Conservation Management Strategy

For Nelson/Marlborough Conservancy

1996 - 2006

Department of Conservation
Nelson/Marlborough Conservancy
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FOREWORD

The purpose of this Conservation Management Strategy (CMS) is to set out how the Department of Conservation will manage the areas in its care and its responsibilities for the next decade. It has been prepared in consultation with iwi, the Nelson and Marlborough Conservation Boards, local authorities and other interested groups and individuals, and is the first Conservation Management Strategy for the Nelson/Marlborough Conservancy. It was prepared for approval by the Conservation Authority, as required by the amendments made to the Conservation Act 1987 by the Conservation Law Reform Act 1990.

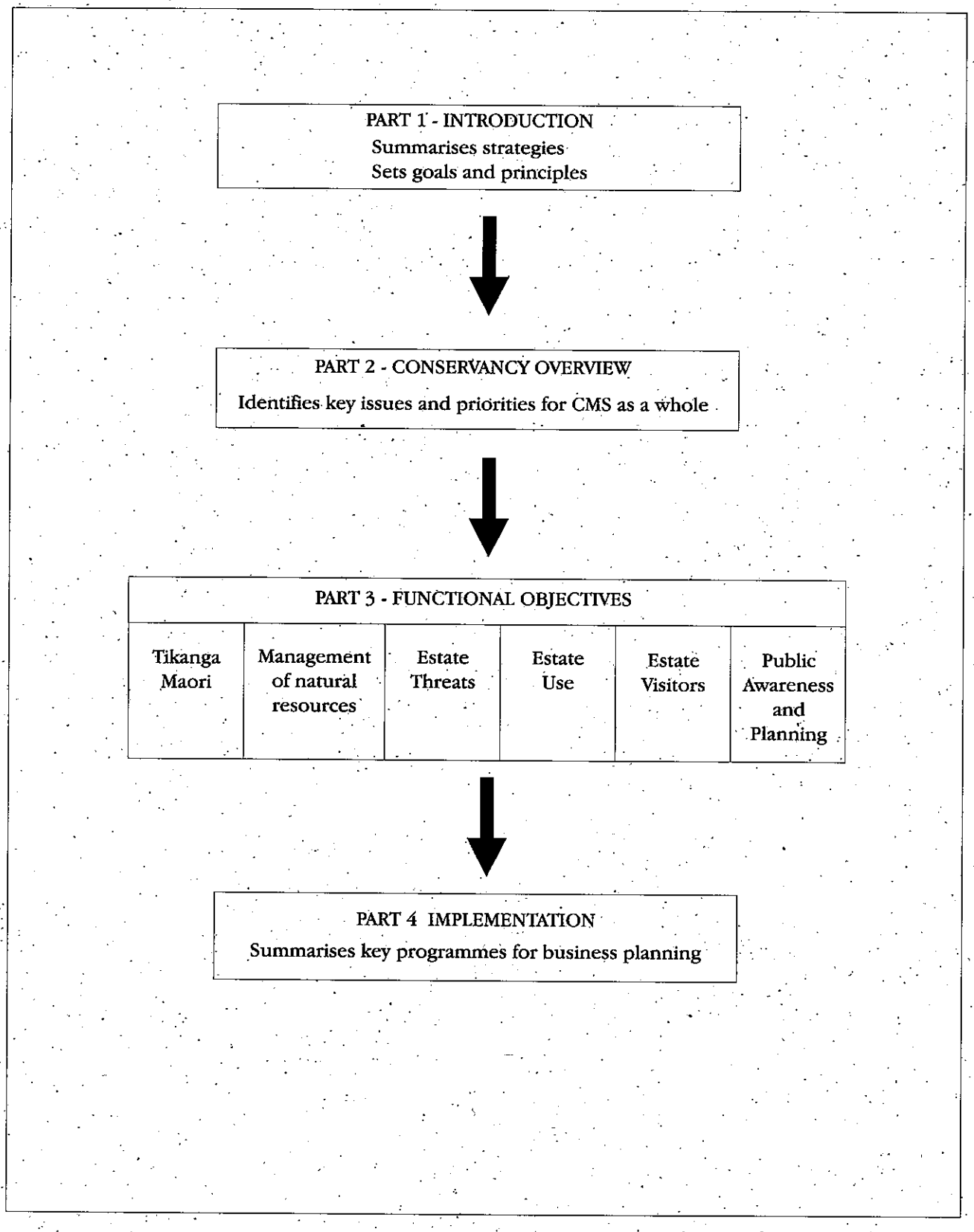
A CMS is a statutory document which implements general policies and establishes objectives for the integrated management of natural and historic resources. The conduct of some activities on areas administered by the department can only take place by, and in accordance with, the CMS. Those preparing regional and district plans must have regard to any relevant CMS. It must be noted however, that a CMS is generally a statement of intent and does not over-ride the provisions of legislation and general policy.

The draft document was available for public comment from 19th June to 27th August 1993 with a total of 205 submissions being received. Of these 37 spoke in support of their submissions at formal hearings before representatives of the department and the Nelson and Marlborough Conservation Boards. All submissions received by the due date are summarised in a separate document.

After giving due consideration to all submissions and other public opinion, the draft was revised and a summary of submissions prepared. These documents were presented to the Nelson and Marlborough Conservation Boards for their consideration and recommended to the New Zealand Conservation Authority for their consideration and approval.

Figure 1

Structure of the document



A quick tour

The following short description will help you find your way around this document. The diagram opposite shows its layout. The Parts and the sections within them are separated by coloured paper.

The INTRODUCTION (p.15) sets out the main goals the conservancy aims to achieve over the next decade. The OVERVIEW (p.49) contains more detail and the IMPLEMENTATION (p.373) at the rear lists intended work. For those with an interest in a particular topic, the contents or index will point to the best section in which to find more information on that topic. Meanings for important words are listed in Abbreviations and Definitions (p.13) and meanings for many technical words used are listed in the Glossary (p.437).

Document structure

The four main Parts in the document are marked by a coloured page.

Part 1, the INTRODUCTION, sets the scene for the whole document. First, it provides a summary of some of the major issues facing the conservancy and the achievements expected to be made over the next decade. Second, it sets down some of the main principles that guide management and form the base for the rest of the document.

Part 2, the OVERVIEW, describes the important natural, historic and recreational values in the conservancy and some of the most important issues that must be faced in managing them. These are cross-referenced to later sections of the document which set out details on how those issues will be faced and solved. An introduction to the OVERVIEW sets out the structure of this Part and some of the broad issues raised throughout all Parts of the document.

Part 3, the six segments which contain the FUNCTIONAL OBJECTIVES, reflect the department's activities and internal management structures. Each segment has its own introduction and sets out detailed strategies for solving the many issues faced by the conservancy. They may also list the main priorities for action.

Part 4, the IMPLEMENTATION, summarises the main programmes which will be carried out over the next decade. This forms a basis for business planning.

Using the document - a technical guide

Part 2 and the sections in Part 3 each have four components:

- an introduction which provides background information and sets the context;
- an objective which describes the conservation outcome desired;
- issues arising in achieving that outcome; and
- implementation, the ways in which the issues are intended to be resolved.

The Parts and Sections of the document have a hierarchical relationship. Because important principles are set out in introductory sections and general guidelines are stated there, they should be read in conjunction with any particular Part or

Section. Similarly, reference further up the hierarchy to the particular ecosystem of the OVERVIEW or even the Part 1 principles and philosophy may also provide guidance. Where the links are highly important they are cross-referenced.

§ indicates the number of a section in this document.

ABBREVIATIONS AND DEFINITIONS USED IN THIS DOCUMENT

The principal definitions used in this document are those contained in the Conservation Act 1987 and amendments thereto. These definitions do not substitute for the definitions set out in any Act and in applying any Act the definitions set out in that Act are paramount. The definitions used here are merely for consistency and clarity within this document. Further technical words are to be found in the Glossary p.437. Additional definitions or substitutions for the purposes of this document are as follows:

§ reference to numbered sections within this document.

"Amend" in relation to conservation management strategies, conservation management plans, freshwater fisheries management plans and sports fish and game management plans, means any change that does not affect the objectives of the strategy or plan. Such a change may not require a full public process.

(*Conservation Act 1987*)

"Conservation" means the preservation and protection of natural and historic resources for the purposes of maintaining their intrinsic values, providing for their appreciation and recreational enjoyment by the public and safeguarding the options for future generations.

(*Conservation Act 1987*)

"Conservancy" means all the area within the boundaries on Figure 2, including both land administered by the department and areas of all other tenures and seabed out to 22.5 km.

"Conservation area" means all land, foreshore and interest in land held under the Conservation Act 1987.

(*Conservation Act 1987*)

"Conservation Management Plan (CMP)" means a plan for the management of natural and historic resources, and for recreation, tourism and other conservation purposes which implements the conservation management strategy and establishes detailed objectives for integrated management within any area or areas specified in a conservation management strategy.

(*Conservation Act 1987*)

"CMS" means this Conservation Management Strategy.

"CMP" means Conservation Management Plans prepared under the Conservation Act 1987 and subsidiary acts.

"Department" means Department of Conservation.

"Domestic animals" means cats, dogs, horses, cattle, pigs, goats or any other kept animal.

"Farm park" means recreation reserve managed for recreation and pastoral purposes ie Titirangi and Puponga Farm Parks.

"Field centre" means a major public office of the department as shown on Figure 2, p.18.

"Fishing" means the taking, catching, or harvesting of fish.

"Forest park" means a park administered under Section 61 (2) of the Conservation Act 1987 (i.e Mt Richmond Forest Park) that is deemed to be conservation park.

"Freshwater" means waters upriver of the saltwater wedge, as defined by the vegetation boundary (derived from the Resource Management Act 1991 and not the Conservation Act 1987).

"Historic values" means the cultural values of historic resources".

"Intrinsic values" means elements of intrinsic value are those aspects of ecosystems and their constituent parts which have value in their own right, including their biological and genetic diversity and the essential characteristics that determine, independent of any value placed on them by humans, an ecosystem's integrity, form, functioning and resilience.

"Land" includes foreshore.

"Local authority" means any regional or district council or unitary authority.

"Marlborough Sounds" means the bays and islands lying between Cape Soucis and Rarangi.

"Marlborough Sounds Maritime Park" means the collection of scenic, recreation, historic, scientific, and other reserves administered under a single management plan.

"Natural values" means the intrinsic values of natural resources.

"Network utility" means the same as Section 166 of the Resource Management Act.

"Preservation" in relation to resources under the Conservation Act 1987, means the maintenance, so far as is practicable, of their intrinsic values.

(*Conservation Act 1987*)

"Protection" in relation to a resource, means its maintenance, as 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*)

"Recreational values" means the qualities, including the aesthetic and physical attributes, of a place that contribute to the actual or potential recreational opportunities.

"Regional Conservator" means the Regional Conservator Nelson/Marlborough Conservancy.

"Road" means an access way designed primarily for motorised vehicles; including public roads and off-road vehicle tracks but excluding paths designed for wheel chairs.

"RM Act" means Resource Management Act 1991.

"Special area" means any national park, nature reserve, scientific reserve, wildlife sanctuary or wilderness area.

"Special values" means those of international and national importance as set out in §6, p.43.

"Treaty" means the Treaty of Waitangi.

"Vehicle" as in the Transport Act means (in paraphrase) anything with wheels or runners that moves or is moved.

"Wild animal" means deer, chamois, thar, wallaby and opossum; goats and pigs that are living in a wild state. Except for deer kept in captivity for farming, does not include animals kept in captivity or rats, mice, rabbits, stoats, ferrets or weasels. Refer to the Wild Animal Control Act for the legal definition.

(*Wild Animal Control Act 1977*)

PART ONE
INTRODUCTION

1. What is a conservation management strategy

The purpose of the Conservation Management Strategy (CMS) as stated in the Conservation Act is "to implement general policies and establish objectives for the integrated management of natural and historic resources and for recreation, tourism and other conservation purposes". It is legally binding on the department and the Minister.

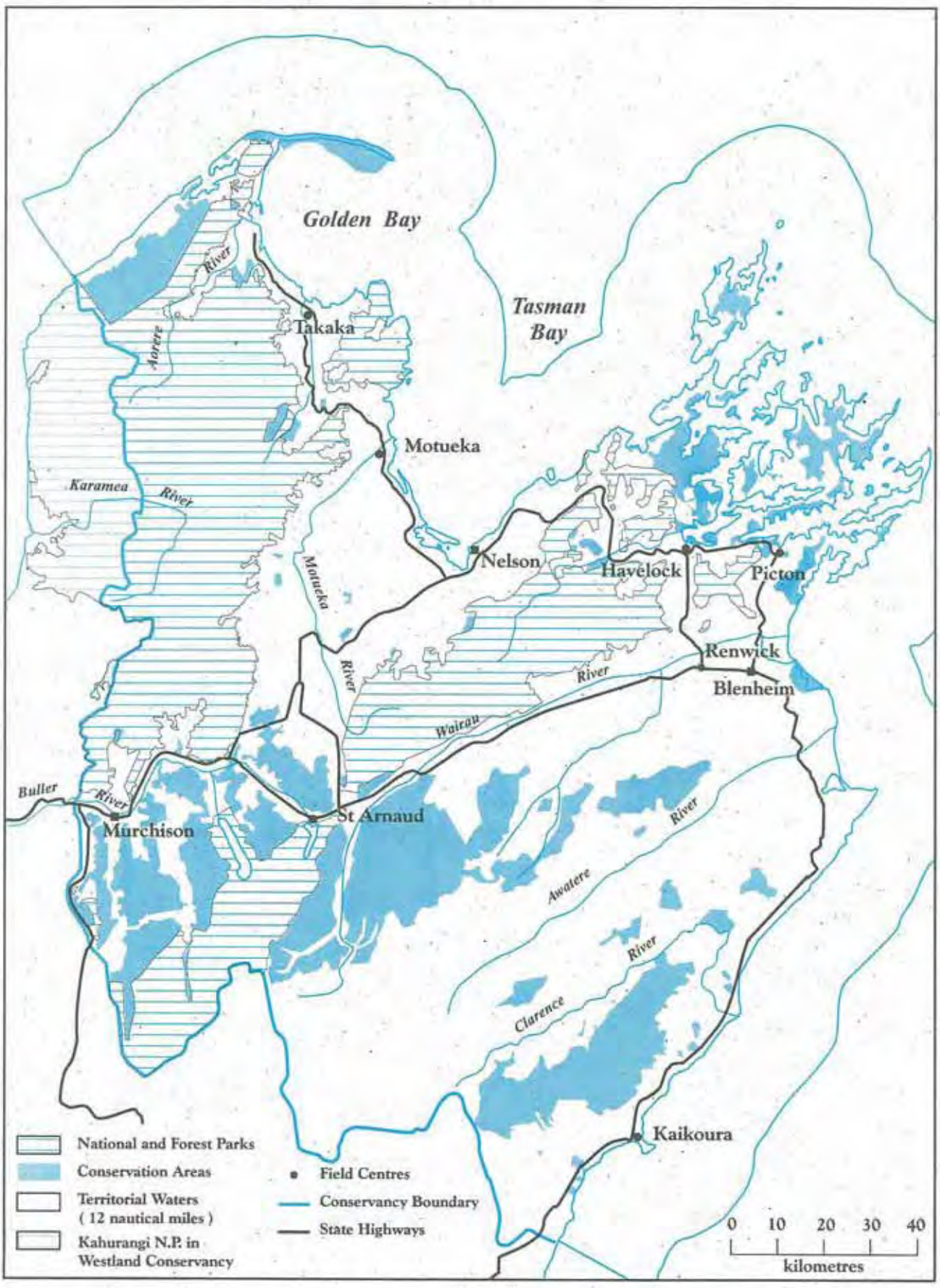
The CMS is to serve three important functions:

- to provide clear directions for the conservancy's activities over the next decade and beyond;
- to bring together various aspects of management and resolve some of the conflicts through providing clear guidelines for day to day management; and
- to present an opportunity for the public and interest groups to contribute to management of areas administered by the department and the department's advocacy role elsewhere.

Until the Conservation Law Reform Act was passed in 1990 the department was obliged to prepare management plans for each of its land units under the Conservation, Reserves and National Parks Acts. These plans concentrated on the problems of individual areas. The Conservation Management Strategy, by examining issues throughout the conservancy, provides a broader overview and thus, in an integrated manner, sets an overall direction for the conservancy's activities. The analysis of a host of issues and use of a long time frame in the CMS gives strategic direction to the succeeding annual Business Plans.

The department encourages consultation at all levels of management. This document is seen as the outcome of consultation and a contract between the department and the public for its management activities, which include the management of areas and resources in its care and general advocacy for conservation.

Map 2 Nelson/Marlborough Conservancy



2. Context

2.1 DEPARTMENTAL AND BOARD RESPONSIBILITIES

The functions of the department are set out in the Conservation Act 1987, Section 6. They include in summary form:

"(a) To manage for conservation purposes, all land, and all other natural and historic resources, for the time being held under it, and all other land and natural and historic resources whose owner agrees with the Minister that they should be managed by the Department.

(ab) To preserve as far as is practicable all native freshwater fisheries, and protect recreational freshwater fisheries and freshwater fish habitats.

(b) To advocate conservation of natural and historic resources generally.

(c) (in part) To promote the benefits to present and future generations of conservation of natural and historic resources.

(d) To prepare, provide, disseminate, promote and publicise educational and promotional material relating to conservation.

(e) To the extent that the use of any natural or historic resource for recreation or tourism is not inconsistent with conservation, to foster the use of natural and historic resources for recreation and allow their use for tourism.

(f) To advise the Minister on matters relating to any of those functions or conservation generally.

(g) Every other function conferred on it by any other enactment."

These functions are subject to Ministerial direction within the law.

Under this Act, the role of the department is to promote the conservation of New Zealand's natural and historic resources. This applies not only to the areas it manages but also in the national and international scene since Section 6(c) (i) says:

"The conservation of natural and historic resources *generally* and the natural and historic resources of New Zealand *in particular*."

Under Section 4 the department is required to give effect to the principles of the Treaty of Waitangi. In Appendix III, p.422 the principles of Government action are set out, along with versions of the treaty of Waitangi and a number of relevant quotations from findings from the Waitangi Tribunal and decisions of the Court of Appeal. The quotations illuminate what the Treaty principals are presently understood to be. In addition the department is empowered and bound by 36 different acts that set the framework under which the department can act. These are listed in Appendix IV, p.426.

Under Section 6M of the Conservation Act, the main role of the Nelson and Marlborough Conservation Boards, is to recommend this Conservation

Management Strategy and, reviews of it, for approval by the New Zealand Conservation Authority. They advise both the department and the Authority on its implementation. They also approve conservation management plans and advise on their implementation as well as advise on any change of classification of any area of national or international importance. The responsibility of the Nelson Conservation Board extends beyond the Nelson/Marlborough Conservancy boundary to cover areas within the West Coast Conservancy which are not covered by this CMS.

2.2 NELSON/MARLBOROUGH CONSERVANCY - THE PLACE AND ITS CONSERVATION ISSUES

Nelson and Marlborough contain extremely important pieces of New Zealand's conservation heritage. Some 45% of the approximately 2.3 million hectares of the land in the conservancy is administered by the Department of Conservation (see map at rear). This land contains the largest diversity of natural values among any of New Zealand's 14 conservancies, a diversity of great significance both internationally and within New Zealand.

North-west Nelson is typical of the conservancy's diversity. Its rocks carry a history of New Zealand's geology from ancient Gondwanaland to the present. Spectacular landscapes of limestone and marble contain huge deep caves. Its hills hold a legacy of the area's ice age past, when plants and animals found refuge there. Special among its many natural values is the plant life. Temperate and subtropical flora mix here. By contrast in the east of the conservancy, in South Marlborough and the Kaikoura Ranges, grasslands and herbfields cover the younger scree-scarred peaks.

The 2500 km of coastline is another of the conservancy's special features. It provides a variety of coastal landforms not seen elsewhere, including the ecologically significant estuaries at Waimea and Whanganui, Farewell Spit's sand dunes, the Nelson Boulder Bank, the Wairau Lagoons, the Marlborough Sounds' network of coves, inlets, bays and islands and the rocky Kaikoura coast.

The variety of rocks and soils gives space to a huge diversity of life. Many threatened native animals are found within the conservancy. Stephens Island has the world's largest known breeding population of the ancient tuatara, native frogs and huge insects. North-west Nelson boasts a large group of native land snail species found only in that area.

Many threatened plants grow in the greatly varied soils. Two of New Zealand's five major concentrations of native plant species are in the Nelson/Marlborough Conservancy - one in North-west Nelson and one in South Marlborough and the Kaikoura Ranges. These two areas have nearly two-thirds of New Zealand's 2200 native plant species, of which more than 130 are found nowhere else.

That the conservancy is special is without doubt, but that very specialness creates conservation problems which the department must face and, where it can, resolve. For example, while the many native plant species known only to this conservancy set it apart, by their very nature these plants are often threatened. This is especially true in areas of large-scale human impact such as the high country of South Marlborough and the Kaikoura Ranges where burning and farming have modified the natural ecology of the land.

This document seeks to resolve the following issues arising from the Nelson/Marlborough Conservancy's special natural character.
The conservancy contains many widely dispersed and unprotected pockets of land with high natural values. Their values are well-known but easy access and the lack of formal protected status means they often remain vulnerable. The conservancy has large areas where high natural values are recognised, but poorly defined, because of a lack of specific knowledge. The values are susceptible to widely distributed threats, such as goats. When combined with difficult access, these factors often lead to management difficulties. Some of the wide range of natural values are under-represented in existing protected areas. Too little coastal, freshwater and lowland habitat is protected. Too few of the special natural communities of South Marlborough and the Kaikoura Ranges are protected.

The conservancy's human history begins with the Maori. Today's tangata whenua represent, but one stage in the long history of occupation and activity recorded in place names, tradition and myth. Among the many sites of tradition and history, the argillite quarries in the inland mineral belt were a nationally important source of stone tools.

Europe's earliest explorers, Tasman, Cook and D'Urville all visited and left their names on this area. Some of New Zealand's earliest European settlements were sited here. Whalers first settled in the Marlborough Sounds and Nelson was settled in 1841.

Today the favourable climate and outstanding natural features provide a diversity of recreational opportunities (including outstanding sports fisheries) and remain a powerful magnet for both locals and visitors. A big attraction is New Zealand's most extensive hut and track system which covers over some 1900 km of back country, coast, hills and valleys.

Some areas which provide for quiet enjoyment of nature that are seldom visited retain their wild character (for example, the huge 83,000 ha Tasman Wilderness Area). At the opposite end of the spectrum, the Abel Tasman Coast Track copes with 50,000 visitors each year.

The Abel Tasman coast is one of many sites under pressure from people, a pressure guaranteed to increase if New Zealand moves toward the Tourism Board target of three million overseas visitors by the year 2000. How that pressure is managed is of crucial importance to the future of the natural, historic and recreational values within those areas.

This document seeks to resolve the following issue arising from the Nelson/Marlborough Conservancy's recreational opportunities:
Increased pressure on the natural, historic and recreational values will result from the expected rise in visitor numbers and their greater demands for recreational facilities and associated commercial developments. How that pressure is managed is of crucial importance to the future of those values.

2.3 NELSON/MARLBOROUGH CONSERVANCY - ITS COMMUNITIES

Comparatively few people live in the conservancy, about 100,000 in total. Most of the population lives in a few towns and one small city, but large numbers visit the conservancy from the adjacent major urban areas of Wellington (350,000) and Christchurch (320,000) and many own holiday homes.

Urban economies are dominated by service and light industries. Economic developments in the rural regions are focused on forestry, agriculture, horticulture, aquaculture, and viticulture. Commercial fishing is a major industry. The coastline is also dotted with marine farms of mussels, oysters and salmon. New ventures are frequently proposed. Large areas are used for scallop enhancement, particularly in the Marlborough Sounds.

Most of these economic developments do not occur on areas administered by the department but they can have a high environmental impact through their "downstream" effects. Nevertheless, from time to time areas administered by the department and their economic potential attract development proposals for activities such as mining and hydroelectric generation.

Under the Resource Management Act local authorities now have greater responsibility for the environment. They rely heavily on the department to bring forward environmental issues and information. The Department of Conservation is the only government agency in the region with both land management and environmental responsibilities.

The department's functions are many and varied but its resources are limited and the major issues outlined above are not new. Given that insufficient time and money are available, the department must be clear about what it wants to achieve for conservation. This document sets the priorities and goals for the next 10 years, and how they will be achieved. The following section outlines those goals, and the outcomes and strategies required to achieve them over the next decade.

This document seeks to resolve the following issues arising from the Nelson/Marlborough conservancy's communities.
Economic development in the conservancy can involve high impact activities that may make heavy use of natural resources and damage natural, historic or recreational values. The region has a large area with a low population and local authorities with limited resources. Within the Resource Management Act, they have major environmental responsibilities and the department must work with the local authorities to encourage them to ensure these challenging responsibilities are met. People readily become involved in issues directly concerning them. The challenge is to motivate them to become involved in the wider conservation issues.

3. Philosophy

The conservancy has a unique natural and cultural heritage which represents the origins of the area and reminds us of its particular path through time. It has tremendous diversity with its specially rich geology, flora and fauna, abundant wildlands and spectacular landscapes with many distinctive elements. All ecosystems and landforms have a limited capacity to respond to disturbance without fundamental change so we must protect and nurture them for their diversity.

The social environment also strongly shapes how we can apply conservation because the people of the area have a strong empathy with the environment and a real and apparent consciousness of its many values.

In co-operation with the tangata whenua the department can thus advocate the importance of our heritage and the need for sustainability of all resources. In doing this it seeks to *nurture our heritage for future generations.*

The extent to which the department can achieve this will confirm its eligibility as guardians of our heritage for the future.

3.1 MAORI VALUES

Under Section 4 of the Conservation Act the department is required to give effect to the principles of the Treaty of Waitangi. There is no formal set of principles though the Waitangi Tribunal, the Courts and the Government have issued statements which give a lead in identifying basic propositions (see Appendix III, p.422). Both the Government and iwi are obliged to accord each other reasonable co-operation on issues of common concern. This requires consultation and reasonable cooperation with tangata whenua on issues of common concern. An important part of this consultation is an understanding of Maori philosophy and the values that arise from it, and so there must be a mutual understanding of values.

To the Maori everything has a mauri, an essence that gives everything its special character, and everything is viewed as a living entity. Mauri pervades and infuses everything - things living and non-living, earth and sky. Sometimes it is represented by a sacred stone which is placed at a secret location in a forest or a river, and sometimes it has no tangible presence at all, but always the mauri must be nurtured, cared for and respected. When kai moana is taken from the sea, a tree is felled or any other thing harvested a karakia should be said beforehand and thanks given afterwards.

The concept of mauri leads to a sense of unity between man and nature. The unity extends to the opposing principles that make up the cosmos, as is expressed in the creation tradition. The tradition expounds how Rangi the sky father and Papa the earth mother were once united and how Tane Mahuta the god of the forest tore them apart to let in the daylight. The separation brought great sorrow to Rangi the sky father and Papa the earth mother. This sorrow continues in the clinging mists and falling rain, and the rising of the dew.

Water is therefore fundamental to the Maori world view. Water is considered a basic essence, a part of every living thing, the linking medium between individuals and their environment. The water resources of a hapu or iwi are a fundamental source of their mana and plays a central role in many rituals.

Many sites, too, have a special significance and are known only to privileged elders. These are especially sacred to the Maori people and disclosure of the true nature or location of these sites may not be appropriate because the mauri may be diminished.

3.1.1 *A Maori perspective on the forests and the land*

The forests were especially valued because of the variety of resources that they yielded and because of their link to Tane, Rangi and Papa. To the early Maori the forest was home. They claimed kinship with it in a spiritual way, in the same way that they claimed relationship with the land. Their possessions obtained from forest, land and sea were extensions of themselves.

The tangata whenua have strong spiritual affinity with certain mountain peaks or features that had a special place to play in explaining the shaping of the land or the arrival of their forebears in the area. For example, Tapuae-o-Uenuku and Maungatapu have important traditional and legendary values that figure prominently in whakapapa, waiata, and powhiri.

Certain peaks or features also served as boundary markers of the rohe of the iwi. The history of occupation and use by iwi is also recorded in the names given to features or localities to recall events or situations that were of significance to the local people. All these values are held and respected today.

3.1.2 *A Maori perspective on freshwaters*

Each iwi recognises the particular interests in water held by its hapu or whanau. Each has fishing spots, or the locations of taniwha, that are of particular importance to the group. But all water is culturally significant. It has a life force or mauri and life principle or wairua that is consistent with the Maori perception of its quality and use. Every water body has its own wairua and mauri associated with it.

3.1.3 *A Maori perspective on the sea*

The coast and seas have always been a source of sustenance to the Maori people - a source of both physical and spiritual nourishment. The seas also provided a source of transport and means of defence against warring parties, and consequently, tangata whenua have strong spiritual associations with the coastline going back many generations to their first arrival. These associations are preserved in place names and traditions associated with them. Many places around Marlborough Sounds and Cloudy Bay retain links in their names with Kupe's visit.

The early Maori, in particular, were very spiritual people. They obeyed the laws of the sea and in return received sustenance. The sea is viewed as a living entity and like the land and sky is an extension of themselves.

3.1.4 *The Maori and conservation*

Because of spiritual and physical links with the environment, Maori have developed a great respect for natural resources and their use. An elaborate system of concepts including tapu, rahui, utu and muru ensured the resources were maintained for all community needs. Use was an essential part of managing the resources but equally there was a need to be restrained about that use. When a resource became over used a rahui was placed upon it until it recovered. Especially rare or valued resources required elaborate rituals to allow them to be harvested, thus ensuring that they were conserved and not used unwisely.

There is a lesson for us all here; if we work against the mauri in nature we can expect things to go wrong but if we work with nature all will be well.

3.2 DEVELOPMENT OF THE EUROPEAN CONSERVATION ETHIC

The European roots of culture contain ancient conservation ethics derived from a spiritual worship of nature which frequently surfaced as a form of the belief that God is everything and everything God (*pantheism*).

From the late eighteenth century these ethics were refined with the growth of the Romantic Movement. European culture began to develop a philosophy concerning the individual's appreciation of wilderness which led directly to the setting aside of natural areas for protection. The ideal of the preservation of nature was to become an end in itself, along with the notion that nature was a place for the spiritual regeneration of all people. The concept of "protection" that emerged recognised that nature is not created solely for human needs. Rather, it was argued that humans had developed a capacity to destroy forever the natural order, that the natural order had its own intrinsic right to exist, and that humans, being able to reason had, as part of that order, a responsibility to protect nature.

The philosophical basis of the Romantic Movement tied aesthetic appreciation of nature and questions of why the natural order exists and ethics, to a raw encounter with nature ("beauty is truth is good"). The romantics developed this way of appreciating nature within the tradition of an emerging scientific method. It revealed nature to be a self-contained harmoniously ordered system, against a background of a continued destruction of wilderness that industrial cultures with effective technologies were accelerating. Thus, although "scientific" findings have confirmed the need to protect species, ecological systems and natural processes in order to represent a baseline of evolution, it is appropriate to acknowledge the prime position of aesthetics and spiritual values associated with this European heritage of nature protection. This tradition of beauty and goodness of large vistas of unmodified nature is self evident in most people's immediate responses to the areas administered by the department.

It is no coincidence that the first fully protected national parks and reserves were created in countries like America, Australia, Canada and New Zealand where the necessary combination of democracy, romantic culture and largely unmodified landscapes gave the means and vision to preserve natural places as the common heritage of all citizens. The fact that this positive feeling for wilderness became a legal reality ultimately owed more to the dedicated politicking of preservationists like John Muir in the USA and William Fox in New Zealand than to philosophers. In 1864 Muir led the campaign that eventually created Yosemite State Park and paved the way for Yellowstone National Park. The legislative language of the Yellowstone Act was borrowed in wording and spirit by the creators of the Tongariro National Park following the gift of the land to the nation by Te Heu Heu in 1888. William Fox of Nelson promoted the first protective Forests Act, which became a reality in 1877.

While continuing to borrow philosophy and tactics from the American preservationist movement New Zealanders soon developed their own style and methods of protecting large areas of public domain. Protected lands, often as scenic reserves and national parks, have been created on a consistent but irregular basis.

In the mid and late 19th century individuals became disturbed at the apparent unrestricted destruction of forests and wildlife. In Nelson during the 1890s the Scenery Preservation Society led by Percy Adams, and Charles and CY Fell achieved the protection of Pelorus and Carluke Scenic Reserves in the face of the sawmillers. By the turn of the century increasing numbers of small areas were being set aside as scenic reserves both through proposals from local communities and by the initiatives of local officials of the Department of Lands and Survey. In the 1930s Perrine Moncrieff, a founding member of the Royal Forest and Bird Protection Society, forcefully advocated an end to indiscriminant logging. Her efforts led to the establishment of Abel Tasman National Park in 1942. In 1956 Nelson Lakes National Park was created, and in the 1960s the Mt Richmond and North-west Nelson Forest Parks were formed. Thus a long and proud genealogy accompanies the history of lands inherited by the Department of Conservation in Nelson/Marlborough.

The tradition of protecting wilderness gained an increasingly large public mandate as the earth's environmental crises became more apparent. Undoubtedly the scientific justification for the need to preserve a naturally occurring gene bank involving not just species, but whole ecosystems ("biodiversity"), has come to assume urgency. Equally, the notion that beautiful wild places must be set aside for people as a refuge from the dominance of the clamour and ideals of today's consumer society should not be lost.

The nature of the pressures on the environment have changed markedly over the years. They have shifted from localised low key use to the devastations of the industrial age, to today's pervasive air and water pollution of whole ecosystems. The greater leisure time available today and higher mobility mean that parks and reserves are facing increasing pressure. This is exacerbated by the shrinking of distances by better means of communication and the continuing loss of wilderness world wide. Today the greatest threat to areas administered by the department is sometimes the crowds and inadvertent actions of the very people who come to enjoy them.

Therefore the department must plan for change carefully and conservatively, not only taking into account the physical impacts of increased pressure on wild places, but also the social impacts on individuals and communities.

4. Kaupapa - vision

4.1 LONG-TERM GOALS

The term of the CMS is ten years, but goals which stretch further into the future are needed to guide the management of conservation. These goals (not in priority order) are to:

- Maintain biodiversity of native species and to ensure no threatened species are lost.
- Preserve a representative range of all landforms and natural terrestrial and marine ecosystems.
- Ensure appropriate conservation of the historic heritage of the conservancy and encourage understanding of human history and associated sites.
- Maintain and further develop consultation and co-operation with tangata whenua on conservation issues.
- Encourage community participation in conservation.
- Further develop strong public support for conservation, based on mutual understanding.
- Develop and co-ordinate recreational opportunities in a way that preserves or enhances the current range of visitor experiences and preserves natural, historic and recreational values.
- Make the most of planning opportunities to influence local authority policies and planning for the benefit of conservation.
- Ensure that land status recognises the natural, historic and recreational values and management requirements of land units.

4.2 STRATEGIC DIRECTIONS

To achieve the above goals is an enormous task. Tight constraints on financial resources make the task even more difficult. Clearly, the department has to focus its management effort. It has to identify what it must do, and what it cannot or should not do, within the context of its statutory responsibilities. Over the next ten years the **strategic directions** that the department will take in Nelson/ Marlborough are as follows:

4.2.1 *Maintain biodiversity of native species and to ensure no threatened species are lost*

Strategies will involve

- retaining basic native plant and animal associations on all large areas where an aggregation of biological values gives a rank of national or international importance;
- developing more effective approaches to major intractable plant and pest problems and improving current techniques;
- transferring populations of native species which cannot survive *in situ* to special refuges;
- giving island refuges a high level of protection to enable further transfers to these havens;
- identifying areas with concentrations of natural values for intensive management to protect special and representative communities;
- developing research and monitoring systems to identify changes in ecosystems;

Significant outcomes

- major progress on restoration of Maud and Stephens Islands;
- creation of several more pest-free island refuges;
- removal of old man's beard from the Upper Buller and Golden Bay;
- completion of freshwater fish survey of the conservancy;
- retention of Stephens Island as a nature reserve.

4.2.2 *Preserve a representative range of all landforms, natural features and natural terrestrial and marine ecosystems*

Strategies will involve

- intensifying legal protection programmes in South Marlborough, Kaikoura, Golden Bay, freshwater systems and in the marine environment to achieve greater areas in protection and a higher status for some areas already in protection;
- improving legal protection for significant earth science sites in public ownership;

- increased advocacy for the protection of significant earth science sites on private land (for example, by covenant);

Significant outcomes

- significant progress towards protection of a network of areas on 10% of the coastal marine area;
- significant progress on protecting habitat for giant kokopu and where possible for short-jawed kokopu;
- establishment of water conservation orders for the Buller and Motueka Rivers;
- significant progress on protection of lowland forests, especially in Golden Bay;
- significant progress towards implementing protection of key areas in South Marlborough and Kaikoura;
- recognition of significant geopreservation features and steps taken to improve their protection.

4.2.3 *Ensure appropriate conservation of the historic heritage of the conservancy and encourage understanding of human history and associated sites*

Strategies will involve

- retaining the current level of effort in protecting historic resources but concentrating on those on areas administered by the department;

Significant outcomes

- completion of a survey of a comprehensive range of historic resources.

4.2.4 *Maintain and further develop consultation and co-operation with tangata whenua on conservation issues*

Strategies will involve

- undertaking meaningful ongoing consultation with iwi and tangata whenua on specific local conservation issues.

4.2.5 *Eourage community participation in conservation*

Strategies will involve

- creating greater opportunities for community involvement in conservation management projects;
- providing opportunities for community involvement in consultation such as through NGO meetings;
- utilising opportunities for involvement in co-operative projects with associates;

Significant outcomes

- establishment of Kumeras and Whakapuaka as community-based restoration projects;
- improved understanding, by communities, of the role of the conservation boards in guiding conservation management;
- greater sharing of information;
- more efficient achievement of conservation outcomes through joint programmes.

4.2.6 *Further develop strong public support for conservation, based on mutual understanding*

Strategies will involve

- focusing public awareness programmes on the groups within the community that have positive but weak support for conservation and building on this;

Significant outcomes

- establishment of Picton as a nationally significant visitor information centre for the department, supported by an integrated network of information services throughout the conservancy;
- greater awareness of individual responsibility for conservation;
- greatly improved awareness and understanding of the department's role, especially in the rural communities.

4.2.7 *Develop and co-ordinate recreational opportunities in a way that preserves or enhances the current range of visitor experiences and preserves natural, historic and recreational values*

Strategies will involve

- aiming recreation management at increasing public awareness of our heritage and minimising its impacts on conservation and social values;
- focusing provision of high quality facilities for day visitors at key attractions;
- maintaining or enhancing wilderness and remote experiences;
- maintaining and enhancing public access to areas administered by the department;
- developing a range of recreation opportunities in ways which generate support for conservation;
- encouraging users to contribute to costs of development and maintenance of huts and camping areas without charging for access;
- advocating the maintenance and enhancement of public access to the margins of rivers, lakes and streams, and to the coast;

Significant outcomes

- better facilities on Heaphy, Cobb Valley, Cobb-Tablelands-Flora, Wangapeka and Travers-Sabine-Speargrass Tracks, Queen Charlotte Walking Track, and at Pelorus Bridge, Waikoropupu Springs, Kaikoura Peninsula;
- greater reliance on private enterprise to provide facilities in high use areas on the periphery of areas administered by the department;
- more closely managed visitor impacts on the Abel Tasman Coast.

4.2.8 *Make the most of planning opportunities to influence local authority policies and planning for the benefit of conservation*

Strategies will involve

- encouraging the Nelson/Marlborough community to avoid actions that will compromise the basic ecological processes on which natural communities depend and advocating their protection;

Significant outcomes

- recognition of key conservation goals in local authority policy statements and plans.

4.2.9 *Ensure that land status recognises the natural, historic and recreational values and management requirements of land units*

Significant outcomes

- resolution of status and management regimes within Wairau Lagoons;
- resolution of land status for North-west Nelson;
- resolution of land status for Kaikoura Ranges;
- resolution of land status for areas administered by the department around Murchison and alongside Nelson Lakes National Park.

5. Basis for Conservation Management

5.1 CONSERVATION PRINCIPLES

5.1.1 Maintenance of natural ecological diversity

Ecosystems contain webs of inter-related and inter-dependent species linked to their habitat. Loss or diminution of any one element of the web can affect many others so that survival of vulnerable species is a good indicator of the health of an ecosystem. By maintaining the natural biodiversity we ensure the best prospects of maintaining the ecosystem as a whole.

5.1.2 Sustainability

Changes in the ecosystems, landforms and physical diversity through intervention or modification for human needs must be carried out so that prospects for survival of the natural ecosystem as a whole are not diminished.

5.1.3 Natural systems are dynamic

The natural changes that occur over time have to be recognised and provided for. All ecosystems are undergoing changes that can result in natural extinctions; and climatic changes or natural dispersal of native species can result in new species naturally entering ecosystems. Natural disturbances such as earthquakes and erosion can result in severe habitat modification and establishment of new plant and animal communities.

5.1.4 Choices made today can have irreversible long-term consequences

Because ecosystems are dynamic and landforms and environmental factors are continually changing it is almost impossible to restore the status quo of any one time. Subtle changes now, can compound over time to bring about large changes in the long term. For example, removal of grazing from an archaeological site may result in its irreversible disturbance by tree roots.

5.1.5 Preserving large continuous areas is important

Large continuous areas provide habitat for wide ranging species and form an important buffer for all species and ecosystems. They also provide the only opportunities to protect landforms and to provide for especially valued forms of recreation which arise from remote or wilderness experience.

5.2 MANAGEMENT CONSIDERATIONS

5.2.1 *Management is about people and their values*

Our management actions often concern what we perceive the resources or environment requires, not how plants or animals see their environment.

The creation of links between the people and their heritage contributes to an understanding of, and support for, conservation. People should have the opportunity to appreciate or visit their heritage either through interpretive or information services, or through recreation and other forms of direct use.

5.2.2 *Management is often about mitigating the effects of human activities*

Human actions cover accidental actions such as the introduction or spread of foreign plants and animals or the direct effects such as recreational use. For most of the conservancy we can do little more than protect areas from further degradation. For much smaller areas we can attempt to reverse damage done to the natural ecosystems.

5.2.3 *Only by having regard for all effects can the greatest number of interests be satisfied*

Protection of habitats or communities confers protection to a wide range of species. This means that single species management should generally not take priority over the management of whole landsystems and ecosystems. Similarly, management for one objective must generally have regard for other objectives and the ecosystem as a whole.

5.2.4 *The environment cannot be readily categorised*

Significant overlaps always occur between categories of any classification and their effects. Nowhere is this more apparent than between terrestrial and other ecosystems.

Activities on land have the widest effects on other ecosystems. They can affect water quality, both freshwater and coastal, and impacts above ground affect cave systems below. Therefore special attention must be given to protection and management of the terrestrial ecosystems.

5.2.5 *Management concentrates on land units or ecosystems*

Our heritage is often contained in discrete areas and can be managed by concentrating on management of land units. On the other hand, for mobile resources such as animals, where the habitat bounds are usually unclear, or for water where effects extend beyond the point of impact, consideration must be given to directly managing the ecosystems and influencing the effects on components of them.

5.2.6 *Knowledge is always incomplete*

A major perceived problem in conservation is the incompleteness of knowledge. Managers must act upon the basis of the best knowledge and experience

available and use that as a guide while adopting a precautionary approach to decisions.

5.2.7 *What can be done is related to the role that the department can play*

In mountain areas the department controls and manages most of the land and so it can act freely. In lowland areas it controls or manages very little of the landscape and so it must largely act indirectly and influence other land managers through raising public awareness and through planning processes.

5.2.8 *The department is only the guardian of the land it manages*

In managing areas, the department acts as the agent of the people, including future generations. As a result, it is important to consult widely, sharing views and encouraging public participation in conservation management. After all, management is as much a political exercise as it is scientific.

5.3 SETTING PRIORITIES

Setting priorities is an essential process for management and is often quite complex. It needs to consider six important factors.

5.3.1 *The significance, scope or value of the resource must be assessed*

The protection and preservation of natural values is a priority except in areas legally set aside for other purposes. Gathering knowledge of the situation, the ecosystem or resource is essential. It assesses the urgency and the best means of action.

5.3.2 *The threat to the values must be assessed*

Assessment must be both in terms of the severity of the threat and stability of the situation, although the situation is often not obvious. A threat from fire for instance is immediate but the impact of wild animals is far more insidious and can be just as important. Often, there may be a false sense of security in not being able to see the changes that require urgent action. An example is that the air that people breathe out can destroy delicate cave formations.

5.3.3 *The ability to make any real changes must be assessed*

This ability is often not clear cut. Some actions that we take are quite direct and the results obvious, such as replanting and restoration, but more often the effects on native ecosystems are indirect and not immediately apparent.

For instance, in wild animal control, we can kill large numbers of animals but this may have only a short-term impact on the population. Rapid re-invasion or high reproductive rates may follow resulting in no benefit to the resources being protected because of the slow response of the affected ecosystems.

5.3.4 *Competing interests must be clarified and resolved*

Where conflicts exist between recreational activities preference is given to those with the higher degree of compatibility and empathy with nature. Removal of stock may be desirable to permit vegetation recovery but this may result in loss of open space favoured for reptile breeding. Managing for a single species will often result in these sorts of conflicts.

5.3.5 *People's views are important*

Consultation forms a significant part of decision making. This may involve discussions with groups or organisations with the specific expertise but may also involve consultation with the wider public. The conservation boards are an important and often independent link between the community and the department in this process.

