otago.	Threaten amenity values; disturb ecological balance in natural communities through predation and aggressive competition for food resources	Local intervention where necessary to destroy nests with registered wasp toxins.	Based on ecosystem and species management priorities and amenity values
Redback spider <i>Latrodectus hasseltii</i>	Distributed near urban areas of Wanaka and Cromwell.	Potentially eats chafers.	None.	Cromwell Chafer Beetle Nature Reserve
<b>Mammals</b>				
Cats (feral and domestic) <i>Felis catus</i>	Widespread throughout urban, peri-urban, rural and backcountry Otago	Major extinction pressure through non-selective predation of valued indigenous birds, reptiles and invertebrates.	Monitoring for presence and impacts; control to low densities through kill-trapping, live capture and shooting.	Based on ecosystem and species management priorities
Chamois <i>Rupicapra rupicapra</i>	Largely confined to western mountain ranges; usually in small matriarchal groups and solitary males.	Browser/grazer. Beech forests chamois impact grasses, herbs and woody species—from alpine bluffs to the zone just below treeline; forest bluffs, scree margins; and cool streambeds during summer.	Recreational ground hunting, occasional commercial harvest and helicopter hunting for trophy animals. Monitor and if necessary prevent infiltration into Fiordland National Park.	Based on ecosystem and species management priorities
Dogs (feral and domestic) <i>Canis lupus familiaris</i>	Occasional wild or stray, or accompanying visitors.	Predation and disturbance of ground-nesting birds, bird colonies, resting sea birds and seals.	Define dog-control and dog-accessible areas, exclude from national parks, may require permit-only entry and bird aversion training, public education.	Based on ecosystem and species management priorities and areas where dogs not permitted by legislation or bylaws
Fallow deer <i>Dama dama</i>	Wakatipu Recreational Hunting Area Tuapeka West (part of Blue Mountains Recreational	Primarily grazer. Browse impacts confined largely to low-/mid-altitudinal range.	Recreational hunting will continue to be primary control source in all established fallow herds in Otago.	Based on ecosystem and species management priorities



Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
	Hunting Area), and scattered populations throughout Otago.			
Ferret <i>Mustela putorius furo</i>	Widespread throughout Otago, particularly in rural regions.	Major extinction pressure for indigenous vertebrate taxa, through predation of eggs, young and adults.	Monitoring for presence and impacts; control by kill-trapping, live capture and poisoning.	Based on ecosystem and species management priorities
Goat (feral) <i>Capra hircus</i>	Scattered populations throughout Otago, increasing to high numbers in some western catchments.	Browsers impacting on a wide altitudinal range of vegetation, mainly on first- and second-tier plant species in forests and herbfields at higher altitude.	Undertake control by ground hunting, aerial operations, and use of judas goats, working with recreational hunters and landowners.	Based on ecosystem and species management priorities
Hare <i>Lepus europaeus</i>	Widespread in open country, especially above 400 m altitude and in coastal dune areas.	Browsing pressure, which reduces plant growth and inhibits regeneration in valued habitats; prey of harmful mammalian predators such as cats and mustelids.	Support research on species control and dynamics. Target control where problems occur.	Based on ecosystem and species management priorities
Hedgehogs <i>Erinaceus europaeus</i>	Widespread in lowlands and dry inland basins of Otago.	Predation on ground-nesting birds and nest contents.	Monitoring for presence and impacts; control to low densities by kill-trapping.	Based on ecosystem and species management priorities
Himalayan tahr <i>Hemitragus jemlahicus</i>	Confined principally to designated feral range.	Extensive browsing pressure on sensitive alpine flora and fauna.	Control methods in accordance with the Himalayan Thar Control Plan (1993)	In accordance with the Himalayan Thar Control Plan (1993) and based on ecosystem and species management priorities
Mouse <i>Mus musculus</i>	Widespread throughout terrestrial systems in Otago.	Predation of valued indigenous fauna, and retarding of regeneration in plant communities.	Monitoring for presence and impact; eradication through registered vertebrate toxins.	Based on ecosystem and species management priorities
Pig (feral) <i>Sus scrofa</i>	Widespread throughout Otago except in Mount Aspiring National Park and Lake	Predation of valued indigenous fauna and damage to plant communities through browsing, grazing	Recreational hunters with dogs will be permitted access to reserve areas, where	Based on ecosystem and species management priorities

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
	Wakatipu (Whakatipu-wai-māori) catchment area.	and ground disturbance.	appropriate. Illegal pig releases will be followed up. Monitor impacts on indigenous species and soil disturbance to assess need for control. A target of zero pig density will be maintained in Mount Aspiring National Park.	
Possum <i>Trichosurus vulpecula</i>	Currently widespread but at low densities east of the Southern Lakes due to the Animal Health Board Tb-free programme.	Affects a wide range of habitats by killing indigenous vegetation; preys on indigenous birds, chicks and eggs.	Support Animal Health Board programme. Target priority ecosystem units and prevent spread into new sites.	Based on ecosystem and species management priorities
Rabbit <i>Oryctolagus cuniculus</i>	Widespread, can reach high densities in suitable dryland habitats. All islands are rabbit-free except Taieri Island/Moturata and Stevensons Island (Te Peka Karara).	Principally an agricultural pest; exert severe browsing pressure on valued indigenous plant systems; vital prey for mammalian predators.	Control to very low densities on public conservation lands (below 3 on the Modified Mclean Scale) to protect conservation values and for 'good neighbour' reasons.	Based on ecosystem and species management priorities; public conservation land where required to comply with the Otago Regional Council Pest Management Strategy (2009)
Red deer <i>Cervus elaphus scoticus</i>	Widespread and escapes from deer farms.	Damage to forest and shrubland structures, composition and animal communities through browsing on plant species (some threatened) that are not evolutionarily adapted to cope.	Control through ground and aerial shooting, wild animal recovery concessions and the fostering of recreational hunting. Commercial aerial hunting operations confined to the western mountain areas of Otago and the Pisa Range. Commercial aerial hunting	Based on ecosystem and species management priorities

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
			operations over the balance of Otago if recreational hunting not effective.	
Sheep (feral/domestic) <i>Ovis aries</i> ; and Cattle <i>Bos taurus</i>	Few truly feral animals. Regular stock incursions throughout Otago. Some illegal grazing, especially during drought or in winter.	Browsers and grazers. Browse, trampling and tracking impacts in forest, especially bush edge. Severe trampling and pugging damage during prolonged rain, and in wetlands, upland bogs and river margins. Decline in water quality can affect aquatic fauna and recreational values. Impaired regeneration of indigenous plant species and soil loss.	Recreational hunting will be encouraged where feral animals are known to exist. Improve and maintain liaison with neighbours. Ensure boundary fences are secure and boundary gates locked, if necessary. Act on illegal and accidental stock incursions. This may result in warnings and legal action.	Ex-tenure review lands; public conservation land adjoining pastoral properties, especially where fencelines are substandard. Public conservation land, including Pisa Range, Te Papanui Conservation Park, and The Catlins
Rat <i>Rattus exulans</i> (Kiore) <i>Rattus rattus</i> <i>Rattus norvegicus</i>	Widespread except on islands within Otago.	Kill indigenous animals (including eggs) and invertebrates. Rodents also eat seeds and fruits, inhibiting regeneration and limiting food supply for indigenous species.	Currently, use of trapping and poisoning (including para-aminopropiophenone (PAPP) toxin) to (a) prevent the establishment of predator species on islands, and (b) target priority sites for predator control to low levels. Support and liaise with community groups and other stakeholders.	All islands in Otago; Taiaroa Head (Pukekura); mohua/yellowhead breeding areas and sites within Dart/Routeburn and The Catlins; skink sites, hoiho/yellow-eyed penguin breeding areas; other prescribed sites with vulnerable fauna, managed by the Department or other groups, agencies and stakeholders
Stoats <i>Mustela erminea</i>	Widespread throughout terrestrial systems at all altitudes in Otago.	Very significant predators of valued indigenous fauna.	Monitoring for presence and impact. Eradication or control through registered vertebrate toxins and trapping.	Based on ecosystem and species management priorities

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
Wallaby (Bennett's) <i>Macropus rufogriseus rufogriseus</i>	Previously found at Quartz Creek, between Lakes Hāwea and Wanaka; no recent sign observed there. Recent sightings and kills in the Clear Stream area (Waitaki District-Oteake Conservation Park).	Grazer/browser. Low- to mid-altitudinal range understorey trees, shrubs and tussock grassland species.	Surveillance. Restrict expansion beyond existing area. New liberations or sightings reported to Otago Regional Council and Environment Canterbury.	Based on ecosystem and species management priorities
Weasel <i>Mustela nivalis vulgaris</i>	Widespread though not densely distributed throughout terrestrial systems in Otago.	Predators of valued indigenous fauna.	Monitoring for presence and impact. Eradication or control through registered vertebrate toxins and trapping.	Based on ecosystem and species management priorities
White-tailed deer <i>Odocoileus virginianus borealis</i>	Low numbers, confined to Rees River and Dart River/Te Awa Whakatipu valleys in lower altitude beech forest, tall tussock grassland above treeline and poorer pastures on Dart River/Te Awa Whakatipu valley floor. Struggle to compete with red deer; need a diverse diet.	Generalist browser. Browses a wide range of seral understorey species, especially broadleaf, <i>Pseudopanax</i> spp. and <i>Coprosma</i> spp.	Review the future management of white-tailed deer, in consultation with Game Animal Council and other interested people.	Rees River and Dart River/Te Awa Whakatipu valleys

Table A6.2. Pest plants

Climbers

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
Banana passionfruit <i>Passiflora mollissima</i>	Widespread in coastal Otago, isolated instances elsewhere in Otago	Smothers canopy and prevents recruitment; birds and mammals widely disperse	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Bittersweet <i>Solanum dulcamara</i>	Localised populations across Otago	Smothers and displaces indigenous species	Target priority ecosystem units	Based on ecosystem and species management priorities

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
Blackberry <i>Rubus fruticosus</i>	Widespread.	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units	Based on ecosystem and species management priorities
Bomarea <i>Bomarea multiflora</i>	Localised areas in coastal Otago	Smothered and kills all plants to highest canopy and prevents recruitment	Eradication on public conservation land	All conservation land in Otago as prescribed in the Otago Regional Council Pest Management Strategy (2009)
Cape ivy <i>Senecio angulatus</i>	Isolated populations	Considered a 'low incidence'; if not controlled, these plants have the potential to rapidly colonise and disrupt indigenous ecosystems and cause significant damage to biodiversity values	Eradication on public conservation land	Based on ecosystem and species management priorities
Chilean flame creeper <i>Tropaeolum speciosum</i>	Localised populations	Smothered and displaces indigenous species	Target priority ecosystem units	Based on ecosystem and species management priorities
Climbing bomarea <i>Bomarea caldasii</i>	Localised areas in coastal Otago	Smothered and kills all plants to highest canopy and prevents recruitment	Eradication on public conservation land	All conservation land in Otago Regional Council Pest Management Strategy (2009)
Hop <i>Humulus lupulus</i>	Isolated instances in coastal Otago	Smothered and kills all plants to highest canopy and prevents recruitment	Target priority ecosystem units	Based on ecosystem and species management priorities
Japanese honeysuckle <i>Lonicera japonica</i>	Localised populations	Smothered and kills all plants to highest canopy and prevents recruitment	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Jasmine <i>Jasminum polyanthum</i>	Isolated instances in coastal Otago	Smothered and kills all plants to highest canopy and prevents recruitment	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Old man's beard <i>Clematis vitalba</i>	Localised populations in Lake Wakatipu (Whakatipu-wai-māori) catchment and Central Otago	Smothered and kills all plants to highest canopy and prevents recruitment	Eradication or control on public conservation land	All conservation land in Otago as prescribed in the Otago Regional Council Pest Management Strategy (2009)

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
Oriental clematis <i>Clematis tangutica</i>	Commonly found in Central Otago and in localised populations in Lake Wakatipu (Whakatipu-wai-māori) catchment	Smothers and kills all plants to highest canopy and prevents recruitment	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Smilax <i>Asparagus asparagoides</i>	Isolated populations	Has effects that are limited in extent or temporary	Contain existing sites and prevent establishment on public conservation land	Based on ecosystem and species management priorities

### Grasses, rushes and sedges

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
African feather grass <i>Pennisetum macrourum</i>	Localised populations	Out-competes and displaces indigenous plants by inhibiting regeneration	Eradication on public conservation land	Based on ecosystem and species management priorities
African lovegrass <i>Eragrostis curvula</i>	Isolated populations	Displaces indigenous species within drylands	Eradication on public conservation land	Based on ecosystem and species management priorities
Bamboo <i>Bambusa</i> spp.	Isolated populations in roadsides, shelterbelts, settled areas; tolerates wide range of conditions but not shade	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Black salt rush <i>Juncus gerardii</i>	Commonly found in coastal Otago	Forms monoculture stands preventing indigenous regeneration, particularly in wetlands and coastal areas	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Blunt flowered rush <i>Juncus subnodulosus</i>	Localised populations across Otago	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Bulbous rush <i>Juncus bulbosus</i>	Localised populations across Otago	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Floating sweetgrass	Commonly found	Forms monoculture stands preventing	Target priority ecosystem units	Based on ecosystem and species

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
<i>Glyceria fluitans</i>	in coastal Otago	indigenous regeneration, particularly in wetlands	and prevent spread into new sites	management priorities
Floating sweetgrass <i>Glyceria declinata</i>	Commonly found in coastal Otago	Forms monoculture stands preventing indigenous regeneration, particularly in wetlands	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Giant reed <i>Arundo donax</i>	Populations in riparian margins, moist forest communities, coastal	Displaces all surrounding vegetation; changes habitat by shading and impeding drainage; gully plants heavily affected	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Heath rush <i>Juncus squarrosus</i>	Localised	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Jointed rush <i>Juncus articulatus</i>	Localised populations across Otago	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Blunt-flowered rush <i>Juncus subnodulosus</i>	Isolated instances	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Marram grass <i>Ammophila arenaria</i>	Widespread in coastal dunelands	A sand-binder and dune builder, it typically builds taller, denser dunes due to its leaf structure, which allows it to trap sand more efficiently than the native pīngao, which it out-competes for resources	Target priority ecosystem units and prevent spread into new sites	All coastal beaches within Otago that have high conservation values
Mat grass <i>Nardus stricta</i>	Isolated instances in coastal Otago	Forms impenetrable ground cover, smothers indigenous vegetation and suppresses regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Nassella tussock <i>Nassella trichotoma</i>	Localised populations	Out-competed and displaces indigenous plants by inhibiting regeneration	Eradication on public conservation land	Based on ecosystem and species management priorities

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
Pampas <i>Cortaderia jubata</i>	Localised populations	Forms dense stands, prevents regeneration of indigenous species and can provide habitat for introduced animals	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Pampas <i>Cortaderia selloana</i>	Localised populations	Very invasive, forming dense impenetrable stands that inhibit regeneration of indigenous plants	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Reed sweetgrass <i>Glyceria maxima</i>	Commonly found in coastal Otago	Forms monoculture stands preventing indigenous regeneration, particularly in wetlands; can be toxic to stock	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Sea couch <i>Elytrigia pycnantha</i>	Commonly found around Otago coast	Forms monoculture stands preventing indigenous regeneration, particularly along the coastline	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Soft rush <i>Juncus effusus</i>	Localised populations across Otago	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Spartina <i>Spartina</i> spp.	Isolated populations	Out-competes and displaces indigenous plants by inhibiting regeneration	Eradication in Otago estuaries	All estuaries in Otago

#### Herbaceous species

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
Agapanthus <i>Agapanthus praecox</i>	Localised populations	Forms dense mats especially on coastline; can exclude all other vegetation	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Aluminium plant <i>Galeobdolon luteum</i>	Common across Otago	Smothers and displaces indigenous understorey species; inhibits indigenous regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Arum lily <i>Zantedeschia</i>	Localised populations	Smothers and displaces	Target priority ecosystem units	Based on ecosystem and species



Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
<i>aethiopica</i>		indigenous understorey species; inhibits indigenous regeneration	and prevent spread into new sites	management priorities
Buckshorn plantain <i>Plantago coronopus</i>	Commonly found in coastal Otago and widespread in Central Otago	Forms dense mats; can exclude all other vegetation	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Bur daisy <i>Calotis lappulacea</i>	Isolated populations	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Burdock <i>Arctium minus</i>	Common in disturbed areas adjacent to farmland	Forest margins, scrub, creek beds, pasture, gardens, roadsides, waste areas; prefers wet areas, tolerates shade; seeds hook onto clothes, wool and fur; burs damage wool and injure skin, mouth or eyes	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Californian thistle <i>Cirsium arvense</i>	Widespread	A perennial thistle with a far-reaching, extensive root system; each plant also sends up numerous aerial shoots that can grow to 1 metre high; as a result, large patches of thistles are formed, which can be difficult to control	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Cape honey flower <i>Melianthus major</i>	Localised populations	Forms impenetrable ground cover, smothers indigenous vegetation and suppresses regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Hemlock <i>Conium maculatum</i>	Localised populations across Otago	Noxious invasive weed toxic to both humans and stock	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
King devil <i>Hieracium praealtum</i>	Widespread	Invasive threat to biodiversity values, particularly in depleted	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
		tussocklands that have already been modified from their natural state		
Marsh thistle <i>Cirsium palustre</i>	Widespread	Out-competes and displaces indigenous plants by inhibiting regeneration, particularly in damp areas	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Meadow hawkweed <i>Hieracium caespitosum</i>	Widespread across Otago	Invasive, and threat to biodiversity values, particularly in depleted tussocklands that have already been modified from their natural state	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Mexican daisy <i>Erigeron karvinskianus</i>	Isolated instances across Otago	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Montbretia <i>Crocsmia crocosmiiflora</i>	Common in coastal Otago, localised populations elsewhere	Invades open or disturbed forest, shrubland, stream and river margins and most low-growing habitats. It forms very dense clumps, which prevent the regeneration of indigenous species, with specialised low-growing species being completely displaced. The masses of corms in the soil produced by montbretia can contribute to the breakdown of stream banks, erosion and siltation.	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Mouse-eared hawkweed <i>Hieracium pilosella</i>	Widespread	Invasive threat to biodiversity values, particularly in depleted tussocklands that have already been modified from their natural state	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
Nasturtium <i>Tropaeolum majus</i>	Localised populations	Smothers and displaces indigenous species	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Nodding thistle <i>Carduus nutans</i>	Isolated populations	Out-competes and displaces indigenous plants by inhibiting regeneration	Eradication on public conservation land	Based on ecosystem and species management priorities
Onion weed <i>Allium triquetrum</i>	Widespread	Forms dense mats in winter/spring in disturbed sites, inhibits recruitment	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Periwinkle <i>Vinca major</i>	Localised populations	Prevents regeneration in lowland scrub/forest communities	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Ragwort <i>Jacobaea vulgaris</i>	Widespread	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Stinging nettle <i>Urtica dioica</i>	Localised populations across Otago	Out-competes and displaces indigenous plants by inhibiting regeneration	Eradication on public conservation land	All conservation land in Otago
Stinking iris <i>Iris foetidissima</i>	Localised populations across Otago	Forms dense clumps excluding other vegetation		Based on ecosystem and species management priorities
Stonecrop <i>Sedum acre</i>	Isolated instances in coastal Otago and localised populations in Central Otago	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Thistles <i>Carduus</i> spp.	Widespread	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Thistles <i>Silybum</i> spp.	Localised populations	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Tussock hawkweed <i>Hieracium lepidulum</i>	Widespread	Invasive threat to biodiversity values, particularly in depleted tussocklands that	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
		have already been modified from their natural state		
White-edged nightshade <i>Solanum marginatum</i>	Isolated instances in coastal Otago	Prevents regeneration in lowland scrub/forest communities	Eradication on public conservation land	Based on ecosystem and species management priorities

### Trees and shrubs

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
Alder <i>Alnus glutinosa</i>	Localised populations	Forms monoculture stands preventing indigenous regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Barberry <i>Berberis glaucocarpa</i>	Isolated populations in coastal Otago and Lake Wanaka catchment	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Bishop pine <i>Pinus muricata</i>	Localised populations	Forms monoculture stands preventing indigenous regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Boxthorn <i>Lycium ferocissimum</i>	Localised populations in coastal and Central Otago	Forms impenetrable cover, smothers indigenous vegetation and suppresses regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Bright bead cotoneaster <i>Cotoneaster glaucophyllus</i>	Widespread	Forms dense thickets, replacing desirable species along forest margins, shrubland, short tussock grasslands and other low-growing habitats	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Broom <i>Cytisus scoparius</i>	Widespread throughout	Out-competes and displaces indigenous plants by inhibiting regeneration	Destroy all broom plants in designated broom- and gorse-free areas (see Otago Regional Council Pest Management Strategy for Otago (2009)); control gorse within 10 m of a boundary with a neighbour outside of broom- and gorse-free areas; control to zero density	High-value conservation sites in Otago

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
Buddleia <i>Buddleja davidii</i>	Localised populations adjacent to rivers and streams	Forms dense stands, prevent regeneration of indigenous species and can provide habitat for introduced animals	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Cherries <i>Prunus</i> spp.	Localised populations in Lake Wanaka catchment and isolated instances elsewhere	Forms monocultural stands preventing indigenous regeneration threat to landscape character	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Chinese privet <i>Ligustrum sinense</i>	Isolated instances in coastal Otago	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Corsican pine <i>Pinus nigra</i> subsp. <i>laricio</i>	Isolated instances in catchments of Lakes Wanaka and Wakatipu (Whakatipu-wai-māori).	Forms monocultural stands preventing indigenous regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Crack willow <i>Salix fragilis</i>	Widespread	Out-competes and displaces indigenous plants; dense stands can cause blockages, flooding and structural change to waterways, leading to erosion and increased sedimentation	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Daphne <i>Daphne laureola</i>	Localised populations in coastal Otago and isolated instances elsewhere	Daphne is often found growing in shady places and forest margins; could become a significant part of the understorey in modified vegetation, excluding desirable species	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Darwin's barberry <i>Berberis darwinii</i>	Widespread in coastal Otago and found in localised areas in remainder of Otago	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Douglas fir <i>Pseudotsuga menziesii</i>	Common in coastal Otago and Lake Wakatipu (Whakatipu-wai-māori) catchment	Forms monocultural stands preventing indigenous regeneration; threat to landscape character	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Elderberry <i>Sambucus nigra</i>	Widespread	Out-competes and displaces indigenous plants by inhibiting	Target priority ecosystem units and prevent spread into	Based on ecosystem and species

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
		regeneration	new sites	management priorities
Evergreen buckthorn <i>Rhamnus alaternus</i>	Isolated instances in coastal Otago	Competes strongly with regeneration of coastal species; serious threat to coastal communities and offshore islands as achieves 80-100% ground cover in a very short time	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Flowering currant <i>Ribes sanguineum</i>	Localised populations in coastal Otago and isolated instances elsewhere	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Franchet's cotoneaster <i>Cotoneaster franchetii</i>	Isolated populations	Forms dense thickets, replacing desirable species along forest margins, shrubland, short tussock grasslands and other low-growing habitats	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Gorse <i>Ulex europaeus</i>	Widespread	Competes with indigenous plants, alters soil condition by rising nitrogen levels; however, can protect regrowth of native woody species and dies back as indigenous regeneration proceeds	Destroy all gorse plants in designated broom- and gorse-free areas (see Otago Regional Council Pest Management Strategy for Otago (2009)); control gorse within 10 m of a boundary with a neighbour outside of broom- and gorse-free areas; control to zero density	Based on ecosystem and species management priorities
Grey willow <i>Salix cinerea</i>	Localised populations in coastal Otago and Lake Wakatipu (Whakatipu-wai-māori) catchment.	Out-competes and displaces indigenous plants; dense stands can cause blockages, flooding and structural change to waterways, leading to erosion and increased sedimentation	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Gums <i>Eucalyptus</i> spp.	Isolated instances across Otago	Out-competes indigenous trees with fast growth; reduces soil moisture levels	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Hawthorn <i>Crataegus</i>	Widespread throughout	Forms dense thickets, replacing desirable	Target priority ecosystem units and	Based on ecosystem and

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
<i>monogyna</i>		species along forest margins, shrubland, short tussock grasslands and other low-growing habitats; found along roadsides and in deserted habitations, where it acts as a seed source for invasion into areas of indigenous vegetation	prevent spread into new sites	species management priorities
Heather <i>Calluna vulgaris</i>	Found in localised populations in Lake Wanaka catchment	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Himalayan honeysuckle <i>Leycesteria formosa</i>	Localised populations across Otago	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Holly <i>Ilex aquifolium</i>	Localised populations across Otago	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Jerusalem cherry <i>Solanum pseudocapsicum</i>	Isolated instances across Otago	Forms dense stands but generally has a low impact; poisonous to livestock and children	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Khasia berry <i>Cotoneaster simonsii</i>	Isolated populations	Forms dense thickets, replacing desirable species along forest margins, shrubland, short tussock grasslands and other low-growing habitats	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Larch <i>Larix decidua</i>	Localised populations in coastal Otago, Lake Wanaka catchment and Central Otago, found commonly in Lake Wakatipu (Whakatipu-wai-māori) catchment	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Lindley false spirea <i>Sorbaria tomentosa</i>	Isolated populations	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
Lodgepole pine <i>Pinus contorta</i>	Localised populations	Forms monocultural stands preventing indigenous regeneration	Destroy all seeding-age contorta pine on all land administered by the Department	All conservation land in Otago as prescribed in the Otago Regional Council Pest Management Strategy (2009)
Maritime pine <i>Pinus pinaster</i>	Localised populations	Forms monoculture stands preventing indigenous regeneration; threat to landscape character	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Montpellier broom <i>Teline monspessulana</i>	Localised populations	Out-competes and displaces indigenous plants by inhibiting regeneration	Eradication	All conservation land in Otago
Mountain pine <i>Pinus mugo</i>	Localised populations in the catchments of Lakes Wanaka and Wakatipu (Whakatipu-wai-māori)	Forms monocultural stands preventing indigenous regeneration; threat to landscape character	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Privet <i>Ligustrum ovalifolium</i>	Isolated instances in coastal Otago	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Radiata pine <i>Pinus radiata</i>	Localised populations	Forms monocultural stands preventing indigenous regeneration; threat to landscape character	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Rowan <i>Sorbus aucuparia</i>	Localised populations	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Russell lupin <i>Lupinus polyphyllus</i>	Isolated instances in coastal Otago and Lake Wanaka catchment and localised populations in Lake Wakatipu (Whakatipu-wai-māori) catchment.	An aggressive weed that invades braided rivers; dense stands shade out and displace indigenous plants and create unsuitable habitats for wading birds	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Scots pine <i>Pinus sylvestris</i>	Localised populations	Forms monocultural stands preventing indigenous regeneration; threat to landscape character	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities



Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
Silver birch <i>Betula pendula</i>	Localised populations	Forms monoculture stands preventing indigenous regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Spanish heath <i>Erica lusitanica</i>	Commonly found in coastal Otago and Lake Wakatipu (Whakatipu-wai-māori) catchment. Localised populations in Lake Wanaka catchment and Central Otago	Forms monoculture stands preventing indigenous regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Spiny broom <i>Calicotome spinosa</i>	Isolated populations	Considered a 'low incidence' plant; but can rapidly colonise and disrupt indigenous ecosystems and cause significant damage to biodiversity values	Eradication on public conservation land	Based on ecosystem and species management priorities
Sweet briar <i>Rosa rubiginosa</i>	Widespread	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Sycamore <i>Acer pseudoplanatus</i>	Widespread	Forms dense stands that prevent regeneration of indigenous species	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Tree lupin <i>Lupinus arboreus</i>	Localised populations across Otago	Out-competes and displaces indigenous plants by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Tutsan <i>Hypericum androsaemum</i>	Localised populations across Otago	Out-competes and displaces indigenous species by inhibiting regeneration	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Western yellow pine <i>Pinus ponderosa</i>	Localised populations	Forms monocultural stands preventing indigenous regeneration; threat to landscape character	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
White poplar <i>Populus alba</i>	Isolated instances across Otago	Forms dense stands by suckering; crowds out indigenous vegetation	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities

## Aquatic species

Common and scientific name	Distribution	Pressures/threats	Management response	Priority places for action
Didymo <i>Didymosphenia geminata</i>	Widespread in rivers	Forms thick layer that smothers rocks, submerged plants and other materials	Prevent spread into new sites	High-value freshwater sites and at-risk species habitats
Hornwort <i>Ceratophyllum demersum</i>	Isolated populations	Submerged aquatic plant displaces indigenous macrophytes	MPI-led total eradication <sup>77</sup>	Based on ecosystem and species management priorities
Horsetail <i>Equisetum arvense</i>	Isolated populations	Perennial aquatic herb, marginal zone	Eradication	Based on ecosystem and species management priorities
Lagarosiphon <i>Lagarosiphon major</i>	Isolated populations	Submerged aquatic plant displaces indigenous macrophytes	Eradication	Based on ecosystem and species management priorities
Sea squirt <i>Styela clava</i>	Localised populations in the coastal water of Otago	Settles on hard surfaces, particularly man-made structures, and threat to indigenous species	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Undaria <i>Undaria pinnatifida</i>	Localised populations in the coastal waters of Otago	Can form dense masses; outcompetes indigenous species	Target priority ecosystem units and prevent spread into new sites	Based on ecosystem and species management priorities
Yellow flag iris <i>Iris pseudacorus</i>	Localised populations	Perennial aquatic herb, marginal zone	Eradication	Based on ecosystem and species management priorities

<sup>77</sup> MPI = Ministry for Primary Industries

# Appendix 7

## Nationally iconic species in Otago

These species were identified using a combination of web-based and phone-based public surveys in which those participating were asked what species they thought were quintessentially kiwi, contributing to their identity as New Zealanders. They are the 10 species identified most often. The table below includes only the nationally iconic species found in Otago.

	Common name	Scientific name
Flora	Ferns Rimu Kōwhai	Various spp. <i>Dacrydium cupressinum</i> <i>Sophora</i> spp.
Fauna	Kiwi Tūī Kea	<i>Apteryx</i> spp. <i>Prothemadera novaeseelandiae</i> <i>Nestor notabilis</i>

# Appendix 8

## Marine habitats and ecosystems in Otago

The Coastal Classification and Mapping Scheme depth zones are as follows: shallow 0–30 m; deep 30–200 m; upper slope 200–500 m; mid-slope 500–1000 m; lower slope 1000–4000 m.

Ecosystem	Habitat type	Significant values	Pressures/threats	Protected areas <sup>78</sup>
<b>Southern South Island bioregion</b>				
Waitaki River— Karitāne	Saltmarsh	Waikouaiti, Pleasant and Shag (Waihemo) River estuaries	Threats to estuarine habitats include coastal development, contaminants in terrestrial runoff and eutrophication, off-road vehicle damage  Coastal protection works—sea walls and earthworks  Large inputs of fine, terrestrially derived sediments to the shelf.  Removal of epifauna and habitat homogenisation by mobile fishing gear  Fishing  <i>Macrocystis</i> harvesting  Invasive marine species; particularly impact of undaria on ecology of shallow coastal reef systems	East Otago Taiāpure Moeraki Mātaitai Reserve
	Estuarine sand and mudflats	Extensive shallow rocky reef assemblages characterised by large stands of giant bladder kelp ( <i>Macrocystis pyrifera</i> ) supporting diverse associated species assemblage		
	Moderate and sheltered rocky shore	Broad continental shelf with extensive soft sediment habitats supporting a productive inshore demersal ecosystem; offshore benthic invertebrate assemblages poorly known		
	Moderate shallow reef	Mangō taniwha/great white shark and mangō reremai/basking shark habitat		
	Shallow sand	Tūpoupou/Hector’s dolphin habitat (Moeraki to Otago Peninsula)		
	Shallow gravel	Tohorā/southern right whale		
	Shallow mud	Kekeno/New Zealand fur seal rookeries at Moeraki Point		
	Deep sand	Rāpoka/whakahao/New Zealand sea lion haul-out at Shag River (Waihemo) mouth		
	Deep gravel	Hoiho/yellow-eyed penguins and kororā/little penguins (esp. Oamaru)		
	Deep reef	Kawau pāteketekete/spotted shags ( <i>Stictocarbo punctatus</i> )		
	Water column			

<sup>78</sup> Not all these areas may qualify as marine protected areas under the Marine protected areas; classification, protection standard and implementation guidelines (Ministry of Fisheries and Department of Conservation, 2008), depending on the management controls implemented for the particular area.

Ecosystem	Habitat type	Significant values	Pressures/threats	Protected areas <sup>78</sup>
Waiputai/ Blueskin Bay	Saltmarsh	Productive customary, recreational and commercial bivalve fishery	Coastal development Fishing Dredge spoil disposal Invasive marine species Coastal protection works—sea walls and earthworks Catchment land use and eutrophication	East Otago Taiāpure
	Estuarine sand and mudflats	Diadromous fish habitat		
	Estuarine sea grass beds	Historically diverse inshore fish fauna, including important reperepe/elephantfish ( <i>Callorhinchus milii</i> ) spawning area		
	Tidal estuarine channels	Mangō reremai/basking shark habitat Tūpoupou/Hector's dolphin habitat		
	Sheltered beach	Wading bird habitat		
	Sheltered shallow reef			
	Sheltered shallow sand			
Otago Peninsula and adjacent shelf	Saltmarsh	Large numbers of wading birds feed in Otago Harbour, particularly the Aramoana area, and other inlets on the peninsula	Coastal development, including subdivision and reclamation Coastal protection works—sea walls and earthworks Port maintenance and development works; dredging and dredge spoil disposal, spills and contaminated discharges, vessel movements, industrial noise, invasive marine species (see James et al. 2007) Waste and stormwater effluent discharges Chronic disturbance, harassment and occasionally more severe interactions between people, dogs and coastal wildlife	Aramoana Ecological Area Tairaroa Head Nature Reserve extends 10 m offshore from Mean High Water Spring Voluntary trawl fishing closure to protect bryozoan reefs off Otago Peninsula (Fisheries Act 1996) Areas currently closed to commercial shellfish harvesting under fisheries legislation
	Sea grass			
	Estuarine sand and mudflats	Productive customary, recreational and commercial bivalve fishery in Otago Harbour and other inlets		
	High current soft sediment habitats in tidal channels	Two Nationally Critical/Endangered marine invertebrates (barnacle <i>Idioibla idiotica</i> and brachiopod <i>Pumilis antiquatus</i> ) are only known from Otago Peninsula		
	Sheltered to exposed rocky shores	Productive shelf ecosystem supporting abundant bait fishes and associated predators		
	Sheltered to exposed beaches	Mid and outer shelf gravels between 70 and 110 m depth directly off the peninsula support biologically diverse attached epifauna characterised by reef-like thickets of bryozoans; these 'reefs' provide habitat for commercial fishes and are used as foraging areas by hoiho/yellow-eyed penguins and rāpoka/whakahao/New Zealand sea lions		
	Moderate to exposed shallow reef			
	Shallow sand			
	Shallow mud	The outermost shelf is characterised by beds of the queen scallop ( <i>Psychrochlamys deliculata</i> )		
	Deep sand			
	Deep gravel	The submarine canyons in the outer shelf support a diverse		