5.3.6 *People's views may need to be changed*

While popular views need to be taken into account these views are not always in keeping with scientific values.

The public readily accepts the need for protection of rare and endangered bird species and large mammals such as whales, but few would be willing to sponsor saving the last weta or cave spider and even less the habitat for a small, seemingly insignificant plant. Education can be used to achieve a more balanced perception of the value of all species and habitats.

6. Special values

The department values, and seeks to conserve, all that contributes to indigenous biodiversity and special places. Priorities for action are based on importance and urgency, and for the use of resources impact assessment is based on the values and their vulnerability. Importance is assessed in terms of the significance of the value and urgency in terms of threat. All these things require a means of assessing values.

6.1 ASSESSMENT OF NATURAL VALUES

The system for setting values for areas is best developed for the biological elements of terrestrial areas. The following system has been used to rate the biological values of land and freshwater areas in the conservancy. It does not include geological, landform or historical and archaeological values.

The criteria (Table 1, p.44) were used to assess the conservancy in a 5 x 5 kilometre (2500 ha) grid (Figure 3, p.42), each square of which was ranked on known values within its boundaries. As more information is obtained the ranking of some squares may change. Where a small area of high values occurred on the boundary of two or more squares, that value was attributed only to the square in which most of the relevant values occurred. For each map grid the information was recorded in a database to be available for reference purposes.

The rankings (Figure 3, p.42) are intended to provide a starting point for discussion and are not necessarily definitive statements of the values of areas. A high ranking for a square means that something in the 2,500 hectares needs to be carefully protected. It does not mean that all of the area needs active protection and management. Similarly, a low ranking does not necessarily indicate a lack of value - it may merely result from a lack of information. Major values are regarded as those of national or international significance. Many of these are set out in the OVERVIEW section and are detailed in the text of that section.

Criteria for evaluating terrestrial ecosystems

Any area is:

internationally important if it contains:

- a species confined to a small area (<25 km^2); or
- nationally, one of the best examples of a community type that was once common and is now rare; or
- a unique community of plants or animals; or
- an endangered species; or
- habitat vital for the continued survival of a species in the wild; or
- the potential to be practically restored to one of the above.

nationally important if it contains:

- a nationally rare community type; or

- nationally, one of the best remaining example of a community type; or
- habitat important to a nationally vulnerable species; or
- a subspecies endemic to a small area (<25 km²); or
- or species largely endemic to an area (<25 km²).

regionally important if it contains:

- a regionally rare community type; or
- regionally one of the best remaining examples of a community type; or
- a nationally vulnerable species, or habitat, important to a nationally rare species; or
- an absence of a significant predator or competitor from habitable sites; or
- a natural environment of 25 km² that is part of a large natural area; or
- a locally endemic species (restricted to less than four ecological districts).

locally important if it contains:

- a community type rare to an ecological district; or
- the best remaining example of a community in the ecological district; or
- a nationally rare or localised species; or
- a regionally endemic species; or
- a largely natural environment (>12 km²); or
- a regionally threatened species.

TABLE 1: RANKING SCALE FOR EVALUATION OF VALUES

RANK	CRITERIA
1	Meets 3 of the criteria for **international** importance
2	Meets 2 of the criteria for **international** importance
3	Meets 1 of the criteria for **international** importance
4	equates to **national** importance
5	equates to **regional** importance
6	equates to **local** importance
7	contains significant good quality indigenous environment
8	contains indigenous remnant vegetation
9	equates to no known natural values apart from widely distributed endemics

These are, in turn, subdivided to give a greater level of definition at the top and bottom ends of the scale (Table 1, p.44). This is because:

- at the top the active management effort is mostly distributed over internationally important values and we must thus prioritise internationally important values against each other; and
- at the bottom most of the environment has been intensively occupied and the intensity of use means distinctions are required in assessing the value of highly threatened areas.

Criteria for marine and freshwater ecosystems

Most aquatic species have a very mobile stage in their life history. This means that the strict ranking developed for the land cannot have direct relevance in the sea and freshwater.

The nature of the margins of these two ecosystems represents the major difference between freshwaters and marine areas. In freshwaters the nearness of the shores of a stream or river and the channelling effect of a waterway place an emphasis on whole systems rather than parts of it.

Nevertheless, for freshwater and marine areas it is possible to develop some basic criteria for selecting priority areas for protection. These are areas containing:

- unique communities;
- habitat important to rare species;
- habitat important to vulnerable stages of several species;
- examples of habitats that elsewhere are largely modified;
- significant habitats for protected species;
- outstanding landforms; and
- historic features.

The coastal environment has been subject to a first order survey and the criteria for evaluating this environment are set out in the Coastal Resources Inventory (Appendix II, p.396).

Criteria for landform and geophysical values

The Geological Society of New Zealand maintains a Geopreservation database and has prepared a report on 275 sites relevant to this conservancy. Of these 25 are of international significance and a further 97 of national significance. Only six sites are assessed as highly vulnerable. A landscape assessment of the conservancy has also been completed by the department.

6.2 ASSESSMENT OF HISTORICAL AND ARCHAEOLOGICAL VALUES

Archaeological values are particularly difficult to determine because until the sites are excavated they cannot be evaluated. Furthermore many sites are not recognised until they have been damaged by nature, through erosion, or accident such as during roading or tracking. Nevertheless, within the conservancy the coastal zone is recognised as containing the majority of sites. These are recorded in the New Zealand Archaeological Association database from which maps at 1:50,000 have been derived. Other particular historic sites are identified in the section on HISTORIC RESOURCES (§5, p.155).

(Recreational values are dealt with in the Recreation Section §15, p267.)

PART TWO
CONSERVANCY OVERVIEW

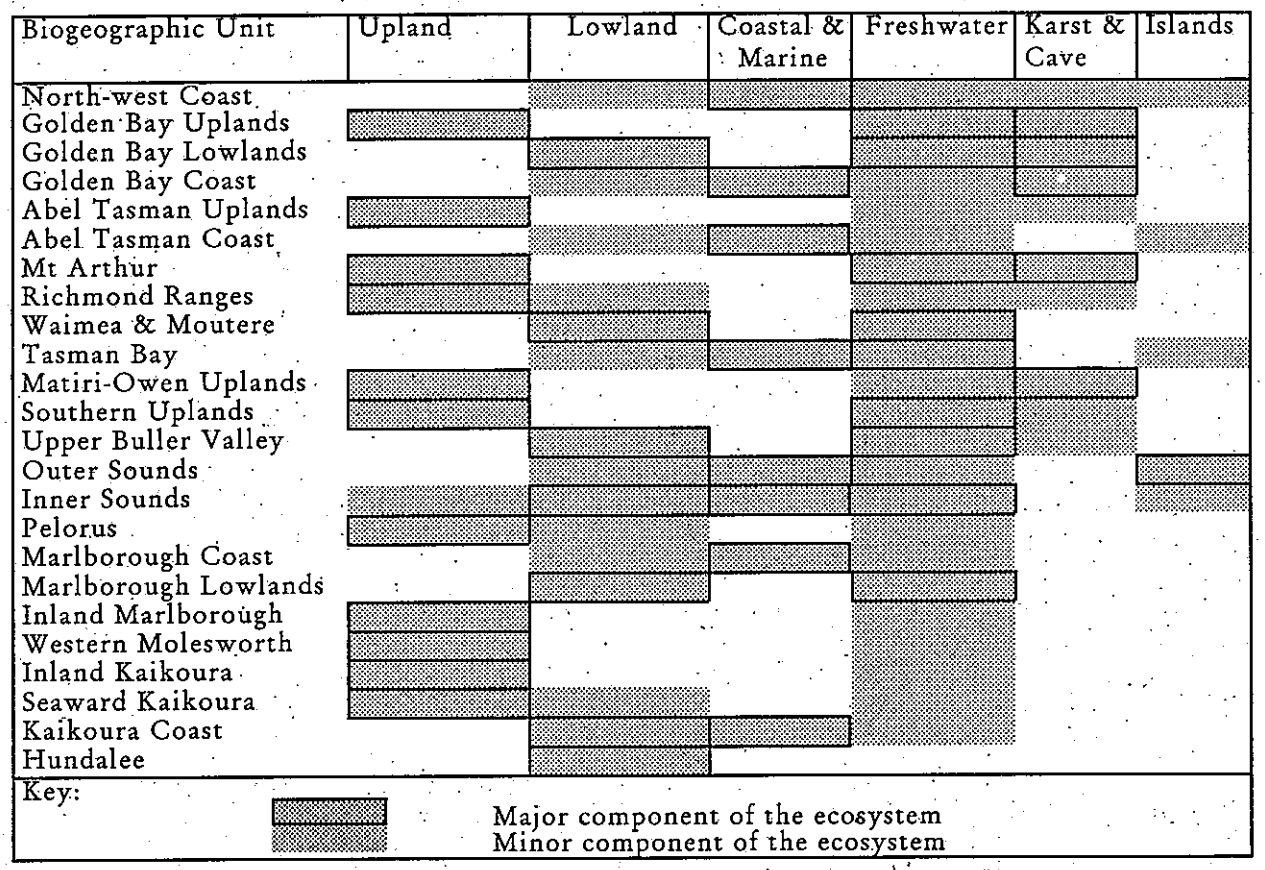
1. Introduction

The purpose of the overview is to highlight the main issues and set a framework for the FUNCTIONAL sections. To do this, the conservancy is divided first into the natural units of ecosystems and second into land units as in Figure 4, p.50. The relationship between the units and ecosystems is shown in Table 2, p.49. Issues common to all ecosystems are covered in this section, below.

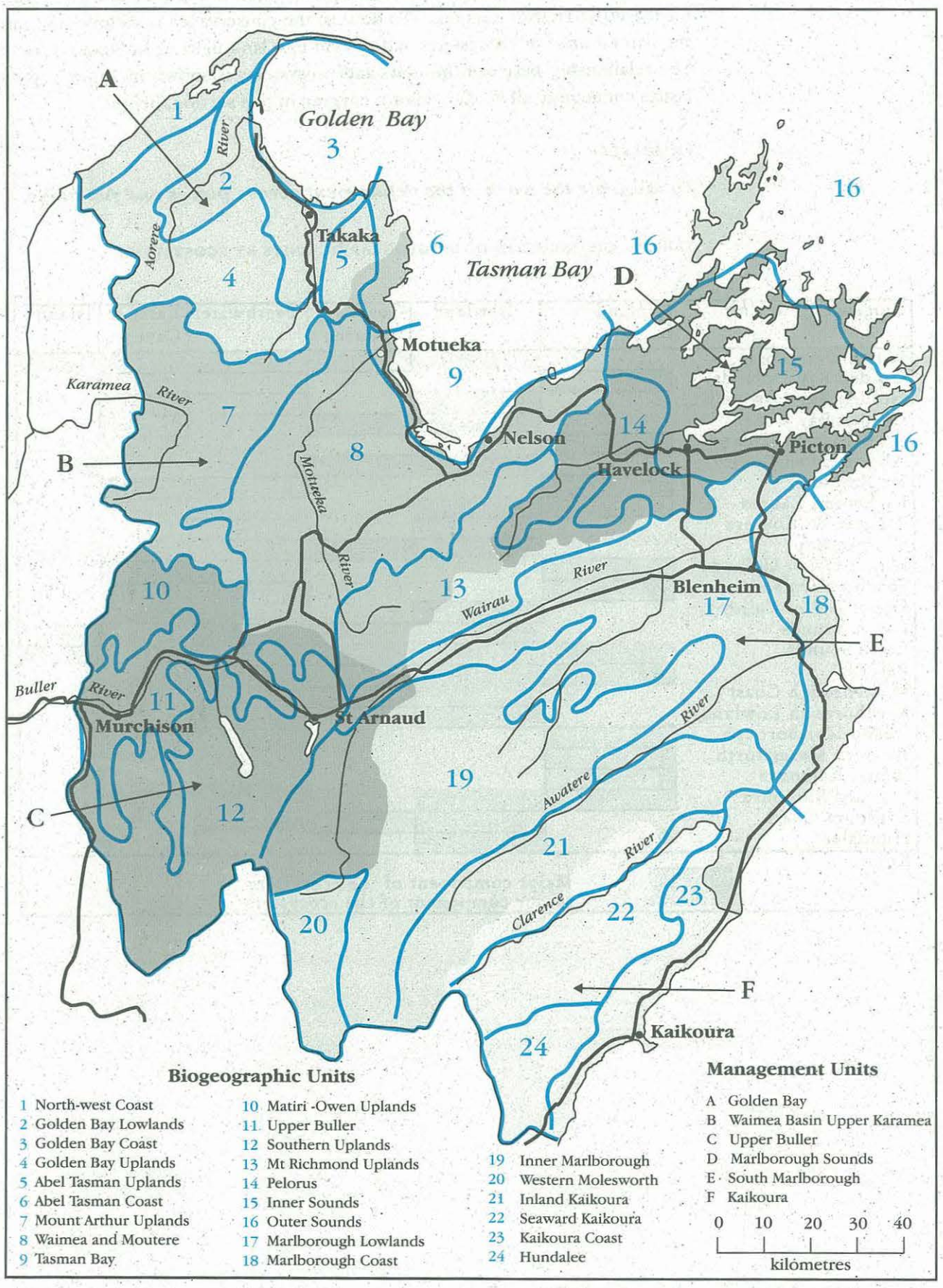
Objective

To integrate the work of the department across places and functions.

TABLE 2: DISTRIBUTION OF BIOGEOGRAPHIC UNITS BY ECOSYSTEMS



Map 4 Biogeographic Units



Issues

Need to respect natural values

The values of areas administered by the department form the basis of management. The most important values are the natural values shown on Map 1, p.43, but historic or recreational values can also be important. In species and habitat management, identification of the significant natural values and significant threats to those values focuses management on the major issues. In use or recreation management of areas administered by the department, the natural and historic values can act as a focus, such as those attracting visitors to Waikoropupu Springs, or may constrain it, such as through influencing the placement of tracks.

Highly valued resources and places are stringently protected from harm and particular care is taken of vulnerable ecosystems that are slow to recover from damage. Management activities should proceed only after thorough investigation of the alternatives where any of the following special values are likely to be adversely affected:

- a species or community which is rare or vulnerable, either nationally or locally;
- a community that is one of the best examples of what was once characteristic of the wider natural environment;
- a species or community that is found only within this conservancy and is of limited extent;
- any wahi tapu;
- any site of historical or cultural importance to Maori or European; and
- any watercourse or wetland in which the flow or sediment load is altered.

The thrust of management differs between ecosystems. The nature of the responsibilities of the department varies between ecosystems depending on its legislative responsibilities and the territory it manages. The department has greater statutory powers for managing terrestrial than for managing aquatic ecosystems with its role in COASTAL and FRESHWATER ecosystems being largely one of advocacy under the RM Act (§5, p.85; §4, p.73).

In managing terrestrial ecosystems, the department's role is determined by the resources it manages and its land holdings. In UPLAND ecosystems it manages large areas but in LOWLAND ecosystems the total area administered by the department is small and in quite fragmented units. As a result advocacy plays a major role in management of conservation in lowland ecosystems. Even on areas administered by the department, management pressures vary markedly across the ecosystems. In UPLAND areas active management is often targeted to particular species or communities but in pest control, actions must often be broad ranging and non-specific such as in goat control. The UPLANDS and COASTAL areas form the main focus for recreation management (§15, p.265) and the ISLANDS with their unique ecosystems are the main focus of species and community management (§4, p.141).

Connections between ecosystems

Conservation management must span ecosystems. In the conservancy connections between parts of the environment are evident through a myriad of interactions. The ecology of the seabird islands of the Marlborough Sounds is dominated by the flow of nutrients because birds bring fish from the sea. The intricate capes and bays of the Sounds and the extensive estuaries of Nelson and Marlborough provide an intimate connection between land and sea. This pattern is mirrored by the long incursions of the lowlands into the mountainous interior up the river valleys. This means that advocacy efforts should concentrate on the most sensitive ecosystems on areas other than those administered by the department (§5, p.85; §4, p.73).

Treaty of Waitangi obligations

The department must give effect to the principles of the Treaty of Waitangi. It does this on a day to day basis, through consultation with the tangata whenua directly, or indirectly approaching the affected hapu or iwi on all major conservation issues (§1, p.111).

Consultation and co-operation

Many activities of the department impinge upon the activities of other organisations, through overlapping interests or responsibilities. Where practical, the department works with organisations to improve the effectiveness of a programme or campaign (§20.6, p.357).

Education and advocacy

Conservation can be fostered by awakening an interest in natural and historic values. Providing for enjoyment of the outdoors is one means of fostering people's interest in their surroundings. This leads to an interest in protecting that environment and the various components of it. Through this awakening of interest, conservation is fostered and extends beyond the wild open spaces into the lives of each individual. This is most effective where some support for conservation already exists (§20, p.339).

The Resource Management Act 1991 provides another important means of promoting conservation in the community. Where the department does not manage the area or resource, the department can play a major role in protecting the environment through the planning processes of this Act. (§21.1, p.359).

Management strategies

The natural and historic values and the threats to them form the basis of management strategies. The connections between values cut across management and ecosystem boundaries and so these connections must be recognised and taken into account. Similarly, the department does not operate in isolation but must work with and assist a wide range of organisations. The RM Act complements the Conservation Act in its scope and is used to protect natural values across all ecosystems including areas other than those administered by the department.

Implementation

1.1 *The criteria for natural values expressed in Table 1, p.44 and ∫6, p.43 will be used as bases for assessing species and habitat management priorities.*

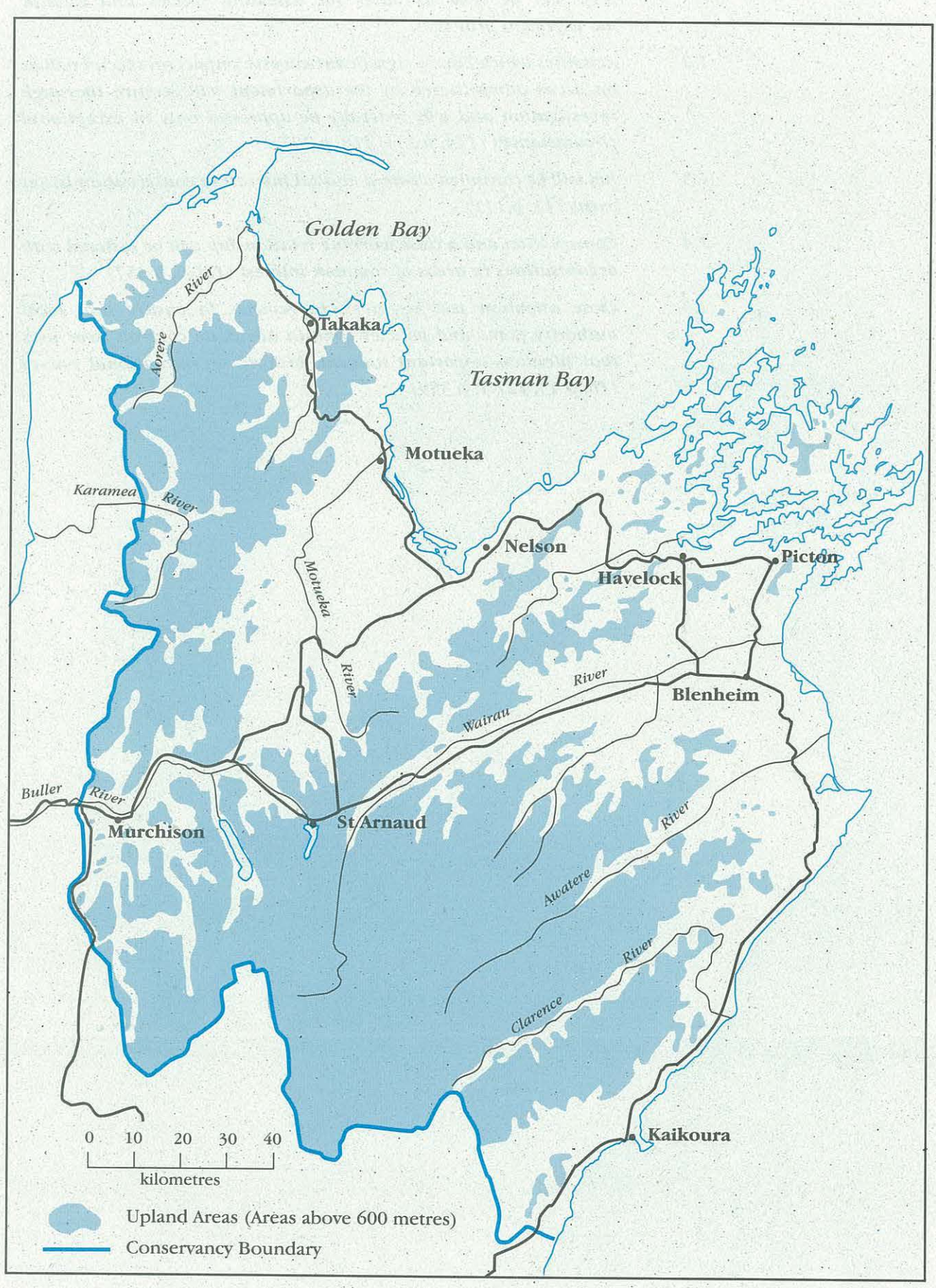
1.2 *Activities which have a significant adverse impact on special values on areas administered by the department will require thorough investigation and will generally be approved only in exceptional circumstances (∫14, p.231; ∫18, p.297).*

1.3 *Iwi will be consulted where a mutual interest in conservation issues exists (∫1, p.111).*

1.4 *Consultation and a close working relationship will be fostered with organisations in areas of common interest (∫20.6, p.357).*

1.5 *Close attention will be given to reviews to ensure that local authority plans and policies contain adequate controls over uses that threaten important natural, historic or recreational values (∫6, p.43; ∫21.1, p.359).*

Map 5 Upland Areas



2. Upland ecosystems

Just over half (51%) of the area within the conservancy is upland (Figure 6, p.56). Of the upland area of Nelson, the greater part is administered by the department (Figure 7, p.56) whereas much of the upland area in South Marlborough and Kaikoura is leasehold land. The key values in these areas and their threats are summarised in Table 3, p.58.

Resource Overview

The Golden Bay Uplands and the Southern Uplands are areas of high rainfall. 95% of the land above 600 m remains in tall forest and largely unmodified alpine tussocklands. Inland Marlborough and the Inland Kaikoura Ranges are drier. The original forest was largely burnt in pre-European times and subsequently much of the shrub and tussock cover was destroyed by development for pastoral purposes so that only about 30% of the area remains in its natural state.

The wetter, densely forested areas were more difficult to develop for productive uses. Here 90% of the total area above 600 m is legally protected. By contrast, in Inland Marlborough, modification for pastoral development was much easier with proportionately greater areas above 600 m retained in private use (Figure 6, p.56). The department directly manages only 12.5% with approximately equal proportions of the remainder in private land, pastoral lease or the crown lease managed by Landcorp (on Molesworth Station).

Geology

Geologically the uplands are complex and diverse. Areas north of the Alpine Fault contain some of the oldest rocks in New Zealand. The rocks in the Cobb Valley of the Golden Bay Uplands contain trilobites, the oldest fossils found in New Zealand; Mt Arthur Uplands, the largest limestone and marble karst resource; and the Red Hills to Dun Mountain in the Richmond Ranges, and D'Urville Island extensive areas of iron and magnesium-rich ultramafic rocks. The Matiri-Owen and Mt Arthur Uplands have perhaps the finest examples of glaciated alpine karst in the Southern Hemisphere.

Flora and fauna

The uplands often support large continuous natural areas along the crests of the ranges and contain most of the areas within the conservancy that have high natural values (Figure 3, p.43). Within them plant and animal diversity is high.

The conservancy is one of the most significant areas of plant diversity within New Zealand. It possesses two of the five main centres of species evolution and endemism on the mainland, in North-west Nelson and South Marlborough-Kaikoura Ranges respectively. Other centres of endemism are Northland, with its tropical affinities and high proportion of endemic forest species, Central Otago and Fiordland. Both the latter are similar to Nelson/Marlborough in that endemism is concentrated in upland areas.

Fig. 6

Protected and Non-protected land in Nelson/Marlborough Conservancy

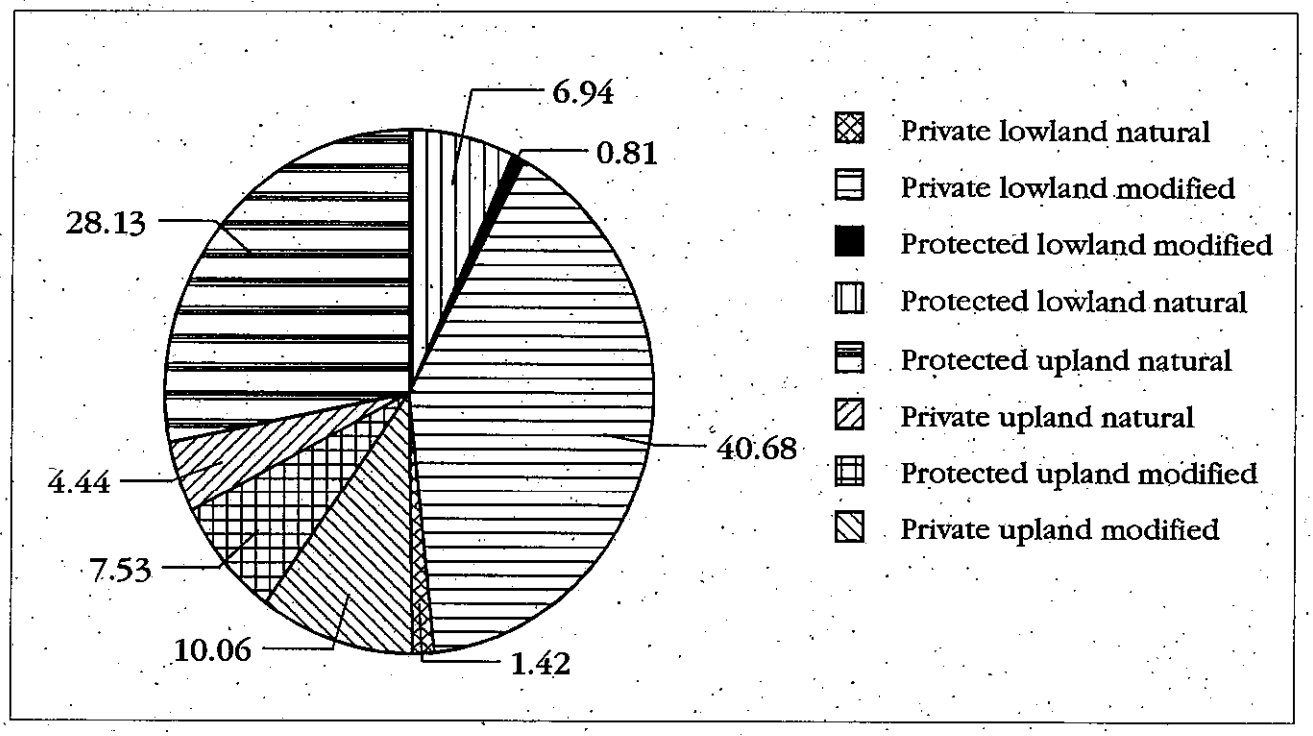
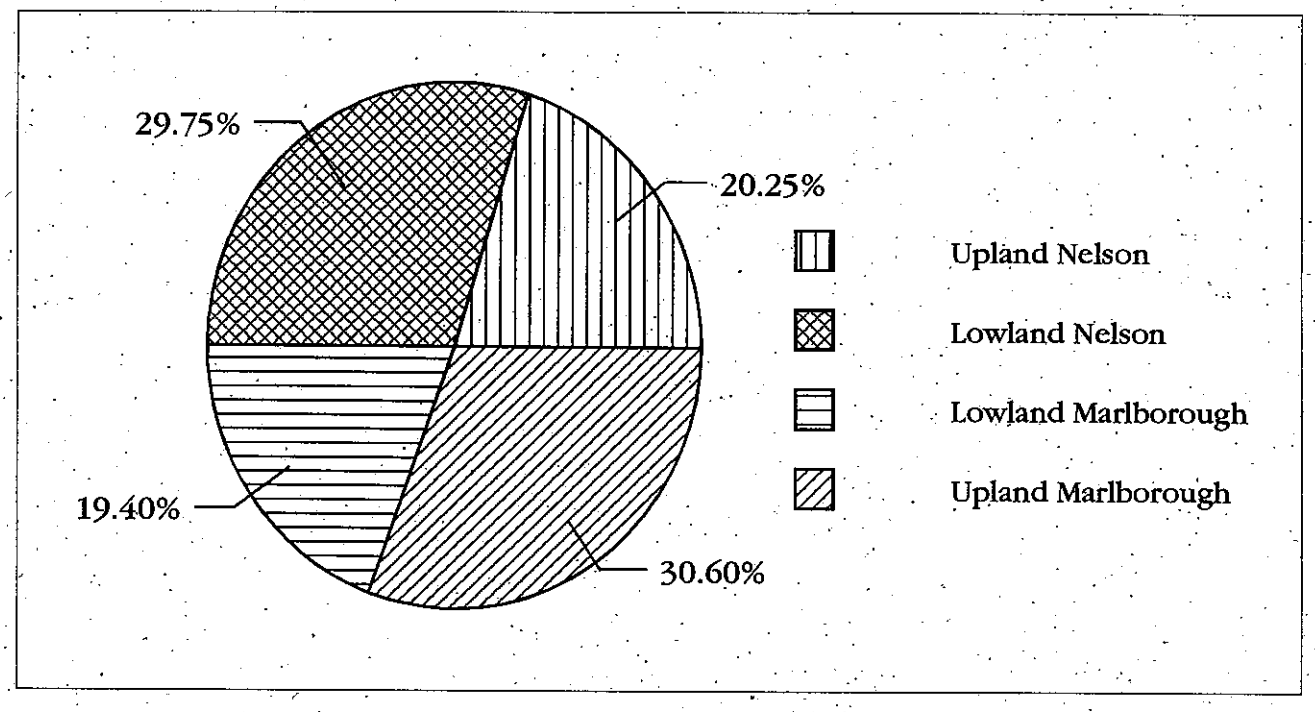


Fig. 7

Proportions of Upland and Lowland in Nelson/Marlborough Conservancy



The diversity of rock types in North-west Nelson and the Marlborough Sounds and the soils and landforms derived from these, results in a wide diversity of ecological niches and one centre of evolution for species. There are 71 plant taxa (species, subspecies and varieties) confined to North-west Nelson, a further 21 confined to the northern Richmond Ranges.

The second centre of endemism in the region, in South Marlborough and the Kaikoura Ranges has comparatively less diverse sedimentary geology, higher mountains and drier climate. 46 taxa are confined to this area.

The widespread removal and modification of the original vegetation cover in South Marlborough and the Kaikoura Ranges, easily eroded rock types, slow recovery in the drier climate and major competition from introduced plants has produced widespread loss of habitat. As a result, the distribution of the remaining endemic species is fragmented.

While 50% of the conservancy's threatened and local plant taxa occur in the uplands, and most of these are classified as either rare, local, or of as-yet undetermined status, most of the endangered and vulnerable taxa occur in the lowlands and coastal areas.

The remaining forested areas also contain many endemic animal species particularly the giant land snails. Mt Arthur Uplands is a major centre of diversity for giant land snails and Parapara Peak in the Golden Bay Uplands harbours a unique community of four taxa. The extensive upland forests also remain the last stronghold of healthy viable populations of many species that were once widespread at lower altitudes, such as great spotted kiwi, kaka, blue duck. Many birds, including kea, rock wren, yellowhead are also at their northern limit of distribution in New Zealand.

South Marlborough and especially the Kaikoura Ranges, possess numerous endemic animals, including geckos, skinks, and giant wetas. The Seaward Kaikoura Ranges contains a unique community of 4 giant weta species and Inland Marlborough supports one of the most diverse lizard faunas in the country. Many bird species that were once common and widespread have either disappeared from the area altogether, like the blue duck, or are now confined to small, scattered populations like the robin and Hutton's shearwater in the Seaward Kaikoura Ranges.

TABLE 3: KEY VALUES AND THREATS TO UPLAND ECOSYSTEMS

MAJOR VALUES	MAJOR THREATS (CURRENT & POTENTIAL)
GOLDEN BAY UPLANDS	
very high species diversity	browsers
continuous forest habitat for wide ranging nationally vulnerable birds	goats, possums
unique vegetation and invertebrate communities on marble and limestone	plant pest invasion, goats, possums
unique plant communities on the central volcanic belt and remnant peneplains	goats, plant pests
ultramafic vegetation in the Cobb Valley	plant pests
endemic plants and vulnerable animal species in the upper Cobb Valley	goats, possums
major distribution centre for *Powelliphanta* land snails (9 taxa)	mining, pigs, rats, possums
significant marble karst landscapes in the Arthur and Pikikiruna Ranges	none
Tasman Wilderness Area and Big River headwaters	mining, hydro, air access, visitor numbers
MT ARTHUR UPLANDS	
best glaciated karst landscape in the Southern Hemisphere at Mt Owen	none
unique plant communities with many endemic species	goats, possums, pigs
large areas of contiguous forest as habitat for vulnerable wide ranging birds	mining, hydro, browsers
stronghold for a range of vulnerable and endemic animal species	browsers
remote and wilderness visitor experiences	mining, hydro, air access
nationally significant trout fishery	over use
ABEL TASMAN UPLANDS	
large, continuous tract of forest, habitat for wide ranging birds	goats, possums
quality of visitor experience	visitor numbers
backcountry-remote experience in the hinterlands	track development
RICHMOND RANGES	
large contiguous forest tract, habitat for wide ranging bird species	goats, possums
numerous endemic plants	goats
Powelliphanta hochstetteri consobrina land snails	pigs, possums
ultramafic plant communities and threatened endemic species	goats, wilding pines
remote experience recreation opportunities	track development, concessions
MATIRI-OWEN UPLANDS	
very high plant diversity	browsers
endemic limestone, marble and granite plants and their unique communities	pigs, goats, possums
continuous habitat for vulnerable wide ranging animal species	browsers
Powelliphanta land snails	pigs, rats, possums
internationally important karst landscape on Mt Owen massif	none
internationally significant cave systems	visitors
SOUTHERN UPLANDS	
extensive continuous forest habitat for wide ranging birds	fire, farm development
nationally vulnerable kaka, falcon, blue duck	goats, possums, wasps
honeydew beech forest communities	wasps
sphagnum bog communities	taking
INNER SOUNDS	
ultramafic vegetation, Editor Hill	goats
only remaining northern habitat for yellowheads at Mt Stokes	stoats, rats
unique alpine community at Mt Stokes	goats, pigs

TABLE 3: KEY VALUES AND THREATS TO UPLAND ECOSYSTEMS (CONT)

MAJOR VALUES	MAJOR THREATS (CURRENT AND POTENTIAL)
INLAND MARLBOROUGH	
extensive beech forests in the west	fire
tussock habitat essential for vulnerable birds such as kea and falcon	development, pines
extensive tall tussock associations	development, pines
scree communities with endemic species	chamois, sheep, goats
WESTERN MOLESWORTH	
unique communities of plants and animals at Sedgemere tarns	stock, aquatic plant pests, Canada geese, oversowing
northern limits for a range of species	stock, goats
threatened scree skink	rats, habitat destruction
alpine tussockland habitat for vulnerable wide ranging species such as falcon	fire
remnant stands of beech	stock, goats, fire
scree and rocky alpine fellfield plant communities with Inland Marlborough endemics	goats, stock
remote recreation opportunities	better access, facilities
historical structures	lack of maintenance
INLAND KAIKOURA RANGES	
very high plant diversity	browsers
regionally threatened plants at Isolated Hill	goats, possums, stock
habitat for the rare scree skink at Isolated Hill	goats, possums, stock
bluff weta of unknown status	rats, stoats
unique limestone communities with endemics and vulnerable species	goats, sheep
extensive scree and alpine fell field plant communities	goats, chamois, sheep
endemic bluff plant communities	plant pests, goats, stock
sub-alpine shrublands with a suite of threatened endemic plants	goats, stock, pines
remote recreation in a tussockland setting	poor access
SEAWARD KAIKOURA RANGES	
Hutton's shearwater breeding colonies at Mt Uwerau	goats, stock, stoats
Wainuia land snails and giant weevil	pigs, possums, rats
threatened scree skink and black-eyed gecko	rats and stoats
unique giant weta community of 3 overlapping species	rats and stoats
only eastern population of kea	goats, stock
beech-free humid upland forest on the coastal side of the range	fire, goats
wilderness qualities in the central ranges	concessions, development
extensive scree and bluff communities	goats
weeping tree broom communities	goats, deer

Historic and Cultural

Mining and working of argillite outcrops, that are concentrated along the mineral belt in the Richmond Ranges, are the most obvious signs of Maori use of upland areas. Other signs include burnt faces where cultivation of fern probably occurred, such as at Lakes Rotoroa and Rotoiti in the Southern Uplands. Maori regularly hunted in upland areas and traversed passes linking river valleys. In particular, they used the Heaphy Track in the Golden Bay Uplands and Tophouse routes to the West Coast, the Tutaki Valley between Lakes Rotoiti and Rotoroa in the Upper Buller, and the heads of Awatere, Clarence and Wairau Rivers within the Inland Uplands of Marlborough. Little physical evidence of this use remains.

Throughout the forest areas of Mt Arthur Uplands and Richmond Ranges, early European use is associated with mining mainly for gold. Early mining left a legacy of well constructed access tracks such as the Wangapeka and Wakamarina, and grazing left a series of cob houses in Inland Marlborough at Rainbow, Tarndale, and Bush Gully. Burning to remove vegetation, mainly for grazing, remains an obvious feature of this period, particularly in the Branch and Leatham River catchments of Inland Marlborough.

Recreation

Present public use of the upland areas is concentrated within the forested areas and provided for by an extensive network of facilities. The area also has large wilderness and remote areas such as the Tasman Wilderness Area of Mt Arthur Uplands or the Uplands of the Seaward Kaikoura Ranges. The recreational opportunities of many of these areas are well known to New Zealanders and are becoming popular with overseas visitors. Their popularity depends on the extensive nature of the unmodified forests, the wide diversity of landforms and the unspoilt landscapes. The bulk of it is in public ownership with easy access that allows for day as well as longer trips including the potential for extended round trip circuits such as the Karamea-Leslie Track. The key upland facilities are on the main visitor routes of the Heaphy and Karamea-Leslie Tracks in North-west Nelson and the Travers-Sabine Circuit Track at Nelson Lakes National Park; and the main access points of the Cobb Valley in the Golden Bay Uplands and Flora Saddle in the Mt Arthur Uplands with their interlinking track systems. St Arnaud is an important centre both for lake-based and snow-based activities and Mt Fyffe plays an important role in providing alternative attractions for visitors to Kaikoura.

Upland management

The department has a dominant role in the management of upland areas. North of the Alpine Fault it manages most of the upland area and can determine conservation practices but in South Marlborough and Kaikoura much of the land is in pastoral management and conservation is achieved through advocacy.

Of all the upland ecosystems in the conservancy, those in South Marlborough and Kaikoura have the most significant problems. The area is the most heavily modified and remnant natural vegetation is fragmented and contains many locally threatened endemic plants and animals. Many of these require urgent protection.

Objective

To protect and enhance the natural values of upland areas and ensure that the remote and wilderness qualities are not compromised.

Issues

Land status

The legal status bears little relation to the values or the management regimes. The department inherited national and forest parks, scenic reserves, local purpose reserves, conservation areas and proposed ecological areas. Many

categories adjoin one another with little practical difference in management across boundaries. In particular, land status may not fully recognise the high values that are often present. Establishment of several new conservation parks could overcome many of these problems by bringing the land together under a single status (§2.3, p.129).

Flora and fauna

The ecology of most threatened species is poorly known consequently much research is required to determine priorities for management and current activity is aimed at general pest control rather than restoration (§4, p.142; §6, p.167). The central parts of the main ranges contain concentrations of threatened species, and in South Marlborough and the Kaikoura Ranges populations of threatened plant and animal species are particularly restricted or fragmented, or are largely present on modified sites. Observers assume that they are generally in a poorer condition than those in extensive forested areas such as the Mt Arthur Uplands but little evidence supports this. Some studies are under way but these require expansion and completion, particularly fauna studies in the Kaikoura Ranges (§6, p.167).

South Marlborough and Kaikoura contain few areas with legal protection. While the forested areas of the conservancy possess highly significant natural values, the threats are greatest in the more modified South Marlborough and Kaikoura areas. Here much more land remains in private use and disturbance and modification of remnant habitats continues while areas administered by the department consist of many small areas with high boundary to area ratios.

Farming activities on surrounding lands make the plant and animal communities susceptible to damage. Browsing by domestic stock and wild animals on the fragmented, remnant habitats is particularly damaging in Western Molesworth and Inland Marlborough. They include places such as the fragile margins of the Sedgemere tarns, especially when they are unfenced.

Also, the forests may afford the only cover for rabbits, thus providing an alternative source of food for mustelids, in turn probably resulting in higher population densities of these animals. This increases the pressures on scattered native animal populations that are also their prey (§1, p.52).

Assessments of the values through the Protected Natural Areas Programme in Inland Marlborough and the Inland Kaikoura Ranges are incomplete (§2.1, p.117), but where the survey is complete (for example, Molesworth) priority is given to implementation. Priority for research and management should be directed to these areas so that steps can be taken for their protection during renewal of pastoral leases and through other protective mechanisms (§21.1, p.360).

Plant and animal pests

Invasion by plant pests causes greater concern where the original vegetation cover has been modified and fragmented, particularly in tussocklands and shrublands in South Marlborough and Kaikoura, than in those

areas where cover remains largely intact. Woody species currently invading tussocklands include broom, briar, and conifers.

Because priorities of local authorities have traditionally been based on pastoral values (§9, p.167) these have not always accorded with conservation priorities.

Many species such as broom and *buddleia* can be valuable as site stabilising agents, allowing for future re-invasion by native species. Others such as briar and conifers produce a more lasting change to the original cover and have significant landscape effects. Pine invasion onto areas administered by the department is currently a particular problem on ultramafic soils in western Mt Richmond Forest Park and surrounding areas which carry only a sparse vegetation cover. Plantings for both commercial and erosion control purposes, particularly in Inland Marlborough, occur alongside and within the margins of areas administered by the department. When these start seeding, the problem will intensify (§9, p.187).

Many pest control problems are intractable. The herbaceous plant pest *Hieracium* already severely affects the structure and composition of tussocklands, not only in modified grasslands but also in largely unmodified alpine areas where control is impractical. Formulation of management priorities must consider the practicalities of control, as well as the threats involved (§9, p.187) but often must be focused on particular problems or areas, such as in the *Powelliphanta* habitat in Mt Arthur and Golden Bay Uplands (Table 4, p.64; §10, p.195).

Smaller, less visible, introduced rodents, mustelids and cats can have severe impacts on invertebrates and birds. Effective control of these smaller animals is only possible in special situations where the likelihood of re-invasion is minimal or to protect critical stages in the life cycle such as breeding (§10.1, p.197). Priorities for pest control are described in Table 33, p.202 with the most critical areas being Mt Stokes and the Mt Uwerau Nature Reserve.

Goats are not attractive to private hunters. While deer and goats are widespread throughout the conservancy, only deer are attractive and therefore can be controlled by commercial and recreational hunting. Goat control campaigns are justified in the Roaring Lion in North-west Nelson, western Molesworth, Nardoo Tops and upper Wairau Valley where they continue to invade, or on limestone and other areas with distinctive and vulnerable biota where vegetation values are significant. Examples include the Cobb Valley, the Arthur Range and the Seaward Kaikoura Ranges (Table 4, p.64).

Possums are only a local problem in upland beech forests. The effects of possums on the pure beech forests, which dominate the forested areas are not well understood but apparently small. By contrast they are a major problem in forests close to the coast where many plant communities are susceptible to browsing. Examples include the rata forest of the Golden Bay Uplands and forests at Isolated Hill in the north of the Inland Kaikoura Ranges (Table 4, p.64, Table 33, p.202).

Commercial use

Commercial use of upland areas administered by the department is increasing. Commercial activities on these areas range from:

- low impact uses, such as
    - most recreational concessions; and
    - grazing of modified forest margin areas; to
- more intrusive and damaging operations, such as
    - helicopter activity, development of skifields; and
    - telecommunication installations; and to
- potential extractive uses, such as
    - mining; and
    - sphagnum taking.

Close scrutiny of each of these activities will endeavour to protect the best interests of conservation and ensure that use does not compromise wilderness and other qualities as detailed in §14, p.231.

Recreation

The remote and wilderness qualities should not be compromised, and in some situations should be enhanced. This may be achieved by a conscious decision to cease maintenance or remove facilities in remote or backcountry areas, or by preventing development in undeveloped wilderness areas, particularly the Tasman Wilderness of North-west Nelson and that in the central Seaward Kaikoura Ranges, as indicated through the Recreational Opportunities Spectrum Planning (§18, p.298).

Access to areas administered by the department in Inland Marlborough is difficult because many huts and access routes are on private land and permission from landholders is necessary. Access, particularly in Inland Marlborough and the Kaikoura Ranges, is often ill-defined and suitable access agreements are required (§18, p.299).

Signs of ecosystem abuse exist. Effluent disposal problems occur in high rainfall areas especially on the Heaphy Track, in cool alpine areas such as at Angelus in the Southern Uplands and in popular cave systems (§18.1, p.302). Recognition of the wide occurrence of *Giardia* requires better sewerage systems in high use areas, particularly where effective effluent disposal is a problem.

The department currently has limited capacity to maintain all the facilities developed within the upland areas. Many hut and track systems were originally developed for animal control purposes and now receive little use by the public and the management of the whole network requires continual review (§18, p.299).

Public awareness

Indiscriminate development of land especially in Inland Marlborough threatens the existence of important remnant habitats. The department has some power to prevent damaging actions such as vegetation clearance, burning, cultivation, over-sowing and topdressing, and roading on Molesworth through the management plan. On pastoral leases, although the Commissioner of Crown Lands may consult with the department on management and tenure changes, the main course of action is through the provisions of the RM Act.

Closer attention to regional and district plan reviews and other statutory processes could help to control some of the more damaging uses and provide adequate buffers to values on areas administered by the department. Monitoring activities such as establishment of conifer plantations, roading, skifield and lodge construction through statutory consent procedures should ensure that natural and landscape values are not diminished by such developments.

Greater emphasis should be given to the less widely recognised values in South Marlborough and Kaikoura. Public education efforts should be concentrated on the high natural values of this part of the conservancy. They should highlight the threatened nature of these remnant habitats and the values, processes and fragility of the upland environment (§20, p.339). In contrast, public interpretation efforts should be directed to those areas where public use is highest and where ready access is available (§19.2, p.328).

The process of tenure review of high country pastoral leases provides an opportunity to protect natural, historic and recreational values. The department needs to develop a long term strategy for the better protection of areas with inherent natural, historic or recreational values in South Marlborough, particularly on high country pastoral leases.

TABLE 4: KEY AREAS FOR ACTION - UPLAND ECOSYSTEMS

LOCATION	KEY ACTIVITIES	REFERENCES
Heaphy Track	recreation management	§15, p.265; §18, p.297
Cobb Valley	recreation management, pest control	§15, p.265; §18, p.297; §9, p.187
NW Nelson *Powelliphanta* areas	possum control	§10, p.195
Tasman Wilderness	management controls	§14.7, p.249; §15, p.265
Wakamarama-Aorere rata forests	possum and goat control	§10, p.195
Roaring Lion	goat control	§10, p.195
Flora Saddle-Mt Arthur-Tablelands	recreation management	§15, p.265; §18, p.297
Arthur Range	selective pest control	§10, p.195
Leslie-Karamea	recreation management	§15, p.265; §18, p.297
Mt Richmond foothills	recreation management	§15, p.265; §18, p.297
Red Hills-Dun Mt Ultramafics	plant pest control, protection	§9, p.187
St Arnaud-Travers Range	recreation management	§15, p.265; §18, p.297
Nardoo Tops	goat control	§10, p.195
Mt Stokes	goat, pig, stoat control	§10, p.195
Isolated Hill	goat, possum control	§10, p.195
Sedgemere tarns	plant pest and stock control, monitoring	§9, p.187; §10, p.195
Molesworth	PNA implementation	§2.2, p.122
South Marlborough and Kaikoura	protection, pest invasions, PNA monitoring	§2.2, p.122; §10, p.195; §9, p.187; §21.1, p.359
Mt Uwerau Nature Reserve	pest control, research	§10, p.195; §6, p.167
Mt Fyffe	recreation management	§15, p.265
Chalk Range	protection, monitoring	§18, p.297

Management strategies

The majority of departmental activity occurs in upland areas. Activities are often localised in areas with concentrations of values, such as areas of endemic or threatened species, for control of specific pests or areas of high recreational activity. The focus is on intensified pest control and research in the areas of highest threat and value, and maintenance of key facilities to a high standard. Key areas are identified in Table 4.

Implementation

2.1 *Departmental research in upland areas will be concentrated on determining the conservation status of threatened or local plant and animal species and communities to determine management priorities (§6, p.167).*

2.2 *Statutory planning procedures and other opportunities such as the tenure review of high country pastoral leases will be used to promote and seek protection for areas with high inherent natural, historic or recreational values in South Marlborough and Kaikoura (§21.1, p.359).*

2.3 *Monitoring will be carried out to determine whether existing values are being compromised by browsing animals and plant pests, including conifers, to provide a basis for pest control programmes (§9, p.187; §6.0.15, p.173).*

2.4 *Commercial use of upland areas administered by the department will be assessed to ensure that ecological, landscape and wilderness qualities are preserved (§14, p.231).*

2.5 *Protection of the natural features and remote and wilderness qualities of upland ecosystems from impacts of over-use will be given priority in the general management of areas administered by the department (§14, p.231; §18, p.297).*

2.6 *The importance of South Marlborough and Kaikoura's natural values and the larger threats to them will be promoted (§20, p.339; §20, p.339).*

2.7 *Public education and interpretation of the values, processes and fragilities of upland environments will be directed to high use areas to reduce impacts (§20.2, p.348; §19.2, p.328).*

3. Lowland ecosystems

About half the area of this conservancy is below 600 m altitude (§2, p.55) and is here termed LOWLAND. It includes the biogeographic units of Golden Bay, Waimea and Moutere, and Marlborough Lowlands, and Upper Buller as well as small but significant parts of the Pelorus catchment. The ecosystems exclude those regarded as COASTAL (§4, p.73) and the ISLANDS (§7, p.101). It also excludes the rivers, streams and other FRESHWATER ecosystems (§5, p.64). The key values are outlined in Table 5 p.67.

Resource Overview

History of development and modification

Lowland habitats are characterised by equable temperatures and high soil fertility. They generally support a high diversity of plant and animal life.

Tall forest formerly extended across the alluvial plains of the Golden Bay, Motueka and Waimea Lowlands, Wairau plains of the Marlborough Lowlands, the alluvial terraces of the Upper Buller and the Hundalee. Now few lowland areas remain in their natural state. In the high rainfall lowlands of the Waimea and Moutere, Golden Bay and Pelorus, less than 0.5% of the fertile alluvial land contains forest remnants. Little alluvial lowland forest remains in drier South Marlborough and Kaikoura, and only about 10% of the lowland hill country elsewhere retains its original vegetation.

Of the remaining natural lowland habitat, 70% is protected and administered by the department, mainly in the major parks. The remaining 30% is unprotected and either in private or Maori ownership, or managed by local authorities.

Much of the lowland forest cover in South Marlborough and Kaikoura was destroyed during pre-European times and the rest was largely removed by European settlers. The remaining alluvial forests are reduced to riparian strips and small stands on river terraces. Unmodified tall forest remains only where access was difficult or where far-sighted individuals saw the need to preserve areas. The same pattern of valley and lower hill slope clearance continues in the Inner Sounds, Pelorus and the Upper Buller through forest clearance for pasture and pine forest establishment.

Wetlands were an important part of the lowland ecosystem. Periodically flooded kahikatea, pukatea and swamp maire stands were common and vast flax swamps were once present around Blenheim on the Marlborough Lowlands and Waimea Plains but these have been largely drained and replaced by farmland (see also FRESHWATERS §5, p.85).

Flora and fauna

The current values of the lowland ecosystems are limited and fragmented (Table 5, p.67), concentrated mainly in endemic species of the Marlborough Lowlands and Upper Buller. Lowland alluvial forests also contain species which are nationally rare including shovel mint (*Scutellaria novae-zelandiae*), pygmy button (*Leptinella nana*), *Poranthera microphylla*, *Olearia polita* and *Coprosma obconic* and several ferns. Many of these species form unique communities.

TABLE 5: KEY VALUES AND THREATS OF LOWLAND ECOSYSTEMS

MAJOR VALUES	MAJOR THREATS (CURRENT & POTENTIAL)
GOLDEN BAY LOWLANDS	
pakihi communities	pines, development, mining
alluvial forest remnants of Aorere and Takaka River valleys	clearance, browsing, plant pests
cultural values associated with Waikoropupu Springs	visitors
Maori archaeological sites including pa sites, ubiquitous midden and other occupation sites	development, erosion.
European historic sites	development
Paynes Ford rock climbing sites	over use
WAIMEA & MOUTERE LOWLANDS	
regionally threatened plant communities on alluvium	clearance, grazing, plant pests
remnant hill country communities	grazing, plant pests, development
regionally threatened species including narrow leaved maire	browsing
UPPER BULLER	
rare long-tailed bats around Murchison	unknown
small endemic population of *Olearia polita* at Glenhope	grazing, clearance
historic and archaeological sites	mining, plant pests
alluvial forest remnants	grazing, plant pests, clearance
threatened alluvial shrub communities.	drainage, grazing, development
PELORUS	
alluvial and footslope forest	tourism, plant pests, grazing
endangered pygmy button in Rai Valley	erosion, plant pests
MARLBOROUGH LOWLANDS	
dry shrubland communities	development
unique community supporting *Carex inopinata* at Kowhai Point Scenic Reserve	visitor use, fire
locally endemic red rock daisy at Little Haldon Hills	stock, clearance, fire
unique plant community on lowland limestone at Isolated Hill	stock, goats, possums
alluvial podocarp forest remnants at Onamalutu	fire
forest remnants on Wairau River	clearance, stock
regionally endemic communities on riversides and bluffs	spraying, stock, goats
threatened endemic limestone wheatgrass (*Australopyrum calcis*) on the Leatham limestone belt	stock, fire
alluvial ultramafic vegetation, upper Wairau	drainage, development
HUNDALEE	
hill country remnants	goats, grazing
communities of Marlborough endemics	goats, grazing

Animals which require large tracts of unmodified forest and have not survived fragmentation of their habitat and the increased predation caused by nearness to habitation. Yellowhead, kiwi, kaka and kakariki were forced from much of their former range by forest clearance. Other birds such as huia and saddleback have gone forever. Plant and invertebrate species have also become either much rarer or extinct during the last century and the decline has been hastened by habitat destruction induced by grazing and browsing animals.

Historic and cultural values

The most important values of lowlands for the department often reside in the archaeological sites. The lowland ecosystems provided much of the food and materials required by prehistoric and historic hunter-gatherers and gardeners. As a result, all settlements and most human endeavours occur in the lowland environment. A range of historic sites, mostly found on areas other than those administered by the department, remind us of their previous occupation. Archaeological and historic sites are obliterated and modified by ongoing human activity, consequently the areas administered by the department often contain significant sites, especially at the Aorere, Kaituna and Rolling River goldfields (§5, p.155).

Recreation

The natural environment of the lowlands attracts people for outdoor activities because of its proximity to settlements, consequently use is often intensive. The most popular areas are associated with water, especially the sea. The rivers and those areas retaining some natural or forest vegetation are also important. Most of the pressures in the lowlands are on areas other than those administered by the department with only the fringes of the larger areas including Abel Tasman National Park, North-west Nelson and Mt Richmond Forest Park being important.

Important visitor points include the well known Pelorus Bridge, Waikoropupu Springs and Paynes Ford Scenic Reserve (of national significance for rock climbing), in the Golden Bay Lowlands, and Onamalutu and Kowhai Point Recreation Reserves in the Marlborough Lowlands.

Lowland management

Most lowland is in private tenure and natural habitats are small, fragmented and usually highly modified. Few reserves are managed by the department but the fringes of the lowlands are on the margins of the extensive upland areas administered by the department. Consequently management is directed at protection, often through advocacy.

Objective

To attain a better representation of the diversity of lowland ecosystems, landscape features and cultural heritage that formerly contributed to the distinctive character of this zone, and to attain a better quality in those already protected.

Issues

Habitat protection and management

The main threats to natural lowland ecosystems come from clearance and neglect, resulting in grazing by stock, particularly in areas with local endemics, especially in Marlborough Lowlands. The department plays an important role in fostering awareness of these threats, especially where the area is in pristine condition and also where it has the potential for restoration (§20, p.339).

The small size and poor buffering of lowland remnants means they are highly vulnerable to change. Areas close to settlements are prone to the effects of adjacent land use, vandalism, educational and recreational demands.

Lowland remnants can be destroyed by plant pest invasion. Old man's beard, banana passionfruit, wilding trees, blackberry, boxthorn and barberry are all serious problems in Waimea and Moutere and Golden Bay Lowlands (§9, p.187). Pines are a significant intrusion into the landscape of Abel Tasman National Park and in the Marlborough Sounds; banana passionfruit threatens forest remnants in the Inner Sounds; and old man's beard has devastated riparian vegetation in the Motueka and other river valleys of the Waimea and Moutere Lowlands. These plant pests establish where the vegetation is modified but where plant pests are removed the forest will generally respond well and resist future invasion (§9, p.187).

Where remnants are not protected, grazing can cause the complete loss of some species and threatens the viability of the whole ecosystem by preventing regeneration. Protection is best afforded by fencing, and reservation by protective covenants or purchase (§2.2, p.122).

Restoration is the only option for some community types. Some community types are rare or only present as highly modified remnants but fertile land now in gorse or manuka may become the lowland forest of the next century provided it is protected.

The intensity of recreational hunting is usually inadequate to protect small areas particularly sites for endangered *Powelliphanta* snail populations in the Richmond Ranges and these areas require departmental hunting. Nevertheless, recreational hunters are generally effective in controlling deer and pigs except where access is restricted (§10.1, p.196). Goats and possums are a problem in lowlands throughout the conservancy, particularly in the rata forests of the Wakamarama in the Golden Bay Lowlands.

Recreation

The margins are the areas closest to population and are the gateways to the upland areas. Lowlands embrace the margins of all the major tracts of areas administered by the department that are important for ensuring access to the larger upland areas behind, particularly the beginning of the Heaphy Track at the Brown. For these reasons, they form the most important points on areas administered by the department for recreational management and are accorded high priority in recreation planning (§18, p.297), interpretation (§19.2, p.328) and education (§20, p.339).

The department plays an important role in maintaining access for recreation (§18, p.297). The department manages many reserves bordering waterways and shorelines. In lowlands, the most important of these are at Pelorus Bridge, Hacket and Wairoa in the Richmond Ranges and Onamalutu in the Marlborough Lowlands (Table 6, p.71). Protection may be achieved through land purchases or through district plans, and by ensuring that adequate provisions for recreation and access are maintained when subdivision occurs (§1, p.52; §21.1, p.359).

Statutory planning

Changes in the economic climate can rapidly lead to further habitat losses. Deforestation in easily accessible lowland areas such in the Pelorus and the Upper Buller can rapidly begin again. Community awareness of forest values is now well reflected in district plans and government policy which need to be monitored (§21.1, p.359).

Lowlands are the areas of most active development in the conservancy. On areas other than those it administers, the department advocates sustainability through regional and district plans. Ribbon development and continual subdivision in rural areas can lead to a gradual deterioration in landscape quality, by blocking natural vistas and reducing the areas of open space. By promoting wise use, through advocating rules in district plans, these problems can be minimised (§1, p.52; §21.1, p.359).

Development on the fringes of areas administered by the department can increase pressures on them. In areas largely enclosed by the those administered by the department, as in the Upper Buller or Golden Bay Lowlands, goat farming, frequent burning or uncontrolled plant pests on adjacent land can all threaten them. Activities on the margins must be monitored to ensure that inappropriate management practices do not impact on the values of areas administered by the department (§21.1, p.359). Conversely, the department must consider the impact of its management practices on its neighbours.

Management strategies

Activities are focused on recreation management on the fringes of areas administered by the department, raising public awareness of the values generally, seeking protection directly or through local authority planning and assisting interested groups in restoration, particularly through agencies such as the QEII National Trust and local authorities.

TABLE 6: KEY AREAS FOR ACTION - LOWLAND ECOSYSTEMS

LOCATION	KEY ACTIVITIES	REFERENCES
Paynes Ford	recreation management	§15, p.265; §18, p.297
Waikoropupu Springs	plant pest control, recreation management	§9, p.187; §15, p.265; §18, p.297
Golden Bay remnants	PNA implementation	§2.1, p.117
Aorere goldfields	recreation management, community management, historic management	§15, p.265; §18, p.297; §4, p.141; §5, p.155
Brown River	recreation management	§15, p.265; §18.2 p.305
Hacket-Wairoa	recreation management, plant pests	§9, p.187; §15, p.265; §18, p.297
Pelorus Bridge	recreation management	§15, p.265; §18, p.297
Rai Valley	species management, pest control	§4, p.141; §6, p.167
Kowhai Point	restoration, recreation management	§4, p.141; §15, p.265; §18, p.297
Marlborough Lowlands	protection, restoration	§2.1, p.117; §4, p.141
Onamalutu	restoration, recreation management	§4, p.141; §18, p.297

Implementation

3.1 *Further loss or structural modification of natural lowland ecosystems and lowland landscape values will be mitigated through physical and legal protection (∫2.2, p.122), education (∫20, p.339) and will be pursued through the planning processes (∫21.1, p.359).*

3.2 *Where lowland habitats on alluvial sites that are vulnerable to outside influences cannot otherwise be protected, purchase may be considered (∫2.2, p.122).*

3.3 *Recreational hunters and land managers will be encouraged to control wild animals in lowland habitats where values are most threatened, or where control can be most effective (∫10, p.195).*

3.4 *Plant pest control in lowland areas will concentrate on native plant communities with high natural or landscape values, and where plant pests have the potential to permanently alter structure, successional processes, and the diversity of native animals (∫9, p.187).*

3.5 *Where practicable, modified lowland habitats on areas administered by the department will be managed to restore their natural values (∫4, p.142).*

3.6 *Recreational development on areas administered by the department in lowlands will give priority to ensuring access to the coast and waterways for recreational purposes (∫18, p.297).*

3.7 *Access to waterways and shorelines will be improved through land purchases or by advocating adequate provisions in district plans, and when subdivision or other resource consent applications occur.*

3.8 *Recreational development of lowland sites on areas administered by the department will be given priority in areas where an opportunity exists to instil an appreciation of the unique values and distinctive character (∫15, p.265).*

4 Coastal and marine ecosystems

Coastal ecosystems straddle the interface between the sea and the land and are markedly affected by the sea. They have an ill-defined boundary with lowland ecosystems but rarely extend more than a kilometre inland. The coastal waters that comprise marine ecosystems are also affected by activities in the freshwater ecosystems of the rivers and streams as they often act as the final repository for natural debris and pollution. The biogeographic units containing coastal ecosystems are summarised in Table 2, p.49 and key values are summarised in Table 7, p.74.

Resource Overview

The coastal and marine environment of the conservancy extends some 2,446 km from Kahurangi Point on the North-west Coast, to the mouth of the Conway River south of Kaikoura, and seaward for 12 nautical miles (22.24 km). Second only to Southland Conservancy in coastline length, this environment is characterised by a wide variety of seascapes generated by extremes in aspect, depth, current regime, catchment and geology. These physical parameters have resulted in a high diversity of natural ecosystems and seascape features, many of which are of national or international significance.

Seascapes

Limestone shores of the North-west Coast are battered by large seas and scoured by moving sands forming some of the largest cliff, rock platform, beach and dune habitats in the conservancy. Whanganui Inlet and adjacent shore platforms also located on the North-west Coast are notable for forested catchments, extensive eelgrass beds and limited human interference. Farewell Spit and the intertidal sandflats have been formed by the northward movement of sand. The Spit is an internationally important landform and wetland.

The coastlines of Golden Bay, Tasman Bay, and the Abel Tasman Coast are sheltered from large ocean swells. Shallow grading sand beaches and numerous estuaries characterise these shores. They include the largest estuary in the South Island, Waimea Inlet (3,455 ha). The Marlborough Sounds, a complex system of drowned valleys, is a nationally recognised marine environment comprising about 15% of the total New Zealand coastline. The subtidal areas of the Sounds exhibit several environmental gradients, between east and west, and Inner and Outer Sounds. These features have resulted in a wide diversity of habitats and community types.

The Marlborough and Kaikoura Coasts are exposed to ocean swells as well as being influenced by colder southern currents and, especially at Kaikoura, the narrowness of the continental shelf. Cape Campbell on the Marlborough Coast and Kaikoura Peninsula and Haumuri Bluffs on the Kaikoura Coast introduce a variety of shore aspects and substrates along this otherwise comparatively straight coastline.

TABLE 7: KEY VALUES AND THREATS OF COASTAL ECOSYSTEMS

MAJOR VALUES	MAJOR THREATS (CURRENT & POTENTIAL)
NORTH-WEST COAST	
extensive dune communities with threatened species	plant and animal pests, fire
coastal and northern rata forest	possums, goats
threatened endemic coastal plants and unique communities at Puponga - Whanganui Inlet	browsing, fire, fertilisers
several threatened subspecies of *Powelliphanta* land snails	pigs, possums, goats
vulnerable great spotted kiwi, kaka, fernbird and blue duck	habitat loss, predation
nationally important tidal areas at Whanganui Inlet, and Big River	pollution, forestry, aquaculture
Maori archaeological sites in the coastal fringe	erosion, farming
coastal wilderness between Kahurangi and Heaphy River mouth	development, tourism
threatened fin fish species in some coastal streams and wetlands	drainage, development, clearance
terrestrial limestone communities	fire, clearance
GOLDEN BAY COAST	
internationally important intertidal areas inside Farewell Spit	pollution, disturbance, fishing
shallow bays of high value to wildlife	pollution, development, aquaculture, recreation
rare remnant delta forest on the Aorere and Takaka Rivers	clearance, drainage, river works
natural estuaries which support vulnerable species	pollution, recreation, shellfish take, aquaculture
limestone terrestrial and subtidal communities	plant pests, marine farms, pollution
ABEL TASMAN COAST	
remnant population of coastal peppercress	loss of birds, browsing
bryozoan coral communities	trawling, dredging
coastal forest and estuary associations and intact sequences	recreation, shellfish taking
natural estuaries which support vulnerable bird species	pollution, recreation, shellfish taking, stoats, cats
visitor experience on Abel Tasman Coast	visitor numbers
TASMAN BAY	
nationally important coastal landforms	erosion, development
vulnerable and endangered species	loss of birds, erosion, development, browsing
important habitat for waders in Waimea, Delaware and Motueka-Moutere Inlets	pollution, development, *Spartina*
remnant coastal forest	browsing, clearance
estuaries which support vulnerable species	pollution, recreation, shellfish take, *Spartina*
coastal archaeological sites	development, erosion
OUTER SOUNDS	
coastal hill country and alluvial forest	clearance, browsing
Cape Lambert forest and Puzzle Peak speargrass community	possums
only South Island population of threatened titirangi at Titirangi	erosion
bryozoan beds of Allen Strait, Chetwode and Titi Islands	farming, fishing, dredging
Hector's dolphin, Queen Charlotte Sound	netting, fishing
seascapes and landscapes	marine farming, wilding pines, land clearance, forestry
endemic coastal shrub communities	clearance
INNER SOUNDS	
ultramafic vegetation Croisilles Harbour	none
extensive forest around Tennyson Inlet and outer Queen Charlotte Sound	browsers
Kaituna Estuary salt marsh	pollution, *Spartina*, infilling
Powelliphanta hochstetteri bicolor and *P. h. obscura* snails	possums, pigs

TABLE 7: KEY VALUES AND THREATS OF COASTAL ECOSYSTEMS / CONTINUED

MAJOR VALUES	MAJOR THREATS (CURRENT & POTENTIAL)
INNER SOUNDS/ continued	
seascapes and landscapes	marine farming
natural estuaries which support vulnerable species	pollution, recreation, aquaculture
elephant fish spawning grounds	dredging, trawling
brachiopod beds	dredging
MARLBOROUGH COAST	
nationally important estuarine communities and wildlife habitat at Wairau Lagoons	disturbance, pollution, habitat loss
kanuka shrubland-wetland depression-shingle beach communities at Rarangi	development
extensive dune *spinifex* and sand tussock dunelands	marram, development, recreation
Wairau Bar dry shrublands	plant pests, fire
endemic and endangered plant communities-White Bluffs to Cape Campbell including coastal tree broom and shrub pohuehue	clearance, browsing, plant pests
limestone plant communities with endemic species	browsing, clearance
sponge fossils in the Chancet Rocks Scientific Reserve	collecting
archaeological and cultural heritage especially at Wairau Bar	farming
Hector's dolphin in Cloudy and Clifford Bays	netting
Macrocystis beds Cape Campbell	taking
KAIKOURA COAST	
sand tussock and pingao dune plant communities at Washdyke	marram, grazing, hares, rabbits
limestone with a suite of endemics	browsing, clearance
bluff communities of Marlborough endemics	clearance
extensive coastal forest and shrubland	clearance, browsing
best mixed podocarp forest remaining in the eastern South Island	goats
unique ngaio-black maire forest at Hapuku	browsing, clearance
kanuka forest on alluvium of Kowhai River	erosion, goats
endemic rock daisy shrublands	browsing
southern limits for several species	clearance, browsing
Kaikoura Peninsula and Haumuri Bluffs with breeding sea birds, mammals and fish	fishing, disturbance, development, dogs, cats, stoats
whales and dolphins off Kaikoura	disturbance, tourism, netting
archaeological and cultural heritage	erosion, farming
coastal scenic corridor	clearance, development, goats

Flora and fauna

Few areas retain the natural terrestrial vegetation at the coast. Large pristine areas remain only at Big River estuary and Whanganui Inlet on the North-west Coast, and Tennyson Inlet in the Marlborough Sounds. The coastline also contains several isolated remnant communities of threatened plants and animals such as coastal peppercress in Tasman Bay and coastal tree broom *(Chordospartium muritai)* in Marlborough Coast.

The conservancy has a wide variety of shore types resulting in a high diversity of marine flora and fauna. For instance, the Abel Tasman coast has internationally recognised bryozoan 'coral' beds which are dependent on strong tidal currents off-shore at Separation Point. Golden and Tasman Bays are characterised by large estuarine areas and tidal flats which are vital habitat for the threatened banded rail, banded dotterel, marsh crake and up to 20% of the world's breeding population of godwits. The Marlborough Sounds contain a good variety of marine life living in different environmental regimes. Of particular note are the

only known elephant fish spawning areas, shallow brachiopod beds, extensive horse mussel beds, a Hector's dolphin area and tube worm mounds. Cloudy and Clifford Bays are important Hector's dolphin areas and the Kaikoura coast is internationally recognised for its whales and dolphins. New Zealand fur seals are steadily increasing in number throughout the region.

A cultural perspective of the coast

The resource-rich and easily accessed coastal zone has a long history of human association and interaction. Consequently it shows evidence of numerous middens, pa, gardens, storage pits, urupa and wahi tapu and contains the main concentration of archaeological sites in the conservancy.

The arrival of Europeans has seen dramatic modification of the coast for dwellings, farming, horticulture, industry, and shipping. The remnants of much of this activity, as archaeological sites, wrecks, buildings and structures are important to the understanding of our past.

Concentrated land development along the coast and ensuing land clearance has modified the coastal zone, particularly the lowland forests, wetlands and estuarine areas in Golden Bay, Marlborough Coast and along the Kaikoura coast.

Recreation

The golden sand beaches of the Abel Tasman Coast, the wealth of recreational opportunities provided by the bays, inlets and fisheries of the Marlborough Sounds, the popular beaches of Golden Bay and the rocky shores and marine mammals of the Kaikoura Coast, attract people from all over the country and beyond. The Kaikoura Coast forms a major scenic corridor for visitors and Puponga Farm Park on the North-west Coast at the base of Farewell Spit provides open space recreation for large numbers of day-visitors. Major recreational facilities include the Abel Tasman Coast Track, the Queen Charlotte Walking Track and Nydia Track in the Inner Sounds and numerous camping and picnic facilities throughout the Inner Sounds.

The department is a major provider of coastal recreation in the Inner Sounds and on the Abel Tasman coast. The Abel Tasman Coast Track and Queen Charlotte Walking Track are major visitor facilities and nature tourism is a growing activity within the Marlborough Sounds and on the Kaikoura Peninsula (§14.7, p.249; §15, p.265).

Commercial uses

Nelson and Picton are locally important export ports and are the only major industrial areas along the coast. Smaller ports throughout the conservancy primarily service fishing and aquaculture.

Fishing is a major industry in the conservancy. Port Nelson is the largest fishing port in the country, although most fish landed are from deep-water fishing grounds outside the conservancy. Important inshore fisheries exist throughout Tasman and Golden Bays (especially for scallops) and along the Kaikoura Coast (notably rock lobster). In Golden, Tasman and Cloudy Bays cockle, surf clam and other shellfish use is occurring inshore on a small but expanding scale.

The Inner Sounds supports the country's most significant marine farming area. Based principally on long-line mussel culture, the industry is now expanding into a variety of other techniques and species including salmon, scallops, Pacific oysters and paua.

The department's role in coastal management

The department is directly responsible for managing protected wildlife and marine areas through the Wildlife Act 1953, Marine Mammals Protection Act 1978 and Marine Reserves Act 1971. On land, it manages areas under the Conservation, Reserves and National Parks Acts.

Local authorities have primary responsibility for management in the coastal environment through the Resource Management Act 1991. Under that Act the Minister of Conservation must develop a New Zealand Coastal Policy and new plans and policies prepared by local authorities must not be inconsistent with this. At a conservancy level, the department monitors the incorporation of the national policy into regional coastal plans and decisions on coastal consents. The Minister of Conservation is responsible for approving regional coastal plans. The Minister of Conservation also approves restricted coastal activities.

With respect to other statutes such as the Fisheries Act 1983 and Marine Pollution Act 1974 the department may advocate coastal and marine conservation generally. The department has also retained some residual coastal responsibilities under the Marine Farming Act 1971 for assessing and approving marine farm applications made prior to 18 May 1991.

Objective

To promote sound management of coastal and marine ecosystems.

Issues

Protection of coast

Management must integrate activities on land and on the shore with those beyond in the marine area. Taking marine life is one of the most significant modifiers of the coastal environment. Taking has a direct impact on the species taken, as well as implications for other species in the food chain including seabirds and the plant communities that depend on the enhanced fertility of roosting and nesting areas.

Within the sea, mammal and bird species are protected under the Marine Mammals Protection Act and the Wildlife Act (§3, p.137) but their food sources and habitats are largely unprotected. Setting aside areas through legislation that the department administers or advocating their protection by other means will protect some habitats. Some areas can be protected by setting them aside under legislation administered by the department and in other areas such as Farewell Spit, co-operation with Ministry of Fisheries and fishers is required to ensure the survival of the wildlife (§1, p.52).

Few areas of coast are protected or preserved. A marine reserve designation comprehensively protects and preserves any area of sea for scientific purposes. Other legislation is limited to protection of seabed or wildlife (§2.2, p.123).

A network of coastal and marine areas protected by various means should be established to both protect those areas of outstanding merit, and to preserve representative segments of the coast.

Currently several marine reserves have been proposed and three have been established: at Long Island in the Inner Sounds, Whanganui Inlet and at Tonga on the Abel Tasman Coast. The value of the reserves can be greatly enhanced by placing them adjacent to major terrestrial reserves particularly Abel Tasman National Park and North-west Nelson where land-based activities can also be controlled (§2.2, p.122; §13, p.225).

The diversity of landscapes is one of the major attractions of the coast. Few coastal areas can be classified as truly wild, the exposed shores of the North-west Coast being the most notable. Nevertheless, many coastal areas are noted for their landscape or scenic values, especially the coastline of Abel Tasman National Park, Whariki (on the North-west Coast), the Marlborough Sounds and the rocky Kaikoura coast. Many areas noted for these values are already protected, but important areas still require protection (§2.2, p.122).

The current status of Wairau Lagoons is producing management conflicts. The Wairau Lagoons is a large area of tidal wetlands with a complex history of modification both in pre-European and recent times (§5, p.155). They are a significant wildlife habitat for introduced and native birds, containing both a wildlife refuge and areas available for gamebird hunting (§17.1, p.284). The appropriateness of the management regimes is under review (§2.2, p.122).

Management of threatened species and habitats

Endemic plant species and threatened communities occur in small discrete localities which are often under immediate threat from development, grazing or other human activity. Major concentrations of values occur on the North-west Coast, particularly between Farewell Spit and Whanganui Inlet. They first require legal protection and then pest control and sometimes restoration management (§4, p.141). Restoration management is important at the Kumeras, Whakapuaka and Wairau Bar. The first two are significant community-based projects (§20.5, p.355).

Threatened species in the coastal zone are vulnerable because of accessibility and the high level of human activity. Farewell Spit, Wairau Lagoons, Motueka-Moutere Inlet and Waimea estuary in Tasman Bay and the Nelson and Wairau boulder banks are important habitats for waders and sea birds. These areas must be carefully protected, particularly at critical times such as nesting (§10, p.195). Threatened species on islands attract considerable attention and are dealt with under ISLANDS (§7, p.101).

Dunes are some of the most threatened coastal habitats. Dune systems provide a reservoir of sand to a beach and buffer the land behind from erosion, whereas the dune vegetation plays an important role in maintaining their integrity. Dunes can be degraded by development of the coastal fringe and by grazing, burning and vehicle damage, particularly in Golden Bay and Marlborough Coast. The spread of marram grass has also greatly modified the remaining natural communities so that unmodified dune areas are now virtually non-existent except on Farewell Spit and require protection (§9, p.187).

Sensitive marine habitats and ecosystems are easily damaged. Dredging and trawling can have a major impact on the sea bed particularly on the more sensitive bottom dwelling organisms such as bryozoan corals at Separation Point and Allen Strait, and horse mussels and mound-building tubeworms generally. Key areas should be identified for protection.

Marine farming can significantly degrade the sea floor. Intensive farming of filter feeding species may affect plankton supplies within an area, which can affect adjacent natural communities. Both the type and level of impact is species, method and site dependent.

The preservation of water quality is critical, particularly for recreation and food gathering. Sources of pollution are numerous and varied, ranging from direct sewage and industrial discharges or rubbish tips to more diffuse sources such as fertiliser and pesticide run-off (§5, p.85; §12, p.221).

Pollutants can be derived from sources well inland and transported to estuaries and the coast by rivers and streams. Land clearance and forestry, shingle extraction, river works and mining can lead to increased sedimentation rates in estuaries and other coastal areas and pose a major threat to the coastal environment. This means that activities well inland need to be scrutinised by the department (§5, p.85; §6, p.167).

Historic and cultural

Loss of important archaeological sites occurs more through ignorance and lack of appreciation than through a conscious decision. The history of human settlement, particularly Maori occupation, is concentrated in the coastal area (§5, p.155) which also remains the main area of human activity. Loss of unidentified historic sites through land development and natural erosion is a serious problem (§5.2, p.162) but can be mitigated by raising awareness of key areas (§6, p.167).

Research

Most of the public take the continued functioning of the vast and extensive marine ecosystem for granted, but our knowledge of the sea relative to terrestrial systems is extremely poor. The nature of the sea itself places physical difficulties on gathering information, such as restrictions on the time and depths reached by divers, and more often than not, visibility. Further information is urgently required, particularly in areas of high human activity, as baselines for measuring change (§6, p.175).

Pest control

Introduction of species by overseas ships either in ballast water (for example, toxic *dinoflagellates*) or attached to hulls (for example, Pacific oysters), is an important cause for concern, but difficult to prevent except through raising awareness of the problem (§10, p.195; §20, p.339). This is a national issue and the department needs to strongly support actions by other agencies seeking controls on ballast water discharge.

Some introduced species have displaced native communities. Sometimes species have been introduced intentionally to stabilise dunes and reclaim mud flats (for example, marram generally and *Spartina*, particularly in the Pelorus Estuary in the Inner Sounds). Other plant pests and their spread are a significant threat to the natural values of the coast and require control. For example, the Wairau Boulder Bank would be completely covered by boxthorn if it is not contained and coastal reserves are often invaded by pines (§9, p.187).

Marine transport

Cook Strait is a major seaway and as the risks of oil spillage or shipwreck are quite high planning is required to mitigate the potential effects (§12, p.221). A major oil spill could be catastrophic for the coast, particularly in the more sensitive areas such as estuaries and Farewell Spit. Controls are subject to the Marine Pollution Act 1974 (§12, p.221).

Wash from ships such as the ferries, and bulk carriers in the confines of the Marlborough Sounds is a concern. It can increase shoreline erosion and impact on sensitive communities adapted to calm waters but speed restrictions can be advocated to the appropriate authorities to mitigate these effects.

Strong competition is developing for space in sheltered marine areas, particularly in the Marlborough Sounds with the development of aquaculture. The department needs to monitor these developments carefully in association with the local authorities. It needs to ensure that substantial areas remain free of marine structures, especially adjacent to scenic reserves, national parks and within 1 km of islands that are free of introduced mammals. Within Queen Charlotte Sound it will support the principles of restriction on marine farming as set out in the Draft Marlborough Sounds Maritime Planning Scheme.

Recreation

Coastal areas are a major focus for recreation (§15, p.265). New Zealanders and overseas visitors are attracted to the many recreation opportunities offered along the coast and protection of these values is a major consideration in coastal management. Traditionally, public access to the coast has generally been guaranteed (§18, p.297) and this needs to be maintained through provisions in district plans especially in Marlborough Coast. In the urban areas, visitor centres in Nelson and Picton are key places for serving the travelling public (§19.3, p.333).

Environmental pressures are created by the increasing popularity of outdoor recreation and outstanding opportunities in the conservancy. The increased recreational use creates financial costs which need to be watched closely. Careful management can re-direct people into appropriate areas (§15, p.270). The challenge for the conservancy is to provide and maintain appropriate facilities for outdoor recreation without significantly detracting from the natural features that attract the visitors (§15, p.270).

Effects of development and use

Subdivision is a major modifier of the coastal zone. Ribbon development along the coast, particularly in Golden Bay, Inner Sounds and along the Kaikoura Coast can be detrimental to natural, historic and recreational values there.

Unsuitable developments may require structures for coastal protection which are usually costly and can have a significant impact on the natural character of the coast.

Marine farming has expanded rapidly over the last decade and is now a major occupier of the coastal space, particularly in the Marlborough Sounds. Marine farming can impact upon the natural character of the coast visually through the introduction of structures and ecologically through habitat modification (§1, p52; §21.1, p.359).

Continued habitat loss and degradation is a major issue for coastal management. Damage can occur through reclamation, dumping, roading, pollution, grazing, vehicle damage, dredging, and drainage, especially in the Waimea and Moutere estuaries and on the Golden Bay Coast. Raising awareness of the impacts on natural, historic and recreational values can reduce their occurrence. This is currently happening through the planning processes and active acquisition of reserves (§20, p.339).

Sounds Foreshore Reserve is widely used for structures, particularly boat sheds and jetties. Within the Marlborough Sounds the department administers a considerable proportion of the immediate shoreline primarily for access to the shore.

Although each structure or activity on the coast may have a seemingly minor impact, their cumulative impacts over time can be very significant. Structures placed on the coast such as power poles, jetties, boat sheds, boat ramps, maimais, groynes and seawalls can have a marked impact on the coast, visually, biologically and physically.

The impact of coastal structures on physical coastal processes, particularly sediment transport and beach formation can be significant. Shingle and sand extraction in the rivers can also directly affect long-shore transport particularly on the Kaikoura coast (§21.1, p.359).

Careful management of development and use with potential for adverse impacts on the coastal environment should be achieved by full implementation of the New Zealand Coastal Policy through relevant statutory processes.

Public awareness

The coast and its beaches are valued but taken for granted by many New Zealanders. Coastal restoration projects at the Kumeras, Pearl and Neimans Creeks and Whakapuaka in Tasman Bay will be major foci for community education on conservation (Table 8, p.82; §4, p.141; §20, p.339). These projects and education elsewhere should raise awareness of the values at risk and encourage simple actions such as avoiding nesting areas or raising general awareness of pollution (§12, p.221; §20, p.339).

Management strategies

Management in the coastal ecosystems focuses on raising public awareness of the issues directly through statutory processes or indirectly through education and providing opportunities for public involvement in conservation activities. This requires increased information, particularly of the marine ecosystems.

Recreation management concentrates on providing for large visitor numbers, especially day visitors and opportunities to raise conservation awareness. The key areas for action are summarised in Table 8, p.82.

TABLE 8: KEY AREAS FOR ACTION - COASTAL AND MARINE ECOSYSTEMS

LOCATION	KEY ACTIVITIES	REFERENCES
Whanganui Inlet	protection, marine reserve, recreation	§4, p.142; §21.1, p.359
Farewell Spit	restoration, research, recreation	§4, p.142; §15, p.265; §18, p.297
Puponga Farm Park	restoration, recreation management	§4, p.142; §15, p.265; §18, p.297
Puponga-Whanganui Inlet	protection, restoration, monitoring	§4, p.142; §21.1, p.359
Wakamarama Ranges	pest control	§10, p.195
Separation Point	protection, restoration	§4, p.142; §21.1, p.359
Abel Tasman Coast	marine reserve, recreation management, monitoring	§15, p.265; §18, p.297
Motueka Delta-Kumeras	restoration, community-based	§4, p.142; §21.1, p.359
Waimea Estuary	protection, monitoring	§21.1, p.359
Moutere Inlet	protection	§21.1, p.359
Whakapuaka	restoration, protection	§4, p.142; §21.1, p.359
Nelson City	visitor services	§19.3, p.333
Marlborough Sounds	protection, recreation, marine reserve	§21.1, p.359
Queen Charlotte Walking Track	recreation, tourism	§15, p.265; §18, p.297
Nydia Track	recreation, education	§15, p.265; §18, p.297
Picton	visitor services	§19.3, p.333
Wairau Lagoons complex	restoration, recreation, gamebirds, protection	§15, p.265; §18, p.297; §4, p.142; § 21.1, p.359
Wairau Lagoons-Cape Campbell	restoration, advocacy, protection	§4, p.142; §21.1, p.359
Kaikoura Coast Highway	recreation management, advocacy for protection	§15, p.265; §18, p.297; §21.1, p.359
Kaikoura Peninsula	recreation management, marine reserve, land rationalisation	§15, p.265; §18, p.297; §2.2, p.124
Weld Cone	protection	§21.1, p.359
Clifford Bay	species management, monitoring	§4, p.142

Implementation

4.1 *Integrated management of land and sea will be encouraged (§1, p.52).*

4.2 *The department will monitor the implementation of the New Zealand Coastal Policy Statement.*

4.3 *Ecosystem-oriented management of fisheries resources will be advocated to recognise the role of the fish resource within the wider environment, and in particular, to recognise the impact of certain fishing practices on marine mammals and habitats (§2.2, p.122; §3, p.137; §4, p.141; §20.6, p.357).*

4.4 *A network of protected coastal and marine areas will be established to conserve both special natural values and areas representative of the full range of natural environments (§2, p.115).*

4.5 *Advocacy in the planning processes will seek the identification of all remaining native coastal vegetation and threatened or vulnerable coastal marine ecosystems and their appropriate management.*

4.6 *Restoration of areas will be advocated and actively attempted, where appropriate (§2.2, p.124; §4, p.141; §20, p.339).*

4.7 *Recreation management in the coastal zone will endeavour to protect and enhance coastal opportunities provided they do not impact unduly upon other natural, historic or recreational values (§21.1, p.360).*

4.8 *Research and survey in the coastal and marine ecosystems will focus on areas of high human activity and baseline surveys of marine reserves.*

4.9 *Other coastal management agencies will be encouraged to develop and/or maintain appropriate programmes of survey and research (§6, p.167).*

5. Freshwater ecosystems

Freshwater ecosystems link terrestrial and marine ecosystems and encompass all biogeographic units to some extent (Table 2, p.49). Freshwater ecosystems are most influenced by land uses and may reflect their quality, accumulating pollution from the surrounding ecosystems and carrying it to the marine ecosystems (§4, p.73). Freshwaters shape cave and karst ecosystems and determine their quality (§6, p.95). The key values for freshwater ecosystems and their threats are listed in Table 9, p.86.

For the purposes of this document the definition of freshwater given on p. xi is that used in the Resource Management Act 1991 since most management is carried out under that Act. Freshwater does not include estuaries, or points up to 500 m out to sea from any river mouth, as included in the Conservation Act 1987 definition because these areas are covered in the coastal section (§4, p.73).

Resource Overview

Water, as an erosive force, has shaped the landscape at various rates depending on tectonic movement and the nature of the substrates. Freshwater habitats are ultimately derived from the interaction of water on the physical substrate, with a lesser influence from terrestrial biota, which may affect water quality or its retention. Climate and substrate have a major influence on natural water chemistry and stream form, that in turn affect the flora and fauna found in those waters. The native aquatic flora and fauna have adapted over geological time to such interactions.

The Clarence, Awatere, Wairau, Pelorus, Motueka, Takaka, Aorere and Big Rivers, and many other water bodies within the conservancy, are of regional or national significance. The only large lakes are Lakes Rotoroa and Rotoiti in Nelson Lakes National Park, but a diversity of smaller lakes and tarns occur, especially at higher altitudes.

Lowland aquatic habitats were once characterised by slow moving, acid-stained waters, usually shrouded under dense canopy forest or linked by extensive wetlands but these are now heavily modified or lost. Extensive lowland freshwater swamps and wetlands formerly graded into estuarine wetlands in the Golden Bay, Waimea & Moutere and Marlborough Lowlands, but the only substantial remnant is the Mangarakau Swamp on the North-west Coast.

Remaining lowland wetlands may be only of local significance in themselves but can collectively form an important regional complex for birds, especially those adjacent to estuaries. The complex of wetlands on the North-west Coast (including Puponga and Whatariki wetlands, Kaihoka Lakes, Whanganui Inlet and its contributing streams, the Mangarakau Swamp and Lake Otuhie) is a good example. This isolated area is unusual nationally as it lacks any introduced fish and provides an important baseline against which to determine native fish ecology where introduced predators or competitors such as trout are absent.