Ecosystem	Habitat type	Significant values	Pressures/threats	Protected areas <sup>78</sup>
	Biogenic bryozoan reefs	benthic fauna, including protected deepwater coral species	Fishing	
	Deep reef	Deep reefs historically supported fisheries for a variety of large reef fishes such as hāpuku, ling and trumpeter	Removal of epifauna and habitat homogenisation by mobile fishing gear	
	Upper slope	Hector's dolphin, mangō taniwha/great white shark and mangō reremai/basking shark habitat	Invasive species	
	Water column	Kekeno/New Zealand fur seal and rāpoka/whakahao/New Zealand sea lion haul-outs and breeding colonies Tohorā/southern right whale Otago Harbour and adjacent offshore area support a diverse seabird fauna, including 13 threatened species. The offshore area is an important foraging area for species breeding on the peninsula, and on the subantarctic islands Toroa/southern royal albatross (only mainland breeding colony), gulls, shags, tītī/sooty shearwaters, tara/white-fronted terns, kororā/little penguin and hoiho/yellow-eyed penguin all breed on the peninsula		
Blackhead to Nugget Point/ Tokatā	Saltmarsh	Saltmarsh in Kaikorai Stream and others	Removal of epifauna and habitat homogenisation by mobile fishing gear	Puna-wai-Tōriki (Hays Gap) Mātaitai Reserve
	Exposed rocky shores	Diadromous fish habitat in river mouths	Coastal protection works—sea walls and earthworks	
	Moderate—exposed beaches	Inner shelf sand zone at 20–40 m depth formed by sediments discharged mainly from the Clutha River/Mata-Au (c. 0.4 million tonnes p.a.)	Fishing	
	Exposed shallow reef	Kekeno/New Zealand fur seal rookeries and haul-outs (large colony at Nugget Point/Tokatā)	Interactions between people and wildlife	
	Exposed shallow sand	Hoiho/yellow-eyed penguins and kororā/little penguins, Stewart Island shags and tītī wainui/fairy prions	Pressure from tourism on hoiho/yellow-eyed penguin viewing at Roaring Bay	
	Deep sand	( <i>Pachyptila turtur</i> )	Dogs and vehicles	
	Deep gravel	Mangō taniwha/great white shark	Potential threats from invasive species	
	Deep reef	Rāpoka/whakahao/New Zealand sea lion haul-outs	Water quality from Clutha River/Mata-Au and Taieri River catchment land use	
	Water column			

Ecosystem	Habitat type	Significant values	Pressures/threats	Protected areas <sup>78</sup>
Nugget Point/ Tokatā to The Brothers Point	Saltmarsh	Sea grass beds in Catlins River estuary	Coastal protection works—sea walls and earthworks Fishing Interactions between people and wildlife Pressure from tourism on hoiho/yellow-eyed penguin viewing at Roaring Bay Dogs and vehicles	
	Estuarine beach	Estuarine and diadromous fish habitats in the Catlins and Tahakopa rivers		
	Estuarine sand and mud flats	Hector's dolphin habitat in southern part of The Catlins		
	Sea grass	Large kekeno/New Zealand fur seal colony at Nugget Point/Tokatā		
	Exposed beach	Rāpoka/ whakahao/New Zealand sea lion (Surat and Cannibal bays)		
	Exposed rocky shore	Mangō taniwha/great white shark habitat		
	Exposed shallow reef	Hoiho/yellow-eyed penguin		
	Exposed shallow sand			
	Deep sand			
	Deep gravel			
Deep mud				

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# Appendix 9

## Significant geological features, landforms and landscapes in Otago

Table A9.1 Significant geological features, landforms and landscapes

Type	Geological feature/ landform/ landscapes	Significance (international, national or regional including significance to tangata whenua)	Pressure/threats	Protected areas on public conservation land and waters
Representative public conservation area	Mount Aspiring National Park	Of national significance because of their protected land status (and international significance for Mount Aspiring National Park due to World Heritage Area status)	Refer to national park management plan	See 2.1 Mount Aspiring National Park Place
	Hunter River Conservation Area		Weed control; use at site	See 2.2 Te Papanui, Oteake and Hāwea Conservation Parks Place
	Remarkables Conservation Area (including the Nevis River)		Pest and weed control; modification	See 2.3 Western Lakes and Mountains/ Ngā Puna Wai Karikari a Rākaihautū Place
	Waipori Falls Scenic Reserve		Pest and weed control; modification	See 2.7 Eastern Otago and Lowlands/ Maukaatua Place
	Taiaroa Head Nature Reserve		Pest and weed control; unauthorised visits	See 2.7 Eastern Otago and Lowlands/ Maukaatua Place
	Aramoana Ecological Area “Saltmarsh”		Vehicles; dogs	See 2.7 Eastern Otago and Lowlands/ Maukaatua Place
Geopreservation sites	Akatore Creek metachert with akatoreite	Of international and/or national significance	Modification or intensification of use; lack of statutory protection.	None
	Bains Eocene diatomite			
	Kakanui (north and south) mineral breccias			
	Lake Hāwea folded schist sequence			
	Mitchell’s Point Paleocene Wangaloa fossils			
	Moeraki Boulders/ Kaihinaki			Where above Mean High Water Spring

Type	Geological feature/ landform/ landscapes	Significance (international, national or regional including significance to tangata whenua)	Pressure/threats	Protected areas on public conservation land and waters
	Mount Aspiring/ Tititea glacial horn			Mount Aspiring National Park
	Nine Mile Landslide			None
	Nugget Point/ Tokatā			
	Oamaru pillow lavas and volcanoclastic rocks			
	Old Man/Kopuwai and Obelisk Range summit tors and sheath folds			
	Canyon Creek glacial stairway			
	Lowburn glacial outwash terraces			
	Taiari River scroll plain			
	Land formation examples, fossil locations/beds, volcanic features, historic stone buildings, gold discovery and mining sites; at least 214 sites	Of at least regional or national significance		In some cases; see Part Two—Places
Outstanding Natural Features and Landscapes	Cape Wanbrow	Of at least regional significance	Modification or intensification of use; lack of statutory protection	See Part Two— Places
	Bridge Point			
	Moeraki Point			
	Katiki Beach			
	Shag Point/ Matakaea			
	Cornish Head			
	Karitāne Headland			
	Heyward Point			
	Otago Peninsula			
	Cargill Castle to Black Head			
	Chrystalls Beach			
	Nugget Point/ Tokatā			
	Cannibal Bay to Surat Bay			
Penguin Bay to Wallace Beach				

Type	Geological feature/ landform/ landscapes	Significance (international, national or regional including significance to tangata whenua)	Pressure/threats	Protected areas on public conservation land and waters
	<p>Tāpuae-o-Uenuku/ Hector Mountains, Garvie Mountains and Old Woman Range and the catchment of the upper and lower Nevis River valley to the confluence with the Kawarau River</p> <p>Kawarau Gorge</p> <p>Butchers Dam locality</p> <p>Cromwell Gorge</p> <p>Elevated areas Bendigo</p> <p>Blue Lake/St Bathans</p> <p>Hawkdun, St Bathans and Ida ranges</p> <p>Upper Manorburn/ Poolburn/ Serpentine</p> <p>Lindis Pass</p> <p>Pisa Range</p> <p>Dunstan Mountains</p> <p>Kakanui Mountains</p> <p>Carrick Range</p> <p>Horn Range</p> <p>Rock and Pillar, Lammermoor and Lammerlaw ranges</p> <p>Rough Ridge and North Rough Ridge</p> <p>Upper Manuherikia River and Dunstan Mountains</p> <p>Sugar loaf glacier river terrace</p> <p>Rocky backdrop to Alexandra</p> <p>Flat Top Hill</p> <p>Upper Taieri scroll plain</p> <p>Tiger Hill</p> <p>Ophir Gorge</p> <p>All islands within Otago's coastal marine area</p>			

Type	Geological feature/ landform/ landscapes	Significance (international, national or regional including significance to tangata whenua)	Pressure/threats	Protected areas on public conservation land and waters
Features identified in Otago Regional Policy Statement (1998)	Taieri River			
	Shag River (Waihemo)			
	Clutha River/ Mata-Au			
	Shotover River			
	Kawarau River			
	Lakes Wakatipu (Whakatipu-wai- māori), Wanaka, Hāwea			
	Lake Dunstan			
	Otago Peninsula (including Taiaeroa Head (Pukekura))			
	The Catlins			
	Coastal wetlands, including Lakes Waihola, Waipori, Tuakitoto			
	Central Otago tors			
Features identified in Waitaki District, Dunedin City, Central Otago District, Clutha District and Queenstown Lakes District plans	Numerous features listed as outstanding natural features, outstanding natural landscapes, outstanding landscape areas, coastal landscape preservation areas, landscape conservation areas, potentially outstanding landscapes, inventory of protected features, visual amenity landscape, and significant coastal landscapes	At least of district importance, but may also be of regional or national importance, as determined through Resource Management Act 1991 case law (e.g. the Project Hayes wind farm decision for the Lammermoor Range)	Urban and rural land development, rock and mineral extraction, energy and irrigation developments, telecommuni- cation facilities	See Part Two— Places
Representative sites of significance to Ngāi Tahu	Tōpuni: Pīkirakatahi (Mount Earnslaw); Maukaatua Scenic Reserve; Te Koroka (Dart/Slipstream); Tititea (Mt Aspiring)	At least regionally significant due to the size of the Ngāi Tahu rohe		See Part Two— Places
	Rock outcrops containing Māori rock art			

# Appendix 10

## Actively conserved historic places on public conservation lands and waters, or managed by the Department, in Otago

Place	Location	Heritage topics and significance	Pressure/threats	Destination management category/access
<b>2.1 Mount Aspiring National Park/Tititea Place</b>				
Earnslaw Hut	Kea Basin Track, Mount Earnslaw/Pikirakatahi	Earnslaw Hut	Visitor impacts; erosion; disasters	Backcountry; accessible via Kea Basin walking track from Rees River
<b>2.2 Te Papanui, Oteake and Hāwea Conservation Parks Place</b>				
Ben Avon Hut	Dingle Burn valley	Hut	Visitor impacts; erosion	Backcountry; walking track accessed from Lake Hāwea or Ahuriri River, not available overnight
Buster Diggings	Mt Buster, Kyeburn, Oteake Conservation Park	Complex of sluice workings, water races and huts	Visitor impacts (vehicles); erosion	Backcountry; Mt Buster Road accessed from Little Kyeburn Road or from Naseby
<b>2.3 Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākaihautū</b>				
Arrowtown Chinese Settlement Historic Reserve	Arrowtown	Ah Wak's Toilet, Ah Lum's Store, Kong Lum's Hut, Old Tom's Hut, Kong Kai's Hut, Rock Shelter, End Hut	Visitor impacts; natural decay; erosion; vegetation; disasters (surface flooding, building geomovement)	Icon; walking access from Buckingham St road end, Arrowtown
Arrowtown Powder Magazine	Arrowtown	Arrowtown Powder Magazine (stone building)	Visitor impacts; natural decay (foundation instability); erosion; disasters	Local Treasure; corner Malaghans Road and Arrowtown-Lake Hayes Road, Arrowtown
Bobs Cove Recreation Reserve	Bobs Cove, Lake Wakatipu (Whakatipu-wai-māori)	Lime kiln ruins, building ruins	Visitor impacts; erosion; vegetation; natural decay; disasters	Gateway; accessible via foot track from Glenorchy Queenstown Road, Bobs Cove
Diamond Lake/Hospital Flat	Motatapu River, Diamond Lake (Wanaka) Conservation Area		Visitor impacts; disasters; erosion	Local Treasure; accessible via Wanaka-Mt Aspiring Road, Lake Wanaka
Invincible Mine Historic Reserve	Invincible River, Rees Valley	Concentrator, Invincible berdans, stamper battery, overshot waterwheel	Visitor impacts (wheel hub dropping); erosion; disasters	Local Treasure; walking track through pastoral lease easement, Rees Valley Road, Glenorchy

Place	Location	Heritage topics and significance	Pressure/threats	Destination management category/access
Macetown Historic Reserve including Homeward Bound	Macetown, Arrow River	Needham's Cottage, Smith's Bakery, Anderson stamper battery, Homeward Bound stamper battery, historic trees, alluvial and reef gold mining	Visitor impacts (vehicles and vandalism); vegetation (wilding trees and weeds); disaster (building geo-movement, fire)	Local Treasure; 4WD or walking access via Soho Creek and Arrow Rivers, Arrowtown
Mill Creek Roadmans Hut	Kinloch, Lake Wakatipu (Whakatipu-wai-māori)	Roadman's hut	Visitor impacts; vegetation (overhanging trees)	Not currently managed as a visitor access; Greenstone Station Road, Kinloch
Sam Sumners Hut	Twelve Mile Creek, Lake Wakatipu (Whakatipu-wai-māori)	Sam Sumners Hut	Visitor impacts (fossicking); vegetation (tree fall); disasters (fire risk from campers); erosion	Local Treasure; accessible via Twelve Mile Creek walking track off Glenorchy-Queenstown Road.
Skippers township—School and Homestead	Skippers, Shotover River	Homestead building, school building, graves, Murphys Creek siphon, sluice workings, water races	Visitor impacts (vehicles); vegetation (wilding trees); disasters (building geo-movement and fire); natural decay	Gateway; accessible via Skippers Road
Skippers/Mt Aurum—includes Bullendale	Skippers/ Bullendale, Shotover River	Copper Creek stamper battery, Crystal stamper battery, Crystal hut, Nugget stamper battery, McLeod's hut, Bullendale power generation site, Skippers Generator House, Priest's Hut—McLeods/Skippers	Visitor impacts (vehicles); vegetation (wilding trees); disasters (Murdoch Creek flooding at Bullendale)	Backcountry; accessible via Skippers Road, foot access to Bullendale
Whakaari Conservation Area	Glenorchy, Lake Wakatipu (Whakatipu-wai-māori)	Scheelite Battery, Scheelite Battery Manager's House, Bonnie Jean Hut, Boozer Hut, State Mine and hut, Wallers Hut, McIntosh Hut, McIntyres Hut	Visitor impacts; disasters (fire); erosion	Local Treasure, Backcountry; walking/horse/ mountain bike access through Wyuna Station easement, accessible via Mount Judah Road, Wyuna, Glenorchy
<b>2.4 Central Otago Uplands Place</b>				
Deep Creek Hut	Cardrona Cromwell pack track, Pisa Conservation Area	Hut	Visitor impacts; animals (stock grazing)	Backcountry; accessible from Cardrona Cromwell pack track from either Lowburn, Cardrona or Ripponvale

Place	Location	Heritage topics and significance	Pressure/threats	Destination management category/access
Kawarau Suspension Bridge	Gibbston, Kawarau River	Suspension bridge	Visitor impacts; natural decay (weathering of timbers); disasters	Local Treasure
Lindis Hotel/ Nine Mile	Nine Mile Historic Reserve, Lindis River	Building ruins (stone buildings)	Visitor impacts; natural decay (stone wall collapse, weather (frost and heave); erosion	Local Treasure; Goodger Flat accessed via Lindis Pass Tarras Road
Lonely Graves Historic Reserve	Millers Flat, Clutha River/ Mata-Au	Graves	Visitor impacts; natural decay	Local Treasure; Millers Flat Beaumont Road
Rum Curries Hut	Gibbston, Kawarau River	Stone building (former stables & rabbit's hut)	Visitor impacts; erosion; natural decay	Local Treasure; Rafters Road off Gibbston Highway, Kawarau River
Serpentine Scenic Reserve	Near Manorburn Reservoir, Alexandra	Church, huts (3), stamper battery and waterwheel	Visitor impacts; natural decay	Local Treasure; accessible via Serpentine Road, Rough Ridge
<b>2.5 Old Man Range/Kopuwait, Old Woman Range, and Garvie Mountains Place</b>				
Alpine Stamper Battery	Kopuwait Conservation Area, Old Man Range/Kopuwait	Stamper battery, gold mining	Visitor impacts; natural decay	Backcountry; accessible via Symes Road, Fruitlands, Alexandra
Gorge Creek Recreation Reserve (Chamonix)	Gorge Creek, Lake Roxburgh	Miners' memorial and grave	Visitor impacts	Local Treasure; Fruitlands Roxburgh Road
Mitchell's Cottage	Fruitlands, Alexandra	Complex of stone buildings	Visitor impacts; natural decay	Local Treasure; Symes Road off Fruitlands Roxburgh Road
Young Australian Waterwheel	Carrick Range	Overshot waterwheel	Visitor impacts; erosion	Local Treasure; Duffer Saddle Road via Bannockburn
<b>2.6 Central Otago Drylands/Manuherikia Place</b>				
Aldinga Conservation Area/ Illustrious Energy	Conroys Gully, Alexandra	Alluvial gold mining, hut site ruins	Visitor impacts; vegetation; land use; erosion; animals	Local Treasure; access via Conroys Gully Road, Alexandra
Alexandra Courthouse	Centennial Avenue, Alexandra	Government services building	Natural decay	Local Treasure; Tarbert Road
Bannockburn Sluicings Historic Reserve	Bannockburn, Cromwell	Hut site ruins (Stewart town), sluice workings, stacked stone reservoir (Menzies dam)	Visitor impacts; disaster (stone collapse); erosion (of sluice face); vegetation	Gateway; access via Felton Road or Hall Road, Bannockburn
Bendigo	Bendigo Historic Reserve, Lake	Building ruins, mine shafts, Come in Time battery,	Visitor impacts (vehicles); vegetation; erosion	Gateway; Loop Road, Tarras

Place	Location	Heritage topics and significance	Pressure/threats	Destination management category/access
	Dunstan	tracks and races, Bendigo Bakehouse		
Earnsclough Dredge Tailings	Alexandra	Dredge tailings and ponds	Visitor impacts; erosion; vegetation	Local Treasure; Marshall Road, Alexandra
Golden Point Historic Reserve	Macraes	Operable stamper battery, battery building, Callery's house, Hughie Fraser's hut, Ned's hut, sod hut, Huntington mill	Visitor impacts; natural decay; disaster	Local Treasure; accessible via Golden Point Road from Macraes
Golden Progress Mine	Oturehua, adjacent to Otago Central Rail Trail	Miners cottage	Visitor impacts; natural decay	Icon; Reef Road, off Ida Valley Road
Otago Central Rail Trail	Middlemarch to Clyde	Railway route, Wedderburn station building and goods shed, tunnels, bridges	Visitor impacts; natural decay	Icon; various access points
Quartz Reef Point Historic Reserve	Quartz Reef Creek, Cromwell	Herringbone tailings	Visitor impacts; erosion	Local Treasure; Tarras Cromwell Road, Lake Dunstan
St Bathans historic buildings	St Bathans township	Blacksmith building (stone cottage), gold office, post office, public hall	Visitor impacts; natural decay	Gateway; Loop Road, St Bathans
<b>2.7 Eastern Otago and Lowlands/Maukaatua Place</b>				
Gabriels Gully Historic Reserve	Gabriels Gully, Lawrence	Sluice workings, reservoirs and water races	Visitor impacts; vegetation; land use (Department work programmes); erosion	Local Treasure; accessible via Gabriels Gully Road from Lawrence
Huriawa Pā	Karitāne	Pā site, archaeological sites, whaling site	Visitor impacts; erosion; disasters	Local Treasure; accessible by foot from Sulisker Street end, Karitāne
Katiki Point	Katiki Point	Pā site, archaeological sites	Visitor impacts; erosion; disasters	Local Treasure; walking access from Lighthouse Road end, Moeraki
Otago Pioneer Quartz Reserve	Lake Mahinerangi, Waipori	Canton stamper battery	Visitor impacts; natural decay; vegetation	Backcountry; Pioneer Stream accessed via Mitchells Flat Road from Waipori Falls Road from Berwick or Lawrence
Sir John McKenzie Memorial Historic Reserve (Puketapu)	Puketapu, Palmerston	Memorial	Natural decay (loss of structural integrity; visitor impacts; vegetation	Local Treasure; walking track accessed from Stour Street, Palmerston



# Appendix 11

## Icon and Gateway destinations in Otago

This list has been taken from the Department's national list of destinations managed as part of destination management as at July 2013. The list is accurate as at the date of approval of this CMS. Its contents may be amended or reviewed during the term of this CMS.