TABLE 9: KEY VALUES AND THREATS OF FRESHWATER ECOSYSTEMS

MAJOR VALUES	MAJOR THREATS (CURRENT & POTENTIAL)
NORTH-WEST COAST nationally unusual diversity and abundance of native freshwater fish	fish liberations, forestry, land development, barriers to fish migration
GOLDEN BAY LOWLANDS diverse native fish in small streams Waikoropupu springs with its unique freshwater plant community cultural values associated with Waikoropupu Springs	land use visitors, water pollution and abstraction plant pests, tourism, especially divers
MT ARTHUR UPLANDS many pristine upland lakes and wetlands trout-free rivers including Big River blue duck strong hold aquatic macro invertebrates	fish liberations fish liberations dams fish liberations
WAIMEA & MOUTERE LOWLANDS nationally significant Motueka River spring fed streams	pollution, water abstraction, aquatic plant pests water abstraction, blockage of fish migration
UPPER BULLER large, mostly pristine Lakes Rotoiti and Rotoroa diverse instream fish and bird habitat on the Buller River system braided rivers as a landform and as wading bird breeding habitat	plant pests mining, damming plant pests
RICHMOND RANGES Koaro at Lake Chalice, an enclosed lake	fish liberations
PELORUS Pelorus River	farming, forestry
INNER AND OUTER SOUNDS absence of trout in relatively intact lowland stream systems	drainage, habitat modification
MARLBOROUGH COAST significant lowland waterways at Spring Creek and upper Pukaka	land use, pollution, blockage of fish migrations
MARLBOROUGH LOWLANDS braided river habitat in Wairau River and Awatere	plant pests, flood control
INLAND MARLBOROUGH diverse inland fin fish populations	unknown
INLAND KAIKOURA RANGES threatened crested grebes at Lake McRae	predation, stock, marginal clearance
WESTERN MOLESWORTH unique communities of plants and animals at Sedgemere tarns	stock
KAIKOURA COAST habitat for the threatened crested grebe at Kaikoura Lakes native fin fish populations	predation, marginal clearance blockage of fish migration

Upland wetlands, particularly the water bodies within North-west Nelson and its immediate environs, are little explored. They are of national significance due to their number, extent and almost entirely natural state - a rare phenomenon. The area remains a stronghold for the whio or blue duck. Available evidence suggests that they are a centre of aquatic invertebrate endemism, and possibly a refugium for aquatic life during the Ice Ages.

The karst landscapes of Mt Owen and Mt Arthur and of Riwaka-Takaka-Canaan area are water formed and water dependent. Their complex hydrology has developed internationally significant features such as Nettlebed Cave and the Waikoropupu Springs (§3, p.48). The springs are unique hydrologically and have a diverse and largely unmodified assemblage of aquatic plants.

In the Southern Uplands, glaciers have been the dominant influence on the landscape. These landscapes and the water bodies derived from them are nationally significant. They form part of the antecedent Buller River system, the largest and best protected relatively unmodified catchment in the country that has recorded 19 of the 27 native fin fish species in New Zealand - more than any other river system in the country.

Glaciers and river action on the shatter-prone and earthquake-faulted greywacke of the Inland Marlborough and the Kaikoura Ranges have resulted in wide braided river valleys between steeply dissected but dry mountain ranges. Their flora and fauna are specially adapted to swift, clear, cool but variable flows and a frequently changing, river bed habitat including several species of galaxiid fish at their north-eastern limit.

The main threats to the major rivers including the Buller, Karamea and Motueka Rivers are from damming or mining, whereas in remote, pristine waters the introduction of plant pests through boating and introduction of trout or foreign fish pose the greatest threats (§10, p.195).

Serious threats to water quality, flows or levels arise from:

- dams;
- flood control and drainage schemes;
- diffuse discharges of nutrient, sprays or sediments from pastoral farming, alluvial mining and forestry without retention of riparian vegetation;
- inadequate disposal of hazardous wastes or use of hazardous chemicals;
- industrial pollution; and
- over-allocation of water in water-short areas subject to summer drought.

Many of these act together and worsen the situation.

Reduced water flow modifies the flow patterns, raises water temperatures, reduces dissolved oxygen and dilution of hazardous chemicals, and may increase algal proliferation. Some rivers dry up with obvious disastrous effects.

Freshwater in history and culture

Freshwaters have always played an important role in Maori life as waterways provided food and transport from which the security and mana of the hapu or iwi could be derived (§3.1.2, p.26). Within the conservancy, major rivers such as the

Buller (Kawatiri), Wairau and Motueka were particularly important for transport, especially through deeply forested areas. The Nelson Lakes were used for provisioning travelling parties with eels and freshwater mussels before they ventured down the Buller River.

Unlike Maori, awareness of the intrinsic or utilitarian values of freshwaters and wetlands has come only recently to consciousness of many pakeha. Nevertheless, the Acclimatisation Societies were early advocates of the need to protect freshwater habitats. Some industries, such as flax mills, were supported from swamps but generally, wetlands were considered highly undesirable for settlers seeking land for farming. Huge areas were drained so that only a few natural vestiges remain on most of the accessible lowlands, notably in the Marlborough Lowlands.

Commercial uses of freshwater

Many rivers yield alluvial gold, including the Aorere, Takaka, Waingaro, Anatoki Rivers in the Golden Bay Uplands; the Baton and Wangapeka in the Mt Arthur Uplands, the Buller; and Wakamarina River in the Pelorus. In the past, rivers provided the energy for mining through dams, water races and sluices.

Early European settlers used water power for flour, timber and other mills. Small scale hydroelectric power stations were developed in the Wairoa around 1915 on the Waimea Lowlands, and at Onekaka in Golden Bay, the Waihopai near Blenheim and on the Six Mile Creek in the Upper Buller during the 1920s. The larger Cobb Dam and Reservoir in the Golden Bay Uplands was constructed during the 1940s and the Branch Scheme in the Wairau catchment on the Marlborough Lowlands during the early 1980s. Recent energy sector reforms have led to a revival of interest in small and large scale hydroelectric dam development.

Whitebait is an unusual commercial fishery in that the catch is largely taken by amateur or recreational fishers (§17.1, p.284). The major commercial fishery is on the West Coast with relatively little purchased in this conservancy. The only other freshwater fin fish exploited, but only in a minor way, are eels (§14.3, p.241). The commercial fishery is managed by Ministry of Fisheries.

Water has been abstracted for irrigation in the lower Wairau, Motueka and Waimea areas for many years. Increasing horticultural development has reduced surface water flows and diminished instream values, especially in the Moutere and Waimea areas. Further development in the lower Wairau, Awatere and Riwaka catchments may also threaten natural, historic and recreational values in these areas.

Importance of freshwaters for recreation

The Nelson and Marlborough Acclimatisation Societies were active from the 1860s, liberating brown and rainbow trout and other species that then were considered to enhance this country's depauperate hunting and fishing fauna. Although these introductions provided a fishery, in combination with habitat destruction or modification, they had a serious effect upon some native fin fish and wildlife (§4, p.141).

Many other recreational activities are focused either actively or passively on rivers and lakes. Features such as waterfalls or tarns may frequently be the subject of an excursion or activity. Many active recreational pursuits such as boating, sailing, canoeing, rafting, diving and fishing are specific to water. They may be undertaken adjacent or incidental to areas administered by the department, such as diving at Waikoropupu Springs in Golden Bay Lowlands, or boating at Nelson Lakes or canoeing in the Pelorus River next to the scenic reserve.

Department's role in management of freshwaters

Water resource management is complex, with several agencies having distinct, but overlapping responsibilities as set out in Table 10 and in Figure 8, p.121. This requires a high level of communication and co-operation between agencies to avoid unnecessary duplication and to prevent problems.

The department does not control the water (a function of the regional authorities), but is required to protect the native flora, fauna and habitats. This is achieved primarily through promoting the protection of these resources generally and working through the statutory process, raising local authority awareness of water issues and contributing to regional policy statements and regional plans.

TABLE 10: RESPONSIBILITIES IN RELATION TO FRESH WATER

DEPARTMENT OF CONSERVATION	FISH & GAME COUNCIL	MINISTRY OF FISHERIES
Preserve native freshwater fisheries and protect recreational fisheries and freshwater fish habitats.	Manage sports fish and gamebirds and their habitats.	Manage commercial eel fisheries. Administer fish farming and disease control.
Manage crown-held freshwater habitats for conservation.	Advocate protection of gamebird and sports fish habitats.	
Protect freshwater wildlife other than gamebirds.		
Advocate protection of natural and historic resources.		
MINISTRY OF TRANSPORT	**REGIONAL AND UNITARY COUNCILS**	**DISTRICT AND UNITARY COUNCILS**
Navigation on water.	Activities in, on, or over river or lake beds.	Activities on water surface.
	Allocation, discharges, flood control, hazard mitigation and classification of waters.	

Objective

To protect and enhance the natural qualities of the freshwater ecosystems to maintain and improve fish and wildlife habitat and recreational fisheries.

Issues

Protection

Values and threats are difficult to assess. In this conservancy, information is often lacking as little investigation has been undertaken of natural aquatic values. Where possible habitat values are assessed, although sometimes the presence of rare or threatened species is used as an indicator of habitat or community value. In lowland areas the potential for restoration in waterways, such as Pearl and Neimans Creeks, may represent their greatest value (§4, p.142; §20.5, p.355).

Freshwater wetlands are an endangered aquatic habitat type in this conservancy. Consequently, fostering protection of all freshwater wetlands is a high priority, with particular emphasis on those in lowlands (§2.2, p.122).

Improving water quality degraded by diffuse pollution requires modifying land use patterns such as through use of riparian strips. Throughout the lowlands, the opening of waterways to the light increases water temperature and decreases oxygen levels. Introduced flora competes with native plants, especially with increased nutrient and sediment run-off. Pollution caused by increased sedimentation, nutrients, or from spraying or fertiliser application is difficult to control but various changes to land use practice can minimise their effects.

Riparian strips improve water quality through:

- acting as a buffer strip to filter pollutants, fertilisers or sediments;
- ensuring plenty of externally derived organic matter which many native aquatic insects, fish and birds are adapted to;
- shading to:
    - reduce water temperatures;
    - increase dissolved oxygen;
    - suppress algal growth; and
- increasing habitat diversity for native aquatic flora and fauna.

Two especially critical areas for riparian strips are immediately downstream of forest, to extend the forest influence, and immediately upstream of estuaries and river mouths that are important spawning areas for migratory fish, especially whitebait (§4, p.142).

Species and habitat management

Introduced woody species disrupt the ecosystems. Willows stabilise stream banks so are preferable to no trees at all. Nevertheless, they may have adverse effects such as reduction in whitebait spawning habitat by suppressing

other plant growth through their summer shading and annual leaf fall. Crack willow is also very aggressive, often invading other habitats and causing blockages and other problems in stream flows. Similarly, broom eliminates habitat for braided-river nesting wildlife and may require control. Riparian protection with native species should be fostered, especially for sites of greatest conservation significance, through reinstatement of vulnerable species, such as swamp maire, or those that raise public awareness of the issue (§20, p.339).

Blockage of fish passages disrupts migrations. More than sixty percent of native freshwater fin fish are migratory, requiring free passage to and from the sea in order to complete their life cycles (§4, p.141). Hydroelectric dams are the most obvious barrier to fish passage but equally effective blockages may occur from floodgates, poorly placed culverts, bridges or fords. Individually and collectively these may cause local extinctions of some species. The Wairau Plains in Lowland Marlborough alone have at least 250 flood gates and only six of these normally allow fish passage. Freshwater Fisheries Regulations 1983 require fish passages to be incorporated into such structures but this has seldom been done. Fortunately this problem is now being recognised and measures are being taken to enhance fish passage in the most critical areas in South Marlborough.

Individual water abstractions can have a serious cumulative effect on river flow and destroy habitats. The quantity of water in a catchment can be modified by damming or impoundment, or by water abstraction from the waterway, drawdown from an aquifer or by land use changes. Damming may not necessarily reduce the total annual flow, but will certainly vary the timing and often the water quality taken from an impoundment. Both types of water abstraction may have substantial effects on water flows in rivers of the Marlborough and Waimea and Moutere Lowlands and require control (§21.1, p.359).

Research

Information is often dated and perhaps no longer relevant. The greatest gaps in information lie in the assessment of basic values, particularly in remote areas such as in South Marlborough, but also in lowland areas particularly the Mangarakau Swamp on the North-west Coast. Databases on fish, wildlife and wetlands are held (§6, p.170; Appendix II, p.417). Some specific sites, including the Motueka catchment and Waikoropupu Springs, have been investigated in detail and gaps are being filled in the course of statutory planning processes. Where possible investigations are undertaken jointly with Fish and Game Council, research organisations, universities and local authorities (§6, p.167).

Local authorities require support and encouragement in planning and undertaking investigations for monitoring the effectiveness of their resource management responsibilities. They include investigations into the effects on native biota of flood and water allocation schemes, spraying programmes and other factors affecting natural environments (§6, p.167; §20.6, p.357).

Plant and animal pests

The key action required is preventing new problems. Waters in the conservancy are generally free from introduced plants and animal pests that have

devastated water bodies elsewhere (§9, p.187; §10.5, p.207) and current problems are local. Oxygen weed and *Lagarosiphon* are serious problems in the lower Opawa. The Nelson Lakes have suffered the invasion of the relatively benign Canadian pondweed and until recently the margins of Waikoropupu Springs were almost smothered by watercress.

Monitoring and public awareness programmes will ensure that the most vulnerable sites are identified and protected from unwelcome introductions of plant pests (§6, p.167; §9, p.187).

Spraying to control plant pest may create adverse effects on aquatic habitats. Many waterways around Blenheim are heavily infested with introduced aquatic macrophytes. They are subject to a vigorous spraying programme by the local authority but the effects of the spraying could be as severe as the plant pests. Sterile grass carp may be introduced to control or eradicate them but their side-effects are poorly known (§1, p.52; §9, p.187; §10.5, p.207).

Public awareness

The value of the conservation of freshwater habitats is poorly recognised. The most vocal lobby is the fish and game movement and Maori advocacy of water values and interest from whitebaiters is increasing. Wider public awareness is likely to increase as more demands are made on our limited freshwater resources (§20, p.339).

Public awareness programmes should focus on highlighting topics of public concern. Sewage outfalls are of high public concern because of their detrimental impact on water quality and recreational activities such as swimming and fishing. This can be used to emphasise concern about pollution effects on natural, historic and recreational values administered by the department (§20.2; p.348), particularly in Lowland Marlborough and Nelson.

Conservation of whitebait is a matter of concern to all who enjoy consuming them and through this, for example, the wider effects of impediment to fish passage or loss of wetlands can be made apparent to the public.

Interpretation of freshwater conservation issues should concentrate on specific areas where the public has other interests. Places such as the Nelson Lakes, Waikoropupu Springs (§3, p.69) and Pelorus Bridge (§3, p.70) are popular because of the opportunities to undertake a wide range of freshwater activities. Other sites, particularly the proposed wetland reinstatement at Whakapuaka, may be popular because they involve species, such as birds, that have a high public profile (§20.5, p.355).

The department must ensure that it practises what it preaches. It must identify its own use of water resources that require authorisation and develop a programme to ensure that resource consents are obtained and facilities are maintained and upgraded where necessary (§18.1, p.302).

Management strategies

The primary thrust for aquatic resource conservation is habitat protection through the provisions of the RM Act (Table 11, p.93). This is supported by working with a wide range of organisations in research and survey, restoration

and preventive monitoring. This needs to be supported by advocating for only sustainable takes where taking is allowed.

Implementation

5.1 Recognition of, and provision for, protection of natural, historic and recreational values of freshwaters will be sought through liaison with local authorities and active participation in the planning processes (§20, p.339; §20.6, p.357).

5.2 Integrated management of land and freshwaters will be encouraged through advocacy and co-operation between the respective agencies (§20.6, p.357).

5.3 Land use policies protecting water quality and quantity in lowland areas, especially next to significant wetlands and estuaries, will be sought in regional and district plans (§21.1, p.360).

5.4 Priority will be given to updating and completing database information on native animals and plants of freshwater habitats (§6, p.169).

5.5 Representative, threatened or unique freshwater areas administered by the department will be monitored, as appropriate, and the local authorities will be encouraged to monitor other areas (§6, p.169).

5.6 Protection of freshwater values of national or international significance will be sought and local authorities will be encouraged to seek protection of areas of regional or local significance.

5.7 Liaison with common interest groups including the Fish and Game Council, tangata whenua, and whitebaiters will be used to protect and enhance freshwater fisheries (§20.6, p.357; §17.1, p.284).

5.8 Public awareness of freshwater conservation issues will be promoted in areas already having a high public profile (§20, p.339).

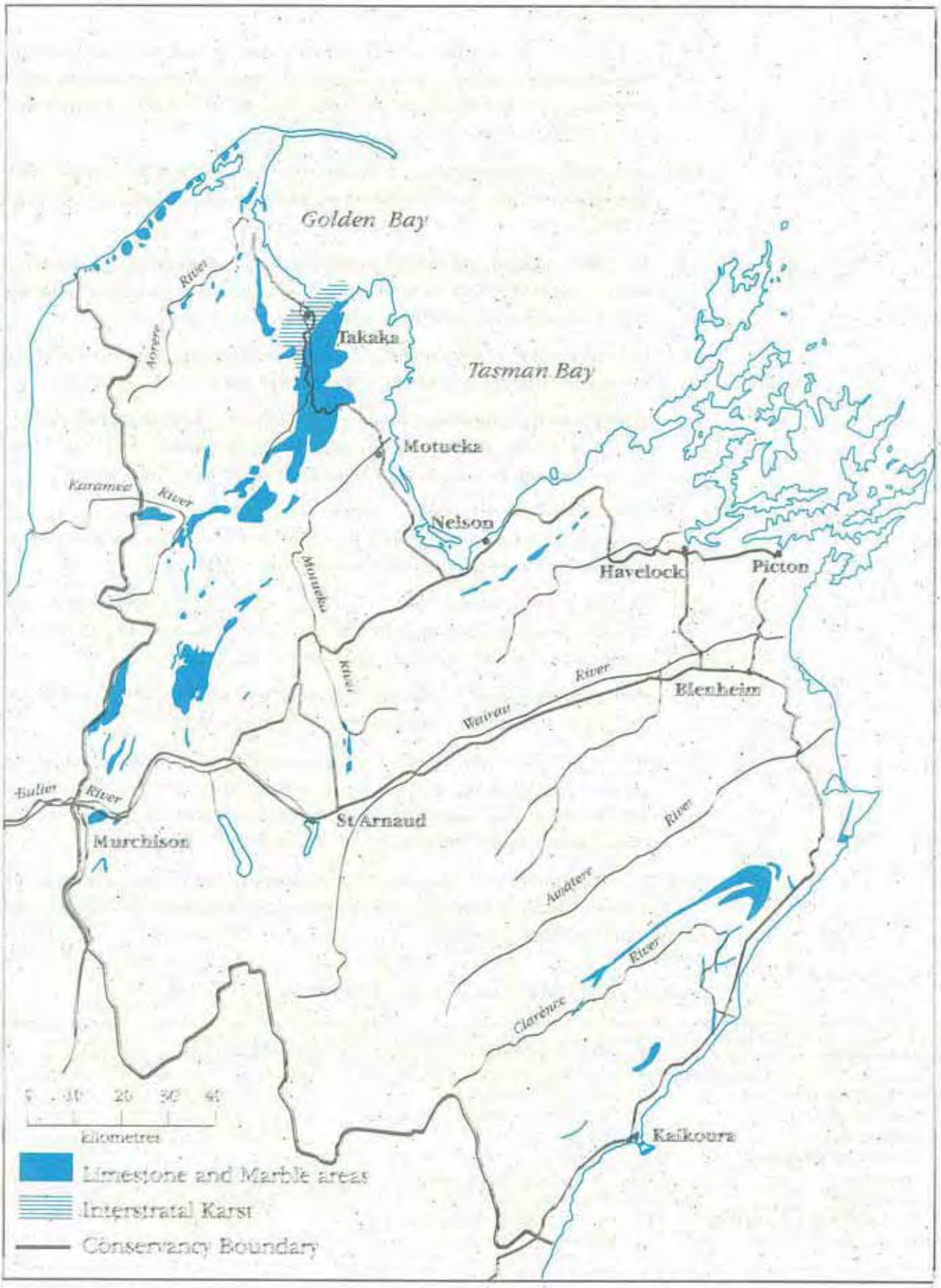
5.9 Where possible, departmental facilities will be operated or functions carried out without significant adverse effects on the freshwater environment and appropriate authorisations will be sought as an example to other resource users (§18.1, p.302).

5.10 The department will advocate to the Ministry of Fisheries a management of commercial freshwater fisheries that sustains natural biodiversity and freshwater ecology.

TABLE 11: KEY AREAS FOR ACTION - FRESHWATER ECOSYSTEMS

LOCATION	KEY ACTIVITIES	REFERENCES
Mangarakau Swamp	protection, research	§21.1, p.359; §6, p.167
Waikoropupu Springs	monitoring, protection	§21.1, p.359; §6, p.167
Motueka River	protection	§21.1, p.359.
Neimans and Pearl Creeks	restoration	§4, p.141
Buller River	protection, plant pest control	§21.1, p.359; §9, p.187
Spring Creek	restoration	§4, p.141
Nelson Lakes (Rotoiti and Rotoroa)	monitoring for plant pest invasion	§9, p.187
Lake Rotoroa (Kaikoura)	crested grebe management	§9, p.187

Map 8 Limestone and Marble Areas



6. Karst and cave ecosystems

Karst is the term applied to the distinctive landscapes that form on limestone and marble areas because of the solubility of these rock types in natural waters. Cave ecosystems occur beneath land and sea-bed and are intimately related to water flows. Many of the issues of upland, lowland, coastal or freshwater ecosystems are heightened in the sensitive cave environments and are dealt with specifically in this section. The biogeographic units containing significant karst and cave ecosystems are shown in Table 2, p.49 and on Figure 7, p.94. The key values are summarised in Table 12, p.97.

Resource Overview

Karst landscapes are characterised by underground drainage of water and may contain features such as sinkholes, springs, caves, enclosed depressions, pinnacles, and rock outcrops with distinctive weathering patterns.

Caves can also occur in non-karst areas. For example, in volcanic rocks, and in coastal situations. The former are not known in the conservancy and the latter are not considered here.

Distribution and physical features

The largest and most diverse range of karst types in New Zealand is found in the conservancy and much of this occurs on land managed by the department. Karst occurs from sea level to the alpine zone, and is formed on both comparatively young, soft limestones, and on older metamorphosed marble. Most karst is in the west (Figure 7, p.94) because the eastern limestones, in South Marlborough, tend to have a high silica content and are resistant to karst formation.

The major karst areas are the marble of the Mount Owen massif, Arthur Range and Takaka Hill-Pikikiruna Range and the limestone of the North-west coast, north of Kahurangi Point (Figure 7, p.94). The karst of the Pikikiruna Range is continuous with the huge marble aquifer feeding the Waikoropupu Springs and several submarine springs in Golden Bay (§3, p.69). The Waikoropupu Springs and the glaciated alpine karst of Mount Owen are landforms of international significance. The karst of the Ellis and Horseshoe basins on Mount Arthur, the Takaka Hill-Canaan karst and Harwoods Hole are landforms of national significance, as are the major cave systems of Mount Arthur and Mt Owen.

Cave systems explored within the karst areas include the four deepest cave systems currently known in the Southern Hemisphere: Nettlebed (889 m), Tomo Thyme-Exhaleair (780 m), and HH Cave (620 m) on Mount Arthur; Bulmer (740 m) on Mount Owen; and the three longest in New Zealand - the Bulmer system (39 km), Nettlebed (24 km) and the Tomo Thyme-Exhaleair (25 km) of the Ellis Basin system.

The karst areas are still only partly explored and many cave systems probably remain to be discovered. Most of the information on local caves has been gathered by members of the New Zealand Speleological Society and their associates, and entered in their computerised New Zealand Karst Index.

Geology and mineralogy

The structure and form of major complex cave systems, such as Nettlebed and Bulmer, contain the history of the geological events that occurred during their formation. Whereas surface landforms are destroyed and new ones created by more recent events, old cave passages and structures tend to be preserved and can be related back to the processes that formed them. Speleothems can be used to date events and interpret past climatic conditions. Cave systems are therefore natural repositories of geological and geographical history. The major cave systems of Mount Owen and Mount Arthur are among the oldest recognisable landforms in New Zealand and this makes them of international significance.

Mineral deposits, sometimes including rare and obscure forms, often make or complement spectacular and aesthetic cave scenery and occur in most cavernous areas. Aesthetically outstanding and rare mineral deposits are known from the large systems on Mount Owen and Mount Arthur, and from a few lowland sites.

Flora and fauna

Above ground, the lime-rich karst areas hold a rich and diverse flora and fauna, often including individual species and species associations found nowhere else (§2, p.55). Below the ground a variety of animals live in the low-biomass cave ecosystem. These include cave wetas that use caves for shelter, but venture outside to feed; glow-worms that can complete their entire life cycle underground, but are equally at home in other damp, dark environments; and troglobitic species that can only survive below the surface.

Based on terrestrial troglobites alone, the karst areas of the conservancy have by far the greatest species diversity in New Zealand. Fifteen carabid beetle species have been identified so far. *Opilionids, Collembola*, spiders, millipedes and other groups are also known but the aquatic fauna except snails is almost unknown. Only a few species of aquatic beetles, *crustacea* and planarian worms have been discovered to date. Many troglobites and several cave wetas appear to be confined to single discrete karst areas, while others are surprisingly widespread. Motupipi or Council Cave in the Golden Bay Lowlands is possibly the most important cave in New Zealand for cave fauna.

Fossils

Caves are well known as repositories for fossil bones and other animal remains. Careful excavation and study of pollen deposits associated with these remains are allowing scientists to build a picture of the ecology of long extinct species, and how species associations changed through the glaciations. Important bone deposits occur in caves on Mount Owen, Mount Arthur, Barrons Flat and Takaka Hill in the Golden Bay Uplands, and at several sites in the Golden Bay Lowlands.

Cultural significance

Generally little is known of the significance of caves and karst features for tangata whenua. Particular karst features have historical or spiritual significance, for example, Waikoropupu Springs. Caves of more recent historical significance include those of the Aorere goldfields that were visited and occasionally used by miners working in the area. They are among the earliest sites in New Zealand where moa bones were found by Europeans.

Recreation and tourism

The known and potential cave systems of the major marble areas of Mount Owen, Mount Arthur and the Takaka Hill-Canaan area are of international significance and attract many New Zealand and overseas cavers.

Cave tourism businesses operate on private land at Ngarua, Rawhiti or Manson's, Te Anaroa and Maori Leap Cave. On areas administered by the department, tourism occurs at Blue Creek in North-west Nelson. A few caves are also used by outdoor activity groups and school groups, for example, Huia Cave in the Mt Arthur Uplands. The stark karst landscape along the Takaka Hill highway is in itself a visitor attraction and this landscape feature should be protected.

Karst and cave management

Cave systems are fragile environments and the quality of surface management largely dictates the quality of the caves and their contents. Most karst is in upland areas administered by the department, but land management threats to caves are largely associated with karst on private land on the Takaka Hill and Canaan areas and in the Takaka Valley from land use or pollution. Threats are greatest and visitors more common in accessible lowland areas both on private land and on areas administered by the department. As a result, karst and cave management focuses on raising public awareness of the issues and problems associated with visitors and land management.

TABLE 12: KEY VALUES AND THREATS OF KARST AND CAVE ECOSYSTEMS

MAJOR VALUES	MAJOR THREATS (CURRENT AND POTENTIAL)
GOLDEN BAY UPLANDS	
invertebrate cave fauna	unknown
fossil remains	visitors
Harwoods Hole, Pikikiruna Range	none
significant cave systems	above ground management
MT ARTHUR UPLANDS	
invertebrate cave fauna	unknown
fossil remains	visitors
internationally important series of cave systems at Mt Arthur	visitors
speleothems	visitors
Karst landscapes by Highway 60 on Takaka Hill	land disturbance, afforestation
MATIRI-OWEN UPLANDS	
internationally outstanding cave systems	visitors
speleothems	visitors
invertebrate cave fauna	unknown
fossil remains	visitors
GOLDEN BAY LOWLANDS	
rare invertebrate cave fauna at Motupipi	visitors, land management
fossil remains	visitors

Objective

To protect the full range of scientific, aesthetic, educational and recreational values of the karst and cave ecosystems.

Issues

Habitat management and protection

All influences on the surface karst ultimately manifest themselves in the caves below. Because caves are both figuratively and literally downstream from the karst surface, major changes to surface ecosystems can have dramatic impacts on the caves below. All food inputs into cave ecosystems come from the surface.

Water essentially percolates directly from the soil into the subsurface through minute channels in the bedrock, so that soil loss is directly downward. Therefore, it is impossible to leave adequate riparian strips on karst during deforestation and soil loss to the subsurface is inevitable. Pasture imparts a degree of stability to soil but all land management regimes which result in periodic baring of the soil surface can lead to large scale accumulation of silt in cave systems.

Within areas administered by the department, surface recreational developments can impact on karst and caves, particularly with respect to waste-water run-off and location of toilet facilities (§18.1, p.302). Changes in water chemistry caused by more rapid water throughput or agricultural chemicals can cause re-dissolving of calcium carbonate speleothems such as stalactites and flowstones. Cave waterways can also act as conduits for silt and chemicals. Offal and other refuse dumped into caves or sinkholes can pollute both the caves and their downstream waters (§5, p.85). Consequently, awareness of such issues must be raised (§20, p.339).

Karst boundaries often bear no relationship to apparent topographic catchments and so protection should be applied to entire karst catchments in the first instance (§2.1, p.115; §2.2, p.122). When considering boundaries for protective status in karst areas, the actual karst catchment boundaries must be established. Where this is not possible, fostering karst conservation and non-destructive management practices with adjacent land managers is necessary (§20, p.339; §20.2, p.348).

Some major karst systems are too large, or draw their water sources from too vast and varied an area, for management control of the catchment to be conceivable. For example, the Waikoropupu Springs are fed by a huge aquifer, estimated to be between 1.5 and 3.5 cubic kilometres in volume. It underlies a large part of the lower Takaka Valley and has submarine connections (Figure 7, p. 94). In such a situation the only effective management control may be to seek protection for water quality and quantity within the aquifer and its sources through the provisions of the RM Act (§5, p.85).

Karst landscapes can be particularly fragile. There are few areas in Nelson/Marlborough where the karst features are readily visible to the travelling public. One of the most visible and accessible karst areas is along the Takaka Hill highway. Privately owned karst areas are prone to damage and modification from

removal of outcrops for landscaping or in filling of sinkholes with spoil and refuse. Exotic afforestation could also have an adverse effect on the landscape.

Research

A considerable part of our knowledge of the karst and cave resource comes from research undertaken by individuals and institutions. Significant gaps remain in our knowledge, especially on karst hydrology and the chemistry of cave waters, which, if filled, could lead to improved management of karst systems (Table 29, p.175).

Some types of research may have a significant impact on the caves in which they are conducted (for example, major fossil excavations, etc.) and in these cases the value of the research needs to be weighed against its impacts (§6, p.170).

Recreation management

Caves are easily damaged by visits. Most impacts in caves are on the physical environment which has limited regenerative ability, so that effects are essentially cumulative and permanent. Impacts include damaging speleothems, trampling fragile fossil bone deposits, cave sediments and fauna habitat, and tracking mud over crystal floors and through pools. Deliberate vandalism and souvenir collecting also occurs. Some forms of damage such as muddying of formations or graffiti-writing can be reversed. The greatest threats are to accessible lowland caves. General education on the values and fragilities of cave systems is required (§20.2, p.348).

The departmental draft national policy and guidelines for cave and karst management provides for a system of access classification for karst areas, caves and cave passages as one facet of cave management. Cave management must seek to balance recreational and educational access against damage to the aesthetic, historic, scientific and natural values (§17.3, p.289).

The New Zealand Speleological Society has developed ethical guidelines for its members, primarily aimed at minimising the effects of recreational caving (§17.3, p.289). Generally, access to caves on areas administered by the department for concessionaires and educational groups should be limited to robust caves or those that cannot be damaged further by use (§14.7, p.249).

Liaison

New Zealand Speleological Society members have played a major role in developing the management of caves and karst. The society's proposed management policy for New Zealand caves and karst provided the impetus for the departmental draft policy. In recognition of its special role in documenting and distributing information on the cave resource, and in promoting caving and cave conservation, the department seeks input from the society in management decision-making (§20.6, p.357).

Management strategies

The management of karst areas focuses on raising awareness of the sensitivity of karst ecosystems and cave formations to damage through visitors or pollution of the waters and seeking appropriate management of areas connected with karst and cave ecosystems on areas administered by the department. These factors are reflected in the key areas for action in Table 13.

TABLE 13: KEY AREAS FOR ACTION - KARST AND CAVE ECOSYSTEMS

LOCATION	KEY ACTIVITIES	REFERENCES
Harwoods Hole	recreation management	§18, p.297
Canaan-Takaka Hill	advocacy for protection	§21.1, p.359
Takaka Valley system	advocacy for protection	§21.1, p.359
Motupipi Caves	advocacy for protection	§21.1, p.359

Implementation

6.1 *A Karst and Cave management strategy will be prepared to guide management activities in the Nelson/Marlborough Conservancy.*

6.2 *Wherever possible protection will be sought for entire karst catchments or systems and their aquifers (§2.2, p.122) and elsewhere good land management practices will be advocated and protection sought through relevant regional or district plans or covenants (§21.1, p.359; §21.1, p.360).*

6.3 *Cave and karst management within areas administered by the department will follow the departmental draft General Policy and Guidelines for cave and karst management and the sensitivity of karst and cave environments will be considered in any proposal for development (§18, p.297).*

6.4 *Interpretation of karst features that are special to the Nelson-Marlborough area will be used to increase public awareness of karst and cave values and their fragility (§19.2, p.328).*

6.5 *Liaison and consultation will be maintained with the New Zealand Speleological Society, the Nelson Speleological Group and other caving groups, especially for substantive karst and cave management issues (§20.6, p.357).*

7. Island ecosystems

Islands share many of the issues and problems of the lowland and coastal ecosystems but, because of physical isolation by sea and their relatively small size, many contain particularly vulnerable ecosystems. Equally, they may offer special opportunities for restoration which may be difficult or impossible to find in a mainland environment (§4, p.142). Most of the islands occur in the Outer and Inner Sounds but others occur in Tasman Bay and on the Abel Tasman Coast (Table 2, p.49). The major values are set out in Table 14, p.103.

Resource Overview

The islands in Nelson/Marlborough Conservancy consist of off-shore and in-shore (estuarine) islands lying from the North-west Coast of the conservancy, near Cape Farewell, to the south-easternmost part of the Marlborough Sounds, with a few islets around Kaikoura Peninsula. The islands vary in area from rock stacks of a few square metres to D'Urville Island, in the Outer Sounds, of about 16,000 ha.

Most of the islands lie in the Marlborough Sounds, between Croisilles Harbour and Port Underwood. These are above-water remnants of ancient ridges and spurs in a system of drowned valleys thought to have formed through a combination of land subsidence and post-glacial sea-level rise; a landscape feature of national significance. The inshore islands of Tasman Bay are mainly sediment-built barrier islands. Rabbit Island is nationally significant as the finest example of a sediment built island. The rocky islets of the North-west Coast, south of Cape Farewell, Abel Tasman, and those around the Kaikoura Peninsula, largely result from coastal erosion.

Biological values

As a group, the islands of the Sounds are nationally important for the protection and management of species, and individual islands have international significance. Over a dozen species of animals and plants are now confined to these islands.

The intrinsic biological values of the islands are twofold:

a) islands often hold examples of ecosystems in a less modified or less depleted condition than similar ones on the mainland; and

b) islands may hold populations of species that are largely or wholly confined to them because of habitat destruction and the introduction of predators, herbivores and competitors on the mainland (relict species).

The existing values are largely determined by the presence or absence of introduced plant and animal pests. Even the absence of one introduced species can mean that an island has high biological values. For example, D'Urville Island has some introduced animals but because of the absence of possums supports four species of native mistletoe at greater abundance than on the nearby mainland. The Trios and Brothers are probably the only islands over 4 ha in the Marlborough Sounds that have remained totally free of introduced mammals.

The Marlborough Sounds islands have many relict species populations. Species now entirely, or mainly, restricted to islands include two species of tuatara; one or possibly two of native frog; several of seabirds; two of geckos; more than ten of invertebrates; and several of plants. Of the Sounds islands, Stephens Island, the Trios and the Brothers in the Outer Sounds and Maud Island in the Inner Sounds, have the most outstanding biological values, being biologically of international significance.

Some of the remaining islands have plant and seabird species not found on the mainland, others have remnants of coastal communities that are now highly modified on, or lost from, the adjacent coast, including salt spray-washed herb communities. Many also have haul-out sites for the New Zealand fur seal. The potential biological values of islands include their possible use as refuges for threatened species as a species conservation measure, such as breeding of kakapo and takahe on Maud Island (§4, p.143).

The sediment-built barrier islands of Waimea and Moutere Inlets of Tasman Bay are heavily modified and often little remains of their former communities. However, several smaller islands have bird roosts and nesting areas or saltmarsh vegetation, and one contains the only population of the highly endangered coastal salt bush and one of the few remaining populations of the coastal peppercress.

Historic and Cultural values

The islands have a rich Maori history reflected in the remains of both temporary and permanent settlements. Many islands retain their importance for tangata whenua as boundary markers, landmarks, and sources of kaimoana and kaiwhenua. They remain part of the physical and spiritual domains of several iwi.

The more recent history of the islands includes whaling, attempts at farming (sometimes short-lived), the erection of navigational lights and beacons and, in the Sounds, the construction of fortifications, surveillance stations and associated infra-structure during World War II. Several historic structures associated with these activities remain (see Table 27, p.165).

Recreational values

Several islands in the conservancy have some recreational use. These include Fishermans and Adele Islands on the Abel Tasman Coast, and Blumine, Long, Motuara Islands and parts of Arapawa Island in the Inner Sounds. Blumine and Motuara have potential for further development for recreation and nature appreciation.

Island administration and management

The islands cover the full range of tenures: Crown land, Maori land, including several smaller islands reserved under Section 439 of the Maori Affairs Act 1953 (now deemed to be reserved under the Maori Land Act 1993), and private land. The Crown islands are administered under a variety of different Acts: the National Parks Act 1980 (Abel Tasman Islands), the Wildlife Act (wildlife sanctuaries), the Reserves Act (nature, scientific, historic and recreation reserves), the Shipping and Seamans Act 1952 (lighthouse stations), and the Conservation Act (conservation areas). All of these areas, apart from the lighthouse stations, are managed by the Department of Conservation.

TABLE 14: KEY VALUES AND THREATS OF ISLAND ECOSYSTEMS

MAJOR VALUES	MAJOR THREATS (CURRENT & POTENTIAL)
TASMAN BAY	
coastal peppercress and saltbush at No Mans Island, Moutere Inlet	loss of sea birds
barrier islands, landforms in Moutere and Waimea estuaries	interference with natural processes
ABEL TASMAN COAST	
possum-free Adele, Fishermans and Tonga Islands	pest invasions, visitors
OUTER SOUNDS	
major seabird nesting areas on most animal pest-free islands	visitors, pest invasions
vulnerable Cook Strait endemic plants on many islands	loss of birds, fishing
internationally important plant and animal communities of Stephens Island	pest invasions, poaching
most of the world population of tuatara on Stephens Island	poaching
best remaining muttonbird groundsel community on Stephens Island	loss of birds, fishing
Hamilton's frog, endemic weevil, rare gecko and invertebrates on Stephens Island	pest invasions
Brothers Island tuatara	poaching, pest invasions
King Shag breeding habitat at several localities	fishing, disturbance
best example of naturally functioning tuatara and seabird colony, at Trios Island	pest invasions, fishing
little spotted kiwi on Long Island	pest invasions, visitors
remnant coastal forests and endemic and threatened plants on D'Urville and Arapawa Islands	invasions by possums
possible habitat for threatened species at Motuara, Chetwode and Titi Island	pest invasions
archaeological and cultural heritage	development
INNER SOUNDS	
Powelliphanta hochstetteri bicolor at Blumine Island	predators
habitat for endangered species on Maud Island	pest invasions, plant pests
Maud Island frog, large invertebrates and rare gecko on Maud Island	pest invasions, plant pests

Of 25 islands in the Sounds greater than or equal to 4 ha in area (Table 16, p.107), 15 are reserves managed by the department and two (Arapawa and D'Urville) contain reserves. In addition, Middle Trio, Stephens and North Brother Islands in the Outer Sounds are either privately owned or primarily managed by the Crown, and have secondary wildlife management status that confers a degree of management control to the department. Of the remainder, most of those in Tasman Bay, apart from those on Abel Tasman Coast which are in the national park, are privately owned with many smaller ones elsewhere managed as conservation areas.

The main thrust of island management is on islands that are free of animal pests, particularly Stephens Island, or largely pest-free islands such as Maud Island and islands that can be permanently freed of animal pests.

Objective

To maintain and protect, as far as possible, the full diversity of the island biological, cultural and historic values and to provide for single species conservation only where appropriate.

Issues

Management and protective status

Islands with wildlife sanctuary status need species and habitat management. Five islands in the Outer Sounds that are owned by tangata whenua or administered primarily by the Ministry of Transport as lighthouse stations (Table 16, p.107) also have wildlife sanctuary status. They have high natural values and require management such as protection from the introduction of pests. The department should pursue management agreements that recognise the owner's rights, while achieving protection of natural, historic and recreational values and appropriate management for threatened species.

Management of species and communities

Islands often hold the best representative examples of entire ecosystems that have been significantly modified on the adjacent mainland by human impacts and introduced species. But even if the vegetation is heavily modified, when free of animal pests they are of value for the protection of individual rare species. The most important pest-free islands are Stephens, Maud, and Motuara, Brothers, Trios, but the Chetwodes also have potential for removal of significant animal pests (§7, p.105). A strategy is required to plan for removal of animal pests and species transfers.

It can be very important to get the order of re-introductions correct. Decision-making on species re-introductions is hindered by a lack of knowledge on species interactions and the likely effects of different orders of introduction. Further research is urgently required (§4, p.143; §6, p.167) because of the pressing nature of many species-conservation programmes relying on transfers to islands.

Plant and animal pests and eradication

Eradication of plant and animal pests can provide an opportunity to maintain populations of native species unable to survive on the mainland. Eradication of introduced predators and browsers can potentially provide a range of management options, from ecosystem restoration to intensive single species husbandry (§4, p.141).

The risk of re-invasion remains. Rodents, especially rats, may reach islands accidentally through associated human activities; stoats can swim distances of more than one kilometre to reach islands; and some species such as pigs and possums have been deliberately released onto islands. Plant pests such as old man's beard can continually re-establish. Pest eradication means a commitment to constant monitoring (§6, p.169).

All islands on which eradications are to be undertaken, or that are already free of pests, should have operative pest contingency plans developed for them (§8, p.185). These should detail the type and degree of monitoring required to detect new infestations, and actions to be taken should infestations occur.

Islands with a risk of natural re-invasions need not be written off. Although the greatest conservation benefit can be gained from eradicating all pests from those islands that are beyond their natural capability for re-invasion,

benefits can arise on other islands. For instance, Blumine Island is frequented by large populations of mice and stoats and it lies well within stoat swimming range from Arapawa Island. Eradication of the mice could cause the stoat population to fall. The island could then become suitable for species unlikely to attract stoats such as invertebrates and smaller vertebrates such as lizards (§7, p.101).

Weka were introduced, in historical times, to some islands beyond their swimming range (for example, Blumine Island) but their presence is now considered undesirable because they are significant predators. They can have a major influence on island ecosystems, and could severely curtail critical species conservation programmes unless removed (§10.1, p.199).

Historic and cultural values, and traditional uses

Both muttonbirding and plant taking are important cultural issues. Close consultation with tangata whenua is required on these issues (§14.1, p.237).

Recreation

Each visit to a pest-free island represents a tiny, but distinct, threat of accidental pest introduction, which is multiplied by the number of visits. On fragile islands, even a handful of visitors can do significant damage to bird burrows and fragile habitats. Access to islands with sensitive habitats, or where critical endangered species programmes are being undertaken, should be limited or restricted. Legal restrictions on access apply to nature and closed scientific reserves, and to wildlife sanctuaries (§16, p.273). Illegal entry and poaching is of increasing concern and requires a co-ordinated approach to surveillance (§13, p.225).

Public interest in conservation creates a desire to see places with rare species and some islands may be acceptably used for controlled public access or nature appreciation (Table 15, p.105; §14.7, p.249). No provisions exist for restricting access to scenic, recreation or historic reserves.

Management strategies

The intrinsic values of islands are enhanced by their potential to provide refuge for species that are threatened elsewhere. This means that management is focused on removal of pests and on restoration of islands with highly modified vegetation (Table 15, p.105). Community participation will be encouraged and visitors may be provided for in some key areas.