Note 1: Local Treasure and Backcountry destinations are not included in this table. They are addressed in Parts One and Two of this CMS. Where specified, these destination types are accurate as at the time of CMS approval, and may be amended or reviewed during the term of this CMS.

Note 2: Appendix 15 lists all publicly available huts on public conservation lands and/or managed by the Department within Otago.

<b>Icon destinations</b>	
Routeburn Track	2.1 Mount Aspiring National Park/Tititea Place
Arrowtown Chinese Settlement Historic Reserve	2.3 Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākaihautū Place
Otago Central Rail Trail	2.6 Central Otago Drylands/Manuherikia Place
Moeraki Boulders/Kaihinaki	2.7 Eastern Otago and Lowlands/Maukaatua Place
Taiaroa Head (Pukekura)	2.7 Eastern Otago and Lowlands/Maukaatua Place
Nugget Point/Tokatā	2.8 Catlins/Te Ākau Tai Toka Place
<b>Gateway destinations</b>	
Rees/Dart Track	2.1 Mount Aspiring National Park/Tititea Place
Matukituki River West Branch tracks	2.1 Mount Aspiring National Park/Tititea Place
Kidds Bush	2.2 Te Papanui, Oteake and Hāwea Conservation Parks Place
Greenstone/Caples tracks	2.3 Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākaihautū Place
Skippers	2.3 Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākaihautū Place
Twelve Mile Delta Recreation Reserve	2.3 Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākaihautū Place
Bannockburn	2.6 Central Otago Drylands/Manuherikia Place
Bendigo	2.6 Central Otago Drylands/Manuherikia Place
St Bathans	2.6 Central Otago Drylands/Manuherikia Place
Sandymount Recreation Reserve tracks	2.7 Eastern Otago and Lowlands/Maukaatua Place
Papatowai	2.8 Catlins/Te Ākau Tai Toka Place

# Appendix 12

## Prescriptions for the management of visitor management zones

Refer to Volume II for maps of visitor management zones in Otago.

Setting	Urban	Rural	Frontcountry	Backcountry— accessible and walk-in	Remote	Wilderness
<b>General description</b>	<ul style="list-style-type: none"> <li>• Areas inside or on the periphery of urban areas</li> <li>• Typically includes a historic or cultural site</li> </ul>	<ul style="list-style-type: none"> <li>• Remnant indigenous forest, wetlands, marine reserves and historic or cultural sites in areas dominated by farmland and plantation forest</li> </ul>	<ul style="list-style-type: none"> <li>• Where the majority of visits occur; typically small areas, scattered within or on the periphery of large, relatively natural areas</li> <li>• Includes the vicinity of main ‘scenic’ roads passing through public conservation lands</li> <li>• Often focused on a particular attraction</li> </ul>	<ul style="list-style-type: none"> <li>• Large-scale natural settings generally accessed first through frontcountry</li> <li>• Includes popular walks and tramps set within large-scale natural settings and/or that access other settings</li> </ul>	<ul style="list-style-type: none"> <li>• Catchments beyond the backcountry zone, forming the wild lands in the interior of large protected areas, with basic low-use tracks, marked routes and huts</li> </ul>	<ul style="list-style-type: none"> <li>• Gazetted wilderness</li> </ul>
<b>Accessibility</b>	<ul style="list-style-type: none"> <li>• Enabled for people of most ages and abilities</li> </ul>	<ul style="list-style-type: none"> <li>• Typically via sealed and unsealed roads, and in some cases by boat</li> <li>• Enabled for people of most ages or abilities</li> </ul>	<ul style="list-style-type: none"> <li>• Readily accessible areas, usually via sealed roads, or scheduled ferry or air services</li> <li>• Mostly by car, but also tour buses and guided parties to some sites</li> <li>• Enabled for people of most ages and abilities</li> </ul>	<ul style="list-style-type: none"> <li>• People will have travelled some distance to reach these settings</li> <li>• Backcountry accessible focuses on unsealed roads, four-wheel drive roads, navigable waters and aircraft landing sites</li> <li>• Motorised ground access generally restricted to roads and designated</li> </ul>	<ul style="list-style-type: none"> <li>• Typically 5 or more hours travel on foot from frontcountry</li> <li>• Access supported by air or watercraft in some areas</li> </ul>	<ul style="list-style-type: none"> <li>• Typically requires passing through backcountry and remote areas to reach the boundary</li> </ul>

Setting	Urban	Rural	Frontcountry	Backcountry— accessible and walk-in	Remote	Wilderness
				routes <ul style="list-style-type: none"> <li>• Backcountry walk-in is focused beyond the influence of motorised access</li> </ul>		
<b>Predominant visitor groups</b>	<ul style="list-style-type: none"> <li>• Short-stop travellers and day visitors</li> </ul>	<ul style="list-style-type: none"> <li>• Short-stop travellers, day visitors and over-nighters</li> </ul>	<ul style="list-style-type: none"> <li>• Predominantly short-stop travellers, day visitors and over-nighters</li> <li>• Other visitors in transition to backcountry and remote settings</li> </ul>	<ul style="list-style-type: none"> <li>• Predominantly ‘backcountry comfort seekers’ and ‘backcountry adventurers’</li> </ul>	<ul style="list-style-type: none"> <li>• ‘Backcountry adventurers and remoteness seekers’</li> </ul>	<ul style="list-style-type: none"> <li>• ‘Remoteness seekers’</li> </ul>
<b>Predominant destination categories</b>	<ul style="list-style-type: none"> <li>• Icon, Gateway and Local Treasure</li> </ul>	<ul style="list-style-type: none"> <li>• Icon, Gateway and Local Treasure</li> </ul>	<ul style="list-style-type: none"> <li>• Icon, Gateway and Local Treasure</li> </ul>	<ul style="list-style-type: none"> <li>• Predominately Icon, Gateway and Local Treasure</li> </ul>	<ul style="list-style-type: none"> <li>• Predominately Backcountry</li> </ul>	<ul style="list-style-type: none"> <li>• If present, Backcountry</li> </ul>
<b>Facility setting</b>	<ul style="list-style-type: none"> <li>• High-standard footpaths, cycleways and modified landscapes</li> <li>• High degree of control via information and direction signs, and barriers</li> </ul>	<ul style="list-style-type: none"> <li>• Short walks, campsites and picnic areas, for a range of ages and abilities</li> <li>• High degree of control via information and direction signs, and barriers</li> </ul>	<ul style="list-style-type: none"> <li>• Good-quality facilities and services, and easy access</li> <li>• Sometimes the origin for tramping tracks and routes, with signs and information to make this transition clear</li> <li>• High degree of control via information and direction signs, and barriers</li> </ul>	<ul style="list-style-type: none"> <li>• A range of facility standards, including any designated vehicle routes, and popular walks and tramping tracks</li> <li>• Evidence of control limited to essential directional signs and barriers on Great Walks, and where there are significant hazards</li> </ul>	<ul style="list-style-type: none"> <li>• Basic huts, bridges, low-use tracks and marked routes</li> <li>• Evidence of control is limited to essential signs</li> </ul>	<ul style="list-style-type: none"> <li>• No facilities</li> </ul>
<b>Desired visitor experience and interactions</b>	<ul style="list-style-type: none"> <li>• Varying, from activities with large groups, time with small groups/families, some time away from other groups and, in some cases, solitude</li> </ul>			<ul style="list-style-type: none"> <li>• Generally some time away from other groups and, in some cases, solitude</li> </ul>	<ul style="list-style-type: none"> <li>• Reasonable expectation of isolation from sights, sounds</li> </ul>	<ul style="list-style-type: none"> <li>• Complete isolation from sights, sounds and activities</li> </ul>

Setting	Urban	Rural	Frontcountry	Backcountry— accessible and walk-in	Remote	Wilderness
				<ul style="list-style-type: none"> <li>Occasional encounters with organised groups</li> <li>Generally accepting of occasional intrusion of noise</li> </ul>	<ul style="list-style-type: none"> <li>and activities of other people</li> <li>Interaction with few other groups</li> <li>Considerable self-reliance on backcountry skills</li> </ul>	<ul style="list-style-type: none"> <li>of other people</li> <li>Maximum interaction with only one other group is generally acceptable</li> </ul>
<b>Preferred maximum party size</b>	<ul style="list-style-type: none"> <li>What is socially appropriate</li> <li>Conforming concessions schedule—15</li> </ul>	<ul style="list-style-type: none"> <li>50</li> <li>Conforming concessions schedule—15</li> </ul>	<ul style="list-style-type: none"> <li>15</li> <li>50 for periodic tour parties</li> <li>Conforming concessions schedule—15</li> </ul>	<ul style="list-style-type: none"> <li>15</li> </ul>	<ul style="list-style-type: none"> <li>8</li> </ul>	<ul style="list-style-type: none"> <li>6</li> </ul>
<b>Typical visitor interaction levels</b>	<ul style="list-style-type: none"> <li>What is socially appropriate</li> </ul>	<ul style="list-style-type: none"> <li>20 or fewer people seen per hour</li> </ul>	<ul style="list-style-type: none"> <li>30 or fewer people seen per visit duration</li> </ul>	<ul style="list-style-type: none"> <li>15 or fewer people seen per day for 'backcountry adventurer' tracks</li> <li>40 or fewer people seen per day for 'backcountry 'comfort seeker' tracks</li> </ul>	<ul style="list-style-type: none"> <li>One other party seen per day</li> </ul>	<ul style="list-style-type: none"> <li>Less than one other party seen per week</li> </ul>
<b>Concessions operations</b>	<ul style="list-style-type: none"> <li>Concessionaire activity may be permitted in all these visitor management zones, subject to conditions to avoid, remedy or mitigate adverse effects, including compliance with criteria within this table; the outcomes and policies for Part Two—Places and policies in Part Three apply</li> <li>Concessionaire client activities should not be advantaged or disadvantaged compared with those for non-concessionaire visitors, unless there is a specified reason for different management; the outcomes and policies for Part Two—Places and policies in Part Three apply</li> </ul>					<ul style="list-style-type: none"> <li>Concessions are rare and only where activity is not contrary to policies for wilderness areas</li> </ul>
<b>Preferred concessions effects management</b>	<ul style="list-style-type: none"> <li>Avoid, remedy or mitigate adverse effects</li> </ul>		<ul style="list-style-type: none"> <li>Avoid or mitigate adverse effects</li> </ul>	<ul style="list-style-type: none"> <li>Avoid adverse effects</li> </ul>		<ul style="list-style-type: none"> <li>Avoid adverse effects</li> <li>Concessions must</li> </ul>

Setting	Urban	Rural	Frontcountry	Backcountry— accessible and walk-in	Remote	Wilderness
						demonstrate the activity is necessary or desirable for the preservation of the wilderness area's indigenous natural resources
<b>Aircraft management</b>	<ul style="list-style-type: none"> <li>Aircraft access for visitor use purpose should not be approved other than in accordance with Policies 3.6.1–3.6.9 (Aircraft) in Part Three and the outcomes and policies in Part Two—Places</li> </ul>					<ul style="list-style-type: none"> <li>Aircraft access for visitor use purpose must be necessary or desirable for the preservation of the wilderness area's indigenous natural resources.</li> </ul>

# Appendix 13

## Ngāi Tahu Claims Settlement Act 1998 provisions relating to Otago

### 13.1 Tōpuni statements

#### 13.1.1 Tōpuni for Matakaea (Shag Point) (Schedule 83)

##### Description of area

The area over which the Tōpuni is created is the area known as Matakaea Recreation Reserve and Onewhenua Historic Reserve, as shown on Allocation Plan MS 9 (SO 24686).

##### Preamble

Under section 239 (clause 12.5.3 of the deed of settlement), the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional values relating to Matakaea (Shag Point), as set out below.

##### Ngāi Tahu values relating to Matakaea (Shag Point)

The name “Matakaea” recalls the tradition of the Arai Te Uru canoe, which capsized off Moeraki. From Moeraki, the crew managed to swim ashore, leaving the cargo to be taken ashore by the waves. The crew members fled inland and were transformed into the mountains which form the Southern Alps.

The Arai Te Uru tradition is also important because it explains the origins of kūmara. The story originally began with Roko i Tua who came to Aotearoa and met the Kāhui Tipua. The Kāhui Tipua gave Roko i Tua mamaku (tree fern) to eat. However Roko i Tua preferred the kūmara that he had in his belt which he took out and soaked in a bowl of water. The Kāhui Tipua tasted the kūmara and asked where it was from. Roko i Tua replied saying that the kūmara came from “across the sea”.

The Kāhui Tipua then made a canoe and, under the leadership of Tū Kākāriki, went to Hawaiiki and returned with the kūmara to Aotearoa. The Kāhui Tipua planted the kūmara but the crop failed. However Roko i Tua had also sailed to Hawaiiki on the canoe called Arai Te Uru. Roko i Tua landed at Whangarā, Hawaiiki, and learnt the karakia (incantations) and tikanga (customs) connected with planting kūmara. Roko i Tua then gave his canoe to two crew members called Pakihiwitahi and Hape ki Tua Raki. The Arai Te Uru returned under the leadership of these two commanders and eventually foundered off the Moeraki Coast at Matakaea.

For Ngāi Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

The Matakaea area has been occupied for many centuries and is the site of numerous urupā and wāhi tapu. Urupā are the resting places of Ngāi Tahu tūpuna (ancestors) and, as such, are the focus for whānau traditions. Urupā and wāhi tapu are places holding the memories, traditions, victories and defeats of Ngāi Tahu tūpuna, and are frequently protected by secret locations.

The mauri of Matakaea represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the area.

### **Specific Principles Relating to Area (from Attachment 12.138 of the Deed of Settlement 1997)**

The following specific principals are directed at the Minister of Conservation avoiding harm to, or the diminishing of, the Ngāi Tahu Values relating to the Tōpuni:

- a) Encouragement of respect for Ngāi Tahu association with Matakaea;
- b) Accurate portrayal of Ngāi Tahu association with Matakaea; and
- c) Recognition of Ngāi Tahu relationship with wāhi tapu and wāhi taonga including archaeological sites.

### **Actions by the Director-General of Conservation in relation to the Specific Principles**

Pursuant to clause 12.5.10 of the Deed of Settlement, the Director-General has determined that the following actions will be taken by the Department of Conservation in relation to the specific principles:

#### **(a) Encouragement of respect for Ngāi Tahu's association with Matakaea**

- (i) Staff, conservation board members, concessionaires and the public will be provided with information about the Ngāi Tahu values and the existence of the Tōpuni over Matakaea;
- (ii) Educational material will be made available to visitors to Matakaea asking that they picnic only in designated areas as there are urupā in the reserve which are tapu to Ngāi Tahu.
- (iii) A review of conditions to be applied generally to new concessions will be undertaken;
- (iv) The removal of all rubbish and wastes from Matakaea will be encouraged;
- (v) The Department will ensure, as far as reasonably practicable, that it disposes of waste, particularly human waste, in a way that minimises the risk of contamination of waterways; and
- (vi) Te Rūnanga will be consulted about the siting and design of new huts or other buildings, and particular regard had to its views.

#### **(b) Accurate portrayal of Ngāi Tahu's association with Matakaea**

- (i) The Department will ensure, as far as reasonably practicable that Ngāi Tahu's association with Matakaea is accurately portrayed in all of its new public information and interpretative material; and
- (ii) The Department will consult with Te Rūnanga in the provision of its new public information or interpretative material, and as far as reasonably practicable will only use Ngāi Tahu cultural information with the consent of Te Rūnanga.

#### **(c) Recognition of Ngāi Tahu's relationship with wāhi tapu and wāhi taonga, including archaeological sites**

- (i) Significant earthworks and disturbances of soil and/or vegetation will be avoided wherever possible; and
- (ii) Where significant earthworks and disturbances of soil and/or vegetation cannot be avoided, Te Rūnanga will be consulted and particular regard will be had to its relevant policies, including those relating to Koiwi Tangata (unidentified human remains) and Archaeological and Rock Art Sites.

### 13.1.2 Tōpuni for Maukaatua Scenic Reserve (Schedule 84)

#### Description of area

The area over which the Tōpuni is created is the area known as Maukaatua located west of the Taieri Plains, as shown on Allocation Plan MS 23 (SO 24679).

#### Preamble

Under section 239 (clause 12.5.3 of the deed of settlement), the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional values relating to Maukaatua, as set out below.

#### Ngāi Tahu values relating to Maukaatua

Maukaatua is an ancient name brought to Te Wai Pounamu from distant homelands, and is one of a number of Māori place names that reappear in a recognisably similar form throughout the Pacific Islands and into Indonesia. The name thus serves as a reminder of the links between Ngāi Tahu and their whānaunga of Te Moana Nui a Kiwa (The Great Ocean of Kiwa—the Pacific Ocean).

Maukaatua stands guard over the interior of Otago and is a dominant feature, visible from many vantage points. Travellers by sea, along the Lower Taieri, travelling inland either side of Maukaatua or returning to the coast from inland could not escape the gaze of Maukaatua. The maunga (mountain) is imbued with spiritual qualities that were respected by the tūpuna (ancestors). The maunga was likened to a sleeping giant and was said to be the source of strange noises in particular winds or climatic conditions.

Maukaatua once sheltered kāinga (villages) within close proximity of its base, including one based at Whakaraupuka. The tūpuna had considerable knowledge of places for gathering kai and other taonga, ways in which to use the resources of the land, the relationship of people with the land and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

An urupā (burial site) is known to be located on the north shoulder of Maukaatua. Urupā are the resting places of Ngāi Tahu tūpuna and, as such, are the focus for whānau traditions. These are places holding the memories, traditions, victories and defeats of our tūpuna, and are frequently protected by secret locations.

Te Rūnanga Ōtākou has manawhenua (tribal authority over land) and carries the responsibilities of kaitiaki in relation to it. The Rūnanga is represented by the tribal structure, Te Rūnanga o Ngāi Tahu.

The mauri of Maukaatua represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the land.

#### Specific Principles Relating to Area (from Attachment 12.142 of the Deed of Settlement 1997)

The following specific principals are directed at the Minister of Conservation avoiding harm to, or the diminishing of, the Ngāi Tahu Values relating to the Tōpuni:

- a) Encouragement of respect for Ngāi Tahu association with Maukaatua;
- b) Accurate portrayal of Ngāi Tahu association with Maukaatua; and
- c) Recognition of Ngāi Tahu relationship with wāhi tapu and wāhi taonga including archaeological sites.

#### Actions by the Director-General of Conservation in relation to the Specific Principles

Pursuant to clause 12.5.10 of the Deed of Settlement, the Director-General has determined that the following actions will be taken by the Department of Conservation in relation to the specific principles:

##### (a) Encouragement of respect for Ngāi Tahu's association with Maukaatua

- (i) Staff, conservation board members, concessionaires and the public will be provided with information about the Ngāi Tahu values and the existence of the Tōpuni over Maukaatua;
- (ii) A review of conditions to be applied generally to new concessions will be undertaken;



- (iii) The removal of all rubbish and wastes from Maukaatua will be encouraged;
  - (iv) The Department will ensure, as far as reasonably practicable, that it disposes of waste, particularly human waste, in a way that minimises the risk of contamination of waterways; and
  - (v) Te Rūnanga will be consulted about the siting and design of new huts or other buildings, and particular regard had to its views.
- (b) Accurate portrayal of Ngāi Tahu's association with Maukaatua**
- (i) The Department will ensure, as far as reasonably practicable that Ngāi Tahu's association with Maukaatua is accurately portrayed in all of its new public information and interpretative material; and
  - (ii) The Department will consult with Te Rūnanga in the provision of its new public information or interpretative material, and as far as reasonably practicable will only use Ngāi Tahu cultural information with the consent of Te Rūnanga.
- (c) Recognition of Ngāi Tahu's relationship with wāhi tapu and wāhi taonga, including archaeological sites**
- (i) Significant earthworks and disturbances of soil and/or vegetation will be avoided wherever possible; and
  - (ii) Where significant earthworks and disturbances of soil and/or vegetation cannot be avoided, Te Rūnanga will be consulted and particular regard will be had to its relevant policies, including those relating to Koiwi Tangata (unidentified human remains) and Archaeological and Rock Art Sites.

### 13.1.3 Tōpuni for Pikirakatahi (Mount Earnslaw) (Schedule 87)

#### Description of area

The area over which the Tōpuni is created is the area known as Pikirakatahi (Mount Earnslaw) as shown on Allocation Plan MS 4 (SO 24666).

#### Preamble

Under section 239 (clause 12.5.3 of the deed of settlement), the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional values relating to Pikirakatahi (Mount Earnslaw), as set out below.

#### Ngāi Tahu values relating to Pikirakatahi (Mount Earnslaw)

The creation of Pikirakatahi (Mt Earnslaw) relates in time to Te Waka o Aoraki, and the efforts of Tū Te Rakiwhānoa. It is said that during its formation a wedge of pounamu was inserted into this mountain, which is the highest and most prominent peak in this block of mountains. The mountain is also linked to the travels of Rakaihautu, who dug out the great lakes of the interior with his kō (a tool similar to a spade), known as Tū Whakaroria and later renamed Tuhiraki at the conclusion of the expedition.

The origins of the name "Pikirakatahi" have been lost, but it is known that many places and physical features have more than one name, reflecting the traditions of the successive iwi who peopled the land. It is, however, likely that the name relates to Rakaihautu or subsequent people, as most of the prominent lakes, rivers and mountains of the interior take their name from the journey of Rakaihautu.

For Ngāi Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

Pikirakatahi was of crucial significance to the many generations that journeyed to that end of Whakatipu-wai-māori (Lake Wakatipu) and beyond. Staging camps for the retrieval of pounamu were located at the base of the mountain, while semi-permanent settlements related to the pounamu trade were located closer to the lake.

Pikirakatahi stands as kaitiaki (guardian) over the pounamu resource and marks the end of a trail, with the tohu (marker) to the pounamu resource sitting opposite on Koroka (Cosmos Peak). The tūpuna (ancestors) had considerable knowledge of whakapapa, traditional trails, places for gathering kai (food) and other taonga, ways in which to use the resources of the land, the relationship of people with the land and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

The retrieval of large amounts of pounamu from this source, so far inland and over a range of physical barriers, attests to the importance of this resource to the economy and customs of the iwi over many generations. The people would also gather native birds for kai, and firewood with which to cook and provide warmth, from the forests covering the lower flanks of Pikirakatahi. Strategic marriages between hapū strengthened the kupenga (net) of whakapapa and thus rights to use the resources of the mountain. It is because of these patterns of activity that Pikirakatahi continues to be important to rūnanga located in Otago, Murihiku and beyond. These rūnanga carry the responsibilities of kaitiaki in relation to the area, and are represented by the tribal structure, Te Rūnanga o Ngāi Tahu.

The mauri of Pikirakatahi represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with Pikirakatahi.

#### Specific Principles Relating to Area (from Attachment 12.135 of the Deed of Settlement 1997)

The following specific principals are directed at the Minister of Conservation avoiding harm to, or the diminishing of, the Ngāi Tahu Values relating to the Tōpuni:

- a) Encouragement of respect for Ngāi Tahu association with Pīkirakatahi;
- b) Accurate portrayal of Ngāi Tahu association with Pīkirakatahi; and
- c) Recognition of Ngāi Tahu relationship with wāhi tapu and wāhi taonga including archaeological sites.

**Actions by the Director-General of Conservation in relation to the Specific Principles**

Pursuant to clause 11.12.9 of the Deed of Settlement, the Director-General has determined that the following actions will be taken by the Department of Conservation in relation to the specific principles:

**(a) Encouragement of respect for Ngāi Tahu's association with Tititea**

- (i) Staff, conservation board members, concessionaires and the public will be provided with information about the Ngāi Tahu values and the existence of the Tōpuni over Pīkirakatahi;
- (ii) A review of conditions to be applied generally to new concessions will be undertaken;
- (iii) The removal of all rubbish and wastes from Pīkirakatahi will be encouraged;
- (iv) The Department will ensure, as far as reasonably practicable, that it disposes of waste, particularly human waste, in a way that minimises the risk of contamination of waterways; and
- (v) Te Rūnanga will be consulted about the siting and design of new huts or other buildings, and particular regard had to its views.

**(b) Accurate portrayal of Ngāi Tahu's association with Tititea**

- (i) The Department will ensure, as far as reasonably practicable that Ngāi Tahu's association with Pīkirakatahi is accurately portrayed in all of its new public information and interpretative material; and
- (ii) The Department will consult with Te Rūnanga in the provision of its new public information or interpretative material, and as far as reasonably practicable will only use Ngāi Tahu cultural information with the consent of Te Rūnanga.

**(c) Recognition of Ngāi Tahu's relationship with wāhi tapu and wāhi taonga, including archaeological sites**

- (i) Significant earthworks and disturbances of soil and/or vegetation will be avoided wherever possible; and
- (ii) Where significant earthworks and disturbances of soil and/or vegetation cannot be avoided, Te Rūnanga will be consulted and particular regard will be had to its relevant policies, including those relating to Kōiwi Tangata (unidentified human remains) and Archaeological and Rock Art Sites.

### 13.1.4 Tōpuni for Te Koroka (Dart/Slipstream) (Schedule 91)

#### Description of area

The area over which the Tōpuni is created is the area known as the Dart/Slipstream Special Area as shown on Allocation Plan MS 306 (SO 24707).

#### Preamble

Under section 239 (clause 12.5.3 of the deed of settlement), the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional values relating to Te Koroka (Dart/Slipstream), as set out below.

#### Ngāi Tahu values relating to Te Koroka (Dart/Slipstream)

The creation of Te Koroka relates in time to Te Waka o Aoraki, and the efforts of Tū Te Rakiwhānoa. The area is also linked to the travels of Rakaihautu, who dug out the great lakes of the interior with his kō (digging stick), known as Tū Whakaroria and renamed Tuhiraki at the conclusion of the expedition.

The actual slip from which the pounamu is gathered is known as Te Horo. The name of the mountain where the pounamu vein occurs is Koroka (or Koloka). When viewed from the right vantage point, Koroka resembles a reclining giant, the pounamu exiting the mountain, in fact, from the mouth of the giant. Captain Cook's men were informed while moored in Dusky Sound, of the giant in the interior that emits pounamu from his mouth.

For Ngāi Tahu, traditions such as these represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

Te Koroka area itself represented the end of a trail. Staging camps for the retrieval of pounamu were located at the base of the mountain, with semi-permanent settlements located closer to the lake. The tūpuna (ancestors) had considerable knowledge of whakapapa, traditional trails, places for gathering kai (food) and other taonga, ways in which to use the resources of the land, the relationship of people with the land and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

The retrieval of large amounts of pounamu from this source, so far inland and over a range of physical barriers, attests to the importance of this resource to the economy and customs of the iwi over many generations. Pounamu transported back to coastal settlements was fashioned into tools, ornaments and weapons. The types of pounamu gathered were inaka and koko-takiwai. Strategic marriages between hapū strengthened the kupenga (net) of whakapapa and thus rights to access the pounamu resource. It is because of these patterns of activity that Te Koroka continues to be important to rūnanga located in Otago, Murihiku and beyond. These rūnanga carry the responsibilities of kaitiaki in relation to the area, and are represented by the tribal structure, Te Rūnanga o Ngāi Tahu.

The actual area from which pounamu was collected is now, and was in traditional times, under a tapu until an appropriate karakia (incantation) and ceremony was performed to permit access and retrieval of a taonga that was of the highest value to iwi. The area is largely unmodified since it was last visited by the ancestors and is a taonga to be treasured. Periodic storms reveal, on the slopes below the "collection" site, large boulders of pounamu, brought to the surface through raging torrents of water rushing down the maunga (mountain).

The mauri of Te Koroka represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with Te Koroka.

#### Specific Principles Relating to Area (from Attachment 12.131 of the Deed of Settlement 1997)

The following specific principals are directed at the Minister of Conservation avoiding harm to, or the diminishing of, the Ngāi Tahu Values relating to the Tōpuni:

- a) Encouragement of respect for Ngāi Tahu association with Te Koroka;
- b) Accurate portrayal of Ngāi Tahu association with Te Koroka;
- c) Recognition of Ngāi Tahu relationship with wāhi tapu and wāhi taonga including archaeological sites; and
- d) Recognition of Ngāi Tahu's relationship with pounamu resource, as given effect through Ngāi Tahu (Pounamu Vesting) Act 1997.

**Actions by the Director-General of Conservation in relation to the Specific Principles**

Pursuant to clause 12.5.10 of the Deed of Settlement, the Director-General has determined that the following actions will be taken by the Department of Conservation in relation to the specific principles:

**(a) Encouragement of respect for Ngāi Tahu's association with Te Koroka**

- (i) The Department will issue permits for entry in consultation with Te Rūnanga;
- (ii) The Department will review conditions of new permits in consultation with Te Rūnanga;
- (iii) The Department will consult with Te Rūnanga if any applications for concessions are received;
- (iv) The removal of all rubbish and wastes from Te Koroka will be encouraged;
- (v) The Department will ensure, as far as reasonably practicable, that it disposes of waste, particularly human waste, in a way that minimises the risk of contamination of waterways; and
- (vi) Te Rūnanga will consult about the siting and design of any new huts or other buildings, and particular regard had to its views.

**(b) Accurate portrayal of Ngāi Tahu's association with Te Koroka**

- (i) The Department will ensure, as far as reasonably practicable that Ngāi Tahu's association with Te Koroka is accurately portrayed in all of its new public information and interpretative material; and
- (ii) The Department will consult with Te Rūnanga in the provision of its new public information or interpretative material, and as far as reasonably practicable will only use Ngāi Tahu cultural information with the consent of Te Rūnanga.

**(c) Recognition of Ngāi Tahu's relationship with wāhi tapu and wāhi taonga, including archaeological sites**

- (i) Significant earthworks and disturbances of soil and/or vegetation will be avoided wherever possible; and
- (ii) Where significant earthworks and disturbances of soil and/or vegetation cannot be avoided, Te Rūnanga will be consulted and particular regard will be had to its relevant policies, including those relating to Koiwi Tangata (unidentified human remains) and Archaeological and Rock Art Sites.

**(d) Recognition of Ngāi Tahu's relationship with the pounamu resource, as given effect through the Ngāi Tahu (Pounamu Vesting) Act 1997**

- (i) Discourage unauthorised access to the area consistent with its status as a Special Area.

### 13.1.5 Tōpuni for Tititea (Mount Aspiring) (Schedule 92)

#### Description of area

The area over which the Tōpuni is created is the area known as Tititea (Mount Aspiring) as shown on Allocation Plan MS 2 (SO 24665).

#### Preamble

Under section 239 (clause 12.5.3 of the deed of settlement), the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional values relating to Tititea, as set out below.

#### Ngāi Tahu values relating to Tititea (Mount Aspiring)

As with all principal maunga (mountains), Tititea is imbued with the spiritual elements of Raki and Papa, in tradition and practice regarded as an important link to the primeval parents. Tititea is a prominent and majestic peak, clearly visible from a number of vantage points in the south, and its role in Ngāi Tahu's creation stories gives rise to its tapu status. From the heights above Te Ana-au (Lake Te Anau), it is a particularly impressive sight when the sun is setting.

The most common Ngāi Tahu name for the mountain known to Pākehā as Mount Aspiring is Tititea, referring to the mountain's white peak. It is not unusual, however, for places and physical features to have more than one name, reflecting the traditions of the successive iwi who peopled the land. Other names for the mountain include "Mākahi Tā Rakiwhānoa" (referring to a wedge belonging to Tū Te Rakiwhānoa) and "Ōtapahu", which may refer to a type of dogskin cloak.

The Bonar Glacier is known as Hukairoroa Tā Parekiore (which refers to the long, hard glacial ice and crevasses formed by Parekiore). Parekiore was a giant who used to stalk up and down the South and North Islands taking tītī (muttonbirds) northwards and returning with kūmara. The lakes represent his footprints and the frozen splashes from his footsteps in the south were transformed into glaciers.

For Ngāi Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

The area was an integral part of a network of trails which were used in order to ensure the safest journey and incorporated locations along the way that were identified for activities including camping overnight and gathering kai. Knowledge of these trails continues to be held by whānau and hapū and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the land.

The mauri of Tititea represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the area.

#### Specific Principles Relating to Area (from Attachment 12.133 of the Deed of Settlement 1997)

The following specific principals are directed at the Minister of Conservation avoiding harm to, or the diminishing of, the Ngāi Tahu Values relating to the Tōpuni:

- a) Encouragement of respect for Ngāi Tahu association with Tititea;
- b) Accurate portrayal of Ngāi Tahu association with Tititea; and
- c) Recognition of Ngāi Tahu relationship with wāhi tapu and wāhi taonga including archaeological sites.