TABLE 15: KEY AREAS FOR ACTION - ISLAND ECOSYSTEMS

LOCATION	KEY ACTIVITIES	REFERENCES
D'Urville Island	pest control	§4, p.141; §10, p.195
Arapawa Island	pest control	§4, p.141; §10, p.195
Stephens Island	restoration, research	§16, p.273; §4, p.141; §10, p.195; §6, p.167
Brothers Island	protection, research	§16, p.273; §6, p.167
Chetwodes Islands	pest eradication, restoration	§4, p.141; §10, p.195
Maud Island	restoration, research	§16, p.273; §4, p.141; §10, p.195; §6, p.167
Long Island	recreation, restoration	§4, p.141; §10, p.195; §18, p.298
Motuara Island	restoration, nature appreciation	§4, p.141; §10, p.195; §20, p.348
Blumine Island	pest control, recreation	§16, p.273; §4, p.141; §10, p.195

Implementation

7.1 *An island management strategy will be prepared, detailing which islands in Nelson/Marlborough have priority for pest eradication, and which species are acceptable for introduction to islands free of animal pests and other related issues.*

7.2 *Until a national strategy for island management is produced, the functional categories for islands proposed by Atkinson and Towns (1990) will be used as a guide to management.*

7.3 *Research into species interactions and the effects of the order of introduction of species to islands will be encouraged (§6, p.167).*

7.4 *Restoring the full diversity of the island ecosystems will be given priority but, where appropriate, single species management of endangered species will be undertaken (§4, p.142).*

7.5 *Island management, including species and ecosystem management, will be promoted to the public (§20.2, p.348).*

7.6 *Sound conservation practices will be advocated to managers of islands with high natural or historic values (§20.2, p.348).*

7.7 *On islands administered by the department, the cultural and spiritual values to the tangata whenua will be recognised and, where appropriate, traditional taking may be permitted after consultation with tangata whenua and other interested groups (§14.1, p.237).*

7.8 *Public access to certain islands will provide access to species not normally encountered on the mainland for both education and nature appreciation (§14.7, p.249; §16, p.273).*

TABLE 16: ISLANDS OVER 4 HA IN NELSON AND MARLBOROUGH

ISLAND	AREA(HA)	OWNERSHIP	STATUS
Adele	c. 100	Crown	National Park
Allports	16	Crown	Scenic Reserve
Arapawa	7,590	Mainly private	
Archway	c. 20	Crown	
Awaiti	4	Crown	Scenic Reserve
Bells	121	Private	
Best	112	Private	
Blumine	377	Crown	Scenic Reserve
North Brothers	4	Lighthouse, Crown	Wildlife Sanctuary
South Brothers	8	Crown	Nature Reserve
D'Urville	16,000	Mainly private	
Fishermans	c. 5	Crown	National Park
Forsyth	655	Private	
Haulashore	c. 5	Local body	Recreation Reserve
Jacketts	65	Private	
Long	142	Crown	Scenic Reserve
Maud	309	Crown	Scientific Reserve
Motuanauru	9	Crown	Scenic Reserve
Motuara	59	Crown	Scenic, Historic Reserve
Nukuwaiata	194	Crown	Nature Reserve
Otuhaereroa (Goat)	19	Crown	Scenic Reserve
Oyster	5	Local Body	
Pickersgill	96	Private	
Puangiangi	38	Private	
Rabbit	949	Local Body	Plantation, Recreation Reserve
Rough	84	Local Body	Plantation, Recreation Reserve
Saxton	8	Private	
Stephens (Takapourewa)	150	Crown	Nature Reserve
Tata	c. 5	Crown	National Park
Tarakaipa	36	Crown	Scenic Reserve
Tawhitinui	19	Crown	Scenic Reserve
Te Kakaho	81	Crown	Nature Reserve
Tinui	89	Maori	
Titi	32	Crown	Nature Reserve
Tonga	7	Crown	National Park
Trios (Middle)	20	Maori	Wildlife Sanctuary
Victory (Motiti)	11	Maori	
Whakatere-Papanui	61	Crown	Recreation Reserve

PART THREE
FUNCTIONAL OBJECTIVES

A TIKANGA MAORI

1. Treaty obligations

The department manages the areas and resources allocated to it for all New Zealanders on a principles of guardianship. Tangata whenua have an equally important responsibility of kaitiakitanga in respect of natural resources in their rohe. The department is bound by Section 4 of the Conservation Act to give effect to the principles of the Treaty of Waitangi. This affects the activities of the department in many ways but particularly in the need for regular dialogue with the tangata whenua who are the kaitiaki. Only through building a close relationship with the Maori people at a local level can the areas of mutual concern be identified. The challenge is one of finding a common ethic, of meeting Maori aspirations within the legal constraints under which the department operates.

The conservancy lies within the rohe of the Ngai Tahu as defined by the Maori Appellate Court and the rohe of the eight iwi of the top of the South Island. Formal contacts and hui between the tangata whenua and the department are arranged to discuss major issues. For many issues, though, hui are held at one or more of the marae in the conservancy.

Activities are co-ordinated by the Kaupapa Atawhai Manager. Apart from contacts with the tangata whenua the manager co-ordinates the department's response to Treaty issues and claims under the Waitangi Tribunal and assists in the formulation of policy.

The major concerns of the tangata whenua relating to the department and its activities are preservation of cultural sites and wahi tapu (§2.2, p.125), management of coastal habitats, access to cultural materials such as kiekie, pingao and whale bone, and traditional use of titi and eels. These concerns permeate a very wide range of the department's activities. The particular issues of protection of cultural sites (§5, p.156), cultural materials and traditional use (§14.1, p.237) are dealt with in the relevant sections elsewhere in the CMS.

Objective

To give effect to the principles of the Treaty of Waitangi.

Issues

Maori are often involved in areas of the department's activity. The nature and extent of the involvement is established through consultation with the Kaupapa Atawhai Manager and the appropriate organisations or individuals. In the past, problems have arisen because the wrong iwi or hapu was consulted before an action was carried out. This type of problem is being reduced through closer contacts between the department and the tangata whenua at all levels. Conservancy office staff frequently make contact with the kaumatua of the

runanganui and individual runanga as well as tangata whenua. Local staff also build relationships with the elders of the hapu and iwi in their area. In many areas the department is assisting iwi in the management of their resources. In these ways a better mutual understanding is being realised.

Various groups have shared boundaries. For matters covering such areas, the department usually seeks agreement between each of the groups on its management proposals. Staff and management will be encouraged to gain an understanding of and respect for Maori tikanga and values.

Implementation

1.0.1 *The relevant tangata whenua will be consulted on a regular basis.*

1.0.2 *Staff and management will be encouraged to gain an understanding of and respect for Maori tikanga and values.*

1.0.3 *Formal consultation on reviews of this plan will be carried out with the departmental Kaupapa Atawhai Manager and the relevant tangata whenua.*

1.0.4 *Systems will be developed to make it easier for iwi to bring their views before the department.*

B MANAGEMENT OF NATURAL AND HISTORIC RESOURCES

This section of the CMS sets out how the department will conserve biodiversity, special places and historic resources. It provides detail on:

- legal protection of areas (§2.2, p.122), species (§3, p.137) and historic resources (§5, p.155);
- active management of threatened species and communities (Table 25, p.153) and historic resources (§5, p.155); and
- the role of research, survey and monitoring (§6, p.167).

The management of natural resources is intimately related to the control of threats and consequently this section must be read in conjunction with the PLANT and ANIMAL PESTS sections (§9, p.187, and §10, p.195). Those sections provide detail on how widespread threats to natural values will be managed.

Highly valued natural and historic resources occur without regard to property boundaries. Indeed many species, such as falcons, are highly mobile and have large territories that cannot be fixed very precisely. Consequently protective effort will be distributed according to the presence of values rather than to the boundaries of the areas administered by the department.

In the long term no species or biological community can depend on human intervention for its continued existence. Thus highest priority in the management of natural and historic resources is given to the conservation of plant and animal communities and historic resources in their natural environment. Where technological, information or resource constraints prevent this goal being achieved in the short term, species may be subject to intensive management. This can include relocation to island refuges, captive rearing or propagation. These actions are only done in the context of a longer term strategy in which the species is restored to its natural range. Substantial areas of natural communities will be maintained only through plant and animal control, as set out in the THREATS TO AREAS ADMINISTERED BY THE DEPARTMENT section, until new developments allow more complete restoration.

No protective effort can be successful in the absence of good information. Research effort is controlled nationally but survey and monitoring is a conservancy function. In general, 10% of the budget for protection work will go into generating the data required to ensure that the protection task is completed successfully.

2. Legal protection of natural areas

2.1. IDENTIFICATION OF AREAS FOR PROTECTION OR ENHANCED PROTECTION

Philosophy

The primary goal in Nelson/Marlborough Conservancy is to preserve the full range of features that "in the aggregate gave New Zealand its original natural character" (Reserves Act 1977). One part of achieving this goal is to obtain legal protection for areas valued for their possession of such features. Legal protection is particularly effective where threats to the values arise from human use of the area.

Reserve design

In selecting terrestrial areas for protection the principles of reserve design related to viability are followed. These are:

- large is better than small;
- connected is better than separate;
- edge effects are minimised by appropriate size and shape;
- ecological "islands" are preferred where plant and animal pests are a problem; and
- ecological corridors are provided for mobile species where these are suitable for the species involved.

Selection criteria include:

- habitat of threatened or endangered species;
- habitat of a rare indigenous species which, if that habitat is not protected, might become threatened;
- unrepresented or poorly represented communities;
- diversity of species, habitats, communities, ecosystems and physical features (landform, geology, soils);
- naturalness (lack of human disturbance) and long term viability;
- potential for scientific and public education benefits;
- landscape quality;
- historic places of national importance;
- places of special significance to Maori; and
- places endangered by threats that may affect the area if no action is taken.

Identification of new areas

Published maps show that the conservancy comprises 31 complete and parts of 10 other ecological districts. Representative parts of each of these districts should be protected. In 13 ecological districts field assessments have been completed, but reports of only three have been published (Table 18, p.119). In addition, 13 other ecological districts are largely or wholly protected within areas administered by the department.

Many means are used to identify areas for protection and to set priorities for their protection. Important areas in the conservancy are identified by their values, using the system set out in Table 1, p.44.

The identification of rare or representative habitat may be achieved on an *ad hoc* local knowledge basis, or through a specific programme. The specific programmes are methodical and less likely to miss key habitats than *ad hoc* approaches, but they are expensive and time-consuming. The main programme is the Protected Natural Areas Programme (PNAP). Other data sources are the databases of Sites of Special Wildlife Interest (SSWI), Wetlands of Ecological, and Representative Importance (WERI) and the Coastal Resources Inventory (CRI). Details of these programmes are in Appendix II, p.417. The department also provides data to, and draws data from databases of other organisations such as the National Indigenous Vegetation Survey, Freshwater Fisheries, Karst and Cave, Geopreservation and Archaeological databases (§6, p.170) which are continually being updated.

Besides these broad conservancy-wide inventories, many types of detailed, site-specific or species-specific studies are carried out. These include quantitative studies of areas such as Whanganui Inlet and surrounding Long Island for marine reserve purposes, and Waimea Inlet and Pelorus Sound to identify tidal and subtidal natural values. Many small surveys assess the distribution, density and status of threatened, vulnerable or rare plant and animal species.

During the 1980s, areas within North-west Nelson and the Howard and Big Bush conservation areas were surveyed for potential ecological area status. In 1992 data was compiled from these and many other sources to assess the North-west Nelson for national park status.

Objective

To identify areas requiring protection.

Issues

Data limitations

The WERI and SSWI databases are both now out of date - many other databases suffer the same problem. The CRI was completed in 1990 and may suffer the same fate unless the information is continually updated. Only by keeping them updated and contributing to those managed outside the department can they remain relevant. PNAP is the main ongoing defined programme although it is designed primarily to survey plant and animal species and communities on land.

The department has attempted to establish a comprehensive database of sites (SITES) but lacks the resources to achieve this. Similarly, moves exist to establish a full computer-based Geographic Information System (GIS, §6, p.170). These systems are desirable for satisfying the departmental needs, not only for identifying areas for protection but also for fulfilling RM Act obligations. Even when these are fully operational, reliance will continue to be placed on written reports and personal experience and expertise.

PNAP implementation

The best examples resulting from a PNAP survey are listed as Recommended Areas for Protection (RAP) and ranked for legal protection and management needs in the final reports (§6, p.170). One of the major problems is finding resources to carry out recommendations from these surveys. Section 2.2 (p.122) describes the mechanisms used to maximise use of resources.

Protection strategy for coastal and marine areas

Coastal and marine areas of the conservancy can be divided into eight broad biogeographic zones. To establish a representative network it will be necessary to protect areas that span the typical and unique in each of these zones. These may be established directly as marine reserves (for scientific study) through the Marine Mammals Act (to protect particular species and their habitat), the Reserves and Wildlife Acts (to protect foreshore habitat), or through advocating protection under the RM Act, Fisheries Act or other suitable mechanisms. Specific areas will be identified through ecological survey but the main categories that need to be considered are listed in Table 17, p.118.

Continuity of reserves

Nature and Scientific Reserves on islands automatically include the foreshore, that is all land down to the mean low water spring tide mark for the purposes of controlling access. National parks and conservation areas may also extend to the same point on consent of the Ministers of Lands and Transport. This can lead to protection of significant shoreline values. Similarly, protection of areas adjacent to significant reserves, such as national parks, can offer continuity of protected habitat extending from mountain tops to the sea. In other areas, establishment of land-based reserves alongside marine areas that are protected can facilitate access and enjoyment of the protected area. Similar principles apply to the protection of freshwaters.

Many parts of areas administered by the department are also crossed by unformed roads which are impractical for formation but offer opportunities for squatters to establish. In some cases it may be desirable to seek stopping of the road and the allocation of the land to the protected area.

Enhancement of status

Any review or upgrading of land status requires a thorough knowledge of values that often can only be obtained from field survey. This knowledge together with PNAP survey forms a framework to evaluate any area.

TABLE 17: COASTAL AND MARINE HABITAT CATEGORIES REQUIRING PROTECTION

BIOGEOGRAPHIC AREA	EXPOSED SHORE	SHELTERED SHORE
North-west coast	sand beach rock platform sedimentary substrate	estuary with native forest catchment eelgrass beds high current areas
Golden Bay	soft shore granite shore limestone shore high current area	estuary
Abel Tasman coast	bryozoan beds granite shore horse mussel beds	
Tasman Bay	soft shore rocky shore	estuary tubeworm bed
Outer Sounds (western and eastern outer Sounds)	rocky shore soft shore brachiopod beds bryozoan beds horse mussel beds reef systems high current areas	boulder bank estuary
Inner Sounds (Croisilles Harbour, Pelorus, Queen Charlotte, Port Underwood, Tory Channel)	algae communities rocky shores soft shores reef systems	estuary tubeworm mounds elephant fish spawning areas Hector's dolphin areas rocky shore soft shore sponge communities reefs horse mussel beds *brachiopod* beds
Marlborough coast	soft shore rocky shore *Macrocystis* beds Hector's dolphin areas	estuary
Kaikoura Coast	rocky shore soft shore limestone shore reef systems Hector's dolphin areas	eelgrass beds

TABLE 18: PNAP AND ECOLOGICAL AREA SURVEY PRIORITIES

SURVEYS BY AREAS		SURVEY PRIORITIES	REPORT COMPLETION
PNAP SURVEYS			
ECOLOGICAL REGIONS	DISTRICTS		
Nelson		Long term	Long term
Kaikoura		Medium term	Medium term
Molesworth		Complete	Complete
Wairau		Complete	Short term
Inland Marlborough		Complete	Complete
Clarence		Complete	Complete
Northwest-Nelson		Medium term	Long term
	West Wanganui	Long term	Long term
	Golden Bay	Long term	Long term
	Wangapeka	Medium term	Medium term
Lowry		Long term	Long term
	Hundalee	Medium	Medium
ECOLOGICAL AREA SURVEYS			
Big Bush	Complete	Complete	
Howard	Complete	Complete	
Aorere-Anatoki	Complete	Long term	
Short term:	1-3 years		
Medium term:	2-5 years		
Long term:	5-10 years		

Implementation

2.1.1 *Priorities for survey for PNAP are given in Table 18.*

2.1.2 *Urgency will be given to implementation of completed PNAP surveys.*

2.1.3 *Emphasis will be placed on gathering information on marine and freshwater ecosystems to identify potential reserves.*

2.1.4 *Where appropriate, opportunities will be utilised to improve boundaries or to satisfy reserve design criteria.*

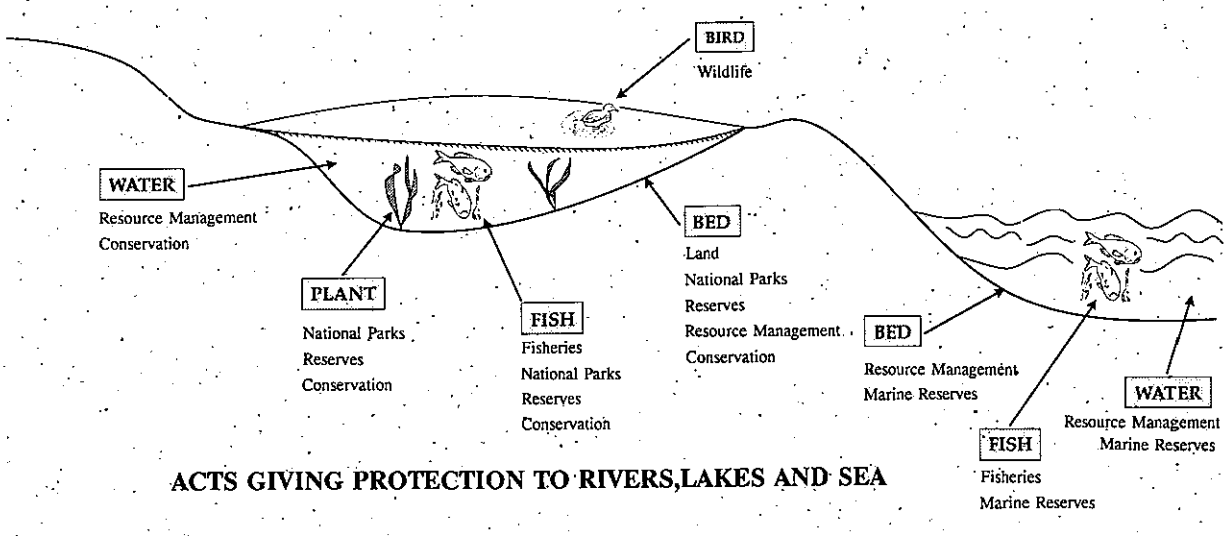
2.1.5 *Where appropriate, protection will extend across land/sea and land/freshwater boundaries by placing legally protected areas together.*

2.1.6 *Where the opportunity arises, or the integrity of an area administered by the department is threatened, stopping of unformed roads may be sought and the land included in it.*

TABLE 19: STATUTORY MEANS OF PROTECTION AND VALUES PROTECTED

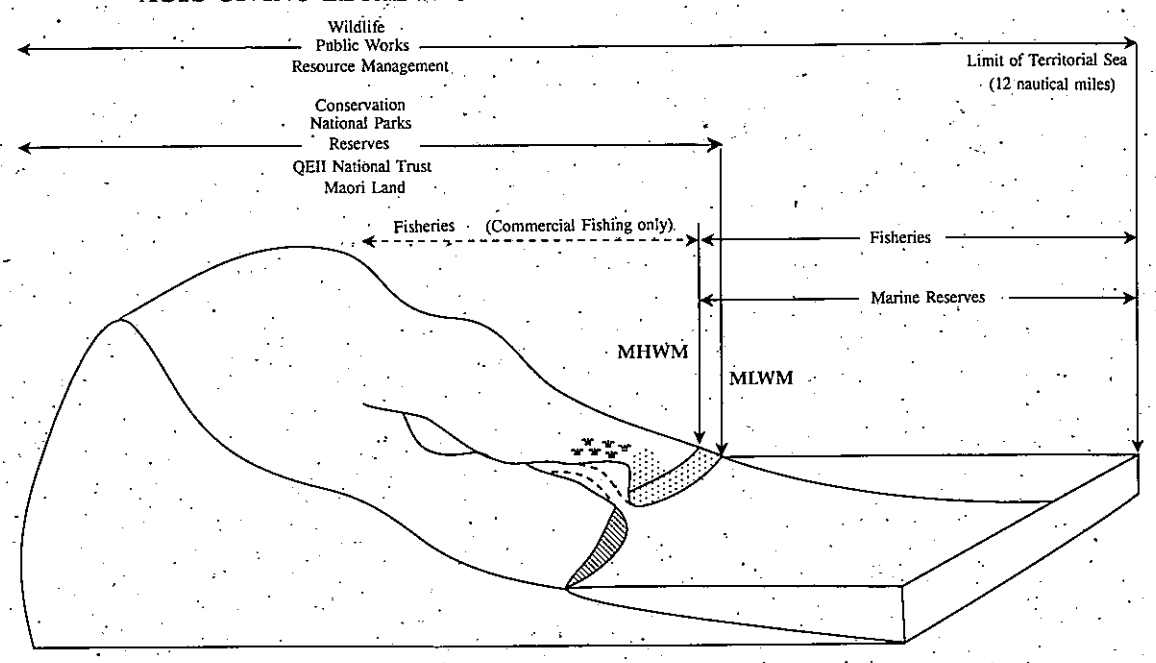
ACT	VALUES PROTECTED		
	LAND	FRESHWATER	SEA
ACTS ADMINISTERED BY THE DEPARTMENT			
National Parks	Landscape Natural, historic and recreational values Access	Riparian Beds of lakes & streams Biota Waters	(Possible to low water mark) Natural, historic and recreational values
Conservation	Natural, historic and recreational values	Riparian Beds of lakes & streams Biota except commercial fish Water quality	(Possible to low water mark) Natural, historic and recreational values
Reserves	Natural, historic and recreational values Access	Riparian Beds of lakes & streams	(Possible to low water mark) Natural, historic and recreational values
Wildlife	Wildlife habitat	Wildlife habitat	Wildlife habitat
Marine reserves			Fish Habitat Seabed
Marine Mammals protection	Marine mammals habitat	Marine mammals habitat	Marine mammals habitat
OTHER ACTS OFFERING PROTECTION			
Resource management	Natural, historic and recreational values Access	Water quality and quantity Riparian Beds Habitats of native flora and fauna Habitats of trout and salmon	(to limit of territorial sea) Water quality Habitat Seabed Landforms Historic
Fisheries		Commercial fish	All fish and plants
QEII National Trust	Open Space Natural, historic and recreational values		
Maori land	Natural, historic and recreational values		

Fig. 9 Mechanisms of Protection



ACTS GIVING PROTECTION TO RIVERS,LAKES AND SEA

ACTS GIVING LEGAL PROTECTION TO AREAS



2.2 MECHANISMS FOR LEGAL PROTECTION

Legislation

A variety of Acts provide mechanisms for legal protection of natural or historic values, for example, Reserves Act 1977, Conservation Act 1987, National Parks Act 1980 and Wildlife Act 1953 (Table 19, p.120; Table 20, p.122; Figure 8, p.121). These are administered by the department. Most of these only apply to land or foreshore areas although under the Wildlife Act protection can extend to include sea. As well, other acts may be used either directly, for example, heritage orders or designations under the Resource Management Act 1991 (RM Act, §21.1, p.360), or indirectly through consultation and co-operation with administering authorities or owners, for example, using the Maori Land Act 1993.

The RM Act also provides an important indirect means of protecting land, sea and freshwaters from the adverse effects of most activities (except fishing) through using rules in regional or district plans. Activities that do not comply with any of the rules in a regional or district plan require a specific consent from the local authority. Local authorities can also acquire reserve areas as a part of resource consents, for example, as reserve contributions on subdivision.

TABLE 20: MECHANISMS AVAILABLE TO THE DEPARTMENT FOR LEGAL PROTECTION OF LAND OF HIGH NATURAL, HISTORIC OR RECREATIONAL VALUES

STATUTE	PURCHASE, GIFT OR LEASE	EXCHANGE	COVENANT, ACCORD OR AGREEMENT
Reserves Act 1977	Section 12	Section 15	Sections 38, 76, 77, 77A
Conservation Act 1987	Section 7	Section 16A	Sections 27, 27A, 29
National Park Act 1980	Section 9	N/A	N/A

Protection of land

Protection can be achieved through direct acquisition of the land, or the establishment of some form of protective management regime over the land. Heritage Protection Orders, as discussed later, can provide interim protection. Of the Acts directly administered by the department, the Reserves Act 1977 and Conservation Act 1987 are the most commonly used. Both provide for direct acquisition of land by either purchase, gift or exchange (Table 20). Protection of natural, historic and recreational values on land retained in private ownership can be achieved by covenants, management agreements and leases. The National Parks Act only allows for purchase, lease or gift of land.

In addition to acts which protect land and whole ecosystems, the Wildlife Act and the Native Plants Protection Act provide specific protection for species. These are dealt with in §3, p.137.

Finance for protection of land

The conservancy itself has no budget for protecting land. Funds required for both acquisition of land and establishment of covenants must be obtained from either Head Office or other government funded sources. Also, the possibility of seeking a contribution from other sources such as local authorities and other organisations should not be overlooked.

The Forest Heritage Fund and Nga Whenua Rahui (for Maori-owned land), though serviced by the department, report independently to the Minister of Conservation. Both these funds are restricted to the protection of forest ecosystems. The Forest Heritage Fund is fully contestable and the department is only one of many applicants, since landowners, local authorities, or other government departments and public organisations are all eligible to apply.

The Nga Whenua Rahui fund is directed at protecting forests on Maori-owned land and is specifically designed to meet their needs by recognising the manawhenua of Maori forest owners and their traditional and cultural uses of the forests.

Finance may be provided by the above funds to cover purchase, fencing, survey and legal costs involved in establishing initial legal protection, but is not generally available for ongoing maintenance of areas once protected.

A Land Acquisition Fund is controlled by the department and is used for the protection of non-forest ecosystems. Local authorities also can offer rate relief (remission or postponement) where land with natural, historic or cultural features has been voluntarily protected or enhanced by the occupier.

Protection of freshwaters

Although native freshwater and recreational fisheries and their habitats are generally protected by the Conservation Act, native freshwater fin fish are only protected in national parks and by the Wildlife Act in wildlife sanctuaries. Therefore even large areas administered by the department, such as forest parks and wildlife refuges, do not confer protection on native aquatic animals except where the bed of the lake or waterway is included in the reserve.

Faunistic reserves under the Freshwater Fisheries Regulations are administered by the department. They protect animals in designated waters. In this conservancy, Lake Chalice is the only faunistic reserve. A gazette notice under the Conservation Act can restrict access to spawning grounds, regulate transfer of aquatic life, or declare closed seasons for fishing.

Strips of land next to water (riparian strips) can help protect its qualities and quantity. Well-managed riparian strips may have many direct and indirect effects on freshwaters (§5, p.90). Such protection can be achieved with marginal strips and watercourse areas, and through the RM Act with esplanade reserves and rules in district plans, water conservation orders and heritage protection orders (§21.1, p.360).

Protection of sea

Although primarily for protection of areas for scientific study, marine reserves provide the greatest level of protection for marine areas. They protect areas for

scientific study of marine life. Their nett effect can give similar levels of protection in the sea as national parks, conservation areas and scenic reserves on land. Land-based acts can also give protection to low water spring tide mark.

Besides the department, universities, incorporated bodies engaged in scientific study or having it as one of their objects, and any body administering a reserve fronting the sea coast, can apply for a marine reserve to be established.

The Marine Mammals Protection Act 1978 provides for the setting up of marine mammal sanctuaries for the protection of any marine mammal species, giving some opportunity for community or habitat protection.

The Fisheries Act 1983, administered by the Ministry Fisheries, provides for a variety of fishing method and area restrictions through regulation. Of particular note is the ability to close areas to all or some forms of fishing to prevent damage to marine habitats and ecosystems, for example, the Separation Point bryozoan coral beds.

The Fisheries Act also allows for the establishment of taiapure and mataitai reserves. Taiapure are local estuarine or coastal fishing areas that have customarily been of special significance to iwi or hapu as a source of food, or for spiritual or cultural reasons. Mataitai reserves are areas of traditional importance to Maori where the tangata whenua manage the non-commercial harvest of sea-foods. A local management committee advises the Minister of Agriculture and Fisheries on management, thus offering local communities an opportunity to manage and conserve local fisheries.

Objective

To provide effective legal protection for areas possessing important natural or historic values by the most appropriate and cost-effective mechanism.

Issues

The terrestrial reserve system is well established, by contrast marine and freshwater areas currently have very limited specific protection. This means that any freshwater or marine area granted protection contributes in a major way to building a representative range of protected areas.

Protection of land

All the mechanisms available for direct involvement depend on landowner willingness to sell or restrict use of their land. The likelihood of achieving protection may often be increased by use of more indirect methods such as through the RM Act (§21.1, p.360), or by fostering landowner or local authority interest in the management of natural areas. About 20 properties held under pastoral lease may be subject to tenure review. Here, either at renewal or on the initiative of the lessee, negotiations may be initiated with the department to protect areas with significant natural, historic or recreational values.

Some landowners prefer dealing with a body that is independent of the Crown. Consequently, the department maintains close contact with local QEII National Trust agents to ensure co-operation, so that conservation as a whole benefits.

Maori landowners are unwilling to lose control of their land and are cautious about covenants. Consequently, protection of important natural and historic values by Maori reservation is an avenue worth pursuing. Maori reserves are normally held for the common use or benefit of the owners or specific Maori groups. Areas may, on the express recommendation of the Maori Land Court, be held for the use and benefit of the people of New Zealand. A 1993 amendment to the Reserves and Conservation Acts provides for Nga Whenua Rahui Kawaneta (covenants) which are specially tailored for Maori land.

Protection of specific individual areas may be achieved by applying for a Heritage Order or designation under the RM Act (§21.1, p.360). If these are accepted and included in a district plan, any action that would change the character, intensity or scale of use of the land, or tend to nullify the effect of the order, would require the department's consent. Placement of a Heritage Order may result in a requirement to purchase the land or compensate the owner for any increased costs of up-keep (see also §21.1, p.360).

Allocation of funds from the three main sources is by national priorities through established ecological and commercial criteria. The overall principle is always to obtain value for money and means other than outright purchase are preferred wherever possible.

Applications for funds are favoured where there is:

- landowner or third party assistance (local authority, conservation group);
- a contribution towards costs; and
- proof of ability to manage the land in perpetuity.

Protection of freshwaters

Given the difficulty of safeguarding freshwater habitats, preservation must be indirect, either through protecting the adjacent terrestrial ecosystems or through protecting water quantity and quality under the RM Act. Responsibility for water management lies with the local authorities who set the ecological threshold for action. Consequently, the department must liaise closely with them to protect areas of particular significance (§5, p.93).

Protection of sea

Protection may be through marine reserves or other forms of protection with similar outcomes. Although primarily for the protection of areas for scientific study the Marine Reserves Act is the only statutory mechanism available to the department that can offer a direct and effective means of protecting marine areas from fishing, especially below mean low-water spring tide mark. In the intertidal zone some protection can be achieved under the Reserves, Conservation and National Parks Acts.

The ability of the department to protect other marine areas from fishing is limited. The RM Act expressly excludes matters related to fisheries from consideration, although activities on land and water can be restricted. Under the Fisheries Act, administered by Ministry of Fisheries, the department can only act as an advocate for conservation (§21.1, p.359).

Although provisions within the Marine Reserves Act allow some non-commercial fishing within a marine reserve, this could only occur where it does not conflict with the purpose of preserving the area and its marine life for scientific study. Allowing any fishing within a marine reserve will erode the effectiveness of such a reserve and therefore should be discouraged.

Although the Marine Reserves Act was enacted in 1971, only two marine reserves were established in New Zealand before 1989. In recent years public awareness of marine conservation issues has developed to the extent that support is now steadily growing for the concept of marine reserves. Marine reserves can affect traditional fishing rights and therefore the support of the tangata whenua is vital for any marine reserve proposal (§4, p.77).

Full and early consultation helps build support, and ensures community concerns are fully canvassed and considered before an application is lodged. The creation of a marine reserve at a particular site remains a contentious issue if the public is not consulted or involved. After establishment the public can continue to be involved through honorary marine reserve rangers and marine reserve advisory committees. In 1995 three marine reserves were present in the conservancy. An application from Royal Forest and Bird for a marine reserve at Kaikoura Peninsula was also under consideration (§4, p.77).

Priorities

The limited resources available means that efforts to obtain legal protection must be strictly prioritised. It is not that the protection of locally important values does not matter, but rather the protection of features of international or national significance is more urgent.

The priority given to the protection of individual areas stems from their values (Table 1, p.43) and:

- the importance of those values in the area;
- the threats to those values; and
- the practical opportunities for protection.

Implementation

2.2.1 *Priorities for protection of terrestrial ecosystems and areas will be in accordance with Table 25, p.153.*

2.2.2 *Priorities for protection of coastal and marine areas will be in accordance with Table 17, p.118.*

2.2.3 *A network of areas with legal protection will be promoted, containing representative, as well as unique, special, or unusual areas.*

2.2.4 *The full range of statutory mechanisms available will be considered to ensure that appropriate and cost-effective legal protection is given to areas possessing important natural or historic values.*

2.2.5 *Close liaison will be maintained with QEII National Trust and all other relevant agencies to ensure effective co-operation and to*

encourage local community involvement in the management of legally protected areas.

2.2.6 *District and regional planning processes will be used to influence activities that could affect outstanding natural features and landscape, and natural, historic or recreational values.*

2.2.7 *A priority list based on natural, historic and recreational values will be developed to help promote protection of freshwater bodies by water conservation orders, faunistic reserves and other suitable means.*

2.2.8 *Riparian protection for freshwaters with significant natural, historic and recreational values will be initiated.*

2.2.9 *Appropriate water quality classes will be sought to protect aquatic communities.*

2.2.10 *Identification of significant lowland wetlands will be advocated and priorities for protection of all significant wetlands will be established.*

2.2.11 *Non-commercial fishing within a marine reserve may be considered where it does not conflict with the purpose of preserving the area and its marine life for scientific study.*

2.2.12 *Full and early consultation with the local community and interest groups will be undertaken during the development of proposals to protect an area.*

2.2.13 *Procedural advice will be provided to other groups or organisations wishing to make applications for marine reserves.*

TABLE 21: AREAS ADMINISTERED BY THE DEPARTMENT (AS AT 1 JUNE 1996)

TYPE	NUMBER	AREA (HA)	%
DIRECTLY MANAGED			
National Park	3	463,253.6	45.3
Forest Park	3	196,737.8	19.2
Farm Park (Recreation Reserve)	2	1,882.1	0.2
Marine Reserve	3		
Faunistic Reserve	1	30.0	
Recreation Reserve	63	2,298.9	0.2
Scenic Reserve	186	75,501.1	7.4
Historic Reserve	9	1,261.9	0.1
Nature Reserve	7	12,801.3	1.3
Scientific Reserve	5	485.8	0.0
Wildlife Sanctuaries	4	154.2	0.0
Wildlife Management (Government Purpose Reserve)	5	4,414.4	0.4
Wildlife Refuges	6	193.0	
Conservation areas (ex State Forest)	14	140,717.6	13.8
Conservation areas (ex Crown land)	328	120,821.8	11.8
Local Purpose Reserves:			
Cemeteries	10	16.1	0.0
Sounds Foreshore	384	1,159.0+	0.1
Esplanade Reserve	13	55.9	0.0
Gravel Reserve and Quarry Reserves	84	53.1	0.0
Stock Reserve	13	40.9	0.0
Utility	22	138.4	0.0
Other Local Purpose	16	523.1	0.0
Marginal Strips	400+	5474	
Total directly managed	1,398+	1,022,637+	
CONTROL AND MANAGE			
Recreation	29	692.3	
Scenic	1	0.9	
Historic	3	0.4	
Local purpose:			
Cemeteries	12	40.9	
Wildlife management	1	7.4	
Soil and Rivers	8	2,159.1	
Other	38	503.2	
Total	92	3,397.2	
VESTED RESERVES SUBJECT TO THE RESERVES ACT (approximate only)			
Recreation	167	981.2	
Local purpose:			
Cemeteries	24	64.5	
Esplanade	70	243.2	
Utility	12	7,336.3	
Other	164	5,572.3	
Total	437	21,520.5	
OTHER INTERESTS			
Covenants:			
PPL	70	13,254.5	
QEII	47	1,092.2	
Wildlife Refuges	2		

2.3 CLASSIFICATION OF AREAS ADMINISTERED BY THE DEPARTMENT

About 42% of the land in the Nelson/Marlborough area is managed by the Department of Conservation. The extensive areas are protected under a variety of status and include national parks, reserves and conservation areas (Table 21, p.128). The Reserves, Conservation, Wildlife and National Parks Acts contain provisions for the classification of lands with different objectives of management. Objectives can range from strict preservation of ecosystems or species, to extensive human modification for recreation or other specific purposes. The categories identify the general purpose for which specific areas are to be managed and the specific parameters of use for each classified area are detailed in Appendix V, p.428. (See also §7.1, p.179).

Classification or status change generally requires public advertisement and gazettal, but the process varies under each act. Advertisements may be placed locally or nationally with a minimum of one month for the public to respond.

Objective

To review the status and classification of areas administered by the department, to achieve the most appropriate statutory and administrative framework for the protection of natural, historic and recreational values.

Issues

As a result of the environmental restructuring of 1987, the areas the department now manages are held under many different statutes. Each Act involves a variety of categories, some of which have overlapping or similar purposes to those of other Acts (Appendix V, p.428).

New acquisitions

By placing new acquisitions in a small number of categories, a step towards simplification in the number of categories in use could be made. For instance, large areas, or those adjacent to large areas, could be acquired under the Conservation Act, whereas small isolated areas set aside for particular purposes could be gazetted under the Reserves Act. Generally new acquisitions situated alongside, or near to a current management unit should be united with it.

Rationalisation and status review

Classifications established under previous "multiple use" administrations resulted in anomalies under the present status and management regimes. Commonly, adjoining areas that would best managed as a single unit are held under different acts with slightly different management objectives. The main management units that could be formed centre round the large conservation parks and national parks and are listed in Appendix I (p.403) and summarised in Table 22, p.131 (see also §21.2, p.365).

An example was the extensive area administered by the department in North-west Nelson, stretching from Farewell Spit to the north bank of the Buller River, that was subject to a national park investigation. This area included stewardship areas, forest park, a sanctuary, a wilderness area, and nature, scenic and recreation reserves.

Before 1987, several areas within Big Bush and Howard State Forests, and the Red Hills and Brown River within Mt Richmond Forest Park, were recommended for ecological area status. With the amendment to the legislation in 1988, these areas were deemed to be conservation areas and are now adequately protected. Any recommendations to enhance their status further will require a considerable effort to prepare cases for public scrutiny. Only where areas are under threat and features of special significance exist, does the legal status require immediate upgrading. In other areas the systematic review of legal status will allow for carefully planned action (Table 22, p.131).

Classification

The purposes of most reserves are defined on initial gazettal, especially areas that are set aside as government or local purpose reserves for a particular purpose. In such cases, the reserve can be classified without the need for separate advertising. For scenic reserves two possible classes exist, and an assessment of values and management objectives of the reserve is required to determine which class is more appropriate.

Implementation

2.3.1 *Classification of new areas will be carried out at the time of acquisition, into a limited set of categories.*

2.3.2 *A strategy will be developed for designating the status for new acquisitions.*

2.3.3 *The programme for the rationalisation of land tenures of major areas is set out in Table 22, p.131.*

TABLE 22: PRIORITIES FOR LAND STATUS REVIEW

AREA NAME	MAJOR LAND UNITS	PRIORITY
North-west Nelson	North-west Nelson Matiri & Owen Forests	now complete
Wairau Lagoons	Wairau Lagoons	short term
Murchison	Matakitaki, Tutaki, Howard, Glenroy, Glenhope, Big Bush	medium term
Kaikoura Peninsula	various reserves and conservation areas	medium term
Seaward Kaikoura	various reserves and conservation areas of the Seaward Kaikouras	long term
Inland Kaikoura	various reserves of Inland Kaikouras	long term
Clifford and Cloudy Bay Coast	Coastal stewardship strip including Marfells Beach recreation reserve.	long term
Wairau Valley	Branch-Leatham and Rainbow Forests Ferny Gair, Altimarlock	long term
Marlborough Sounds	reserves of Marlborough Sounds and conservation areas	long term

Short term: 1-3 years; Medium term: 2-5 years; Long term: more than 5 years

2.4 DISPOSAL OF LAND

From time to time, land is identified for disposal. Disposal of most land is subject to public notification and consultation with appropriate iwi, as well as various government instructions relating to disposal of surplus lands. Many different approvals and consents are required and some are the responsibility of other agencies. Thus land disposal action can often be a lengthy and costly process.

Departmental land disposal guidelines set out the rationale, steps to identify surplus land, and detail the procedures to be followed for its disposal. All disposals must be submitted to DOSLI as part of a consultative clearance process. This involves advice to relevant iwi.

Objective

To administer only those areas that possess existing or potential natural, historic and recreational values and to dispose of surplus land in a way that maximises the net conservation benefit.

Issues

Holding land such as gravel, quarry or metal reserves, stock resting and ferry reserves is inappropriate when it could be used for other purposes. A few residential properties exist and various blocks are grazed or otherwise occupied under lease or licence (§14, p.231).

Many generally small areas may no longer be considered suitable for retention because of:

- destruction or loss of vegetation or other natural or historic features; or
- lack of any feature that would materially enhance the conservation of adjacent areas administered by the department, or water, or access to them; or
- natural, historic and recreational values that can be adequately safeguarded by covenants or other similar means; or
- being the basis for an exchange to achieve a nett conservation benefit.

A preliminary inventory of areas was carried out in 1987-8 to identify land that could be disposed of. Assessment of the areas identified showed that very few were readily marketable and most of these have since been disposed of. The remainder are generally of such low commercial value that the costs of gaining all the necessary approvals and getting the land ready to be sold far out-weigh the likely returns from sale. Consequently disposal of land is only likely to be initiated if there are net benefits to conservation, in terms of the nett proceeds from sale, savings of administrative costs or if applicants will absorb the costs. In all disposals the proceeds will be directed towards the acquisition of higher quality land for addition to areas administered by the department.

Implementation

2.4.1 *Areas administered by the department that are identified as having little direct or potential conservation value, or not providing access to those values may be disposed of.*

2.4.2 *Where it is appropriate to change the classification or purpose of an area, or to transfer control or management to a reputable body, its status, or administration, may be changed.*

2.4.3 *All sales of land will be subject to consultation with the relevant iwi and conservation board, and where appropriate with user groups, in accordance with the relevant statutory procedures.*

2.4.4 *Applications for purchase or exchange of land will only be considered if an adequate net conservation benefit is likely.*

2.5 MANAGEMENT BY OTHER BODIES

Many circumstances exist where land with few natural values is used primarily for open space recreation or social, educational or community purposes. It is often managed by organisations including local authorities, voluntary groups, boards, or trustees through the Control and Manage (C&M) or vesting provisions under the Reserves Act 1977. Examples tend to be concentrated in urban or residential areas. Of about 173 local purpose reserves administered by the department only 45 are managed under the C&M provisions of the Reserves Act (§2.3, p.129). Of 99 recreation reserves only 25 are not managed by the department. In addition, the number of local purpose and recreation reserves vested in local authorities is unknown (but large) because most are vested at acquisition, often automatically.

Appointments to control and manage, and vesting of reserve land are for a particular purpose and authorise the controlling body to expend and apply money in managing the reserve only for the purpose for which it was set aside. Vesting of reserves provides for greater "ownership" for the controlling body than C&M. It enables the controlling authority to issue a lease or licence following approval from the Minister. The department retains some controls on management of vested and C&M lands through management plans prepared by the administering authority and through involvement in sale or changes in use of the land where it was automatically vested as such under the RM Act.

Objective

To transfer control of reserve land to appropriate groups where it is primarily used for community purposes and to seek control of reserves where the primary management objective is protection, through mutual agreement.

Issues

Where a strong local community interest or involvement in managing the area exists, it may be in the department's interest to delegate the day to day control and management (C&M) of the area to a local authority or a community group. Vesting may be appropriate where the community of interest in a particular reserve is strong. This further reduces the department's role in their administration. A list of proposed changes to land tenure is contained in Appendix I, p.403.

Within Marlborough, particularly in the Marlborough Sounds, many anomalies exist in the administration of reserves. In areas such as Okiwi Bay, Sandy Bay and many other subdivisions, essentially urban recreation reserves are administered by the department. Similarly, within Blenheim and several other areas, sports grounds are administered by the department. In other areas, large tracts of reserve land principally of biological value are administered by local authorities. Where agreements can be reached these land holdings should be rationalised.

Implementation

2.5.1 *The management requirements of areas administered by the department will be reviewed to decide whether some areas could be better managed or controlled by other groups.*

2.5.2 *Where areas are identified as suitable for transfer of control or management functions, such appointments will be encouraged.*

2.5.3 *Conservation areas may be given reserve status to allow administration by other bodies through control and manage or vesting.*

2.5.4 *All transfers of land will be subject to consultation with the relevant iwi and conservation board and where appropriate with user groups.*

2.5.5 *The department will work with affected local authorities to seek a rationalisation of their respective land holdings and appropriate policies for management.*

3. Legal protection responsibilities for species

Protection of species can be achieved through protection of habitat as discussed in §2, p.115 or through direct protection of species. Many native animal species are legally protected both on and off areas administered by the department and even beyond the borders of New Zealand through international agreements. Legal protection can cover disturbance of live animals or holding any part of an animal, dead or alive. This section covers the legislative means of protection. The COMPLIANCE section (§13, p.225) deals with the procedures for enforcement.

The legislation dealing specifically with the protection of species comprises the Wildlife Act 1953, the Marine Mammals Protection Act 1978, the Native Plants Protection Act 1934, and the Trade in Endangered Species Act 1989. These apply both on areas administered by the department and elsewhere.

The Wildlife Act absolutely protects all native frogs and bats, most native birds (and partially protects native gamebirds) and reptiles and selected introduced birds and land and freshwater invertebrates. It does not cover native fish, marine mammals or most invertebrates.

The Wildlife Act essentially protects the defined wildlife against direct harm, collecting and interference by humans. It does not protect against many activities that can affect species, such as habitat modification or destruction, except in specified areas designated under that Act, for example, wildlife sanctuaries, wildlife refuges.

The Freshwater Fisheries Regulations 1983 give limited protection for native fin fish (§5, p.88; §17.1, p.284) except eels (§14.3, p.241). The regulations offer no protection for habitat and have limited power to protect areas.

The Marine Mammals Protection Act protects all marine mammals such as whales, dolphins, and seals from harassment and harm. The Act can also regulate disturbances such as marine mammal watching ventures (§14, p.231). Regulations outline a permit regime for commercial operators and stipulate conditions governing the behaviour of people near marine mammals.

The Native Plants Protection Act ostensibly gives protection to all native vascular plants as specified by warrant of the Governor-General. A warrant published in 1935 protected all native vascular plants throughout the country, except for a handful of named species. This legislation is ineffective in practice and is in need of amendment.

The Trade in Endangered Species Act specifically prohibits illegal trade in certain plant and animal species across international borders. This Act is mainly policed at ports of entry where it often involves the importation of species, or articles made from them, rather than species native to this country. In this conservancy, it prohibits trade in species such as the tuatara.

Other protection for species comes through the land-based acts administered by the department: the Conservation, National Parks and Reserves Acts. To varying degrees these acts formally protect native species on areas administered by the department (Figure 8, p.100) and sometimes introduced species as well (for example, gamebirds in wildlife refuges), and freshwater fish generally.

Objective

To the extent required by legislation, to protect native plants and animals from harm and disturbance.

Issues

Protection for species other than marine mammals

A clear statutory requirement exists for the department to enforce and maintain legal protection for formally protected wildlife even if the species concerned is not threatened. To some degree the public expect the department to display a humane response to ill or injured protected wildlife. Such responses demand time and other resources and contribute little to species conservation. One option is to encourage and permit volunteers to carry out rehabilitation work where they show the appropriate skills and facilities, and where the animal concerned may be rehabilitated for release to the wild. Care and rehabilitation of ill or injured animals will only be actively sought for endangered species where a single individual is significant to species survival.

Occasionally, protected species cause significant problems for people. For example, a few bird species can be a problem at airports. It is often possible to take steps to limit the potential for damage, such as not feeding keas, but in other cases it may be necessary to remove problem birds.

Taking, handling, killing or liberation of absolutely or partially protected wildlife may be authorised by the department under Section 53 of the Wildlife Act and subject to the provisions of the Animals Protection Act 1960. The taking of non-protected animals and plant specimens from areas administered by the department is subject to the provisions of the various land-based acts. Conditions for taking of plants for commercial purposes is set out in §14.2, p.240.

Most requests for capture and release of wildlife or taking of specimens relate to research or conservation proposals. These need to be assessed on a case-by-case basis and in respect to current departmental policies and guidelines. Generally, the appropriateness of the research to conservation of a threatened species will determine if authority to capture or take specimens of that species for research will be granted (§6, p.170).

Section 53 of the Wildlife Act allows the department to authorise the holding of protected species in captivity. These animals remain the property of the Crown. Protected species that are widespread in captivity are red and yellow-crowned parakeets and category A protected lizards (as defined in departmental guidelines, these are the more common of the protected lizards). Other species may be held as part of organised captive breeding programmes for threatened species, especially if held by institutions rather than individuals.

Protection of marine mammals

Most incidents involving distressed marine mammals are natural events. The department has no statutory obligation to rescue stranded whales and dolphins, or rehabilitate injured or sick seals. Historically, the department has co-ordinated marine mammal rescues in the conservancy and, where necessary, carried out euthanasia. This is because marine mammals are probably most vulnerable to harassment when stranded. Consequently, the department always needs to be present at strandings.

Once a marine mammal is dead, the disposal of the carcase is arguably a local authority responsibility under the RM Act. The department must be notified and has sole responsibility for taking of cultural materials from the carcase (§14.1, p.237).

Most other marine mammal incidents involve non-threatened species, notably New Zealand fur seals and pilot whales although occasionally rarer species are encountered. New Zealand fur seals can sometimes be a nuisance when they decide to bask in a relatively public place, such as on a public road, and interfere with traffic. In such circumstances, the animals must be prevented from being harmed or harassed.

Growing public interest in marine mammals by actively observing and interacting with seals, dolphins and more recently, whales, is increasing pressure on them. The impact of marine mammal watching on marine mammals is the subject of ongoing research as currently the type and significance of impact is poorly understood. In cases where the potential impact of a proposed operation is uncertain, the issuing of permits should be carefully considered. Surveillance of commercial marine mammal watching operations is necessary to ensure compliance with the regulations. Public education is the only way of achieving effective compliance of non-commercial activities (§13, p.225).

Liaison with tangata whenua

Many species with which the department is actively involved, and many others found on areas administered by the department, have cultural or spiritual significance for Maori (p.25, also §14.1, p.237). The tangata whenua exercise kaitiakitanga or a guardianship role in relation to the natural world in their rohe and have an interest in where and how these species are managed. The department must therefore seek an understanding of Maori aspirations for species and communities and their management.

Implementation

3.0.1 *Where it is felt to be appropriate, or of benefit for practical conservation, legal protection will be sought for threatened species that are not formally protected.*

3.0.2 *Injured native animals of non-threatened species may be given to volunteer organisations or individuals for care and release, or humanely killed by the department.*

3.0.3 *Where protected species are causing substantial problems for members of the public, steps will be taken to reduce the interaction.*

3.0.4 *All requests for capture, handling or killing of protected wildlife, and for removal of plant and non-protected animal specimens will be considered on a case-by-case basis. (See also Research, §6, p.167.)*

3.0.5 *Appropriate conditions will be included in all authorisations for taking or handling plants or animals.*

3.0.6 *The department will expect any handling or killing of animals to be undertaken as humanely as possible.*

3.0.7 *Specimen removal will not be authorised where it could significantly impact on the population of that species.*

3.0.8 *Authorisation to capture, handle or kill endangered species will only be given for essential conservation research.*

3.0.9 *Requests to hold protected animal species in captivity will be considered in terms of departmental policies and guidelines.*

3.0.10 *Requests to hold species other than red-crowned or yellow-crowned parakeets and category A reptiles in captivity will be assessed in terms of their potential benefits for threatened species management.*

3.0.11 *Disposal of dead marine mammals from the foreshore will be the responsibility of the local authority, on advice from the department.*

3.0.12 *Regular surveillance of commercial marine mammal watching operations will be undertaken.*

3.0.13 *A public education programme will be initiated for non-commercial marine mammal watching activities.*

3.0.14 *A cautious approach will be adopted in the issue of commercial marine mammal watching permits.*

3.0.15 *Ongoing liaison will be maintained with tangata whenua to ensure that their views are considered in the management of species and communities.*

4. Management of threatened species and communities

The management of species and communities is a major facet of the department's activities. It concentrates in areas of national or international importance both on areas administered by the department and elsewhere (p.43). Management can include intervention, monitoring and communication with the community about significant local values and seeking their participation in some projects (§20.5, p.355). This section covers activities related directly with identification of areas requiring action, intervention or monitoring.

The Nelson/Marlborough Conservancy has the highest natural diversity of any conservancy in New Zealand. This natural diversity is reflected in a broad range of communities and habitats containing over 1565 native higher plant species or 65% of the total New Zealand flora (§2, p.55).

Within the conservancy, north-west Nelson, and South Marlborough plus the Kaikoura Ranges are two areas that contain 180 plant species, many invertebrates and possibly some reptiles found nowhere else (§2, p.55). In addition, several islands in the Marlborough Sounds are important refuges for species that were once widespread, but are now restricted in their range by introduced predators or browsing mammals (§7, p.101).

Since the arrival of humans in New Zealand, this country has lost approximately half its native bird species, as well as many other animals. Many animals and plants have shown dramatic declines in numbers or range, and certain habitats and communities have declined in extent or been heavily modified.

The major reasons for extinction and decline have been direct habitat modification and destruction, and the introduction of predators, competitors and browsing animals (§10.1, p.196). Introduced species have had the effect of directly depleting individual species, excluding species from former habitats, and significantly modifying entire communities (§9, p.187).

Many native species, particularly some of those endemic to the conservancy, have probably always been naturally rare or very limited in distribution. Where these occur in lowland and coastal areas, that are the most heavily modified by human development, they may be particularly at risk. Over 20% of the plant species endemic to the conservancy are probably under some degree of threat. For many species, only fragmentary information is available on conservation status, degree of threat, or whether decline has occurred.

Given its high species diversity, endemism, and the presence of island refuges, it is not surprising that Nelson/Marlborough ranked second among conservancies for number of species or distinct subspecies actually or potentially under threat in a 1991 national assessment.

Objective

To maintain the full diversity of native species and communities found in Nelson and Marlborough.

Issues

Planning

All species and community management benefits from the setting of clear targets and regular reviews of progress. This is most readily formalised in a plan that can be merely a simple file note or a formal recovery plan. Because situations change and more knowledge is gained as programmes progress, plans must be flexible to allow for changes of direction or approach.

Planning for community management is essential where any substantial landscaping or revegetation is proposed (§7.2, p.183), or where management is continual. Species recovery plans are especially useful for groups of related species, particularly those with similar threats or problems, or for species whose distributions include more than one conservancy. Recovery plans allow for co-ordination and help ensure continuity of programmes (§21.2, p.365).

Island refuges

Islands present outstanding opportunities for species and community management particularly those that can be permanently freed of major animal pests. They are useful both for re-establishing their own former natural communities and for introduction of selected, appropriate species that are under threat elsewhere. Successful pest removal programmes (§10.1, p.197), therefore, provide a variety of management options.

As communities and species on islands free of animal pests remain highly vulnerable to the threat of animal pest introductions, all pest-free islands should have operative pest contingency plans to detect, and deal with accidental invasions (§8, p.185). Many related issues are covered in ISLANDS (§7, p.101).

Habitat creation, restoration and manipulation

For degraded communities and habitats, a long-term solution may lie in the restoration of habitats or even the creation of new ones. Although threatened species should preferably be protected and maintained within their natural communities, large-scale restoration or re-creation of habitat can be an extremely expensive undertaking. Before creation, restoration or manipulation of habitat is undertaken, the area must be evaluated to ensure that other significant values are safeguarded (§1, p.51).

Wetland communities are heavily depleted by development, grazing and plant pest invasion but they are also among the most readily restored or re-created. Wetland restoration is desirable and being undertaken to conserve associated communities in places such as Parapara Inlet in Golden Bay, Pearl & Neimans Creeks, the Kumeras near Motueka and at Whakapuaka near Nelson (see also §20.5, p.355).

Spawning areas are some of the most obvious aquatic habitats to suffer degradation (§5, p.85). Inanga spawn in autumn on spring high tides at the highest point of tidal influence in estuaries or river mouths. Protection can involve fencing from stock (even if only temporarily during the spawning season), ensuring appropriate fish passages in control gates (§5, p.91), planting suitable species or removing unsuitable vegetation such as willows.

Sometimes species with specific habitat requirements or limitations may benefit from the creation of new habitat. An example, the creation of a second frogbank habitat on Stephens Island, should increase the habitat of Hamilton's frog and make adjacent forest habitat accessible to this species.

A key activity for future species management is the restoration of island habitats that have been degraded by past land uses and/or introduction of pest species. In these cases, assisted revegetation of degraded areas is required. All plant material used in restoration such as seeds, cuttings and seedlings should be derived from genetic stock appropriate to that area.

In some circumstances, direct manipulation of habitat may be desirable to maintain species. This could involve artificially maintaining a successional stage of vegetation. For example, the induced pakihi in Golden Bay could be managed for fernbird conservation.

Species transfers and re-establishment

Transfer of species to safe or restored environments is a useful method to safeguard many species and communities and procedures are set out in national guidelines. Animal species are most often transferred to pest-free islands, but sometimes species are transferred to protected newly restored or newly created habitats on the mainland. Plant species may be successfully planted into alternative mainland sites where threats can be more readily monitored and controlled.

Transfers must be monitored to ensure that the transferred species survives and establishes in its new habitat. For many species, establishment in the new habitat will mark the end of active management, but for some it will be the beginning of a more intensive phase of management, such as that for takahe or kakapo. Ultimately when habitat conditions are once more suitable, species transferred to island habitats should be returned to secure "mainland habitat islands".

Transfers should preferably involve re-introduction of species to sites that they were known to formerly occupy. Alternatively, a species could be transferred to a site within an area currently or formerly occupied by that species. Transfers to sites far removed from their natural range or habitat should be avoided. Islands potentially suitable for transfers are few and alternatives may not be available for some species (§7, p.101).

Where the intention is to establish a viable self-sustaining wild population, the new habitat should be large enough to support it and the transfer should involve sufficient individuals to provide a broad genetic base. All transfers should be preceded by a careful analysis of potential impacts on the transfer site because transfer of one threatened species could place another threatened species at risk. Where transfers of more than one species are proposed for one site the order of transfers should be such that each species is assured of establishment and survival.

Intensive species management

Direct manipulation of wild or semi-wild populations may be the only recourse for animal species under threat of extinction. In other cases fully captive

management may be required. These options are often costly, in both time and money, so a firm long-term commitment must be made before they are initiated. To acquire the skills needed for management, and to have sufficient animals to work with, these options should be considered early. Recommendations for captive breeding programmes should be made by recovery groups, and involve the Head Office Threatened Species Unit.

In contrast, many threatened plant species are highly amenable to nursery propagation, and re-planting is often a standard practice. The critical stage is that of re-establishment of a self-propagating population in the wild. Sometimes it may be desirable or necessary to maintain a population of a rare species in cultivation indefinitely.

Monitoring

The effectiveness of species and community management programmes must be subject to continuous review through monitoring. Sometimes responses are immediately obvious and do not require quantifying but in others, detailed survey, monitoring or field observation is required (§6, p.169).

The ability to assign priority or assess management options for many potentially threatened species depends on assigning a conservation status. Insufficient knowledge often exists including parameters such as:

- total distribution;
- population size and status;
- actual or potential threats; or
- habitat and conservation requirements.

Therefore, a significant part of species work is survey and monitoring. For many species an appropriate method must be developed to provide this information. This is a particularly difficult task for cryptic or sparsely distributed species (see also §6, p.169).

Priorities for species and habitat management within the conservancy

The values map (p.43) indicates the broad distribution of biological values within the conservancy, within the limits of our present knowledge.

Species and habitat management priorities are generated from a combination of the values and the known or probable threats to them. Priorities for activities such as survey and monitoring arise where uncertainty exists over the conservation status or degree of threat to particular values. Where rare or remnant populations or communities exist in an area surrounded by otherwise degraded or modified habitat, a management priority is usually indicated.

Both specifically protected and non-protected native species and communities are considered in determining management priorities. This allows for setting of management priorities over all species groups (vertebrates, invertebrates and plants) and it allows for a community or ecosystem approach to management, where this is both desirable and practicable (§7, p.101).

Species priorities

A comprehensive national priority system has been developed to determine priorities for the recovery of threatened plant and animal taxa. Under this system, scores are allocated for a range of criteria including:

the status of the species:

- taxonomic distinctiveness at species, genus or family level;
- geographic distribution;
- number and size of populations; and
- conditions and rate of decline of populations.

the reasons for this status:

- whether the habitat is legally protected;
- rate of loss of habitat;
- present and likely future threats;
- degree of specialisation in habitat preferences or reproduction;
- diet or behaviour (of animals);
- other factors that might affect survival;
- habitat recoverability; and
- ability to increase numbers through propagation or captive breeding.

In addition, the Maori and European cultural values of the species are considered.

Some difficulties arise such as how to match scores for completely unrelated criteria. For instance, species can sometimes score quite highly because they have naturally low numbers or restricted distributions, but are not subject to decline or significant threat.

Within the conservancy this system provides an initial assessment of priorities that are then refined according to the local situation and perceptions. Criteria for management within the conservancy include:

- the status of the species within the conservancy as opposed to its status nationally;
- whether the species is actually declining locally;
- existing or potential threat;
- whether the loss of the conservancy population means the loss of the entire species, or a significant proportion of it;
- whether a significant part of the habitat or range of the species is on areas other than those administered by the department;
- the practicality of effective species and habitat management; and
- the requirements of species recovery plans.

Table 23, p.148, lists those species scored under the national system that occur within the conservancy and indicates the conservancy priority for management. Table 24, p.151, lists species occurring in the conservancy that have not yet been scored under the national system, but are considered to require management.

In addition, some species or habitats may require experimental management or habitat manipulation that may have application to related species or to the same species in other areas or in the future. Examples are experimental transfers of burrowing seabirds and habitat manipulation to maintain fernbird populations.

Priorities for management of threatened communities

Priorities for management of threatened communities at risk are based on:

- historical information;
- assessments of habitat loss and human impacts;
- availability of habitat for management;
- vulnerability of communities; and
- knowledge of the distribution and impacts of plant and animal pests.

Concentrations of threatened species, especially plants, can also pinpoint priority habitats and communities.

Implementation

4.0.1 *Priorities for species management will be set using both the national priority ranking system and local assessments of conservation needs as in Table 23, p.148.*

4.0.2 *Local priorities for species management will include species not yet scored under the national system, but believed to be under threat as in Table 24, p.151.*

4.0.3 *Experimental management may be undertaken on low priority species where a future conservation benefit is likely for that or another species elsewhere.*

4.0.4 *Management, protection and restoration of communities will focus primarily on communities identified as being rare or under threat within the conservancy or those containing specific rare or threatened species.*

4.0.5 *All active species and community management will be carried out according to a work or species recovery plan.*

4.0.6 *Work or recovery plans for species or community management will include regular reviews of progress and be sufficiently flexible to allow for changes in techniques or targets as required.*

4.0.7 *Surveys for rare and threatened species and the identification of threatened communities will be conducted to determine more clearly their status and management requirements.*

4.0.8 *All pest-free islands will be subject to pest contingency plans and procedures designed to prevent pest introduction and to detect and deal with any introductions that do occur (J8, p.185).*

4.0.9 *High priority will be given to the preparation of viable island refuges for threatened species and for restoration of island communities.*

4.0.10 *Where possible, species will be conserved within their natural communities.*

4.0.11 *Restoration of communities will only be undertaken where other protection options have been exhausted and will remain a secondary priority to species survival.*

4.0.12 *Habitat manipulation will not be undertaken at the expense of other important natural values.*

4.0.13 *Species transfers may be undertaken to restore or re-establish communities that have become degraded through human activity.*

4.0.14 *Transfers of species not known to have formerly inhabited the transfer site may be carried out only after full assessment of the consequences of the introductions.*

4.0.15 *In situations of multiple species transfers, the order of transfer will be arranged, as far as practicable, so that any one transfer does not limit the success of other transfers.*

4.0.16 *The national guidelines on species transfers will be followed.*

4.0.17 *Captive breeding or intensive population manipulation of threatened species will only be undertaken under agreed national recovery programmes, or where approved by the Director Protected Species Division.*

4.0.18 *The possible consequences for other natural values of population manipulation will be assessed before any programme proceeds.*

4.0.19 *Active propagation will be undertaken, where appropriate, for conservation of threatened plant species.*

4.0.20 *The effectiveness of all species and community management programmes will be subject to continuous review.*

4.0.21 *Development of monitoring and survey techniques will be sought to provide information on the distribution and conservation status of species and on effectiveness of management (see also §6, p.169).*

TABLE 23: NELSON/MARLBOROUGH PRIORITY SPECIES SCORED UNDER THE NATIONAL RANKING SYSTEM

TOPIC	NATIONAL RANK	CONSERVANCY PRIORITY	NOTES AND PROPOSED ACTION
PLANTS			
Myosotis petiolata ss	I	5	Possibly present. More information required on distribution and status
Limestone wheatgrass	A	1	Site protection, cultivation, general recovery
Carex inopinata	A	1	Improve site protection, monitor, establish in other sites
Chalk Range cress	A	1	Site protection, browser control, cultivation
Coastal tree broom	A	1	Continue cultivation and planting, assess other sites for establishment
Sand spike rush	B	1	Single South Island population. Monitor, replant in new localities
Coastal peppercress	A	1	Cultivation, replanting, seek other sites for establishment, pest control
Shrub pohuehue	A	1	Protect known sites, replant
Deciduous tree daisy	A	1	Possum control, reestablishment in former sites, cultivation
Pterostylis micromega	A	1	Survey for presence
Cook's scurvey grass	B	2	Occurs in only one small site. Establish further colonies
Climbing tree broom	B	2	Monitor, pest control
Chenopodium pusillum	X	2	Survey suitable habitat for presence
Weeping tree broom	B	2	Monitor, pest control, supplementary planting
Deyeuxia "Waima"	X	2	Survey suitable habitat for presence
Hebe cupressoides	B	2	Survey for presence
Pygmy button	B	2	Monitor, replant in new localities
Myosotis laingii	X	2	Survey suitable habitat for presence
Myosotis colensoi	B	2	Survey for presence, identify threats
Myosurus minimus ssp. *novae-zelandiae*	B	2	Survey for presence, identify threats
Olearia polita	B	2	Legal protection for populations, promote as a garden plant
Titirangi (*Hebe speciosa*)	C	2	Only South Island population small and in poor health. Monitor, replant, establish new populations, maintain in cultivation.
Euphorbia glauca	B	3	Monitor as opportunity permits
Pittosporum dallii	B	3	Monitor as opportunity permits
Shovel mint	B	3	Several populations known. Survey extent, legal protection for populations
Purple harebell	B	5	No action required

TABLE 23: NELSON/MARLBOROUGH PRIORITY SPECIES SCORED UNDER THE NATIONAL RANKING SYSTEM/CONTINUED

TOPIC	NATIONAL RANK	CONSERVANCY PRIORITY	NOTES AND PROPOSED ACTION
INVERTEBRATES			
Powelliphanta gilliesi brunnea	A	1	Rat control, legal protection of sites, find alternative sites
Powelliphanta gillies kaburangica	B	2	Seek legal protection for habitat
Powelliphanta gilliesi compta	A	2	Monitor
Stephens Island weevil	B	2	Survey, establish on further island
Cook Strait giant weta	C	3	Monitor Hapuku population
Cook Strait click beetle	B	3	Survey for distribution and abundance
Mecodema punctellum	X	3	Survey suitable habitat for presence
Megadromus sp.	B	3	Survey distribution and abundance
Nelson cave spider	B	3	Habitat very limited. Seek legal protection for habitat
NW Nelson giant weta	C	3	Monitor one population for trends
Powelliphanta superba	B	3	Monitor, possum control
Powelliphanta gilliesi aurea	B	3	Define distribution
Powelliphanta gilliesi montana	B	3	Monitor, possum control
Powelliphanta gilliesi jamesoni	B	3	Monitor, possum control
Powelliphanta gilliesi gilliesi	B	3	Monitor
Powelliphanta hochstetteri obscura	B	3	Monitor, possum control
Powelliphanta hochstetteri anatokiensis	B	3	Monitor, possum control
Powelliphanta gilliesi fallax	B	3	Monitor, possum control
Powelliphanta hochstetteri hochstetteri	B	3	Monitor, possum control
Powelliphanta hochstetteri bicolor	B	3	Monitor, possum control
Powelliphanta hochstetteri consobrina	B	3	Monitor
Speargrass weevil (*Lyperobius huttoni*)	B	3	Survey potential habitat for presence
Flax weevil	C	4	Present on several rodent-free islands. Survey potential habitat
Bluff weta	I	4	Survey suitable habitat for presence as opportunity permits
Ooperipatellus indigo	I	5	No action required, apparently widespread in western Golden Bay
Polyplectropus pubia	I	4	More information required to assess
Powelliphanta gilliesi subfusca	C	4	Monitor
Powelliphanta lignaria oconnori	C	4	Monitor
Powelliphanta rossiana patrickensis	C	4	Status may depend on taxonomic work. Monitor
Tadpole shrimp	I	4	Survey for suitable habitat

TABLE 23: NELSON/MARLBOROUGH PRIORITY SPECIES SCORED UNDER THE NATIONAL RANKING SYSTEM/CONTINUED

TOPIC	NATIONAL RANK	CONSERVANCY PRIORITY	NOTES AND PROPOSED ACTION
FISH			
Giant kokopu	A	3	Continue survey, habitat protection, enhance fish passage
Brown mudfish	B	3	Not located locally, survey potential habitat for presence
Short-jawed kokopu	B	3	Continue survey, habitat protection, prevent fish liberations
Koaro	B	5	Fish passages required
Banded kokopu	C	5	Fish passages required
Blue-gilled bully	C	5	Fish passages required
Long-jawed galaxies	C	5	Fish passages required
FROGS			
Hamilton's frog	A	1	Enlarge existing habitat, establish further island population
Maud Island frog	A	2	Establish on second island.
REPTILES			
Brothers Island tuatara	A	1	Monitor, establish further population
Black-eyed gecko	A	3	Thought to be widely and sparsely distributed. Survey potential habitat for presence
Striped gecko	B	3	Survey new islands, establish new population
Long-toed skink	B	3	Survey
Scree skink	B	3	Survey, assess threats
Cook Strait tuatara	B	3	Manage under recovery plan
BIRDS			
Kakapo	A	1	Continue intensive management including captive management
Takahe	A	1	Continue management of island population
Yellowhead	B	2	Local population almost extinct. Manage under recovery plan
Black-fronted tern	B	2	Monitor
Blue duck	B	2	Monitor one major and one outlying population
Hutton's shearwater	B	2	Predator control, develop recovery plan
King shag	B	2	Identify threats

TABLE 23: NELSON/MARLBOROUGH PRIORITY SPECIES SCORED UNDER THE NATIONAL RANKING SYSTEM/CONTINUED

TOPIC	NATIONAL RANK	CONSERVANCY PRIORITY	NOTES AND PROPOSED ACTION
BIRDS / continued			
Little spotted kiwi	B	2	Monitor, manage under recovery plan
Orange-fronted parakeet	B	3	Record sightings and follow with field searches as opportunity allows
Australasian bittern	O	3	Legal protection of habitat, survey suitable habitat for presence
Caspian tern	O	3	Monitor
Great spotted kiwi	B	3	Degree of threat uncertain. Monitor at selected sites
Kea	B	3	Requires coordinated management. Record sightings
New Zealand falcon	B	3	Requires coordinated management. Record breeding pairs
Reef heron	O	3	Monitor, identify nesting areas
South Island kokako	I	3	Survey suitable habitat for presence in Nelson Lakes area
Variable oyster catcher	B	3	Monitor breeding
Banded dotterel	C	5	No action required
New Zealand pigeon	B	4	No action proposed
Rock wren	C	4	Record sightings
Western weka	B	4	Coordinated management. Plan for future of island populations
White heron	O	5	No action required
Yellow crowned parakeet	C	5	Low-moderate numbers, widespread in conservancy. No action required
MAMMALS			
Southern short-tailed bat	A	2	Survey as opportunity permits, seek further information on species
Long-tailed bat	B	3	Record sightings, assess threats, survey
Hector's dolphin	B	4	Record sightings

NATIONAL RANKING

A: Highest priority species for conservation action.
B: Second priority species for conservation action.
C: Third priority species for conservation action.
I: Species about which little information exists but which are considered threatened.
X: Species which have not been sighted for several years but which may still exist.
O: Species which are threatened in New Zealand but secure in other parts of their range outside New Zealand.

Conservancy Priority

1 Very high 2 High 3 Medium 4 Low 5 Secure

TABLE 24: OTHER NELSON/MARLBOROUGH PRIORITY SPECIES

NAME	PRIORITY	REASONS FOR PRIORITY	ACTION PROPOSED
Plants			
Wood rose	High	Survey for presence	Further survey, maintain in cultivation
Red Hills geranium	High	Restricted to a few sites on ultramafic rock	Formally describe and name
Kirkianella "Cook Strait"	Medium	Restricted to a few islands in Cook Strait and the Sounds	Assess island populations
Hebe aff. *matthewsii*	Medium	Taxonomic status uncertain, limited distribution	Determine taxonomy to assess status. Survey
Carmichaelia prona	High	More information required on taxonomy. Regionally vulnerable	Cultivate for reintroductions. Protect and maintain habitat
Swamp maire	Medium	Formerly common, now almost extinct in the Conservancy	Plant in suitable habitat
Red mistletoe & Southern rata	Medium	Lakeside populations at Rotoroa and Rotoiti threatened with extinction from possum browse	Protect from possums. Monitor
Birds			
Fernbird	Medium	Golden Bay strongholds are successional in nature	Experimental habitat manipulation as a conservation tool
Banded Rail	Low	Limited numbers in conservancy	Monitoring of habitat at selected sites as an indicator of saltmarsh condition
Fish			
Whitebait	Medium	Important recreational fishery	Identify and protect spawning areas. Create or maintain current fish passages in tidal streams

TABLE 25: COMMUNITIES TARGETED FOR MANAGEMENT (NOT IN PRIORITY ORDER)

DISTRIBUTION WITHIN CONSERVANCY	REASONS FOR PRIORITY	
	FEATURES	THREATS
Ultramafic Richmond Ranges Red Hills Dun Mountain - Bryant Range Askews Hill D'Urville Island Golden Bay Uplands Cobb Valley - Ghost Creek and some outlying areas	Limited areas of unusual, sparse plant communities, with several endemic species	Adventive plant pests, wilding pines, introduced mammals in some areas
Lowland forest Marlborough Lowlands Waimea & Moutere Lowlands Golden Bay Lowlands	Highly depleted; under-represented in areas with legal protection	Often represented by fragments with associated edge effects, pests, stock problems
Wetlands Lower altitude areas throughout	Under-represented in areas with legal protection	Highly depleted in some areas
Coastal intertidal wetlands	Under-represented in areas with legal protection	Unsympathetic use and general degradation in some areas
Tarndale area, Western Molesworth ephemeral wetlands	Nationally rare unusual plant associations with at least one endemic species	Fragile Stock Plant pest invasion
Islands Marlborough Sounds Abel Tasman Coast Waimea Inlet	Endangered species Nationally depleted Loss of species Loss of major seabird colonies, essential links between the sea and terrestrial island life	Often highly modified by past forest clearance and farming; introduced browsing mammals and predators
Eastern high country Inland Marlborough Inland and Seaward Kaikoura	Area of high species endemism Under-represented in areas with legal protection; often highly modified	Plant pests Wild animals and stock Fire
Stream and river communities North-west Coast Golden Bay Lowlands	Streams and rivers of significant size; native fish communities free of introduced species	Extractive mining power generation Some uses of associated coastal ecosystems
Tasman Bay and elsewhere	Smaller streams with significant native fish communities	

TABLE 25: COMMUNITIES TARGETED FOR MANAGEMENT (NOT IN PRIORITY ORDER) (CONT)

DISTRIBUTION WITHIN CONSERVANCY	REASONS FOR PRIORITY	
	FEATURES	THREATS
Waikoropupu Springs	Unique plant communities	Invasion by watercress
Upper Buller and Marlborough braided riverbeds	Breeding bird communities	River control works Extractions, mining Prolific adventive plant pest growth
Limestone and marble North-west Nelson scattered locations from lowland to alpine in east and north Takaka Hill-Canaan scattered locations North-west Coast and Golden Bay lowland and coastal remnants Inland Marlborough scattered locations	Limited areas of high fertility communities with high species diversity and significant endemics	Wild animals, and stock, and plant pest invasion - especially in eastern areas
Coastal *dune vegetation* Kahurangi Point Farewell Spit Cape Campbell-Waima River	Unmodified remnants usually very rare Greatly under-represented in areas with legal protection	Coastal development Stock, wild animals and Plant pests
salt herbfields North-west Coast *dry cliff herbfields* Cape Campbell coast		
coastal shrublands North-west Coast Outer Sounds Marlborough and Kaikoura Coasts		
coastal forests North-west Coast Tasman and Golden Bays, river deltas Marlborough Sounds Kaikoura Coast		
boulder bank vegetation Nelson and Wairau bar		
Unique cave community Motupipi, Golden Bay lowlands	Isolated populations of "Nelson " cave spider and community of obligate cave dwelling species, three not found elsewhere	Inadequate protection, overuse poor quality of surface cover

5. Historic resources

Historic resources can be broadly defined as identifiable evidence of human history. They include archaeological sites, historic buildings, historic places, traditional sites such as wahi tapu, and any other objects or artefacts that are associated with, and can help the understanding of our past.

The human history of the conservancy is as varied as any in the country. It has some of the earliest dated human occupation in New Zealand, at Avoca Point, Titirangi and Clarence (all before 1200 AD), and includes important moa-hunting sites such as Wairau Bar. The subsequent 600 years of Maori occupation are represented by over 2000 recorded archaeological sites. They include the argillite sources in the Nelson mineral belt, the stone from which was distributed throughout New Zealand, and other traditional sites and wahi tapu.

The earliest European explorers, Tasman, Cook, Bellingshausen, and D'Urville all touched on the conservancy. They paved the way for the first sealers and whalers, who in 1827 established some of the earliest European settlements in the South Island at Tory Channel and Port Underwood (§7, p.102).

The settlement of Nelson by the New Zealand Company in 1841 was the first organised settlement in the South Island. It led to a period of extensive contact and some conflict between Maori and pakeha. European exploitation of the natural resources was also extensive. Gold was found in the Aorere valley in 1856 (the first official goldfield in New Zealand) and other important finds were made throughout the conservancy. Coal, iron, antimony and many other minerals and stone were extracted and extensive stands of native timber were milled.

The conservancy was progressively serviced by coastal shipping, railways and an enlarging network of roads. Pastoralism, which developed particularly in South Marlborough, was a forerunner of a wide range of land uses including horticulture and forestry.

All these human activities and many others have left their unique mark on the land. This evidence, which includes archaeological sites, buildings and other artefacts, comprises a major part of historic resources.

The department manages historic values on areas it administered and advocates the conservation of historic resources generally. It administers the Historic Places Act 1993, although most of the functions are implemented through the New Zealand Historic Places Trust (NZHPT), which regulates the registration of historic places and the protection and modification of archaeological sites. Archaeologists within the department are regularly requested to assist in servicing the NZHPT and a departmental representative sits on the Nelson and Marlborough Branch Committees of NZHPT.

The department's obligation to give effect to the principles of the Treaty of Waitangi has important implications for historic resources, given that over three quarters of the period of human history is pre-European. Historic resources work conforms to the ethics and principles of the disciplines of history and

archaeology, and to guidelines for the conservation of cultural heritage defined by the International Council of Monuments and Sites (ICOMOS).

Objective

To identify, conserve, and where appropriate, interpret historic resources reflecting the human history of the conservancy.

Issues

Identification of historic values

Any identification of historic values within the conservancy is dependant on the level of understanding of its history. This can be achieved through preparation of area histories and thematic studies which will ensure a more comprehensive understanding of the range and type of historic resources within the conservancy. Further, a more detailed assessment of historic themes is required for each significant place prior to active management to ensure that the historic values are properly recognised and protected.

Departmental servicing of NZHPT

Liaison occurs with the NZHPT, local authorities (both informally and in planning hearings) and with other related community groups such as local historical societies. As far as its statutory powers allow, the department assists the NZHPT in fulfilling its regulatory role concerning archaeological sites.

Iwi liaison

Close and open consultation with tangata whenua is particularly important, given that Maori heritage forms a large part of the historic resource. Carrying out its role as kaitiaki of the many Maori archaeological sites, traditional sites and wahi tapu on areas administered by the department effectively requires regular consultation with the various iwi that have mana whenua. This establishes a reputation for treating such sites and information with cultural sensitivity.

Wahi tapu

Many wahi tapu may exist on areas administered by the department in this conservancy. The identification of these special places lies totally at the discretion of iwi, and their management should take account of iwi wishes. Wahi tapu can be formally recognised by registration under the Historic Places Act and the conservancy will assist iwi in this process if that is their wish.

Research

Research is an integral part of identification, protection, management and interpretation of historic resources. Research priorities are therefore identified not only to guide the department's own work but also to provide opportunities for researchers outside the department. Equally the department should be aware of the current issues and trends in research in history-related disciplines.

All research proposals for archaeological sites require the approval of the Historic Places Trust. As a manager the department has a responsibility to ensure

that research proposals are appropriate and, in archaeological research, justify destruction of part of a site. Research proposals, whether they originate inside or outside the department, should:

- be well founded;
- comply with legal requirements of the Historic Places Act; and
- have consent of tangata whenua and the land manager.

Implementation

5.0.1 *Precise, but comprehensive, histories will be written for each of the major areas managed by the department.*

5.0.2 *An assessment of historic themes will be made for each significant place prior to active management commencing.*

5.0.3 *As far as its statutory powers allow, the department will continue to assist the New Zealand Historic Places Trust in the implementation of the archaeological provisions of the Historic Places Act 1993.*

5.0.4 *The department will provide input into the Nelson and Marlborough Branch Committees of NZHPT.*

5.0.5 *An open, consultative relationship with local iwi will be maintained on all issues affecting their heritage.*

5.0.6 *Appropriate research throughout the full range of historic resources will be undertaken or fostered.*

5.1 ARCHAEOLOGICAL SURVEY

Social and cultural change throughout the 800-900 years of human history in the conservancy is reflected in the range and type of historic resources present. To be an effective advocate and protector of archaeological sites, the department is involved in identification of these resources, both on areas administered by the department, and elsewhere. Survey strategies are developed to take into account inter-relationships of sites and settlement pattern (as far as practicable) and as many cultural activities as possible.

As at 1992, 2000 archaeological sites from the conservancy had been recorded in the New Zealand Archaeological Association (NZAA) site recording scheme. Of these, the majority are pre-European sites, concentrated in the coastal zone, reflecting the hunting, fishing, gathering and horticultural opportunities there. While these sites have been recorded and reported over the past 100 years, only in the past 20 years has attention turned to 19th century sites, particularly gold mining areas. Survey should be expanded to include historic sites from activities such as sealing, whaling, ship building, shipwrecks, rural industries such as hops, tobacco and other horticulture, pastoralism and urban development.

An archaeological strategy prepared for the conservancy has identified many survey and research priorities and opportunities. It estimates that many potential sites remain unrecorded. The current pattern of recorded archaeological sites therefore does not necessarily reflect the real pattern of human occupation being more often a product of selective survey. Sites have also disappeared through natural and cultural processes such as erosion and land development.

To be relevant, survey should be conducted in a systematic and thorough manner, should cover an appropriate geographic unit and should extend beyond the current boundaries of areas administered by the department. Reactive survey is required in response to specific developments, such as hut and track building, land subdivision, or mining, both on and off areas administered by the department.

Historic resources other than archaeological sites, notably buildings and places of historic, traditional or spiritual associations, should also be identified for future protection.

Before undertaking any survey involving Maori sites, the appropriate iwi should be consulted and their consent obtained. Similarly, consent should be obtained from land managers when working areas other than those administered by the department.

Objective

To ensure that a comprehensive survey for a full range of all historic resources is undertaken and that appropriate records are made.

Issues

Priorities for survey

Survey priorities are determined by identifying gaps in site recording, particularly in areas where sites might reasonably be expected. Another priority is to identify

significant types of human activity that may possibly have been overlooked. Significant areas may include places which contain a substantial proportion of areas administered by the department, in which case the department will undertake survey, or substantial areas of private land in which the department can only advocate survey (Table 26, p.160).

Priorities in Table 26, p.160 depend on criteria such as:

- potential vulnerability to natural or human threats, for example, coastal erosion or land subdivision;
- indications from tangata whenua or other groups of traditional significance; and
- potential scientific value.

Context of survey

Survey should cover the logical geographic or cultural area irrespective of land tenure. Only through a complete perspective can an accurate understanding of settlement pattern and the comparative context and significance of historic places be realised, and priorities determined for management.

Recording of sites

Unless culturally inappropriate, all archaeological sites should be recorded in the iwi record system and on the New Zealand Archaeological Association (NZAA) site record file that is the basic archaeological database system used throughout New Zealand. Historic places, both on areas administered by the department and elsewhere, should be referred to NZHPT for registration.

Historic Places, Historic Areas, Wahi Tapu and Wahi Tapu Areas can be registered under Part II of the Historic Places Act 1993. Individual historic places on areas administered by the department may be identified for registration. The registration of wahi tapu is principally a matter for iwi to determine, although the department may assist with such registrations if this is considered appropriate by iwi.

Implementation

5.1.1 Historic places trust registration proposals will be prepared, as required, for actively managed places.

5.1.2 A systematic survey programme will be undertaken or advocated according to priorities in Table 26, p.160.

5.1.3 Localised survey will be undertaken in response to natural or human threats or on request from NZHPT.

5.1.4 Survey will take into account the context and potential inter-relationships of sites and settlement patterns on both public and private lands.

5.1.5 Where appropriate, consultation will be undertaken with tangata whenua and land managers before any survey.

5.1.6 *Any artefacts found by staff will be registered according to the provisions of the Antiquities Act 1975 and will be placed in an appropriate repository as approved by tangata whenua.*

5.1.7 *Record forms for new archaeological sites, and any supplementary information for existing records will be submitted to the New Zealand Archaeological Association file keeper following completion of a survey.*

TABLE 26: PRIORITIES FOR ARCHAEOLOGICAL SURVEY

AREA	PRIORITY
1. Areas largely managed by the department	
Most of Pelorus Sound	1
Parts of Queen Charlotte Sound including the islands and the Tory Channel	1
Shore whaling stations throughout Port Underwood and the Marlborough Sounds	1
Taitapu goldfields	1
Owen Goldfields and coal mining	2
Golden Bay coal mining	2
Wakamarina goldfields in Richmond Ranges	2
Argillite quarries of Richmond Ranges	3
Inland Marlborough	3
2. Areas (largely private land) where survey will be advocated	
Between Cape Campbell and the Clarence River	3
Lower Wairau Plains and terraces	3
Clifford Bay and Lake Grassmere	3
Wither, Redwood and Dashwood Hills	3
Coastline between Croisilles Harbour and Admiralty Bay	3
Takaka and Aorere Valleys	3
Rarangi to Ocean Beach and Port Underwood	3
Kaikoura Plains and foothills	3
Waimea Plains	3
Shipwrecks	3
Nelson City (urban archaeology)	3
Unsurveyed areas of D'Urville Island	3
Kaikoura Coast - Clarence to Conway (re-survey)	3
3. Areas largely managed by the department requiring updated surveys	
Kaikoura Peninsula (re-survey)	1
Wairau Bar and Lagoons (re-survey)	1
Puponga Farm Park (re-survey)	1

1. High priority 2. Medium priority 3. Low priority

5.2 MANAGEMENT

Historic resource management is the identification and protection of sites, areas and materials, to ensure the conservation of their cultural and scientific values and, where appropriate, the interpretation of them.

Most historic resources require some form of periodic intervention to ensure their long-term survival. The particular management requirements of each building, archaeological site or wahi tapu therefore need to be assessed and undertaken as resources and priorities allow.

Management can begin with protection, whether it involves the acquisition or covenanting of the land on which the historic place occurs, redesignating the land under the Reserves Act 1977, or ensuring that the provisions of the Historic Places Act 1993, the Resource Management Act 1991, the Antiquities Act 1975 and others are upheld. Actively managed places on areas administered by the department may require registration with the HPT.

Currently 13 historic reserves occur in the conservancy, seven of which are managed by the department. More specific management provisions are contained in conservation plans and in assessments developed for individual historic places. Over the last two years conservation assessments have been prepared for many of the historic buildings on areas administered by the department and the results are being implemented.

The most complex management issues lie with the large number of archaeological sites. These sites are under threat from natural and human agencies such as erosion (particularly coastal), vegetation regrowth (root damage), land development and deliberate fossicking.

Historic resource management is guided by the principles embodied in the New Zealand Charter, an adaptation of the International Charter for the Conservation and Restoration of Monuments and Sites developed by ICOMOS.

While many archaeological sites are protected for their traditional or spiritual significance, many are also protected to improve understanding of our past. The decision on whether a site should be excavated or allowed to be modified lies ultimately with the NZHPT under the Historic Places Act.

Objective

To provide for the conservation, protection and management of historic resources to ensure their historic, traditional and spiritual integrity.

Issues

Monitoring

Regular and routine monitoring of historic resources is crucial to their effective management. While this is straight forward for historic buildings that will have conservation assessments and maintenance schedules developed for them, archaeological sites and wahi tapu pose more complex problems. Many are in remote areas such as the Marlborough Sounds or the Nelson mineral belt, and are unlikely to be able to be monitored routinely. Many site record forms in the NZAA's database have not been updated for 30 years and therefore every opportunity should be taken to update records and assess management needs.

Significance and priorities

The determination of management priorities depends on weighing up the two following values:

1. Significance - the perceived historic or traditional importance of the historic place. For example, the NZHPT currently recognises the significance of historic places with its registration system through an assessment of their national, regional or local significance.

   Similar assessments of archaeological sites can also be attempted but often are less convincing because visible surface evidence is usually limited, assessing temporal relationships with other adjacent sites is difficult, and often documentary and traditional evidence is absent.

2. Vulnerability - the susceptibility of the historic place to damage by natural and man-made threats, including natural decay and animal damage, vegetation regrowth, erosion, farming, afforestation and subdivision.

Ideally therefore, after careful assessment of the above and combining significance and vulnerability, priority can be given to active management.

Values are assessed using HPT criteria and take into account the views of iwi for Maori values. For places containing buildings or structures on areas administered by the department over 30 years old, initial legal protection may be initiated. The procedures for this are described in the Conservancy Historic Resources Strategy.

To intervene or not

Most active management is directed towards the conservation of an historic place but occasionally a threat becomes such that long-term protection is no longer feasible. A strategic decision must then be made to either salvage information by recording or excavation, or to allow it to be destroyed. In some circumstances, such as destruction through coastal erosion, temporary protective measures may buy limited time.