#### Actions by the Director-General of Conservation in relation to the Specific Principles

Pursuant to clause 12.5.10 of the Deed of Settlement, the Director-General has determined that the following actions will be taken by the Department of Conservation in relation to the specific principles:

- (a) Encouragement of respect for Ngāi Tahu's association with Tititea

- (i) Staff, conservation board members, concessionaires and the public will be provided with information about the Ngāi Tahu values and the existence of the Tōpuni over Tititea;
- (ii) Educational material will be made available to climbers and all climbing guides explaining that, to Ngāi Tahu, standing on the very top of the mountain denigrates its tapu status.
- (iii) A review of conditions to be applied generally to new concessions will be undertaken;
- (iv) The removal of all rubbish and wastes from Tititea will be encouraged;
- (v) The Department will ensure, as far as reasonably practicable, that it disposes of waste, particularly human waste, in a way that minimises the risk of contamination of waterways; and
- (vi) Te Rūnanga will be consulted about the siting and design of new huts or other buildings, and particular regard had to its views.

**(b) Accurate portrayal of Ngāi Tahu’s association with Tititea**

- (i) The Department will ensure, as far as reasonably practicable that Ngāi Tahu’s association with Tititea is accurately portrayed in all of its new public information and interpretative material; and
- (ii) The Department will consult with Te Rūnanga in the provision of its new public information or interpretative material, and as far as reasonably practicable will only use Ngāi Tahu cultural information with the consent of Te Rūnanga.

**(c) Recognition of Ngāi Tahu’s relationship with wāhi tapu and wāhi taonga, including archaeological sites**

- (i) Significant earthworks and disturbances of soil and/or vegetation will be avoided wherever possible; and
- (ii) Where significant earthworks and disturbances of soil and/or vegetation cannot be avoided, Te Rūnanga will be consulted and particular regard will be had to its relevant policies, including those relating to Koiwi Tangata (unidentified human remains) and Archaeological and Rock Art Sites.

## 13.2 Deed of Recognition sites that include public conservation land and waters

- Pikirakatahi (Mt Earnslaw) (Schedule 51)
- Tititea (Mt Aspiring) (Schedule 62)
- Matakaea (Shag Point) (Schedule 41)
- Tokatā (Nugget Point) (Schedule 64)
- Waihola-Waipori Wetland (Schedule 70)

## 13.3 Nohoanga entitlements on public conservation lands and waters

Site number	Waterway	Site
28	Lake Hāwea	Lake Hāwea western shore
30	Lake Wakatipu	Wye Creek
31	Lake Wanaka	Dublin Bay
32	Lake Wanaka	Waterfall Creek
33	Clutha River/Mata-Au	lower Clutha - Kaitangata
34	Clutha River/Mata-Au	lower Clutha - Te Kōwhai/Beaumont Bridge
35	Shotover River	Tuckers Beach
36	Shotover River	Maori Point
37	Taieri River	Loganburn
38	Taieri River	Taieri River off Murray Road
39	Taieri River	Paerau Reservoir
40	Clutha River/Mata-Au	upper Clutha - Clutha River Island
42	Waianakarua River	Glencoe Reserve



## 13.4 Taonga species list as per Schedules 97 and 98 of the Ngāi Tahu Claims Settlement Act 1998

### Taonga species: Birds

Name in Māori	Name in English	Scientific name
Hoiho	Yellow-eyed penguin	<i>Megadyptes antipodes</i>
Kāhu	Australasian harrier	<i>Circus approximans</i>
Kākā	South Island kākā	<i>Nestor meridionalis meridionalis</i>
Kākāriki	New Zealand parakeet	<i>Cyanoramphus</i> spp
Kakaruai	South Island robin	<i>Petroica australis australis</i>
Kakī	Black stilt	<i>Himantopus novaezelandiae</i>
Kāmana	Crested grebe	<i>Podiceps cristatus</i>
Kārearea	New Zealand falcon	<i>Falco novaeseelandiae</i>
Karoro	Black-backed gull	<i>Larus dominicanus</i>
Kea	Kea	<i>Nestor notabilis</i>
Kōau	Black shag	<i>Phalacrocorax carbo</i>
	Pied shag	<i>Phalacrocorax varius varius</i>
	Little shag	<i>Phalacrocorax melanoleucos brevirostris</i>
Koekoeā	Long-tailed cuckoo	<i>Eudynamys taitensis</i>
Kōparapara or Korimako	Bellbird	<i>Anthornis melanura melanura</i>
Kororā	Little penguin	<i>Eudyptula minor</i>
Kōtare	Kingfisher	<i>Halcyon sancta</i>
Kōtuku	White heron	<i>Egretta alba</i>
Kōwhiowhio	Blue duck	<i>Hymenolaimus malacorhynchos</i>
Kūaka	Bar-tailed godwit	<i>Limosa lapponica</i>
Kūkupa/Kererū	New Zealand wood pigeon	<i>Hemiphaga novaeseelandiae</i>
Kuruwhengu/Kuruwhengi	New Zealand shoveller	<i>Anas rhynchotis</i>
Matuku moana	Reef heron	<i>Egretta sacra</i>
Miromiro	South Island tomtit	<i>Petroica macrocephala macrocephala</i>
Mohua	Yellowhead	<i>Mohoua ochrocephala</i>
Pākura/Pūkeko	Swamp hen/Pūkeko	<i>Porphyrio porphyrio</i>
Pārera	Grey duck	<i>Anas superciliosa</i>
Pīhoihoi	New Zealand pipit	<i>Anthus novaeseelandiae</i>
Pīpīwharau	Shining cuckoo	<i>Chrysococcyx lucidus</i>
Pīwakawaka	South Island fantail	<i>Rhipidura fuliginosa fuliginosa</i>
Poaka	Pied stilt	<i>Himantopus himantopus</i>
Pūtakitaki	Paradise shelduck	<i>Tadorna variegata</i>
Riroriro	Grey warbler	<i>Gerygone igata</i>
Roroa	Great spotted kiwi	<i>Apteryx haastii</i>
Ruru koukou	Morepork	<i>Ninox novaeseelandiae</i>
Tara	Terns	<i>Sterna</i> spp
Tete	Grey teal	<i>Anas gracilis</i>
Titi	Sooty shearwater/ Muttonbird/Hutton's shearwater Common diving petrel	<i>Puffinus griseus</i> and <i>Puffinus huttoni</i> and <i>Pelecanoides urinatrix</i> and <i>Pelecanoides georgicus</i> and <i>Procellaria westlandica</i> and

	Westland petrel Fairy prion Broad-billed prion White-faced storm petrel Cook's petrel Mottled petrel	<i>Pachyptila turtur</i> and <i>Pachyptila vittata</i> and <i>Pelagodroma marina</i> and <i>Pterodroma cookii</i> and <i>Pterodroma inexpectata</i>
Tititipounamu	South Island rifleman	<i>Acanthisitta chloris chloris</i>
Toroa	Albatrosses and Mollymawks	<i>Diomedea</i> spp
Tūi	Tūi	<i>Prothemadera novaeseelandiae</i>
Weka	Western weka	<i>Gallirallus australis australis</i>
Weka	Buff weka	<i>Gallirallus australis hectori</i>

### Taonga species: Plants

Name in Māori	Name in English	Scientific name
Akatorotoro	White rātā	<i>Metrosideros perforata</i>
Aruhe	Fernroot (bracken)	<i>Pteridium aquilinum</i> var <i>esculentum</i>
Hārakeke	Flax	<i>Phormium tenax</i>
Horoekā	Lancewood	<i>Pseudopanax crassifolius</i>
Houhi	Mountain ribbonwood	<i>Hoheria lyalli</i> and <i>H. glabata</i>
Kahikatea	Kahikatea/White pine	<i>Dacrycarpus dacrydioides</i>
Kāmahi	Kāmahi	<i>Weinmannia racemosa</i>
Kānuka	Kānuka	<i>Kunzea ericoides</i>
Kāpuka	Broadleaf	<i>Griselinia littoralis</i>
Karaeopirita	Supplejack	<i>Ripogonum scandens</i>
Karaka	New Zealand laurel/Karaka	<i>Corynocarpus laevigata</i>
Karamū	Coprosma	<i>Coprosma coprosma lucida</i> , <i>coprosma foetidissima</i>
Kātote	Tree fern	<i>Cyathea smithii</i>
Kiekie	Kiekie	<i>Freycinetia baueriana</i> subsp <i>banksii</i>
Kōhia	NZ Passionfruit	<i>Passiflora tetrandia</i>
Korokio	Korokio Wire-netting bush	<i>Corokia cotoneaster</i>
Koromiko/Kōkōmuka	Koromiko	<i>Hebe salicifolia</i>
Kōtukutuku	Tree fuchsia	<i>Fuchsia excorticata</i>
Kōwhai Kōhai	Kōwhai	<i>Sophora microphylla</i>
Mamaku	Tree fern	<i>Cyathea medullaris</i>
Mānia	Sedge	<i>Carex flagellifera</i>
Mānuka Kahikātoa	Tea-tree	<i>Leptospermum scoparium</i>
Māpou	Red matipo	<i>Myrsine australis</i>
Mataī	Mataī/Black pine	<i>Prumnopitys taxifolia</i>
Miro	Miro/Brown pine	<i>Podocarpus ferrugineus</i>
Ngāio	Ngāio	<i>Myoporum laetum</i>
Nīkau	New Zealand palm	<i>Rhopalostylis sapida</i>
Pānako	(Species of fern)	<i>Asplenium obtusatum</i>
Pānako	(Species of fern)	<i>Botrychium australe</i> and <i>B. biforme</i>
Pātōtara	Dwarf mingimingi	<i>Leucopogon fraseri</i>
Pīngao	Pīngao	<i>Desmoschoenus spiralis</i>

Pōkākā	Pōkākā	<i>Elaeocarpus hookerianus</i>
Ponga/Poka	Tree fern	<i>Cyathea dealbata</i>
Rātā	Southern rātā	<i>Metrosideros umbellata</i>
Raupō	Bulrush	<i>Typha angustifolia</i>
Rautāwhiri/Kōhūhū	Black matipo/Māpou	<i>Pittosporum tenuifolium</i>
Rimu	Rimu/Red pine	<i>Dacrydium cypressinum</i>
Rimurapa	Bull kelp	<i>Durvillaea antarctica</i>
Taramea	Speargrass, spaniard	<i>Aciphylla</i> spp
Tarata	Lemonwood	<i>Pittosporum eugenioides</i>
Tawai	Beech	<i>Nothofagus</i> spp
Tētēaweke	Muttonbird scrub	<i>Olearia angustifolia</i>
Tī rākau/Tī Kōuka	Cabbage tree	<i>Cordyline australis</i>
Tīkumu	Mountain daisy	<i>Celmisia spectabilis</i> and <i>C. semicordata</i>
Titoki	New Zealand ash	<i>Alectryon excelsus</i>
Toatoa	Mountain Toatoa, Celery pine	<i>Phyllocladus alpinus</i>
Toetoe	Toetoe	<i>Cortaderia richardii</i>
Tōtara	Tōtara	<i>Podocarpus totara</i>
Tutu	Tutu	<i>Coriaria</i> spp
Wharariki	Mountain flax	<i>Phormium cookianum</i>
Whīnau	Hīnau	<i>Elaeocarpus dentatus</i>
Wī	Silver tussock	<i>Poa cita</i>
Wīwī	Rushes	<i>Juncus</i> all indigenous <i>Juncus</i> spp and <i>J. maritimus</i>

#### Taonga species: Marine mammals

Name in Māori	Name in English	Scientific name
Ihupuku	Southern elephant seal	<i>Mirounga leonina</i>
Kekeno	New Zealand fur seals	<i>Arctocephalus forsteri</i>
Paikea	Humpback whales	<i>Megaptera novaeangliae</i>
Parāoa	Sperm whale	<i>Physeter macrocephalus</i>
Rāpoka/Whakahao	New Zealand sea lion/ Hooker's sea lion	<i>Phocarctos hookeri</i>
Tohorā	Southern right whale	<i>Balaena australis</i>

#### Taonga species: Fish

Name in Māori	Name in English	Scientific name
Kāeo	Sea tulip	<i>Pyura pachydermatum</i>
Koeke	Common shrimp	<i>Palaemon affinis</i>
Kōkopu/Hawai	Giant bully	<i>Gobiomorphus gobioides</i>
Kōwaro	Canterbury mudfish	<i>Neochanna burrowsius</i>
Paraki/Ngaiore	Common smelt	<i>Retropinna retropinna</i>
Piripiripōhatu	Torrentfish	<i>Cheimarrichthys fosteri</i>
Taiwharu	Giant kōkopu	<i>Galaxias argenteus</i>

**Taonga species: Shellfish**

Name in Māori	Name in English	Scientific name
Pipi/Kākahi	Pipi	<i>Paphies australe</i>
Tuaki	Cockle	<i>Austrovenus stutchburgi</i>
Tuaki/Hākiari, Kuhakuha/Pūrimu	Surfclam	<i>Dosinia anus, Paphies donacina, Mactra discor,</i> <i>Mactra murchsoni, Spisula aequilateralis, Basina</i> <i>yatei, or Disinia subsosa</i>
Tuatua	Tuatua	<i>Paphies subtriangulata, Paphies donacina</i>
Waikaka/Pūpū	Mudsnail	<i>Amphibola crenata, Turbo smaragdus, Zedilom spp.</i>

## 13.5 Protocols on the Department of Conservation's interaction with Ngāi Tahu on specified issues

(Clause 12.12, Deed of Settlement, 1997)

### NOTIFICATION OF THE ISSUE OF PROTOCOLS

Under Section 282 (4) of the Ngāi Tahu Claims Settlement Act 1998 the Minister of Conservation hereby notifies that she has issued Protocols on behalf of the Crown regarding the Department of Conservation's interaction with Ngāi Tahu on specified issues, and that the Protocols as set out in the Schedule hereto were issued on 22 October 1998.

### Schedule

#### 1 INTRODUCTION

- 1.1 The purpose of the Conservation Act 1987 is to manage natural and historic resources under that Act and the Acts in the First Schedule of the Conservation Act. Section 4 of the Conservation Act requires that the Act be so interpreted and administered as to give effect to the principles of the Treaty of Waitangi.
- 1.2 The Director-General has certain management responsibilities in terms of legislation and can only delegate or share responsibility for decisions s/he makes within the limits of his/her legislation. However, in making such decisions, the Director-General will provide Te Rūnanga the opportunity for input, consistent with section 4, in its policy, planning and decision-making processes on the matters set out in these Protocols.
- 1.3 These Protocols apply across the Ngāi Tahu Takiwā, which spans five conservancies, and the Southern and Central Regional Offices of the Department.
- 1.4 Both the Department and Te Rūnanga are seeking a relationship consistent with the Treaty principle of partnership that achieves, over time, the conservation policies, actions and outcomes sought by both Te Rūnanga and the Department, as set out in this document.

#### 2 PURPOSE OF PROTOCOLS

- 2.1 These Protocols are issued pursuant to section 282 of the Ngāi Tahu Claims Settlement Act 1998 and clause 12.12 of the 1997 Deed of Settlement between the Crown and Ngāi Tahu, which specifies the following:

##### 2.1.1 Definitions

Protocol means a statement in writing, issued by the Crown through the Minister of Conservation to Te Rūnanga, which sets out:

- a) how the Department of Conservation will exercise its functions, powers, and duties in relation to specified matters within the Ngāi Tahu Claim Area; and
- b) how the Department of Conservation will, on a continuing basis, interact with Te Rūnanga and provide for Te Rūnanga's input into its decision-making process.

##### 2.1.2 Authority to Issue, Amend or Cancel Protocols

Pursuant to section 282 of the Ngāi Tahu Claims Settlement Act 1998, the Minister of Conservation may, from time to time issue, amend, and cancel Protocols.

### 2.1.3 Issue of Protocols

On the Settlement Date (as defined in section 8 of the Ngāi Tahu Claims Settlement Act 1998) the Crown has agreed through the Minister of Conservation to issue Protocols in this form on the following matters:

- a) cultural materials;
- b) freshwater fisheries;
- c) culling of species of interest to Ngāi Tahu;
- d) historic resources;
- e) Resource Management Act 1991 involvement; and
- f) visitor and public information.

### 2.1.4 Protocols subject to Crown Obligations

Pursuant to section 283 of the Ngāi Tahu Claims Settlement Act 1998, the Protocols are issued and amended, subject to, and without restriction upon:

- a) the obligations of the Minister of Conservation and the Department of Conservation to discharge their respective functions, powers, and duties in accordance with existing law and Government policy from time to time; and
- b) the Crown's powers to amend policy, and introduce legislation amending existing law.

This clause is not intended to indicate, and should not be interpreted as indicating, any agreement by Te Rūnanga to any amendment to policy which would adversely affect the redress provided by the Crown pursuant to the Settlement Deed or the ability of either party to fulfil its obligations expressed in the Settlement Deed.

### 2.1.5 Noting of Protocols on CMS

Pursuant to section 284 of the Ngāi Tahu Claims Settlement Act 1998:

- a) The existence of Protocols, once issued, and as amended from time to time, including a definition of Protocols as set out in section 281 of the Ngāi Tahu Claims Settlement Act 1998 and a summary of the terms of issue of Protocols, must be noted in conservation management strategies, conservation management plans and national park management plans affecting the Ngāi Tahu Claim Area; and
- b) Noting of Protocols pursuant to section 284(1) of the Ngāi Tahu Claims Settlement Act 1998 is for the purpose of public notice only and is not an amendment to the relevant strategies or plans for the purposes of section 17I of the Conservation Act 1987 or section 46 of the National Parks Act 1980.

### 2.1.6 Enforceability of Protocols

Pursuant to section 285 of the Ngāi Tahu Claims Settlement Act 1998:

- a) The Minister of Conservation must comply with a Protocol as long as it remains in force;
- b) If the Minister of Conservation fails unreasonably to comply with a Protocol, Te Rūnanga may, subject to the Crown Proceedings Act 1950, enforce the Protocol by way of public law action against the Minister of Conservation;
- c) Notwithstanding paragraph (b), damages are not available as a remedy for a failure to comply with a Protocol; and
- d) This clause does not apply to any guidelines which are developed pursuant to a Protocol.