Historic versus natural values

Occasionally, a situation arises where both natural and historic values occur in the same area, and the appropriate management for one is to the detriment of the other. The most common example is the regeneration of vegetation on an archaeological site. For example, the root systems of regenerating vegetation will cause increasing damage to subsurface stratigraphy, or a sheep grazing regime used to maintain pasture over an archaeological site may be at variance to a revegetation proposal. In these situations a choice must be made of which value has priority (§7.1, p.179).

The factors to be considered in allowing regeneration on historic or archaeological sites are:

- known or probable historic value;
- likely damage to the site from regrowth;
- cultural significance; and

- current or potential natural values.

Any decision must be made in consultation with the Historic Places Trust.

Context

Usually individual historic places have an inter-relationship with other sites or features in the surrounding landscape. For example, the Johnstons United gold stamper on the Aorere Goldfield is simply one component of the battery site having an important functional relationship with the tramway and mines that supplied the ore. This complex in turn is but one element of the goldfield's history. Thus the historic significance of the individual artefact or site is augmented by its relationship to the associated features around it and is consequently best retained "in situ". Management proposals should also take into account any traditional, cultural or aesthetic associations to recognise their context.

Interpretation

The ultimate purpose of historic resource conservation is to help us understand ourselves. It is our cultural archive, and in this sense its ownership and responsibility for its use lie with us all with the department having a primary role as kaitiaki (guardian) and manager.

Historic resources are interpreted to inform people in a variety of ways, on site, in visitor centres and in displays, pamphlets and books, to increase public awareness and support for their conservation. As buildings and structures are restored opportunities will be taken to provide interpretation.

Public use of historic sites

Historic sites can be particularly vulnerable to disturbance, even from the trampling of visitors. Consequently, care must be taken in choosing sites where visitors are to be encouraged, and even within these sites the placement of tracks and other facilities must be carefully planned to minimise impacts. On Maori sites, planning must avoid cultural offence.

Implementation

5.2.1 Priorities for maintenance of historic structures will be according to Table 27, p.165.

5.2.2 Legal protection may be given to historic places on areas administered by the department that are over 30 years old.

5.2.3 Interpretation of historic resources will be co-ordinated with their restoration, according to priorities set out in Table 27, p.165.

5.2.4 The management of historic places will conform to accepted principles for historic heritage conservation, and comply with legal and statutory requirements.

5.2.5 Management of Maori sites including wahi tapu will only be undertaken after consultation and with the consent of tangata whenua.

5.2.6 *Situations of potential conflict over the conservation of historic and natural values will be identified and carefully considered before priority is apportioned.*

5.2.7 *Periodic monitoring of historic resources will be carried out by appropriate staff.*

5.2.8 *Every opportunity will be taken to update the site record database and re-assess management needs.*

5.2.9 *Preference will be given to retaining historic resources in situ.*

TABLE 27: PRIORITIES FOR ACTIVE MANAGEMENT OF HISTORIC RESOURCES ON AREAS ADMINISTERED BY THE DEPARTMENT

	NZHPT CATEGORY	LOCATION	PRIORITY
HISTORIC BUILDINGS AND STRUCTURES			
Belgrove Windmill	I	Belgrove	High
Trout hatchery	II	Albion Square	High
Fire engine house	II	Albion Square	High
Powder magazine	II	Albion Square	High
Whites Bay cable station	II	Whites Bay	High
Peranos whaling station	-	Tory Channel	High
Old King's Hut	-	Wangapeka	High
Asbestos Cottage	-	Upper Takaka	High
Remnant gold machinery etc.	-	Taitapu Estate	High
Cob dairy	-	Onamalutu	High
Molesworth cob cottage	II	Molesworth	High
Johnstons United gold battery	-	Aorere goldfield	High
Whariwharangi Hut	-	Abel Tasman NP	Mod
Railway Tunnel and siding complex	-	Kawatiri	Mod
Ransom & Sims Engine	-	Mammoth Flat	Mod
Druggans Dam	-	Aorere goldfields	Mod
Defence installations	-	Blumine Island	Mod
	-	Maud Island	Mod
	-	Stephens Island	Mod
	-	Long Island	Mod
Red Hills cob house	-	Upper Wairau	Mod
Red Hills barn	-	Upper Wairau	Mod
Red Hills barn	-	Kaikoura	Mod
ARCHAEOLOGICAL SITES			
Wairau Bar			High
Karaka Pa Historic Reserve		Picton	High
Titirangi Farm Park		Pelorus Sound	High
Puponga Farm Park		Golden Bay	High
Moioio Island		Tory Channel	High
Peketa Pa		Kaikoura	High
Saw Pit Point Middens		Awaroa	High
Nga Niho Pa		Kaikoura	High
Rolling River gold mining sites		Wangapeka	High
Askews Hill argillite quarry		Croisilles Harbour	High
Crail Bay Historic Reserve		Pelorus Sound	Mod
Horahora Kakahu Historic Reserve		Port Underwood	Mod
Onekaka Ironworks, quarry and dam		Golden Bay	Mod
Pariwhakatau Pa		Conway River	Mod
Parapara Spit Historic Reserve		Golden Bay	Mod
Waikakaho gold mines		Wairau Valley	Mod
Kaikoura Peninsula Pa		Kaikoura	Mod
Te Awaiti whaling site		Tory Channel	Mod
Old Kaikoura wharf		Avoca Point	Mod
Whangamoa Spit		Whangamoa	Mod
North Bank Wairau gold mines		Wairau River	Mod
Ship Cove Historic Reserve		Queen Charlotte Sound	Mod
Milnthorpe		Parapara Inlet	Mod
Wharehunga Pa		Queen Charlotte Sound	Mod
Tukutukuiwi Historic Reserve		Kaikoura	Mod
Motuara Island Historic Reserve		Queen Charlotte Sound	Mod

6. Research, survey and monitoring

Information is a key to good management. The conservancy requires information for all of its functions, and gives particular attention to natural systems as understanding is most limited in this area and irreversible loss of natural, historic and recreational values is most likely. The second priority is information gathering on historic resources, especially where sites are threatened with disturbance. Thirdly, the conservancy collects social information, particularly on visitors to the areas that it manages.

Broadly, information gathering falls into three groups:

research: endeavours to discover new facts by critical application of scientific method;

survey: measurement or assessment of natural, historic or social resources as a single undertaking; and

monitoring: assessing trends or change over time.

Managers attempting to retain the biological diversity of New Zealand need detailed knowledge of:

- the most threatened elements in the natural environment;
- the nature of the organisms that are displacing threatened elements; and
- the functioning of the ecosystem of which they are a part.

Without such information, management can actually make conservation problems worse by altering the balance of a complex interrelated system in unexpected ways. For example, attempts to protect kokako nests in central North Island forests through rat poisoning may have temporarily increased predation on all bird species as mustelids switched their prey from rats to birds.

Most of the research is carried out by the department's Science and Research Division, or by researchers contracted to the division. Research focuses on establishing new techniques for management, basic processes and long term solutions for conservation problems. Some research that is not a high priority on a national scale, but which could provide useful information locally, is carried out by the conservancy, either through its own staff or through provision of logistic and limited financial support for other researchers, mostly post-graduate students.

In this conservancy, the biggest information gaps relate to:

- marine communities;
- learning how to protect the forests and their communities from possums and wasps; and
- learning how to protect a variety of rare species from mustelids (for example, yellowhead, Hutton's shearwater, kaka) from mustelids.

While much research relating to possum and mustelid control is being carried out elsewhere, as it is a national concern, research into the impacts wasps are having

on the honeydew forest community are being carried out by Landcare Research in south Nelson as it is an ecosystem confined to the northern half of the South Island.

Survey

Most survey work is carried out by conservancy staff, as knowing what resources are there is a basic prerequisite to management or more detailed research. Given that it is impossible to preserve all the elements of indigenous biodiversity at all locations, the first essential action is to identify key components of the indigenous biodiversity. Such key elements may be areas, communities, species, populations or processes.

Such survey must be ongoing, adaptive and flexible, changing as knowledge and techniques improve. Priority areas need to be identified for intensive management and ranked on their contribution to indigenous biodiversity. They need not necessarily be the most diverse but should make the greatest contribution to global biodiversity. Thus, species-poor areas with unique communities are equally as important as areas with unique species, such as tuatara or a unique, distinctive cave spider.

Once an area is selected for intensive management it must be closely examined to:

- identify in detail what is in the area;
- establish trends in key species populations;
- establish a baseline for future monitoring; and
- identify threats to ecosystem integrity.

Historic survey is the initial step in determining the location and nature of historic resources. Priorities are being developed on the basis of current gaps in geographic coverage, and also gaps in the known range of past human activity throughout the conservancy. Apart from providing a more comprehensive knowledge of historic resources throughout the conservancy, survey is necessary for management (§5.1, p.158).

Monitoring

Monitoring is a feed-back mechanism to gauge the success of, or need for, management. A temptation exists to use monitoring as a substitute for either research or management for "keeping an eye on the problem", without a definite idea of necessary action, costs or priorities.

Monitoring should only be undertaken when:

- the aim is clear; i.e. the point at which monitoring should either turn into action, or is itself assessed; and
- the method is clear, and an agreed standard to which the monitoring process must perform.

The monitoring process itself should be periodically reviewed and streamlined.

Conservancy staff are monitoring threatened plant and animal populations including Cook's scurvey grass, titirangi, coastal tree broom and Chalk Range

cress, *Powelliphanta* land snails, great spotted kiwi, king shags, Hamilton's frog, Kaikoura giant wetas and Hutton's shearwater. The response of fish stocks and subtidal ecosystems to reservation of marine areas, and the response of whales to tourist operations are to be monitored.

Little general monitoring of forest or tussockland is now carried out as the focus has shifted to the most valuable and threatened elements of such ecosystems. (See island pests §7, p.104; freshwater plant pests §5, p.91; whale watch §3, p.137; species transfers §4, p.143; community management §4, p.144; historic resources §5, p.156; §5.2, p.161; §15, p.271; mutton birds §14.1.4, p.239; grazing §14.5.5, p.246; mining §14.9, p.257; concessions §14.7, p.251; campaigns §20.4, p.353.)

Objective

To provide a sound information base on which to make management decisions.

Issues

Identifying information requirements

As information gathering is not an end in itself but a tool to support management, information needs are determined by management priorities. Information gaps are much larger in some fields than in others. For example, proportionally more research money is spent understanding the natural world than is spent on recreation facilities, one of the largest components of the department's management work.

Where management is straight forward, such as the provision and maintenance of tracks and huts, less research is needed. Where management is complicated, such as manipulating part or all of an ecosystem, research is essential and in fact little management can be done without it.

Setting priorities

With a limitless requirement for information but limited resources, prioritising information gathering tasks is important.

Priorities for information gathering should reflect:

- the irreversibility of effects of management decisions;
- the more irreversible the management decisions, the better the information must be. For example, if wrong decisions are made a plant or animal species may become extinct, or an archaeological site could be destroyed, whereas decisions over where to site a hut can be changed, albeit expensively;
- the relative importance of the subject;
- the threat to the subject;
- the practicality of sound research on the topic;
- whether the information gained can contribute substantially to its conservation?; and

- whether the benefits of research outweigh the costs (both monetary and environmental).

A list of the research information requirements in the conservancy is given in Table 29, p.175. Topics in which specific management monitoring have been noted are contained in Table 28, p.173 (see also §2.3, p.65; §6, p.99; §9, p.191; §10.4, p.206; §11.1.8, p.215).

Reporting and data access

An important part of any information gathering project is the reporting of results. All research contracts have a requirement for regular reports to enable the department to begin action on important findings. Many internal projects lack the same concise requirements although internal reports should be prepared at appropriate points in the projects.

The department contributes to a number of specific databases which seek to order the information gathered, place it in a national context, and make it accessible to all conservancy staff. The main databases are Sites of Special Wildlife Interest (SSWI), Wetlands of Ecological and Representative Importance (WERI) and the Coastal Resources Inventory (CRI; see Appendix II, p.417) threatened plants, threatened animals (blue duck, kaka, kea, falcon, kiwi), freshwater fish, Geopreservation Inventory, and the archaeological database. The department also has a land title database and many other smaller purpose-built databases. During the next decade the department plans to establish a system which can combine all information relating to a specific area into one integrated database (a Geographic Information System, or GIS).

Restrictions on research

In an ideal world, most research and survey on resources for which the department has responsibility, would be encouraged on the basis that the more information the better.

In reality, two qualifying considerations exist:

1. The fragility of the study object.
   - Islands densely burrowed by seabirds and free of introduced plant and animal pests are particularly vulnerable to trampling from human visitors (and researchers), and the fewer visitors the better it is for island conservation. At the other extreme, mainland low altitude sites on well-drained soils with major plant and animal pests already present place few constraints on researchers.
2. The cost of the research in conservation terms.
   - Any money spent on research is money unavailable for management of perhaps higher priority subjects.
   - Direct costs vary from an actual financial contribution, through to fuel for boat transport, to accommodation not available for other uses.
   - Indirect costs are the time taken to process permits, to co-ordinate travel, to accommodate researchers, and to consult tangata whenua and interest groups.

Consequently, for research to be worth the costs in environmental damage and other conservation tasks left undone, it has to have the potential to make conservation gains before it will be encouraged.

Conversely, research in easily accessible, durable ecosystems with no costs to the department will be permitted, even if there are no obvious conservation benefits. However, the projects to be carried out in vulnerable areas often have the highest potential for making conservation gains, so these tend to be the research proposals on which the most time is spent. All research should be carried out in a manner that protects natural, historic and recreational values.

Implementation

6.0.1 *Biological survey will focus on identifying areas for intensive management, species that require assessment for intensive management and key components of biodiversity that lie outside intensively managed areas.*

6.0.2 *Biological monitoring will be used to identify trends in key species and to ensure that general and intensive management is meeting its objectives.*

6.0.3 *Appropriate research of nett conservation gain will be fostered.*

6.0.4 *The highest priority for research will be where the highest natural, historic or recreational values are most under threat, or least understood, and where it will have the greatest potential for conservation benefits.*

6.0.5 *Research with no conservation gains, but insignificant environmental costs, provided it adheres to scientific standards, will be encouraged; and that with significant adverse effects will not be permitted.*

6.0.6 *Early and close consultation with tangata whenua will occur when research relates to topics of particular importance to them.*

6.0.7 *As far as is practical, all research and survey work will cause minimum damage and disturbance to land, water and protected biota.*

6.0.8 *In particularly vulnerable parts of the conservancy, or when particularly vulnerable resources are involved, only research that has significant conservation benefit and cannot be carried out elsewhere will be permitted.*

6.0.9 *Any research that may cause damage to an archaeological site requires the prior written authority of the New Zealand Historic Places Trust under the Historic Places Act 1993 (§5, p.156).*

6.0.10 *All research and survey work carried out on areas administered by the department must meet appropriate approval and permit requirements, including those of the Animal Protection (Codes of Ethical Conduct) Regulations 1987.*

6.0.11 *As opportunity permits, the research projects listed in Table 29, p.175 will be carried out.*

6.0.12 *General monitoring will be carried out with priorities according to Table 28, p.173.*

6.0.13 *Appropriate monitoring will be carried out as part of all restoration or pest control programmes.*

6.0.14 *All research and major survey or monitoring projects will contain requirements for reporting.*

6.0.15 *The conservancy will undertake co-operative efforts and continue to support relevant databases maintained by other organisations.*

TABLE 28: SURVEY-MONITORING PRIORITIES

SOURCE	PRIORITY
Threatened species	
identify vital habitat for threatened species found outside of intensively managed areas	1
monitor land snail and great spotted kiwi populations in upland areas Golden Bay	1
monitor blue duck populations in Flora Stream	1
monitor *Powelliphanta* land snail populations in NW Nelson	2
survey to identify locations with long-tailed bats	2
survey Hector's dolphin Marlborough Sounds	2
survey and monitor threatened lowland plants in Marlborough	2
monitor Hutton's shearwater populations at Mt Uwerau nature reserve	1
survey of New Zealand fur seal populations	2
monitor falcon in South Marlborough	1
Communities	
identify for intensive management areas with high contributions to global diversity	1
monitor intensively managed areas	2
monitor intertidal communities of Farewell Spit	2
monitor threatened species of off-shore islands (Maud, Stephens)	1
monitor short turf communities of Sedgemere tarns	1
monitor Chalk range communities	1
Freshwaters	
complete survey of freshwater fish and flora within Northwest Nelson, survey for aquatic	1
flora in Northwest Nelson	1
survey to identify freshwater habitats for protection in Golden Bay	1
survey for native fish in Abel Tasman National Park	2
survey for freshwater fish throughout Marlborough	1
monitor effects of fencing on ecology of Kaikoura Lakes	2
survey for freshwater fish and aquatic plants at Lake McRae	2
Marine reserves and Coastal	
monitor marine reserve at Abel Tasman National Park	1
monitor Long Island-Kokomohua Marine Reserve	1
monitor proposed marine reserve on the Kaikoura Coast	1
identify important marine habitats and their extent Marlborough Sounds	2
monitor Whanganui Inlet	1
monitor Waimea estuary	1
monitor impacts of marine mammal watching on animal behaviour	1
Pest management	
survey to determine priorities for control of pests in relation to values focused on possums in Golden Bay	2
monitor animal pest populations and indigenous species responses during pest control operations	2
monitor animal impacts on vegetation and fauna in North-west Nelson	2
monitor for plant and animal pest invasion on off-shore islands	1
monitor plant pests in Waikoropupu Springs	1
monitor aquatic plant communities in Nelson Lakes National Park	1
Recreation impacts	
monitor impacts of management activities at Farewell Spit	3
monitor visitor use and impact on the seven major tracks	1
monitor impacts in high visitor use areas at Abel Tasman National Park	1
monitor the Rainbow and Mt Robert skifield concessions	2
monitor visitor use and impacts on significant road-end sites	3
Public awareness	
monitor response to programmes or campaigns	3

TABLE 28: SURVEY MONITORING PRIORITIES (CONT)

SOURCE	PRIORITY
Archaeology	
survey and record archaeological sites Golden Bay	3
survey archaeological and historic sites Waimea	3
survey cultural and archaeological sites in the Sounds and argillite areas of the ultramafic belt	2
Survey Wakamarama goldfields	3
Historic buildings and structures	
survey coastal archaeological sites and gold mining sites in the Taitapu area	3
survey and protect archaeological sites:	
on the coast;	3
associated with mining in North-west Nelson; and	3
rgillite quarries in Richmond Ranges	3

Priority: 1. High. 2. Moderate 3. Low

TABLE 29: CONSERVATION RESEARCH REQUIRED IN NELSON MARLBOROUGH CONSERVANCY (AS AT MAY 1992)

BOTANY	
Threatened species research	
1S *Celmisia macmahonii*	Mounts Stokes and Richmond, taxonomy, ecology and threats
1S Mistletoe species	Protection experiments and effectiveness
	Comparisons between possum-free areas and possum areas
	Conditions for growth
	Host preference
	Reproductive ecology
3S Weeping tree broom and Coastal tree broom	General ecology; conditions for establishment; seed ecology; threats
1S *Kirkianella*	Taxonomy, distribution and ecology
	Comparison of alpine and coastal populations
2S Shrub pohuehue	General ecology; habitat requirements of small remnants
2S Titirangi	Origin of species and Maori influence on distribution
	General ecology, habitat requirements
1S Marlborough rock daisy	Taxonomy; ecology
2S *Australopyrum calcis*	General ecology
3S Cook's scurvey grass	Causes of decline
3S Pygmy button	Habitat parameters, to determine new sites for establishment
1S *Melicytus obovatus*	Reproductive biology; taxonomy
2S *Pittosporum patulum*	General ecology
3 Deciduous tree daisy	Regeneration ecology; causes of decline; appropriate conservation measures
General plant ecology	
1S Plant ecology of Cape Campbell area	Studies on ecology of local endemics
1S Wairau Lagoons	Detailed botanical survey; vegetation map; community dynamics
1S Browsing animal impacts	Composition and structural differences at exclosure plots; rates of regeneration
1S Kaikoura beech gap	Location; causes
1S Pre-human vegetation of South Marlborough	Pollen; wood charcoal dating
2S Sphagnum wetlands	Ecology; extent; types; representative areas
Plant pest research	
3S Climbing dock	Smothering effects; control methods
2 Adventive pine spp.	Biological control
1 Pine spp.	Effect of revegetation in Wairau uplands; native species re-invasion
2 Spanish heath	Biological control
3 *Hieracium* spp.	Biological control
2S Banana passion fruit	General ecology; control methods
ZOOLOGY	
Threatened species research	
Freshwater fish	
1 Eels	Impact of taking
2 Brown mudfish	Ecology, distribution
1 Whitebait	Ecology and distribution of rarer species
Invertebrates	
1S Kaikoura giant weta	Ecology
1S "Bluff weta"	Physiology; ecology; taxonomy
1 Speargrass weevil	Distribution in Marlborough

TABLE 29: CONSERVATION RESEARCH REQUIRED IN NELSON MARLBOROUGH CONSERVANCY (AS AT MAY 1992) (CONT)

ZOOLOGY (CONT)	
Reptiles and amphibians	
1S Striped gecko	General ecology on Maud Island
1S Black-eyed gecko	Physiology; ecology; range
1S Speckled skink	General biology; habitat requirements
1S "Long-toed" skink	General biology; habitat requirements
1 Tuatara	Distribution; nest locations throughout Stephens Island
1 Hamilton's frog	Taxonomic description; Maud and Stephens Island frogs
Birds	
2 Yellowhead	Population dynamics; Mt Stokes
2S Hutton's shearwater	Population dynamics; feeding ecology; predator control
1S Blue duck	Population dynamics; ecology; Flora Stream
3 King shag	Ecology; population dynamics
2S King shag	Comparative population biology with Stewart Island shag
2S Kea	Population dynamics; ecology; 'Problem kea' management
2 Kaka	Population dynamics
2 Kakapo, takahe	Captive management techniques
Mammals	
2 Bats	Development of census techniques; distribution; development of conservation measures
2 New Zealand fur seals	Diet/foraging ecology
1 New Zealand fur seals	Composition of the fisheries bycatch; population dynamics
General animal ecology	
1 Seabirds	Monitoring programmes for smaller shearwaters; petrels, prions
1S Farewell Spit food chains	Inter-tidal benthos and shorebird prey relationships
1S Black Swan	Habitat use in estuarine areas; effect on eelgrass beds
1 Habitat creation	Pilot study on Stephens Island
2 Invertebrates	Effect of 1080 in different habitats on species composition and biomass
1 Invertebrates	Distribution and status of rare invertebrates on Stephens Island
1 Freshwater fish	Migration requirements for freshwater fish
1S Kiore impacts	Effects of eradication on Chetwode Island flora and fauna
3 Island restoration	Ecology and timing of island introductions; interactions between threatened species
Animal pest research	
2 *Vespula* wasps	Monitoring effectiveness of parasitoid (*Sphecophaga vesparum*)
1 *Vespula* wasps	Biological control; pheromones
3 Feral pigs	Poison bait strategies
1 Hares	Effects on upland ecosystems
1 Possums	Poisoning to reduce predation on *Powelliphanta* land snails
2 Possums, goats, rats, stoats, mice	Biological control agents
MARINE BIOLOGY	
1S *Macrocystus* beds	Extent; associated fauna; effects of taking on ecology at Cape Campbell
1 Marlborough Sounds	Models of water circulation
1 Pollution	Assessment of discharges from boats in sheltered waters
1 Set nets	Use and bycatch from recreational fishing
1 Marine Reserves	Survey methods for soft-bottom communities and poor visibility areas; minimum size-boundary effects; identification of communities

ABLE 29: CONSERVATION RESEARCH REQUIRED IN NELSON MARLBOROUGH CONSERVANCY (AS AT MAY 1992) (CONT)

PHYSICAL GEOGRAPHY	
3S Wairau Lagoons	Hydrology; sedimentation; coastal processes
1S Karst hydrology	Effect of land clearance or farming on waterways; rates of siltation; cave water chemistry
1 Coastal sedimentation	History; terrestrial sources; Marlborough Sounds
SOCIAL GEOGRAPHY	
1 Overnight visitors	Environmental costs and benefits
1 Recreational users	Personal impacts of visits on conservation awareness
1 Rock climbing	Impact on flora at Paynes Ford Scenic Reserve
3 Land managers	Survey attitudes to conservation
3 Sewage	Effects of disposal at remote, high use, high altitude huts
1 Social interactions	impacts of crowding on visitor experience
ARCHAEOLOGY	
1 Wairau Valley	Early Maori settlement; palaeo-environment
1S Lake Grassmere-Ure River	Archaeological significance of coastline
1S Nelson City	Urban archaeology
2 Search for cave art	

Key:

S = May be suitable for student research
3 = Low
2 = Medium
1 = High

7. Special management considerations

7.1 GENERAL CONSIDERATIONS

Most areas administered by the department are managed primarily for the narrow objective of preservation of natural and historic values or the slightly wider objective of conservation of natural and historic values. The latter objective allows for habitat restoration and fosters recreational use. The remainder, a small group of land categories under the Reserves or Wildlife Acts, place management for recreational and social values before natural values (lower part of Table 30, p.182). Nonetheless, natural values are protected to the extent that they are compatible with the primary objective of their classification.

The major part of the CMS deals with management of natural values. This section sets out the management requirements for areas where preservation is not the primary objective of management because of the status of the area. The main categories that need special consideration are marginal strips, recreation, historic, government and local purpose reserves (Table 52, p.428).

Objective

To provide for the particular management requirements imposed by land status or designation where preservation of natural values is not the primary management purpose of the area.

Issues

Land designation or status

For most aspects of management, protection is fully compatible with intended activities and land status is implicitly considered. For categories near the top of Table 30, p.182, constraints are greatest and for those at the bottom, least. See Appendix V, p.428 for more detailed objectives for each of these land categories.

In areas such as nature reserves and Conservation Act sanctuaries, restoration is not permitted and access may be by permit only, while other conditions may be set in the initial gazette notice. Management in wilderness areas is covered by approved policies, restricting activities to those of little impact. Conditions of access are dealt with in Visitor Access (§16, p.273). Activities in national parks are similarly restricted by the governing act, approved general policies and management plans (§21.2, p.365).

Categories towards the middle of Table 30, p.182 have quite different purposes from those in the upper part. Marginal strips and esplanade reserves were originally intended to provide access along waterways but today, are also managed to protect the waterways and the values alongside them, and to provide access.

Historic reserves and wildlife refuges are primarily intended to protect or recognise single values and may be in heavily modified areas, for instance, the Belgrove Windmill site.

The existing values of these sites and their nature must be considered in their management. For instance, retention of oaks is more in keeping with the character of Fairfield House than revegetation with native species. Similarly, retention of and enhancement with non-native species is fully compatible with scenic reserves classified under §19(b) of the Reserves Act. Wildlife management areas, managed by the Fish and Game Council, are modified to produce wetlands, and non-native species, such as oaks are often used to attract waterfowl.

Recreation areas are often zoned out of adjacent scenic reserves to allow recreational development and may be managed by grazing. Farm parks are recreation reserves (often on the coast) that continue to be farmed but are particularly important for their open space qualities.

Local purpose reserves include esplanade reserves, golf courses, cemeteries and hall sites, and are usually vested in, or managed by local authorities. A few are controlled by the department but probably are more appropriately managed by local authorities (§2.5, p.134). Sounds Foreshore Reserve is a special category of local purpose reserve (§14.10, p.259). It primarily provides access to shores for the public, or for adjacent owners and this needs to be considered in its management (see USE §14, p.231). Other local purpose reserves include, stock resting places, quarries, gravel pits, and ferry reserves which are often managed by the department. Most of these reserves are small and are often no longer required for their original functions.

Government purpose reserves include many specially created single purpose reserves including, wildlife management areas, wildlife refuges and wetland management areas as detailed below. Other government purpose reserves include government buildings, and stock reserves (see also §2.3, p.129).

Preservation of natural values

Natural values are protected to the extent that they are compatible with the primary objective of the designation. For instance, on farm parks open space, provided by the farmed environment, is an integral part of the experience and yet areas of wetland or pockets of native vegetation are equally important and must be protected and not drained or cleared. Similarly, provision of general access is an important primary objective for Sounds Foreshore Reserve and tracking may be necessary, but natural vegetation must be preserved where practicable.

Marginal strips frequently adjoin pastoral land and are often ill defined. It may be appropriate, having regard to the impacts on aquatic ecosystems, to appoint the adjacent land holder as manager. Such cases will usually be where it offers better management of the strip while retaining public access. Examples include cases where plant or animal pest control is required in conjunction with the adjacent land.

Wildlife refuges wildlife and wetland management areas

Wildlife refuges can occur on areas of any tenure and solely protect gamebirds from hunting. Wildlife management areas are government purpose reserves set aside for gamebird management, particularly as breeding or moulting areas. Wildlife refuges on areas administered by the department should be gazetted as government purpose reserves and managed for protection of gamebirds. Of the

existing wildlife refuges in the conservancy only the Para Swamp is a heavily modified area. Most on private land cover water bodies but may also cover largely pastoral land. Areas administered by the department are managed for gamebirds in conjunction with the Fish and Game Council and disturbance to breeding can be further minimised by careful planning of access to or through the areas. Wetland management areas such as the Wairau Lagoons are set aside to manage these particular habitats.

Use of non-native species

Grass can be an important part of recreation reserves to provide the open space for activities and facilities, and in other areas non-native trees or shrubs may be appropriate for the function of the reserve. The existence or extent of woody non-native species used or retained, especially on farm parks, should be subject of operational or landscape plans (§21.2, p.365). Similarly, the retention of pasture should be only where it is appropriate to retain open space or to protect other values such as archaeological sites (§5.2, p.162). Many grassed areas are most appropriately managed under a grazing permit or licence (§14.5, p.244) but cattle should not be grazed on archaeological sites.

Implementation

7.1.1 *Full consideration will be given to land status when evaluating management options.*

7.1.2 *Farm parks will be primarily managed to protect and enhance public enjoyment and access and to protect natural and historic values.*

7.1.3 *On farm parks, farm management requirements will be taken into account in achieving conservation objectives.*

7.1.4 *Management practices within a farm park will ensure that historic sites, landforms, landscape features and lakes are protected and that patterns of vegetation and open space qualities are retained.*

7.1.5 *Parts of recreation reserves may be maintained as open space through pastoral management (§14.5, p.244).*

7.1.6 *Any appointment of a manager for a marginal strip will be carried out in consultation with the relevant conservation board.*

7.1.7 *Wildlife refuges and wildlife management areas will be regularly inspected to ensure that their integrity is maintained.*

7.1.8 *In wildlife refuges, the main bird feeding, roosting and nesting areas will be protected in a completely undisturbed state by carefully planning access to them.*

7.1.9 *Where appropriate, and in conjunction with the Fish and Game Council, wildlife habitat in the wildlife refuges and wildlife management areas will be protected and enhanced by sympathetic management within the reserves and on adjacent areas.*

7.1.10 *Marginal strips and esplanade reserves will be managed to maintain and where possible enhance public access.*

TABLE 30: MANAGEMENT CHARACTERISTICS OF SOME LAND CATEGORIES

DESCRIPTION	NO	PRIMARY OBJECTIVE	NON-NATIVE SPECIES	FOOT ACCESS	MODIFICATION	RESTORATION
Nature reserves sanctuaries	5	Preservation	exterminated controlled	restricted	limited	permitted
Scientific reserves	5	Preservation	exterminated	restricted	permitted	permitted
Wilderness areas	1	Preservation	exterminated or controlled	unrestricted	not permitted	not permitted
Wildlife sanctuaries	3	Preservation	not covered	restricted	permitted	permitted
Ecological areas	3	Preservation	controlled	unrestricted	permitted	not covered
Marine reserves	1	Preservation	not mentioned	unrestricted	not covered	not permitted
National Parks	3	Preservation	exterminated	unrestricted	limited	not permitted
Scenic reserves (a)	162	Preservation	exterminated	unrestricted	limited	permitted
Conservation parks (Forest parks)	2	Preservation	controlled	unrestricted	limited	permitted
Stewardship area	329	Protection	controlled	unrestricted	limited	not covered
Watercourse area	0	Protection	not applicable	unrestricted	not covered	not covered
Marginal strips	400+	Protection	controlled	unrestricted	not covered	not covered
Historic reserves	6	Protection of historic values	controlled	unrestricted	limited by NZHPT	not covered
Wildlife refuges	6	Protection of wildlife	not covered	unrestricted	permitted	permitted
Scenic reserves (b)	12	Scenic interest	planted	unrestricted	permitted	permitted
Wildlife management areas	6	Wildlife management	planted	unrestricted	not covered	not covered
Recreation reserves amenity areas	73	Recreation	planted	unrestricted	not covered	not covered
Farm parks	2	Recreation	planted	unrestricted	not covered	not covered
Sounds foreshore	384	Access	exterminated	unrestricted	not covered	not covered
Esplanade reserves	11	Access	controlled	unrestricted	not covered	not covered
Local purpose reserves	24	Various social	various	various	not covered	not covered
Govt. purpose	116	Various	various	various	not covered	not covered

restricted: access restrictions may be specified in the gazette notice
limited: modification is permitted to facilitate recreation and for restoration but is usually limited in extent
not covered: not specially mentioned in the relevant act
planted: non-native species may be planted

7.2 RESTORATION AND SITE MAINTENANCE

Sites may require restoration or landscaping following damage. Introduction of appropriate non-native species may be desirable and compatible with the development or restoration regime.

Objective

Where landscaping or restoration is required, to use species and techniques that are compatible with, and preserve or enhance, the ecosystems of the site.

Issues

Whether native or introduced species are used, precautions must be taken to protect the natural ecosystem of the area. The need for intervention should be weighed carefully against the ability of the site to recover by itself in a reasonable time.

Restoring native vegetation around developed areas needs to consider the following basic biological principles (§4, p.142):

- only local species should be used;
- species selected should be in harmony with the surrounding vegetation;
- plant material used should be of local genetic stock.

Restorative landscaping is most frequently required around facilities and in places such as picnic areas and campgrounds as screening often improves the local environment. Introduced grasses should be used sparingly in largely natural areas but can assist in site restoration and act as an interim cover until native vegetation becomes established.

Implementation

7.2.1 *Restoration will only be carried out under operational plans and with scientific consultation.*

7.2.2 *Where restoration is necessary, techniques that replicate natural processes as closely as possible will be given preference.*

7.2.3 *Wherever practicable, only species occurring within the subject area and their genetic stock will be used in restoration planting.*

C THREATS TO AREAS ADMINISTERED BY THE DEPARTMENT

8. Introduction

Threats to areas administered by the department and to natural, historic and recreational values arise from many different causes. They may arise from emergencies such as a fire or from more insidious things such as plastics pollution or the spread of goats or old man's beard. They may also arise through the actions of people such as liberation of unwanted pets, landslips arising from past land clearance, trampling by visitors and other activities in especially sensitive areas, and development activities such as mining or hydro dams. Threats to waterways, especially water quality on areas other than those administered by the department, arise from unsatisfactory land use practices, urban development, air pollution and climate change and other consequences of human activity.

This section focuses on the major threats to the biota - plant and animal pests and fire. Three other sections deal with different threats: USE OF AREAS ADMINISTERED BY THE DEPARTMENT (§14, p.231), VISITORS TO AREAS ADMINISTERED BY THE DEPARTMENT (§15-17, pp.270-325) and ENVIRONMENTAL POLLUTION (mainly on areas other than those administered by the department, §12, p.221).

Objective

To protect the intrinsic values of areas administered by the department and native biota from biological and human-induced threats.

Issues

Setting priorities

For many threats such as fire, the response is purely reactive but good preparation for such events is also important to minimise the damage. For the more insidious impacts of biological agents, such as plant or animal pests, long-term concerted action is required. The priorities for these actions are normally related to the values being protected (p.43) and the potential to achieve effective control.

Contingency planning

Many threats arise as an emergency in which quick and well planned action can forestall later problems and minimise damage. Emergencies such as fire (§11, p.209), oil pollution (§12, p.221) and whale strandings (§3, p.137) are obvious

examples. Preparation of contingency plans, such as a fire plan, ensures that problem areas are identified and procedures and sources of equipment are known before the emergency arises.

Less obvious is the need to monitor for pest invasion in pest-free areas such as islands, especially those with very high natural values (§7, p.104). Contingency plans for off-shore islands are operating on Maud and Stephens Islands and are being produced for Brothers, Titi, and Chetwodes Islands.

They set out the steps to be taken to prevent rodent or other plant or animal pest invasion and the action to be taken if a rodent outbreak occurs, or another pest arrives.

Implementation

8.0.1 *Operative pest contingency plans will be developed for all pest-free islands and for all islands on which pest eradications are undertaken.*

9. Plant pests

The recognition of a plant as a pest (or weed) will depend on where the plant is, what effect it is having or likely to have, and who is asking the question. For example, a planted pine tree in an established plantation will be viewed by the forest manager as an economic resource. A wilding pine, on the other hand, established among mineral belt vegetation or on open tussockland, is considered by the department as a pest.

Most plant pests were introduced by early settlers as garden plants or for farm management, as hedges and wind breaks for example. Many plants considered to be pests, such as wild ginger, are still available as garden plants or, like willows, are used by other agencies for protection plantings. There is a continuing potential for plant pests to arise from garden escapes.

Disturbance to existing vegetation may lead to invasion by plant pests. This disturbance may be natural or induced, such as by fire or land clearance, especially on forest margins. Plant pests will often indirectly increase the rate of disturbance. For instance, the presence of gorse is likely to increase the frequency of fires. The effects of one plant pest may also help the establishment of other plant pests, through altering the ecosystem characteristics.

Problem plants that may permanently alter the structure, successional processes, and organisms present in native plant communities are identified in Table 31, p.193. They are grouped into the following four categories (Table 31):

1. Widespread species considered a problem wherever they are found, within or near natural areas, for example, old man's beard.
2. Widespread species considered a problem only in certain areas for example, gorse on dunelands.
3. Site-specific species requiring a narrow range of conditions to survive, but considered a problem wherever they are found, for example, *Spartina* in estuaries.
4. Species with a potential to become a problem in this conservancy, for example, wild ginger.

The degree of modification caused by plant pests will vary from site to site depending on:

- climate;
- soil conditions;
- growth pattern of the species; and
- spread potential of the plant pests in question.

Often they are linked with animal pest populations through the spread of seed and grazing by farm stock, with less palatable and faster growing pest species more likely to survive than more palatable and slower growing native plants.

Plant pests not only affect native ecosystems through direct competition, but also indirectly as habitat for birds, reptiles, invertebrates and aquatic animals.

For example, tomtits in pine forest adapt to the changes quite readily, whereas cockles in estuaries cannot adapt to habitat modified by *Spartina*.

Legislation

The control of plant pests by the department is primarily determined by the Conservation, National Parks and Reserves Acts. These require that natural, historic and recreational values be protected from damage by plant pests, and in national parks that introduced plants are exterminated as far as possible.

The Biosecurities Act 1993, provides for the development of national and regional strategies for the management of plant pests. Under this Act, plants may be determined to be pests for a number of reasons, but primarily for their effects on economic well being or the environment. In the transitional period (until 1996) for the new legislation, the department is required to undertake control programmes for Category B plants (under the Noxious Plants Act) on areas administered by the department, particularly in boundary areas until a plant pest strategy is developed for those species.

Objective

To eliminate, or minimise, the effects of plant pests on native plants, animals and ecosystems, important archaeological and historic sites, and important landscapes.

Issues

Setting priorities

Priorities for control of plant pests are based on the importance of the values to be protected, the degree of threat imposed and the urgency for control action. The latter is determined by:

- ease of establishment of the plant pest;
- rate of spread;
- impact on values;
- ease of control;
- likelihood of re-infestation; and
- control methods and resources available.

As plant pests cover a wide range of areas, a plant community-based classification is useful to define where particular plant pests are considered a problem (see Table 31, p.193).

Communities requiring priority for action, because they are most under threat from plant pests, are those that have suffered the greatest degree of modification or are threatened by surrounding influences, for example, lowland forest remnants (§3, p.70), estuaries and coastal areas (§4, p.80). Also, invasion is strongest in sparsely vegetated communities, for example, in tussocklands and ultramafic areas. Generally, plant pest problems do not occur where native vegetation cover is complete and the locality is distant from the modified margins, such as in the upland forests and alpine zone.

Efforts should concentrate in the areas of high natural value where the most benefit can be gained. For broadly spread plant pests small infestations are targeted first because spread occurs more rapidly from several small infestations that expand and fill in, than from a single large one. Examples include pockets of old man's beard and scattered patches of *Spartina*.

A comprehensive approach to plant pest control identifies the values to be protected and concentrates on all plant pests affecting those values. This means that the community suffers only one disruption from a control operation and becomes less vulnerable to new invasions of pests.

The principal priorities are:

- preventing introductions and halting dispersal of animals into pest-free areas;
- eradication programmes; and
- containment programmes.

Eradication or control

Total eradication can only occur where all seed sources can be eliminated, such as on islands or in isolated localities. Localised eradication can be achieved in an area where all potential seed sources can be eliminated in a buffer as wide as the seed dispersal distance, and where vegetative spread can be prevented. Eradication in this case is not strictly possible because ongoing control is required in the buffer area to prevent re-invasion. The risk of re-establishment is also always present through seed dispersal by animals, particularly wild animals, stock and birds, and through dumping of plant rubbish by humans. In most cases, ongoing control is all that can be considered. In many situations, because of the size of the problem, the resources available, the nature of the plant pest, or simply because the damage is irreversible, the only option for the present is to do nothing and for the long term, carry out research into practical control methods.

Differing priorities for plant pest control

Priority for classification of plants as pests by the local authorities will often be for agricultural and economic reasons rather than conservation reasons. Consequently control programmes and boundary clearance work may be undertaken on areas administered by the department where there is limited conservation benefit. For example, extensive gorse and broom control is undertaken in many riverbeds of South Marlborough and Kaikoura so that the department can be seen to be a good neighbour.

Plant pest control is undertaken by the department for:

- local authority plant pest programmes, where required;
- protection of important vegetation values and habitat for wildlife;
- roadside clearance where areas administered by the department adjoins public roads;
- protection of historic sites;
- track clearance and maintenance of picnic areas and campgrounds; or
- boundary clearance along fence lines.

Control methods

Mechanical control, such as cutting and grubbing, has limited scope and will usually involve some chemical follow-up. Its use is restricted to small infestations and to species that can be effectively removed without creating other risks such as soil instability. Species that may be controlled in this way, totally or in part, include wilding pines, old man's beard, boxthorn, nassella tussock and aquatic plant pests.

Chemical control is generally the most effective means. Chemical users must have appropriate training and experience in the use of chemicals, and be able to identify the plants that they are to control and distinguish them from related protected species, for example, being able to distinguish between native and adventive brooms. Sprays must be used efficiently, both for cost-saving reasons and to eliminate off-site effects on non-target species and environmental values, such as water quality.

Regulations and codes of conduct relating to storage and use of chemicals exist and must be followed. Suitability of chemicals must be assessed on a site-by-site basis. For example, intensive aerial spraying may be more detrimental to the ecosystem than the continued presence of the pest, such as *Spartina* in the Havelock Estuary. Alternatives to chemicals are continually assessed and used where appropriate and cost-effective. Where problems are likely to occur attempts will be made to consult those affected.

Use of different spraying techniques (knapsack, gun and hose, aerial) must be assessed on a site-by-site basis. The suitability of any one application method will depend on factors including:

- physical restrictions posed by the site;
- ecological sensitivity of the site;
- nature of the distribution of the plant pest infestation; and
- maximising effectiveness while minimising off-site and on-site side effects.

Biological control rarely eliminates the target plant but can slow the spread or reduce plant pest cover. The main use has been to control plant pests, such as gorse and broom, that affect agricultural values. Nevertheless, grass carp can be effective in cleaning waterways. Plants such as old man's beard that are primarily causing ecological problems are now being considered as targets for biological control.

Preventive methods which halt the introduction of plant pests into areas where they are not already present, will generally provide the best results. These include control of:

- movement of stock;
- fire (§11.3, p.220);
- human access (§16, p.273; §8, p.185); and
- movement of roading gravel and rubbish.

Promoting the inspection of and cleaning down of earth moving machinery and power boats before use is the most important way to limit the possibility of

introducing plants such as gorse, nassella tussock or water weeds (§5, p.72) to areas where they are not currently found.

Research and monitoring of pest control

Much basic research into the biology of plants regarded as pests yields information that can be used to control them. Studies on their means of dispersal and seed viability lead to strategies for controlling them through natural processes. Studies of their pests and diseases can lead to new means of biological control. Investigations of new techniques can lead to methods which reduce the adverse effects of plant pest control.

Studies of interactions between plant pests and native communities and their role in successional processes may lead to a re-evaluation of the pest status or to means of re-directing the processes so that the pests do not persist in mature communities.

Monitoring pests in natural communities (for example, hawkweeds, wild ginger and aquatic plant pests) will allow an evaluation of the rate at which changes are occurring and help set priorities on a species by species as well as a community by community basis. Where pest control programmes are in place, monitoring is essential to ensure the long-term success or even viability of the programme.

Liaison and public awareness

Liaison with other organisations is an important part of pest control. Areas affected by plant pests often extend across property boundaries. Conservancy and field centre staff maintain an ongoing contact with local authorities to discuss work priorities and objectives, and to co-ordinate work programmes. Combined work programmes with land managers and other agencies are adopted where opportunities arise. Contact must also be maintained with other interested parties such as Federated Farmers, conservation groups and owners of areas adjoining areas administered by the department. Education on the potential for garden plants to become pests may help to minimise future problems.