### 2.1.7 Limitation of Rights

Pursuant to section 286 of the Ngāi Tahu Claims Settlement Act 1998, except as expressly provided in the Deed of Settlement, the Ngāi Tahu Claims Settlement Act 1998, or in a Protocol, a Protocol does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, land held, managed, or administered under the Conservation Act 1987 or a statute listed in the First Schedule of that Act.

### **3 IMPLEMENTATION AND COMMUNICATION**

- 3.1 The Department will seek to establish and maintain communication with Te Rūnanga and its Papatipu Rūnanga on a continuing basis by:
- a) maintaining at the conservancy level, with the assistance of Te Rūnanga, information provided on Papatipu Rūnanga, their office holders and addresses; and
  - b) providing reasonable opportunities for Te Rūnanga and Papatipu Rūnanga to meet with Department managers and staff.
- 3.2 The Protocols provide for ongoing implementation of a range of matters, as well as Specific Projects which will require resourcing. It is not intended that all of the Specific Projects listed in these Protocols will be implemented in any one year. Implementation will be over time. Where these Protocols refer to Specific Projects that require resourcing, their implementation will be subject to provision being made in the relevant conservancy business plan. The process for the Department implementing any particular Specific Project in a business year will be as follows:
- a) The Department will meet with Te Rūnanga in each conservancy and at Regional level annually to identify priorities for undertaking Specific Projects as listed in these protocols for the upcoming business year;
  - b) The identified priorities will be taken forward by the Department into its business planning process at the conservancy and regional levels and considered along with other priorities;
  - c) The decision on whether any Specific Projects will be funded in any business year will be made by the Conservator and the Regional General Manager;
  - d) The Department will advise Te Rūnanga of the outcome of this process; and
  - e) Te Rūnanga and the Department will then meet again, if required, to finalise a work plan for implementation of the Specific Projects in that business year, in accordance with the resources which have been allocated in the business plan. The Department will apply the allocated resources to give effect to that work plan, subject to unforeseen management requirements which may arise from time to time, such as emergencies, adverse weather, staff shortages or reallocation of resources directed by the Minister.
- 3.3 The Department will:
- a) Meet with Te Rūnanga to review implementation of these Protocols and to deal with the matters in clause 3.2; four times per annum, unless otherwise agreed, in each conservancy, twice per annum at regional level, and at least once per annum at Chief Executive level;
  - b) As far as reasonably practicable, train relevant staff on these Protocols and provide ongoing training as required; and
  - c) As far as reasonably practicable, brief Conservation Board and NZCA members on these Protocols and the Ngāi Tahu Settlement, and provide ongoing information as required.

### **4 CULTURAL MATERIALS**

- 4.1 For the purpose of these Protocols, cultural materials are defined as:
- (i) plants, plant materials; and

(ii) materials derived from animals, marine mammals or birds,

to the extent to which the Department holds and is responsible for them, and which are important to Ngāi Tahu in maintaining their culture.

4.2 Current legislation means that generally some form of concession or permit is required for any gathering of cultural materials.

4.3 The Department will:

- a) Have particular regard to Te Rūnanga's cultural use policy (Kawa Hua Taiao) as it relates to the Department's activities, and other relevant Te Rūnanga statements of policy produced from time to time.
- b) Consider requests from members of Ngāi Tahu Whānui for the customary use of cultural materials in accordance with the appropriate legislation.
- c) Agree, where reasonably practicable, for Ngāi Tahu to have access to cultural materials which become available as a result of Departmental operations such as track maintenance or clearance or culling of species.
- d) Consult with Te Rūnanga in circumstances where there are competing requests from non-Ngāi Tahu persons or entities for the use of cultural materials, for example for scientific research purposes, to see if the cultural and scientific or other needs can be reconciled before the Department makes a decision in respect of those requests.

4.4 Specific projects

The Department will, subject to clause 3.2, work with Te Rūnanga to:

- a) Develop and implement guidelines for each conservancy within the Ngāi Tahu Takiwā that help define levels of customary use of cultural materials, and set conditions, after consideration of tikanga, to be met for gathering;
- b) Identify local sources of plants and provide advice to Te Rūnanga with respect to the establishment by Te Rūnanga of cultivation sites; and
- c) Establish Departmental cultural materials banks for cultural materials which have come into the Department's possession, and guidelines for their use.

## 5 FRESHWATER FISHERIES

5.1 The Department has a statutory role in advocating the conservation of aquatic life and freshwater fisheries generally. Its advocacy for freshwater biota, aquatic habitats and fish passage in all areas is primarily taken via statutory planning processes provided by the Resource Management Act 1991.

5.2 Section 48B of the Conservation Act 1987 (inserted by section 305 of the Ngāi Tahu Claims Settlement Act 1998) provides the power to promulgate regulations providing for customary Māori fishing rights with respect to freshwater fisheries within South Island Fisheries Waters. Pursuant to clause 12.14.11(e) of the Deed of Settlement such regulations are to be promulgated as soon as practicable, and in any event no later than two years after Settlement Date. Besides generally consulting with Te Rūnanga and providing for its participation in the conservation and management of customary freshwater fisheries and freshwater fish habitats, the Department will consult with, and have particular regard to the advice of, Te Rūnanga in its capacity as an Advisory Committee appointed under section 56 of the Conservation Act in all matters concerning the management and conservation by the Department of Conservation of Taonga Fish Species (as defined in section 297 of the Ngāi Tahu Claims Settlement Act 1998) within the Ngāi Tahu Claim Area. This obligation does not derogate from the obligations of the Department under section 4 of the Conservation Act 1998 to give effect to the Treaty of Waitangi.

5.3 Advisory Committee



The Department will, in relation to the Taonga Fish Species and as far as reasonably practicable, provide the Advisory Committee with all relevant information to enable it to give informed advice, and will meet with the Advisory Committee at conservancy level as necessary to give effect to the Deed of Settlement and the Ngāi Tahu Claims Settlement Act 1998.

#### 5.4 Customary freshwater fisheries regulations

The Department will work with Te Rūnanga at Regional and conservancy levels to:

- a) Provide for Te Rūnanga participation in the development and promulgation of customary freshwater fishing regulations by:
  - (i) Establishing a joint working group;
  - (ii) Setting terms of reference for that working group;
  - (iii) Setting timelines for progress; and
  - (iv) Providing information to Te Rūnanga in a timely manner and allowing Te Rūnanga an opportunity to comment.

#### 5.5 Specific Projects

The Department will, subject to clause 3.2, work with Te Rūnanga to:

- a) Develop and implement guidelines for the Department with respect to the promotion of compliance with customary freshwater fisheries regulations;
- b) Develop and implement guidelines for the Department with respect to monitoring the efficacy of the customary freshwater fisheries regulations at regular intervals; and
- c) Develop and implement guidelines for the Department with respect to sharing accumulated management information and research data on customary freshwater fisheries with Te Rūnanga.

#### 5.6 Other matters

The Department will work with Te Rūnanga at Regional and conservancy levels to provide for active participation by Te Rūnanga in the conservation, management and research of customary freshwater fisheries and freshwater fish habitats by:

- a) Seeking to identify areas for cooperation in advocacy, consistent with clause 9, focusing on fish passage, minimum flows, protection of riparian vegetation and habitats, water quality improvement and in the restoration, rehabilitation or enhancement of customary freshwater fisheries and their freshwater habitats; and
- b) Consulting with Te Rūnanga in developing or contributing to research programmes that aim to improve the understanding of the biology of customary freshwater fisheries and their environmental and habitat requirements. The Department confirms that it regards Te Rūnanga as a possible science provider or collaborator for research projects funded or promoted by the Department in the same manner as other potential providers or collaborators.

#### 5.7 Specific Projects

The Department will, subject to clause 3.2, work with Te Rūnanga to:

- a) Conduct research to establish and address ecosystem threats to specified customary freshwater fisheries including barriers to migration, habitat loss and exotic species interaction;
- b) Contribute to the resolution of eel management issues, in particular, the administration of the fish passage regulations in the Freshwater Fisheries Regulations, the promotion of the installation of effective fish passes where necessary and monitoring of their effects, by participating in discussions with Te Rūnanga and Te Waka a Māui me ona Toka Mahi Tuna; and

- c) Identify the need for, and where necessary prepare, management plans for freshwater fisheries management.

## 6 CULLING OF SPECIES OF INTEREST TO NGĀI TAHU

6.1 As part of an integrated management regime, or because a species population has risen to become an ecological pest, it may from time to time be necessary for the Department to carry out a cull of a protected species under the Wildlife Act 1953. The Department recognises that Te Rūnanga is interested in such operations in the following ways:

- a) the carrying out of such a cull where the species to be culled is causing or is likely to cause ecological damage to species or habitats of particular significance to Ngāi Tahu;
- b) the methods to be used in such culls; and
- c) cultural materials arising from the cull.

6.2 The Department will:

- a) Have regard to any requests initiated by Te Rūnanga for the carrying out of culling operations;
- b) Consult with, and have particular regard to the views of, Te Rūnanga before deciding to carry out a cull of protected species on land administered by the Department, in respect of the reasons for the cull and the method proposed to be used; and
- c) In situations where either a Fish and Game Council or a Regional Council intend to carry out a cull of protected species or game bird and the Department has a statutory role in the process, request the relevant body to consult with Te Rūnanga before carrying out any such cull.

## 7 HISTORIC RESOURCES

7.1 The Minister acknowledges the importance to Ngāi Tahu of their wāhi tapu, wāhi taonga and other places of historic significance to them. Liaison with Te Rūnanga is important in the management of those places containing sites of historic and cultural significance to Ngāi Tahu, including places of settlement, horticulture, natural resource harvesting, warfare, communication, and places of cultural and spiritual connection.

7.2 The Department notes that non-disclosure of locations of places known to Ngāi Tahu is a practice used by Ngāi Tahu to preserve the sanctity of a place. Respecting the principle of confidentiality brings management difficulties of a particular kind. Where information is not available, management practices which (unintentionally) contravene the cultural value associated with a specific site, may be put in place. Where reasonably practicable, the Department will respect the principle of confidentiality that applies to wāhi tapu, wāhi taonga and places of historic significance to Ngāi Tahu. The primary responsibility for identifying and assessing Ngāi Tahu heritage values rests with Te Rūnanga.

7.3 The Department will work with Te Rūnanga at Regional and conservancy levels to:

- a) Ensure, as far as reasonably practicable, that Ngāi Tahu values attaching to identified wāhi tapu, wāhi taonga and places of historic significance to Ngāi Tahu managed by the Department are respected by the Department, for example, by the Department giving consideration to impacts from visitor numbers, facilities and services;
- b) Manage, as far as reasonably practicable, wāhi tapu, wāhi taonga and places of historic significance to Ngāi Tahu according to the standards of conservation practice outlined in the ICOMOS New Zealand Charter 1993;
- c) Ensure, as far as reasonably practicable, that when issuing concessions giving authority for other parties to manage land administered by the Department, those parties manage

the land according to the standards of conservation practice outlined in the ICOMOS New Zealand Charter 1993;

- d) Have particular regard to relevant Te Rūnanga policies, including those relating to Koiwi Tangata (unidentified human remains) and Archaeological and Rock Art Sites;
- e) Ensure, as far as reasonably practicable, that it uses Ngāi Tahu's cultural information only with the consent of Te Rūnanga; and
- f) When issuing concessions to carry out activities on the land administered by the Department, request that the concessionaire consult with Te Rūnanga before using Ngāi Tahu's cultural information.

#### 7.4 Specific Projects

The Department will, subject to clause 3.2, work with Te Rūnanga at Regional and conservancy levels to:

- a) Develop and implement guidelines for the identification, inventory and management by the Department of wāhi tapu, wāhi taonga and other places of historic significance to Ngāi Tahu that take into consideration the traditional uses and practices of Ngāi Tahu and are, where reasonably practicable, consistent with Ngāi Tahu tikanga;
- b) Identify and actively protect specified wāhi tapu, wāhi taonga or other places of historic significance to Ngāi Tahu on land administered by the Department;
- c) Develop and implement guidelines for the active protection of wāhi tapu, wāhi taonga and other places of historic significance to Ngāi Tahu;
- d) Identify cooperative projects covering a range of options for the protection and management of wāhi tapu, wāhi taonga and other places of historic significance to Ngāi Tahu;
- e) Develop and implement guidelines relating to the use of Ngāi Tahu's knowledge of wāhi tapu, wāhi taonga and other places of historic significance of Ngāi Tahu, including the use of this information by the Department; and
- f) Consult with and seek participation from Te Rūnanga with respect to research, survey or inventory projects that relate specifically to wāhi tapu, wāhi taonga and other places of historic significance to them.

## 8 VISITOR AND PUBLIC INFORMATION

8.1 In providing public information and interpretation services and facilities for visitors on the land it manages, the Department recognises the importance to Ngāi Tahu of their cultural, spiritual, traditional and historic values.

8.2 The Department will work with Te Rūnanga at Regional and conservancy levels to encourage respect for Ngāi Tahu values by:

- a) As far as reasonably practicable, seeking to raise public awareness of positive conservation partnerships developed between Te Rūnanga, the Department and other stakeholders, for example, by way of publications, presentations and seminars;
- b) Consulting on the provision of interpretation and visitor facilities (if any) at wāhi tapu, wāhi taonga and other places of historic or cultural significance to Ngāi Tahu;
- c) Ensuring, as far as reasonably practicable, that Department information on new panels, signs, and visitor publications includes Te Rūnanga perspectives and references to the significance of the sites to Ngāi Tahu, where appropriate, including the use of traditional Ngāi Tahu place names; and
- d) Encouraging Te Rūnanga participation in the Department's volunteer and conservation events programmes.

### 8.3 Specific Projects

The Department will, subject to clause 3.2, work with Te Rūnanga at Regional and conservancy levels to:

- a) Develop and implement guidelines on the provision of information and interpretation facilities and services for visitors, so as to identify and consider issues of concern to Te Rūnanga;
- b) Consider possibilities for Te Rūnanga to contribute to visitor appreciation of the cultural value of sites of cultural and historic significance to Ngāi Tahu managed by the Department; and
- c) Provide information to education providers, including kohanga reo and kura kaupapa Māori, for the development of educational resources on conservation issues and associated Ngāi Tahu values.

## 9 RESOURCE MANAGEMENT ACT

9.1 Te Rūnanga and the Department both have concerns with the effects of activities controlled and managed under the Resource Management Act. These include effects on:

- a) wetlands;
- b) riparian management;
- c) effects on freshwater fish habitat;
- d) water quality management;
- e) protection of historic resources; and
- f) protection of indigenous vegetation and habitats.

9.2 From time to time, Te Rūnanga and the Department will seek to identify further issues of mutual interest for discussion. It is recognised that their concerns in relation to any particular resource management issue may diverge and that each of them will continue to make separate submissions.

9.3 The Department will work with Te Rūnanga at Regional and conservancy levels to discuss the general approach that will be taken by each of Te Rūnanga and the Department in respect of advocacy under the Resource Management Act, and seek to identify their respective priorities and issues of mutual concern.

9.4 The Department will:

- a) Have regard to the priorities and issues of mutual concern identified in clause 9.3(a) in making decisions in respect of advocacy under the Resource Management Act.
- b) Make non-confidential resource information available to Te Rūnanga to assist in improving the effectiveness of Resource Management Act advocacy work at the Papatipu Rūnanga level.

## 10 AMENDMENT AND REVIEW PROVISIONS FROM THE DEED

10.1 Amendment and Cancellation of Protocols

Pursuant to section 282 of the Ngāi Tahu Claims Settlement Act 1998:

- a) Protocols may be amended or cancelled by the Minister of Conservation, from time to time at the initiative of either the Crown or Te Rūnanga;
- b) The Minister of Conservation may amend or cancel Protocols only after consulting Te Rūnanga and having regard to its views; and

- c) As soon as reasonably practicable after the amendment, or cancellation of a Protocol, the Minister of Conservation must notify such amendment, or cancellation in the Gazette.

Dated at Wellington this 26 day of July 2001  
MATT ROBSON, for SANDRA LEE, Minister of Conservation.  
(NZ Gazette 2001, page 2171)

# Appendix 14

## Statement of outstanding universal value for Te Wāhipounamu—South West New Zealand World Heritage Area

Property	Te Wāhipounamu—South West New Zealand
State Party	New Zealand
Id. N°	551
Date of inscription	1990

### Brief synthesis

Located in the south-west corner of New Zealand's South Island, Te Wāhipounamu—South West New Zealand covers 10% of New Zealand's landmass (2.6 million hectares) and is spread over a 450km strip extending inland 40–90km from the Tasman Sea. The property exhibits many classic examples of the tectonic, climatic, and glacial processes that have shaped the earth. The great Alpine Fault divides the region and marks the contact zone of the Indo-Australian and Pacific continental plates making it one of only three segments of the world's major plate boundaries on land. Collision between the two tectonic plates constructs the main mountain range, known as the Southern Alps/Kā Tiritiri o te Moana, which rise to nearly 4000m altitude within a mere 30km from the sea.

Overwhelmingly a mountainous wilderness, including significant piedmont surfaces in the north-west glaciation, both historic and modern, is a dominant landscape feature. Spectacular landforms include: the 15 fiords which deeply indent the Fiordland coastline; a sequence of 13 forested marine terraces progressively uplifted more than 1000m along the Waitutu coastline over the past million years; a series of large lake-filled glacial troughs along the south-eastern margin; the Franz Josef and Fox Glaciers which descend into temperate rainforest; and spectacular moraines of ultramafic rock extending to the Tasman coastline.

As the largest and least modified area of New Zealand's natural ecosystems, the flora and fauna has become the world's best intact modern representation of the ancient biota of Gondwana. The distribution of these plants and animals is inextricably linked to the dynamic nature of the physical processes at work in the property. The region contains outstanding examples of plant succession after glaciation, with sequences along altitudinal (sea level to permanent snowline), latitudinal (wet west to the dry east), and chronological gradients (fresh post-glacial surfaces to old Pleistocene moraines).

It is the combination of geological and climatic processes, the resultant landforms, the unique biota displaying evolutionary adaptation over a diverse range of climatic and altitudinal gradients, all in a relatively pristine state, that give Te Wāhipounamu—South West New Zealand its exceptional and outstanding natural characteristics.

**Criterion (vii):** Te Wāhipounamu—South West New Zealand contains many of the natural features which contribute to New Zealand's international reputation for superlative landscapes: its highest mountains, longest glaciers, tallest forests, wildest rivers and gorges, most rugged coastlines and deepest fiords and lakes, as well as the remnant of an extinct volcano in Solander Island. The temperate rainforests of the property are unmatched in their composition, extent and intactness by any such forests anywhere in the world.

From the vast wilderness of Fiordland in the south to the spectacular upthrust of the Southern Alps/ Kā Tiritiri o te Moana in the north, the landscapes are world class for the sheer excellence of their scenic beauty. It is an area of magnificent primeval vistas: snow-capped mountains, glaciers, forests, tussock grasslands, lakes, rivers, wetlands and over 1000km of wilderness coastline. Only traces of human influence are evident and then mainly in peripheral areas.

**Criterion (viii):** Te Wāhipounamu—South West New Zealand is considered to be the best modern example of the primitive taxa of Gondwanaland seen in modern ecosystems – and as such the property is of global significance. The progressive break-up of the southern super-continent of Gondwanaland is considered one of the most important events in the earth’s evolutionary history. New Zealand’s separation before the appearance of marsupials and other mammals, and its long isolation since, were key factors enabling the survival of the ancient Gondwanan biota on the islands of New Zealand to a greater degree than elsewhere. The living representatives of this ancient biota include flightless kiwis, carnivorous land snails, 14 species of podocarp and genera of beech.

The South West is also an outstanding example of the impact of the Pleistocene epoch of earth history. Ice-carved landforms created by these ‘Ice Age’ glaciers dominate the mountain lands, and are especially well-preserved in the harder, plutonic igneous rocks of Fiordland. Glacier-cut fiords, lakes, deep U-shaped valleys, hanging valleys, cirques, and ice-shorn spurs are graphic illustrations of the powerful influence of these glaciers on the landscape. Depositional landforms of Pleistocene glacial origin are also important, especially in Westland, west of the Alpine Fault. Chronological sequences of outwash gravels, and moraine ridges in elegant curves and loops, outline the shapes of both former piedmont glaciers and Holocene ‘post-glacial’ valley glaciers.

**Criterion (ix):** A continuum of largely unmodified habitats, the property exhibits a high degree of geodiversity and biodiversity. Fresh-water, temperate rainforest and alpine ecosystems are all outstandingly well represented over an extensive array of landforms and across wide climatic and altitudinal gradients. Notable examples of on-going biological processes can be found in the large expanses of temperate rainforest, the plant succession after glacial retreat, soil/plant chronosequences on beach ridges, plant succession on alluvial terraces, vegetation gradients around the margins of glacial lakes and ecotypic differentiation of plants on ultramafic soils. The extensive and little modified freshwater habitats, the impressive diversity of alpine ecosystems, extensive alpine plant endemism, and on-going evolution associated with long-standing geographical isolation of animal populations, like the kiwi taxa of South-Westland, are further examples of on-going biological evolution.

While there is little permanent physical evidence of past human interaction with the natural environment, tangata whenua (the indigenous people who have customary authority in a place) have long associations with the area which was significant to them for natural resources, particularly pounamu (nephrite). European associations are more recent and initially based on natural resource exploitation. The predominant human uses today are associated with sustainable tourism.

**Criterion (x):** The habitats of Te Wāhipounamu contain an extensive range of New Zealand’s unusual endemic fauna, a fauna which reflects its long evolutionary isolation and absence of mammalian predators. The property contains the entire wild population of the rare and endangered takahē (*Notornis mantelli*), the entire population of the South Island subspecies of brown kiwi (*Apteryx australis*), New Zealand’s rarest Kiwi, the rowi (*Apteryx rowi*), the only significant remaining populations of the seriously declining mohua / yellowhead (*Mohoua ochrocephala*), the only large populations remaining of kākā and kākārīki / yellow-crowned parakeet, the only remaining population of pateke / Fiordland brown teal in the South Island.

The world’s rarest and heaviest parrot, kākāpō (*Strigops habroptilus*) survived in Fiordland until the early 1980s. It is now thought to be extinct on the mainland and its survival depends on careful management of a limited number of offshore island populations.

## Integrity

Te Wāhipounamu encompasses many complete ‘mountains-to-the-sea’ or ‘mountains-to-inland basins’ landscape sequences. These landscapes cover the full range of erosion and deposition landforms of Pleistocene and modern glacial origin. The 2.6 million hectare property represents the 10 percent of New Zealand that is least disturbed or modified by human settlement, and is largely in its natural state giving it a high degree of integrity. The property boundaries encompass all the values of the property which comprises a nearly contiguous network of reserved land covering much of the south-west of the South Island. The boundaries are closely and realistically aligned with the main features of the area. The property includes four national parks (Fiordland, Mount Aspiring, Mount Cook and Westland) covering 1,725,437 ha, two nature reserves, three scientific reserves, 13 scenic reserves, four wildlife management reserves, five ecological areas, conservation areas and one private reserve (20 ha). Bordered by other

protected public conservation land the property has an effective buffer zone providing further protection for the natural values.

The property contains nearly 2 million hectares of temperate rainforest on an extraordinary range of landforms and soils-including altitudinal, latitudinal, west-to east rainfall gradients, and age sequences associated with glacial retreat, prograding coastlines and marine terraces uplifted progressively over the last million years. In particular, the rainforest contains the best examples in the Southern Hemisphere of one of the most ancient groups of gymnosperms, the Podocarpaceae, which range from the densely-packed 50m-high rimus of the South Westland terraces to the world's smallest conifer, the prostrate pygmy pine.

The relatively recent introductions of alien browsing mammals and predators, such as rodents and mustelids, have resulted in localised extinctions, range reductions, and significant declines in abundance of some indigenous biota. These threats will remain, but with ongoing intervention can be managed and should not impact significantly on the integrity of the area. There is some evidence of the effects of global warming on the permanent icefields and glaciers in the region.

The international profile of the area as a visitor destination places pressure on some of the main tourist attractions within the wider site. These pressures are being managed to provide visitor access but only where the conservation values at these sites are protected.

### **Protection and management requirements**

A comprehensive array of statutes and regulations protect the property, the most important being the National Parks Act 1980 and the Conservation Act 1987. These two pieces of legislation along with the Reserves Act 1977 are the principal means of ensuring legal protection for the property. The land encompassed by the boundaries of the property, with one small exception, is Crown (Government and the people of New Zealand) owned and it is administered by the Department of Conservation. The property is a reformulation of two previous property inscribed on the World Heritage List in 1986; Fiordland National Park and Westlands / Mt Cook National Park. This property adds 1.2 million ha of the intervening land, almost doubling the size of the area inscribed in 1986 and including almost 70% of the area under national park status, and greatly adding to the overall universal value, wilderness quality and integrity of the property.

The Department of Conservation has a legislative mandate for the preservation and protection of natural and historic resources for the purpose of maintaining their intrinsic values, providing for their appreciation and recreational enjoyment by the public, and safeguarding the options of future generations.

The Department of Conservation is obligated through its legislation to give effect to the principles of the Treaty of Waitangi. In practice this implies a partnership agreement with tangata whenua that have manawhenua (prestige, authority over the land) over the area. This involves an annual business planning process with the Ngāi Tahu iwi (the overarching tribal authority for tangata whenua). This process gives Ngāi Tahu the opportunity to engage in and contribute to the operational management of the property.

The particularly high natural values of the property, along with the World Heritage status, mean that this area is a priority area for ongoing management. The Area covers four separate Conservancies, although they all report to one Manager. The Department's organisational structure therefore also provides for integrated management of the area.

There is no single management strategy for the area, although under the National Parks Act, each national park is required to have a national park management plan and there are also a number of conservancy conservation strategies that acknowledge the values of the regions comprising the large site, as well as the property's World Heritage status. Together these planning documents set strategic directions for the integrated management of this property. These are statutory documents formulated through a public consultation process. The national park management plans are prepared by the Department of Conservation (the administering authority for all national parks in NZ) and approved by the New Zealand Conservation Authority, in accordance with the General Policy for National Parks (a policy document that guides the implementation of the National Parks Act, also prepared and administered by the Department of Conservation).



The principal uses of the property are nature conservation, nature based recreation and tourism and sustainable small-scale natural resource utilisation. Impacts from tourism at key sites and introduced species are being addressed by management actions and continue to be a concern. Traditional use of vegetation by native Maori people, fishing for whitebait, recreational hunting and short-term pastoral leases are closely regulated and do not result in significant impacts.

Invasive species are the biggest impact on the property, despite their impacts being restricted to small areas of the property. Population increases of red deer as well as impacts from other browsing mammals such as wapiti, fallow deer, goat, chamois and tahr have caused severe damage in some parts of the property, in particular threatening the integrity of the forest and alpine ecosystems. Commercial hunting activities have assisted in reducing numbers and impacts from these species. Australian brush-tailed possum, rabbits, mustelids and rodents also impact habitats and indigenous birds. The Department of Conservation has control programmes in place and National Parks general policy seeks to eradicate new incursions and eradicate (where possible) or reduce the range of existing invasive species.

**Source:** <http://whc.unesco.org/document/117094> p. 49-51

# Appendix 15

## Publicly available huts on public conservation lands and/or managed by the Department within Otago

The list is accurate as at the date of approval of this CMS. Its contents may be amended or reviewed during the term of this CMS.

### 2.1 Mount Aspiring National Park/Tititea Place

Hut name	Public access	Location
Aspiring Hut	West Matukituki River Track	Mount Aspiring National Park (NZAC—managed by DOC)
Cameron Hut	Cameron Track	Mount Aspiring National Park
Daleys Flat Hut	Dart Track	Mount Aspiring National Park
Dart Hut	Dart Track	Mount Aspiring National Park
Earnslaw Hut	Kea Basin Track	Mount Aspiring National Park
Esquilant Bivvy Hut	Base of Mount Earnslaw	Mount Aspiring National Park (NZAC—managed by DOC)
French Ridge Hut	French Ridge Track	Mount Aspiring National Park (NZAC—managed by DOC)
Kerin Forks Hut	Wilkin Valley Track	Mount Aspiring National Park
Liverpool Hut	Liverpool Track	Mount Aspiring National Park
Makarora Hut	Makarora Track	Mount Aspiring National Park
Olivine Hut	Pyke Track	Mount Aspiring National Park
Routeburn Falls Hut	Routeburn Track	Mount Aspiring National Park
Routeburn Flats Hut	Routeburn Track	Mount Aspiring National Park
Shelter Rock Hut	Rees Track	Mount Aspiring National Park
Shelter Rock Bunkroom	Rees Track	Mount Aspiring National Park
Siberia Hut	Wilkin Valley Track - Siberia Track	Mount Aspiring National Park
Top Forks Hut	South Branch Wilkin Track	Mount Aspiring National Park
Top Forks Old Hut	South Branch Wilkin Track	Mount Aspiring National Park
Young Hut	Gillespie Pass Circuit Track	Mount Aspiring National Park

### 2.2 Te Papanui, Oteake and Hāwea Conservation Parks Place

Hut name	Public access	Location
Ben Avon Hut (Historic)	Dingle Burn valley	Hāwea Conservation Park (Not for overnight use)
Big Hopwood Burn Hut	Hunter Valley Station Road—Hopwood Burn Track.	Hāwea Conservation Park

Hut name	Public access	Location
Boundary Creek Hut	Mutton Creek Track—Manuherikia River—west branch	Oteake Conservation Park
Bull Flat Hut	Hunter River valley	Hāwea Conservation Park
Bush Hut	Dingle Burn Valley Track	Hāwea Conservation Park
Buster Hut	Little Kye Burn Tramping Track	Oteake Conservation Park
Cotters Hut	Dingle Burn Valley Track	Hāwea Conservation Park
Ferguson Hut	Hunter Valley Track	Hāwea Conservation Park
Forbes Hut	Hunter Valley Track	Hāwea Conservation Park
Kyeburn Boundary—Hut 1 (Historic)	Mount Buster Track	Oteake Conservation Park
Kyeburn Boundary—Hut 2 (Historic)	Mount Buster Track	Oteake Conservation Park
Moonlight and Roses Hut	Foot of Dingle Peak	Hāwea Conservation Park (Private—managed by DOC)
Sawyer Burn Hut	Sawyer Burn Track	Hāwea Conservation Park (Private—managed by DOC)
Stodys Hut	Timaru Creek/Breast Hill Track	Hāwea Conservation Park
Top Dingle Hut	Dingle Burn Valley Track	Hāwea Conservation Park
Top Hut	Ewe Range Track	Oteake Conservation Park
Top Timaru Hut	Timaru Creek/Breast Hill Track	Hāwea Conservation Park
Pakituhi Hut	Timaru Creek/Breast Hill Track	Pakituhi Conservation Area

### 2.3 Western Lakes and Mountains/Ngā Puna Wai Karikari a Rākaihautū Place

Hut name	Public access	Location
Albert Burn Hut	Albert Burn Track	Albert Burn Conservation Area
Archie's Hut	Aurum Basin—Cooper Creek	Mt Aurum Recreation Reserve
Ballarat Hut	Flood Burn—Ballarat Creek	Ballarat Creek Conservation Area
Bullendale Hut	Bullendale Track	Mt Aurum Recreation Area
Crystal Hut	Crystal Battery Track	Mt Aurum Recreation Track
Dynamo Hut	Dynamo Track	Mt Aurum Recreation Reserve
Dynamo Red Hut	Skippers Creek beyond Dynamo Track	Mt Aurum Recreation Reserve
Fern Burn Hut	Motatapu Track	Private land with public access easement
Glen Roy Racemans Hut	The Remarkables	Remarkables Conservation Area
Greenstone Hut	Greenstone Track	Greenstone Conservation Area
Heather Jock Hut	Heather Jock Loop Track	Whakaari Conservation Area
Highland Creek Hut	Motatapu Track	Private land with public access easement

Hut name	Public access	Location
Home Hill Hut (derelict)	Base of Home Hill	Caples Conservation Area
Kay Creek Hut	Kay Creek Track	Caples Conservation Area
McKellar Hut	Greenstone Track	Greenstone Conservation Area
Macs Hut	Mt McIntosh Loop Track	Whakaari Conservation Area
McIntyres Hut	Mt McIntosh Loop Track	Whakaari Conservation Area
Mid Caples Hut	Caples Track	Caples Conservation Area
Roses Hut	Motatapu Track	Private land with public access easement
Sam Summers Hut	Mr Crichton Loop Track	Mt Crichton Scenic Reserve
Slip Flat Hut	Greenstone Track	Greenstone Conservation Area
Steele Creek Hut	Steel Creek Track–Upper Caples-Greenstone	Greenstone Conservation Area
Stoney Creek Hut	Upper Stoney Creek	Whakaari Conservation Area
Two Mile Hut	The Remarkables	Remarkables Conservation Area
Wallers Hut	Larkins Creek	Whakaari Conservation Area
Wanaka Faces Hut	Lake Wanaka	Lake Wanaka (East Side) Marginal Strip and Matatiaho Conservation Area (Managed by NZDA)

#### 2.4 Central Otago Uplands Place

Hut name	Public access	Location
Big Hut	Glencreag to Rock and Pillar Ridge Track	Rock and Pillar Conservation Area (Owned and managed by Big Hut Trust)
Deep Creek Hut	Pisas–Cardrona to Cromwell Pack Track	Pisa Conservation Area
Kirtle Burn Hut	Pisas–Kirtle Burn Track	Pisa Conservation Area
Lauder Basin Hut	Lauder Basin Conservation Area road	Lauder Basin Conservation Area
Leaning Lodge	Leaning Lodge Track	Rock and Pillar Conservation Area (Owned and managed by Otago Mountain Trust)
Meg Hut	Pisas–Meg Hut Pack Track	Pisa Conservation Area
Staircase Hut	Waianakarua Scenic Reserve	Waianakarua Scenic Reserve (Owned and managed by NZDA)

## 2.5 Old Man Range/Kopuwai, Old Woman Range, and Garvie Mountains Place

Hut name	Public access	Location
Boundary Hut	Kopuwai Track to Sisters Track	Old Woman and Old Man/Kopuwai ranges
Junction Hut	Junction Hut Track–Kopuwai	Bain Block (Old Man Range) Conservation Area
Nicholsons Hut	Nicholsons Track–Kopuwai	Old Man/Kopuwai Conservation Area
Old Woman Hut	Duffers Saddle Road–Kopuwai Ridge	Old Woman Range Conservation Area

## 2.7 Eastern Otago and Lowlands/Maukaatua Place

Hut name	Public access	Location
Jubilee Hut	Silverpeaks ABC–Yellow Ridge Route	Silverpeaks Scenic Reserve
Philip J Cox Memorial Hut	Silverpeaks ABC Yellow Ridge Route	Silverpeaks Scenic Reserve
Possum Hut (derelict)	Possum Hut Route	Silverpeaks Scenic Reserve

## 2.8 Catlins/Te Ākau Tai Toka Place

Hut name	Public access	Location
Maclennan Hut	Thisbe Stream/Maclennan Hut Track	Catlins Conservation Park
Mohua Bivvy 1	Head of Tahakopa Valley Road	Catlins Conservation Park
Mohua Bivvy 2	Thisbe Stream	Catlins Conservation Park
Tautuku Hut	Tautuku Hut Track	Catlins Conservation Park