Implementation

9.0.1 *Priorities for plant pest control will conform with those listed in Table 32, p.194, and other pests listed in Table 31, p.193 will be incorporated into control programmes when resources become available.*

9.0.2 *Where pest control is warranted, priority will be given to eradication programmes and to halting spread or introduction to new areas.*

9.0.3 *Ecosystems with the highest natural values, that are most susceptible to damage from plant pests, will have priority.*

9.0.4 *Small outlying pest infestations will be targeted first.*

9.0.5 *Where appropriate, the department will adopt a comprehensive approach to plant pest control, targeting several pests at a site.*

9.0.6 *The most suitable and cost-effective methods available, including approved biological agents, will be used to control plant pests and the suitability of sprays and other techniques will be assessed on a site-by-site basis.*

9.0.7 *Handling, safety and storage of chemicals will adhere to defined procedures.*

9.0.8 *Sprays will be used sparingly and the public consulted where conflicts may arise.*

9.0.9 *New methods of plant pest control which may reduce the adverse environmental impacts of plant pest control will be evaluated and where appropriate, adopted.*

9.0.10 *The department will consider and promote, where suitable, preventive means to reduce the risk of plant pest invasion.*

9.0.11 *Field trials of biological control agents under scientific supervision will be supported, where they are considered an appropriate means of control.*

9.0.12 *Research into long-term control, such as biological control, will be encouraged and supported.*

9.0.13 *Existing monitoring programmes will be reviewed and incorporated into a more complete programme of specific and general monitoring.*

9.0.14 *Where appropriate, the department's programmes will be co-ordinated with all pest management interests.*

9.0.15 *Specific control programmes will be combined with those of adjacent land managers and other agencies, wherever possible.*

TABLE 31: PLANT PEST SPECIES OF NELSON/MARLBOROUGH CONSERVANCY ORDERED BY PLANT COMMUNITIES

SPECIES	Category *	Open water	Wetland	Pakihi	Dune	Estuary	Coastal	Riverbed	Riparian	Island	Limestone	Lowland alluvium	Lowland Hill	Montane	Rockland	Tussockland	Alpine	Ultramafic
Egeria densa	3	○																
Lagarosiphon major	3	○	?															
Jointed rush (*Juncus articulatum*)	2	○	●	?				○										
Grey & crack willow (*Salix* spp.)	2	?	●					○	○									
Horsetail (*Equisetum arvense*)	2		○					○										
Hakea salicifolia, H. sericea	2			○	?	?	○			○				○				
Boxthorn (*Lycium ferocissimum*)	1				●		●											
Marram (*Ammophila arenaria*)	3				●	○												
Tree lupin (*Lupinus arboreus*)	2				●	○	○	○										
Spartina anglica	3					●	○											
Pampas (*Cortaderia selloana, C. jubata*)	4				○	?	○		?					?				?
South African ice plant (*Carpobrotus edulis*)	3				○	○	○											
Woolly nightshade (*Solanum nigrum*)	3				?		○							○				
Barberry (*Berberis* spp.)	1						○	○	○		○	●	●					
Smilax (*Asparagus asparagoides*)	4						○											
Boneseed (*Chrysanthemoides monilifera*)	3						○			○								
Buddleia (*Buddleja davidii*)	2		?	?	?		○	●	●		○	○	○					
Tall fescue (*Festuca arundinacea*)	2		○		○	●	○	○				○	+					
Climbing dock (*Rumex sagittatus*)	2		?		●		●						○					
Lotus (*Lotus* spp.)	2		●	○			○	○			○	+	+	+		○	○	
Browntop (*Agrostis capillaris*)	2		○		+		+	○	+	○	○	○	○	+		○	○	
Gorse (*Ulex europaeus*)	2		○	?	●	●	●	○	●	○	?	○	○	○				●
Blackberry (*Rubus fruticosus* agg.)	2		●		○	○	○	○	○		?	○	○	○				?
Spanish heath (*Erica lusitanica*)	2		●			○	?			?			○					●
Broom (*Cytisus scoparius*)	2			○	?	+	?	●	○		?	○	○	○	○	○		
Radiata pine (*Pinus radiata*)	2			○	○	○	●			○			+		○	○		●
Cocksfoot (*Dactylis glomeratus*)	2				○		+	○	+		○		+	+	○	○	○	
Lodgepole pine (*Pinus contorta*)	2			?	?		?							●	○	●	○	●
German ivy (*Senecio mikanioides*)	3				○		●		○			○	○					
Cotoneaster (*Cotoneaster* spp.)	1						○		○		○	○	○					
Hawthorn (*Crataegus monogyna*)	1						○		○		●	●	●	?				
Himalayan honeysuckle (*Leycesteria formosa*)	2						○	○	○		○	○	○	○				
Old man's beard (*Clematis vitalba*)	1						○	○	●		○	●	●					
Maritime pine (*Pinus pinaster*)	2					?	○			?			?					
Silver wattle (*Racosperma dealbatum*)	2						○	○	○		?	○	○					
Banana passionfruit (*Passiflora mollissima*)	1						○		○	○	○	●	●					
Periwinkle (*Vinca major*)	1						○		○	○		○	?					
Yellow jasmine (*Jasmium humile*)	3						○				●	?	○					
Japanese honeysuckle (*Lonicera japonica*)	1					?	○		○	○	○	●	●					
Wandering jew (*Tradescantia fluminensis*)	1						○		○	●	●	●						
Nassella tussock (*Stipa trichotoma*)	1						●								?	●		
Sycamore (*Acer pseudoplatanus*)	1								○		○	●	○	●		○		
Tall oatgrass (*Arrhenatherum elatius*)	2							●	○					○	○			
Viper's bugloss (*Echium vulgare*)	2							○	●		○			○	●	○		
Briar (*Rosa rubiginosa*)	1							○	○		+	+	+	●	●			
Hawkweeds (*Hieracium* spp.)	1							○			○			○	○	●	●	
Chinese privet (*Ligustrum sinense*)	2								○			○	○					
Wild ginger (*Hedychium gardnerianum*)	4								○		?	●						
Ivy (*Hedera helix*)	4								○		?	○	○					
Brome (*Bromus* spp)	2									○								
Perennial ryegrass (*Lolium perene*)	2									●								
Climbing asparagus (*Asparagus scandens*)	3										○	○						
Elder (*Sambucus nigra*)	3										○	○	○	○				
Stinking iris (*Iris foetidissima*)	4											?	?					
Selaginella (*Selaginella kraussiana*)	4											?						
Rowan (*Sorbus aucuparia*)	3												○	○				
European larch (*Larix decidua*)	4												?	?	?	?	?	?
Douglas fir (*Pseudotsuga menziesii*)	2												○	●		●	○	●
Corsican pine (*Pinus nigra*)	4													○	●	●		●

Key

- • Priority plant pest
- ○ Problem plant pest
- * Category - see text p.187
- \+ Present
- ? May be present

TABLE 32: PLANT PEST CONTROL PRIORITIES

PRIORITY	AREA
Statutory priorities	
Nassella tussock	South Marlborough
	Omokau Bay (Whangamoa)
Old man's beard	Golden Bay
Chilean needle grass	Buller River
	Lake Grassmere
White edged nightshade	Marlborough Sounds
Other plants in local authority Noxious Plants Policy (for example, gorse, broom)	Local boundary clearance
Conservation priorities - High	
Old man's beard	Golden Bay
	Buller River
Wilding trees	Richmond Ranges
	Red Hills
	Hacket ultramafics
	Beebys Knob
	Clarence headwaters and Inland Marlborough
Boxthorn	Cloudy Bay and coast section Cloudy Bay
	Kaikoura Peninsula
Gorse	Gouland Downs
Spartina	Waimea Estuary
	Pelorus Sound (beyond Mahakipawa)
	Grove Arm
Monitoring and control of species of high problem potential	General
Conservation priorities - Moderate	
Wilding trees	Mt Fyffe
	Marlborough Sounds
	Abel Tasman National Park
Climbing dock	Farewell Spit
Old man's beard	Marlborough Sounds (selected reserves)
	Kaikoura coastal reserves
Banana passionfruit	Coastal Marlborough
	Marlborough Sounds
	Golden Bay (selected reserves)

10. Animal pests

10.1 CONTROL AND MANAGEMENT

An animal pest is generally an alien to New Zealand, having arrived either accidentally, such as wasps, or through deliberate releases, such as deer and goats. Browsers and predators were present before human arrival but were then in natural balance with the vegetation and other animals. The geographical isolation of New Zealand has rendered its biota relatively incapable of competing with introduced species. Within the 1000 years since human arrival, introduced animals have wreaked havoc on the native flora and fauna of this country.

Animal pests impact on a broad range of values. They affect plant species and communities and general forest structure, native animals, soil and water condition, and people's well-being. The inter-relationship between all these components, both native and introduced, is complex. How to protect particular values from the impact of animal pests has been one of the major problems faced by the country for most of this century.

Animals generally considered to be pests on areas administered by the department in this conservancy are: deer, chamois, possum, wild goat, wild pigs, rats, mice, wild cats, mustelids (for example, stoats, ferrets, weasels, etc.), rabbits, hares and wasps. Sheep, cattle, domestic cats and dogs, and certain birds and fin fish may be pests under some circumstances. Some of these pests are defined as wild animals in Section 2 of the Wild Animal Control Act 1977, but most are defined as not protected in the fifth schedule of the Wildlife Act.

The Wild Animal Control Act applies to land of any tenure and promotes the control of wild animals generally and eradication where necessary and practicable. Access by the department to private land to control wild animals is subject to approval procedures defined in that act.

The departmental philosophy towards animal pests on areas administered by the department is driven by the Conservation Act 1987 and its requirement to promote the conservation of New Zealand's natural resources. Other acts also define the department's objectives. As far as possible, introduced animals are to be exterminated on areas administered under both the National Parks Act 1980 and the Reserves Act 1977. The General Policy for National Parks (1983), as adopted by the New Zealand Conservation Authority in 1987, recommends a more realistic approach of reducing introduced animals to acceptable levels.

Other organisations undertake some pest control on areas administered by the department either directly or by ensuring that work is undertaken when necessary. The Ministry of Agriculture, through the Animal Health Board, is responsible for preventing the spread of bovine tuberculosis through the control of possums and other vectors such as pigs. The local authorities are responsible for rabbits through the Rabbit and Land Management Programme until 1996.

National policies, plans and guidelines for the control of animal pests exist for some species. A wasp control plan and a draft goat control plan exist, a possum plan is in preparation and further national plans will follow for other species.

Distribution and effects of animal pests

Two of the seven species of deer found in New Zealand occur in the wild in the Nelson/Marlborough Conservancy. Red deer are present in low numbers throughout, whereas fallow deer occur only in the Cobb-Tablelands and Hacket-Pelorus areas. High deer numbers caused widespread forest understorey damage in the past and current deer densities can still cause considerable damage to palatable species.

Chamois are confined mainly to the higher altitude alpine and subalpine zones of Nelson Lakes National Park South Marlborough and the Kaikoura Ranges, although sightings have been reported as far north as the head of the Cobb Valley.

Goats are present throughout much of the conservancy, apart from central and western North-west Nelson, central Nelson Lakes National Park and Big Bush. They often occupy bluff systems that may be the last refuges for highly palatable plants.

Possums are present throughout, with low to moderate numbers in backcountry beech forest and moderate to locally high in coastal broadleaved forests and lowland forest margins. Possums browse the canopy and, when combined with goats browsing seedling regeneration, are a major threat to our native forests. They are also major predators of *Powelliphanta* land snails.

Pigs have a patchy distribution throughout most of the conservancy, and are generally found around forest margins and shrublands. They are another major predator of *Powelliphanta* land snails and also browse vegetation and up-root ground cover which, if severe and continual, may inhibit seedling regeneration.

Rats and mice are present throughout the conservancy, though kiore (or Polynesian rat) are now restricted to a few offshore islands. Rats, particularly the ship rat which is an excellent tree climber, have a major impact on bird populations. Rats and mice also eat native land snails and fruit, nuts and seeds of forest plants, reducing regeneration.

Of the mustelids (stoat, ferret and weasel) only stoats are common in the conservancy. The stoat's hunting skills and its ability to breed prolifically in times of ample food have assisted in the decline of many of our forest bird species, particularly hole-nesting species such as the yellowhead.

Rabbits occur throughout much of Marlborough and parts of Nelson but are absent from Golden Bay. They affect natural values mainly in lower altitude short tussockland, riverbed and terrace communities, generally on pastoral lease. Rabbits can also pose a threat to birds indirectly by acting as a food source for predators and thus sustaining high populations of mustelids and feral cats. Hares occur throughout much of Nelson and Marlborough but their effects are largely unknown.

Straying farm animals are a periodic but often ongoing problem, particularly in areas with inadequate or no boundary fencing. The browsing effects are the same as those of deer and goats but often less selective.

Cats are predators of lizards and birds and are of particular concern, as are dogs (as a threat to ground-dwelling birds such as the kiwi).

Wasps occur throughout Nelson and Marlborough. Studies suggest that wasps have a serious impact on native insect populations, birds requiring insects or honeydew, and possibly the honeydew producing beech trees themselves. Wasps can also detract from the visitor experience.

In ecological terms, introduced species such as trout, salmon and mallard may be having similar effects in waterways to those of stoats, deer or pigs on land, yet this is seldom recognised. Currently sports fish (trout and salmon) are recognised as an important recreational resource, managed by the Fish and Game Council, and as a result are unlikely to be considered for removal from any waterway. Similarly, the Fish and Game Council has recognised the importance of the indigenous biota and support a policy of not liberating sports fish in pristine waters (§10.5, p.208; §10.5, p.207; §17.1, p.284).

Introduced birds, particularly blackbirds and chaffinches, are often widespread in native forest areas, competing with native birds and preying upon native animals, especially the invertebrates and *Powelliphanta* land snails. A balance must be struck between the protective management of introduced gamebird species and their competition with native species. High numbers of Canada geese in South Marlborough are of concern and may require direct control through the relevant Fish and Game Council. Canada Geese are subject to a management plan prepared by the Fish and Game Council.

Objective

To remove or minimise the impact of animal pests on native plants and animals, where practical and consistent with the legislation.

Issues

Control options

Pest control can aim either to:

- keep pests out of areas where they are currently absent; or
- deal with pests where they are already present.

Preventing introductions and spread to new areas is the highest priority. Where pests already exist, the options for control are to:

- eradicate;
- sustain control at a level that protects the values under threat;
- defer control until practicable methods or resources are available; or
- do nothing.

Eradication is a desirable aim if it can be achieved, but it is limited either to islands or to mainland island-type situations, such as effectively fenced peninsulas or where natural boundaries prevent re-invasion. All target animals must be able to be removed with no chance of re-invasion. Although initial costs may be high, eradication is usually a cheaper and more effective option in the long term.

Elsewhere, reduction of a pest population to a density that will benefit the values being protected is the best that can be achieved. To obtain the maximum

benefit, efforts should concentrate in the areas of highest conservation value and achievable goals must be set. In many areas, the only option within the limits of resources and current technology is to do nothing.

Targeting a single animal species may not always give the most benefit. Protecting canopy trees by possum control is of little value if their regeneration on the forest floor is prevented by domestic stock or goats. In contrast, removing both weka and rats simultaneously to create a pest-free island may have lower costs than removing each separately. Often, the greatest benefits are achieved when a range of species is targeted (§4, p.142).

The indirect effects of pest control also need to be considered. For example, removal of large browsers may lead to an increase in plant pests such as old man's beard, or removal of one pest may lead to an increase in other pests, such as rat numbers increasing after removal of cats.

Setting priorities

Generally, setting priorities for animal pest control are based on:

- relative importance of the values to be protected and maintenance of species diversity:
    - nationally and locally rare and endangered or endemic plants and animals;
    - rare or unusual vegetation communities;
    - representative ecosystems; and
    - landscape, historic, and recreational values;
- susceptibility of these values to the effects of animal pests;
- extent of the problem:
    - identifying the pest;
    - assessing numbers;
    - effects on the values being protected;
    - current threat or potential threat; and
    - other pests contributing to the problem;
- practicality of achieving control:
    - size of the area to be covered;
    - availability of resources;
    - assessment of technological and practical abilities;
    - possibility of eradication; and
    - risks of reinfestation;
- a range of other factors including:
    - land tenure;
    - past attempts to control the pest;
    - need to control other pests; and

- indirect effects of removal of pests.

In some situations, it may be necessary to protect the controlled areas from re-invasion by extending control operations beyond the immediate area and maintaining a buffer zone within surrounding land.

Priorities for control

Control programmes, commercial animal recovery and recreational hunting have reduced deer and chamois populations to numbers that need little departmental intervention. However, this situation requires ongoing review to ensure that natural values are being protected. Similarly, pigs may only need control in selected areas where *Powelliphanta* populations are threatened.

The relative lack of interest in goats by commercial and recreational hunters makes goats a major threat to vegetation, particularly in areas of high conservation value. Goat control has been successful in a few areas. In several places, the extension of their range to new territory is a concern, for example, into the Tasman Wilderness Area or into Nelson Lakes National Park.

Canopy species in beech forests are not susceptible to damage by possums but localised areas with forests containing a high component of palatable canopy and subcanopy plants are a major concern, such as rata in areas of North-west Nelson, and broadleaved plants (kohekohe, five finger, mahoe) in the Marlborough Sounds (§2, p.62).

Rats cause the decline of a wide range of bird, invertebrate and lizard species but are only targeted on islands within the Marlborough Sounds. A concerted effort can produce pest-free islands with potential for restoration and liberation of endangered species (§7, p.104; §4, p.142).

In recent years, a great deal of research has gone into chemical and biological means of controlling wasps. Current chemical methods provide short-term benefits to recreational users in limited areas, but may be of little benefit to the ecosystem values. Biological agents are a long-term option.

Introduced fin fish have had an impact on native flora and fauna, but it is only possible to speculate on their effects compared with other causes such as habitat modification. The value of sports fisheries is recognised and as the removal of viable introduced fish populations is impractical, efforts will focus on limiting the spread of introduced species into new or pristine areas. An exception would be the use of biological control agents such as grass carp which would be subject to a rigorous environmental impact assessment to minimise the likelihood of adverse effects.

Other animals may be considered pests under special circumstances, including native species such as weka. The eradication of weka from islands is a potentially controversial issue. In historic times, weka were introduced to some islands beyond their swimming range (for example, Chetwodes), where their presence is now considered undesirable (§7, p.104). They are effective predators and can have a major influence on invertebrates, small vertebrates and the young of larger ground-nesting birds. Likewise, their presence could severely curtail critical species conservation programmes such as those of takahe and kakapo.

Liaison and public awareness

Liaison with many other bodies is important in pest control as co-operative efforts with common goals are of benefit for all parties. For example, economies can be attained through joint programmes with better targeting and eliminating duplication of effort. This is particularly evident in joint possum control programmes to protect natural, historic and recreational values and reduce the spread of bovine Tb. Apart from local authorities and other government departments, contact must be maintained with recreational hunting groups, commercial operators, conservation groups, local community groups, Federated Farmers and managers of areas adjoining those administered by the department.

Implementation

10.1.1 Priority for animal pest control will be in accordance with national control plans and will be given to the areas set out in Table 33, p.202.

10.1.2 Animal pest control will be carried out in accordance with relevant national control plans and policies.

10.1.3 Where pest control is warranted, priority will be given to eradication programmes and to halting spread or introduction into new areas.

10.1.4 Where it is cost effective, a comprehensive approach to animal pest control will be adopted in priority areas.

10.1.5 Control of deer, chamois and pigs in most areas will be by recreational and commercial means, unless this is shown to be inadequate to protect natural values.

10.1.6 Possum and goat control will be carried out in areas that are of high natural, historic or recreational value, and where achievable goals can be met.

10.1.7 Rodent control will be generally restricted to limited areas, selected for species restoration programmes.

10.1.8 Mustelid control will be undertaken in limited areas, only for protection of threatened species.

10.1.9 A weka conservation strategy will be prepared, but meanwhile, where evidence of former introduction is clear, weka may be removed from islands.

10.1.10 Input will be provided into rabbit management plans for pastoral lease lands and areas administered by the department.

10.1.11 Wasp nest destruction will be undertaken in high use recreation areas in accordance with the National Wasp Control Plan and poisoning may be carried out at key campgrounds and picnic sites.

10.1.12 Close co-ordination with all pest management interests, including local authorities and other government departments, will be encouraged and combined programmes will be sought where possible.

10.1.13 Where control is undertaken by other agencies on areas administered by the department, techniques used will not pose undue risk to native plants and animals or public safety.

10.1.14 Communication links will be maintained with different interest groups and the need to protect threatened species will be strongly advocated.

TABLE 33: PRIORITY AREAS FOR ANIMAL PEST CONTROL BY THE DEPARTMENT

AREA COVERED	PESTS CONTROLLED	AIM
High priority		
Marlborough Sounds Islands	Rodents, mustelids	Protect species restoration programmes (e.g., kakapo, takahe) and important biological values. Creation and maintenance of pest-free environment.
North-west Nelson (inc. Owen/Matiri)	Goats	Protect high value vegetation (major area of plant endemism, rare plants and communities). Prevent spread to goat-free areas west of the Roaring Lion.
South Marlborough and the Kaikoura Ranges (inc. Molesworth)	Goats	Protect high value vegetation (major area of plant endemism, rare plants/communities).
Matakitaki/Glenroy	Goats	Prevent spread to goat-free areas in Nelson Lakes.
Mt Stokes	Mustelids, possums, goats	Protect yellowhead population and vegetation values.
Isolated Hill Scenic Reserve	Goats, possums	Protect high value vegetation (rare plants/communities, endemics).
Arapawa Island	Goats, pigs	Protect high value vegetation (locally rare Cook Strait vegetation).
North-west Nelson, Marlborough Sounds	Possums	Protection of endemic snail populations.
Moderate priority		
Seaward Kaikouras	Mustelids	Protect Hutton's shearwater colony.
Farewell Spit	Mustelids	Protect bird populations.
Marlborough Sounds reserves	Possums, goats	Protect high value vegetation in selected reserves.
Mt Richmond Forest Park	Goats, possums	Protect high value vegetation (rare plants/communities, endemics).
Abel Tasman (northern coastline)	Possums, mustelids	Protect high value vegetation, coastal seabirds.
Golden Bay reserves	Possums	Protect high value vegetation.
Nelson Lakes	Possums	Protect lakeside rata (includes banding).
North-west Nelson, Marlborough Sounds	Pigs	Protection of endemic snail populations.
High use recreational areas, e.g., Nelson Lakes, Abel Tasman	Wasps	Protect recreational use.
Low priority		
North-west Nelson, Nelson Lakes, Richmond Ranges, South Marlborough	Hares	Protection of high value alpine vegetation. Protection of susceptible forest communities over large areas.
North-west Nelson, Marlborough Sounds	Possums	
Nelson Lakes, Marlborough Sounds	Wasps	Protection of bird/insect species (lack of suitable methods limits priority).

10.2 CONTROL METHODS

Methods include shooting, trapping, poisoning and biological control. Shooting is used mainly for the larger animals, and trapping for the smaller animals such as possums and stoats. Poisons are generally used for small animals such as possums and rodents. A wide range of techniques and baits are used to apply poisons, each customised to the target animals. The most cost-effective operations will often use aircraft to sow the baits or as shooting platforms. The wasp parasite programme is a current example of attempted animal pest control through biological means.

In some cases, a more effective approach is through indirect methods. For example, large animals can sometimes be controlled through fencing an area. This is restricted to relatively small areas for practical and financial reasons and works best for small, lowland reserves and covenanted private land open to grazing by stock. Another alternative is to band trees, which in small areas, may be suitable for protecting individual rata or mistletoes from possums, or nest sites from stoats. Sometimes shifting the value under threat may be the only choice. For example, rare birds or invertebrates can be shifted to pest-free environments on offshore islands, or plants taken into cultivation.

Objective

To use the most suitable and cost-effective methods available to control animal pests.

Issues

The most effective methods are used for each situation. For instance, aerial shooting of goats may be more effective in patchy forest and alpine grasslands, than ground shooting. A biological approach may be more appropriate for long-term control, but suitable agents need to be identified and proven through research.

Available technology and financial limitations will always restrict what methods can be used. For example, current possum control methods are too costly and difficult to carry out to allow the effective coverage of huge forested areas such as North-west Nelson. Instead, a combination of different methods often gives the best results. Improvements in techniques will be closely followed and used, where appropriate.

Poisons are most effective for some smaller animals such as rodents and possums but special care is required in their use. Public perceptions about poisons are important so that any case for aerial poisoning must be carefully prepared and the public consulted. In all situations, animal welfare issues must be considered.

Implementation

10.2.1 *The most suitable and cost-effective methods available, including biological control agents, will be used to control animal pests.*

10.2.2 *Field trials of biological control agents will be supported under scientific supervision, where they are considered to be an appropriate means of control.*

10.2.3 *Research into long-term control options, such as biological control and eradication, will be encouraged and supported.*

10.2.4 *Possum poisoning or trapping by recreational and commercial hunters will be encouraged, subject to use of methods that do not place native fauna or the public at undue risk.*

10.2.5 *Where poisons are considered an essential part of a control programme the public will be consulted and all safety regulations will be adhered to.*

10.3 RECREATIONAL AND COMMERCIAL HUNTING

Currently, recreational and commercial hunting are the main means of controlling deer, chamois and pigs. Commercial taking of deer and possums occurs periodically, being influenced by markets. Recreational hunters are recognised as an important means of control of deer and pigs in easily accessible areas. Most recreational hunting is carried out within a day's walk or less of road ends or other vehicle access points. In these areas, recreational hunters generally keep targeted animals down to acceptable numbers. Hunting competitions and organised hunts can often increase local hunting interest (see §17.1, p.284).

Under the Conservation Act and Wild Animal Control Acts, permits are required, among other things, for hunting, wild animal recovery by helicopter, and for guided hunting. The Conservation Act also requires the issue of hunting permits to have regard for safety of members of the public.

Objective

To foster recreational and commercial hunting as a means of controlling animal pests.

Issues

For public safety, or other management reasons, some areas are closed to recreational or commercial hunting at periods of high use, particularly during the summer months. These areas include parts of Nelson Lakes National Park, Cobb/Tablelands, Abel Tasman National Park and parts of the Marlborough Sounds.

Much experience in trapping and poisoning possums exists in the community but the effectiveness of commercial hunting fluctuates with the market and the department cannot rely on the continued presence of commercial hunters. For instance, commercial deer recovery and possum trapping suffered major setbacks in the 1980s and early 1990s. Commercial activity is administered through permit systems (§14, p.231).

Implementation

10.3.1 *Recreational and commercial activities involving the hunting of animal pests will be fostered, except where other conservation aims are disadvantaged.*

10.3.2 *Recreational hunting permit constraints such as closures and block systems will be kept under continual review.*

10.3.3 *Close liaison will be maintained with recreational and commercial interests.*

10.3.4 *Commercial shooting or capture of wild animals by licensed animal recovery operators will be authorised in approved areas.*

10.3.5 *Under a delegated authority, the Regional Conservator may impose a restriction on all or any hunting in the interests of public safety or management (see also §13, p.225, §16, p.274).*

10.4 MONITORING

Monitoring is required to test the success of animal pest control programmes, but assessing pest numbers is only useful if it can be linked directly to the values to be protected. Monitoring techniques include use of vegetation plots, exclosure plots, photopoints, and monitoring of specific plant or animal populations. Direct monitoring of pest numbers includes trapping, pellet counts and mapping, whereas indirect monitoring of pest populations is undertaken through kill records.

Direct monitoring of the values being protected by pest control is the most reliable technique but it becomes increasingly more difficult and expensive when dealing with a range of values over large areas. It is particularly difficult for less easily defined values such as general forest health because it requires a detailed understanding of how these ecosystems would develop naturally without the presence of animal pests, an understanding that is generally quite limited (§6, p.167).

Objective

To monitor pest control programmes and the condition of the natural resources, to determine whether programmes are achieving the desired conservation benefits.

Issues

Little broad-scale animal or vegetation monitoring is carried out because of its high cost. Current monitoring is confined to assessment of pest numbers through kill records and direct monitoring of selected plant and animal species. Attempts are being made to address this through development of less labour-intensive techniques, beginning with a national review of techniques and requirements. All pest control programmes are audited annually to assess effectiveness, determine cost efficiency and to set ongoing priorities.

Implementation

10.4.1 Existing monitoring programmes will be reviewed and incorporated into a more complete programme of specific and general monitoring.

10.5 FARMING, HOLDING AND LIBERATION OF ANIMALS

Under the Wild Animal Control Act 1977 or Conservation Act 1987, permits are required for capturing or conveying wild animals, or aquatic fauna respectively. The taking or releasing of any animal on areas administered by the department also requires a permit under the Conservation, Reserves or National Parks Acts. Permits are also required to keep any wild animal in captivity for farming or for display purposes.

Other relevant legislation includes: the Deer Farming Notice No. 4, 1986 and the Noxious Animals in Captivity Regulations 1969 relating to the capture and holding of wild animals; the Wildlife Regulations 1955 (farming of unprotected wildlife); the Agricultural Pests Destruction Act 1967 (administered by local authorities) relating to the control of rabbits or any other animal declared by gazette to be a pest of local or national importance; the Freshwater Fish Farming Regulations 1983 (administered by Ministry of Agriculture); Fencing Act 1978; and the Biosecurities Act 1993.

Apart from salmon, no freshwater farm species are currently known from the conservancy. The conservancy fortunately lacks coarse fish or nuisance fish such as catfish, koi carp, or rudd.

Objective

To control the holding and movement of potential animal pests to prevent their liberation in areas where they are not already present.

Issues

Farming

Generally, liberation of introduced animal species into new areas is not favoured. No further introductions of new species should be allowed for farming unless an environmental impact assessment shows no likelihood exists of ecological impact if they escape. The department has a direct legislative role in some cases, for example through the Wild Animal Control Act that prohibits farming of specified animals outside their designated feral range.

In this conservancy, permits are issued to farm only red deer (including red/wapiti hybrids) and fallow deer. Monitoring of deer and goat farms and liaison with land managers adjacent to important areas administered by the department, particularly where those animals are not present, is essential to minimise chances of liberation onto them. Problems mainly occur with goat farms as legal provisions requiring suitable fencing are inadequate. The legal process for dealing with straying goats is complicated and often ineffective.

The Minister of Conservation may approve the transfer of live freshwater aquatic life (including fish) to new locations but must assess the potential adverse environmental effects of any transfer. Fish farming can have significant impacts on water quality and aquatic ecosystems, particularly in enclosed areas such as the Marlborough Sounds but control of fish farming is through the RM Act (see §4, p.79).

Liberations

Deliberate liberations occur such as the release of wild animals, sports fish or gamebirds for increased hunting or fishing potential, or dumping of unwanted pets. Unintentional liberations occur through inadequate security or accidents.

The risks from accidents or deliberate dumping of animals can be reduced by increasing public awareness of the disastrous potential of escapes and release of new species. Sometimes it may be beneficial to help farmers or others to remove potential threats from adjoining those administered by the department, such as unprofitable goats.

The Fish and Game Council may carry out game management on areas administered by the department. Also sports fish or gamebirds may be released to improve stock to increase hunting and fishing potential, provided there is no conflict with the land status or the values for which the area is held. Applications to introduce new sports species to areas where they are not currently present are dealt with on a case-by-case basis, but are generally not supported.

Domestic stock

Problems can occur when domestic stock stray from adjoining farmland onto areas administered by the department. Where stock stray, or farmed wild animals are released and the owner can be traced, statutory procedures are available to ensure their removal. Where the problem arises through inadequate or no fencing, the department may negotiate with the adjacent owner on a sharing of costs to improve the fencing.

Implementation

10.5.1 *Introduction of potential animal pest species into new areas will be strictly prohibited within areas administered by the department and generally opposed elsewhere in areas where they are not currently found.*

10.5.2 *Monitoring of deer, goat and other farms holding species of potential threat may be carried out in critical areas to minimise chances of liberation onto areas administered by the department.*

10.5.3 *Applications for transfer of aquatic life will be considered on a case-by-case basis.*

10.5.4 *Where illegal or accidental introductions of new species do occur, all practical steps will be taken to remove them.*

10.5.5 *All straying livestock will be dealt with in terms of Section 36 of the Conservation Act, or similar provisions of other acts.*

10.5.6 *Where areas administered by the department adjoin grazing land, effective control of stock will be sought through both discussion with land managers and by appropriate fencing (see also § 13, p.225).*

11. Fire

INTRODUCTION

Fire control operations in New Zealand are highly regulated. Operations are co-ordinated and supervised by the National Rural Fire Authority, a division of the New Zealand Fire Service, which has produced a code of practice that guides all rural fire authorities. It requires the department to maintain a certain minimum of equipment. The Forest and Rural Fires Act 1977 requires each conservancy to maintain a fire plan, which must be revised annually, to detail actions in the event of a fire and the location of the fire-fighting resources. Fire control operations instructions and guidelines must also be prepared to set out staff responsibilities and procedures.

Department's role in fire management

The department is a Fire Authority under the Forest and Rural Fires Act 1977 and is responsible for fire control on all areas that it manages under the Conservation, Reserves and National Parks Acts and Section 176 of the Lands Act. The department also controls fires, under a restricted fire season, within 1 km of the margin (the Fire Safety Margin) of these areas.

The New Zealand Fire Service is the Fire Authority for the urban fire district within the conservancy, as set out in the Fire Service Act 1975. Rural Fire Committees, of which the department is a member, co-ordinate the local fire authorities in rural areas of Marlborough and Waimea. These are:

- Marlborough North Rural Fire Committee which covers lands of all tenures in the Sounds;
- the Ministry of Defence, for Woodbourne Air Base; and
- Waimea Rural Fire Committee.

The department shares responsibility for fire control in the Marlborough Sounds through the Marlborough North Rural Fire Committee and for reserves in the Waimea Plains with the Waimea Rural Fire Authority.

History of recent fire in the conservancy

All the large fires recorded between 1987-1991 were in shrublands and fernlands. The largest covered 250 ha but a further 17 fires each burnt areas greater than 10 ha. Earlier large fires occurred in the Quartz Range in 1981, burning over 2000 ha, and at Puponga in 1984, burning 300 ha.

Of 109 fires between 1987-91, two thirds have occurred in the Fire Safety Margin. Of all fires, one quarter were non-permitted control burns or control burn escapes (Land clearance, Figure 9, p.210), one quarter were picnic fires and another quarter was a miscellany of vehicle fires, house fires, powerline shorting, rubbish fires and sky rockets (Other, Figure 9, p.210).

Fires on areas administered by the department peak in January, the period of highest visitor use (Figure 11, p.210), and those on other areas show a minimum

Fig. 10 Causes of fires

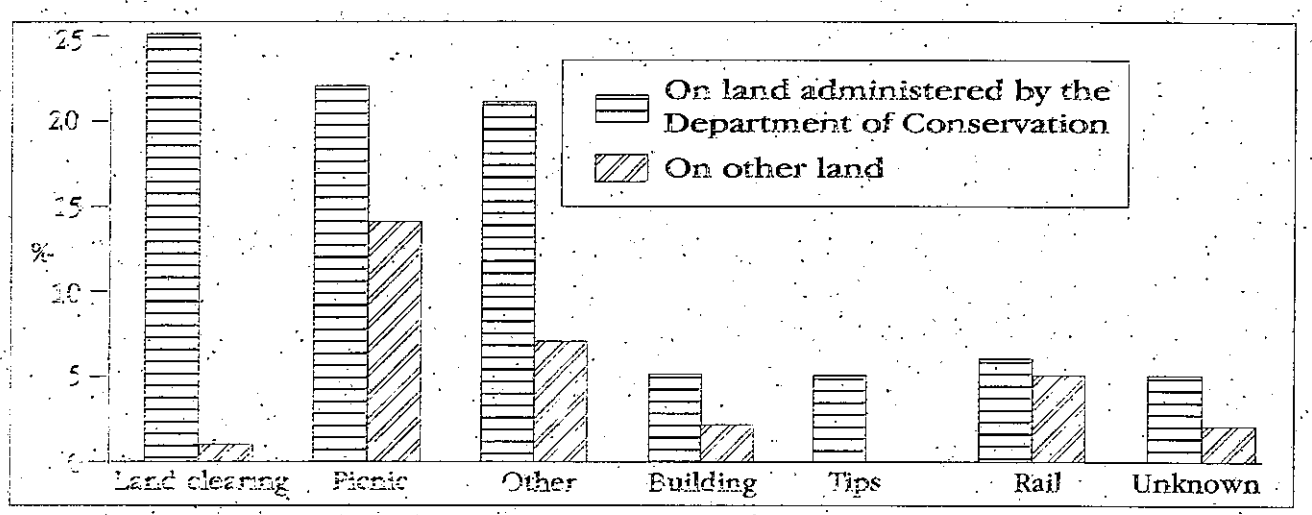


Fig. 11 Fire numbers by month

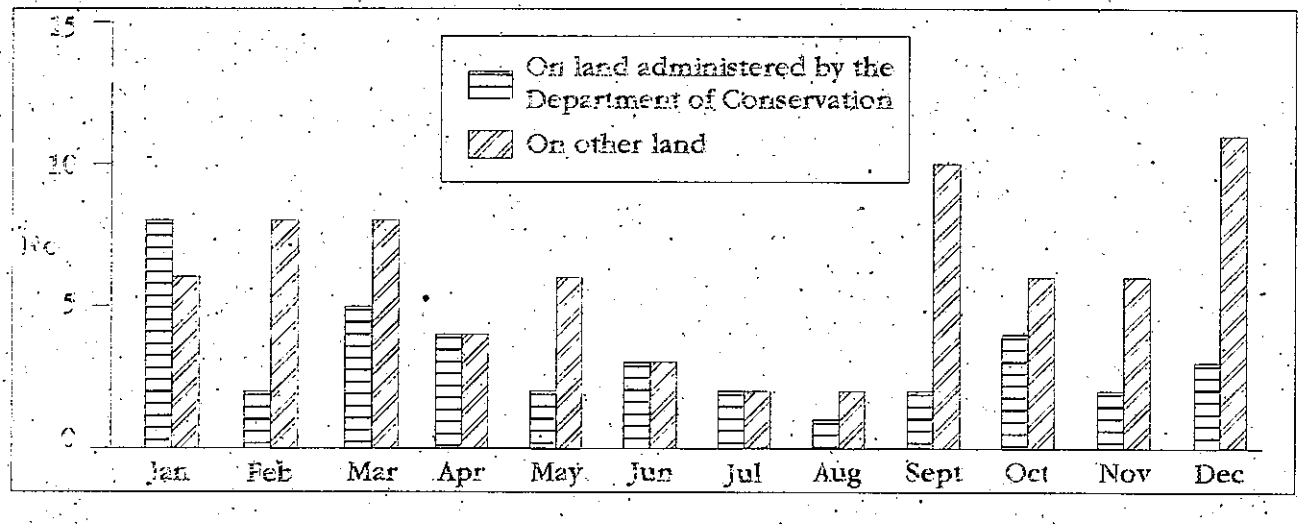
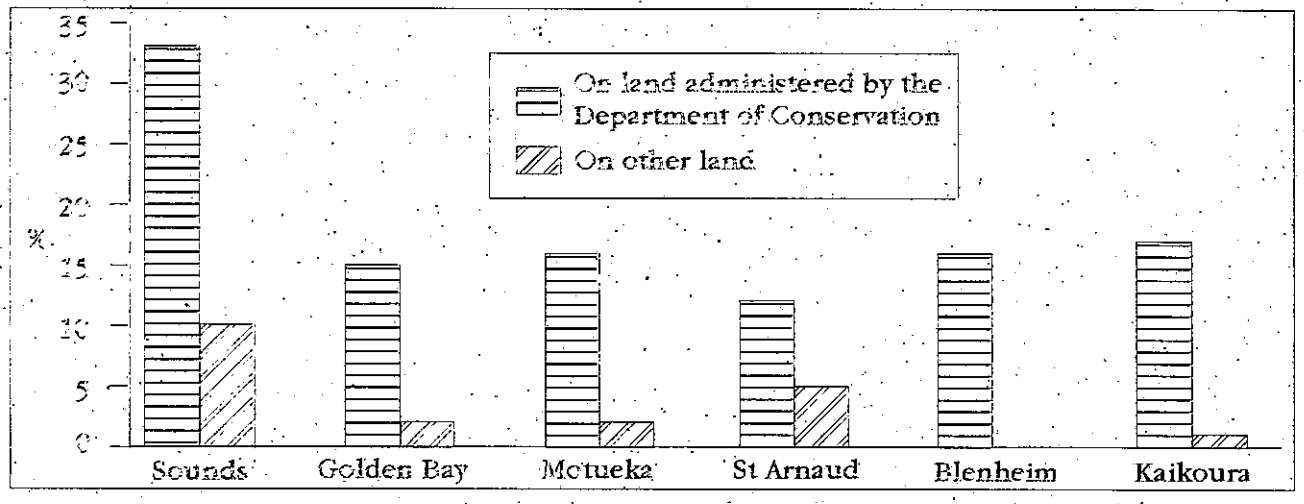


Fig. 12 Fire sizes by area



in mid winter. Large fires occur at almost any season and most are caused by land clearing burns (land clearance), with half occurring in the Sounds and a quarter in the Murchison area (Figure 10, p.210). Twice as many fires occur in the Marlborough Sounds as in any other area (30 cf 15 elsewhere, Figure 10). About half the large fires (over 10 ha burnt) that occur there arise from no single cause.

Of the third that occurred on areas administered by the department, half were picnic fires (Figure 10, p.210) which occurred largely in the coastal strip of Cloudy Bay, especially at Rarangi and the Wairau Diversion.

Objective

To minimise the risks to areas administered by the department from fire and to minimise the damage to natural values on them if a fire occurs.

Issues

Where the Fire Safety Margin forms part of another fire district, and areas administered by the department are small and isolated, the department may come to an agreement with the fire authority to take responsibility for areas administered by the department within its area.

In addition, the department may agree to accept fire responsibility for lands of other tenures. Within this conservancy, it has contracted for fire responsibilities in plantations north-west of the Motueka River and for the Queen Charlotte Forests. It may also take responsibility for fire protection on covenanted or private protected land.

Fire Safety Margin

The current Fire Safety Margin, in which all fires require a permit, extends for 1km from the boundary of areas administered by the department into adjacent private land. It is intended to prevent the escape of fires that could reach and damage areas administered by the department. The Fire Safety Margin serves little purpose where the adjacent area is within a fire district and it may place additional obligations on the department where it extends over private plantations because the department may become liable for fire protection in those forests. It is also of little relevance where the area is isolated and has limited natural, historic or recreational value. Examples include stock reserves, pastoral leases or recreation reserves surrounded by developed and grazed pasture. In these low value areas, the department should seek the removal of the Fire Safety Margin.

Implementation

11.0.1 *A fire plan, setting out the administrative and operational procedures for fire control in the conservancy, will be revised annually.*

11.0.2 *Liaison with other fire authorities and land managers will be used to share fire prevention and suppression information, co-ordinate activities, and establish agreements for exchange of fire responsibilities.*

11.0.3 *Lighting of fires on areas administered by the department (other than campfires for cooking or heating) or on occupied land within the 1km Fire Safety Margin requires a permit issued by the fire authority.*

11.0.4 *The Fire Safety Margin will be reduced or removed on pine forest margins or where the area has limited conservation value and is otherwise adequately protected.*

11.1 FIRE SUPPRESSION

Written agreements between fire authorities set out how action is co-ordinated at all fires. The fire-fighting force nearest the reported fire responds first and may be a departmental fire crew, fire authority fire party, or Volunteer Fire Brigade. Where one fire organisation responds to a fire for another fire authority, or is called out to support them at a fire, costs are recovered from the appropriate fire authority.

Fire crews are well distributed throughout the conservancy enabling a quick response. Fire wardens of the Marlborough Sounds, as warranted officers under the Forest and Rural Fires Act, are unique to Nelson/Marlborough Conservancy. They issue permits locally, act as spotters for reported fires and are often the first people on the scene in an emergency. Fire reporting by the network of departmental staff, fire wardens, and other fire authorities is complemented by fire reports from commercial and private aircraft flights. Air New Zealand and other aircrews have proved invaluable in reporting fires, particularly in remote areas.

The department has major equipment centres at Renwick and Motueka with some equipment held by 13 New Zealand Fire Service volunteer fire brigades, 14 fire parties (Volunteer Rural Fire Fighting Forces) and by the 14 fire wardens. Each fire party may contain several warranted officers and has a small amount of equipment that can be used by local people.

Objective

To ensure the efficient suppression of fire.

Issues

Priorities for fire control

The Forest and Rural Fires Act states that priorities are: life, and then buildings or personal property. The New Zealand Fire Service priorities set life then buildings and personal property before vegetation. Where a volunteer or urban fire service responds first to a rural fire (as they often do in Marlborough) they expect to be relieved by a rural fire-fighting crew within one hour.

The department has a policy of responding to all fires on lands that it is responsible for. Where there are several fires at the same time the departmental response to fire will also reflect the natural, historic and recreational values that are at risk. Areas of special significance or areas of high visual impact, especially along main highways, should receive greater urgency than shrublands in remote locations. Alpine areas with especially slow recovery rates should be given a high priority for response.

Fire fighting resources

The department has a small labour force, usually widely dispersed in small groups, that relies heavily on good radio communications to bring them together in a fire emergency. It frequently has to rely on forces such as the volunteer fire brigades and supplements its fire-fighting forces with those of other

organisations such as forest owners and district councils to obtain a co-ordinated approach to fire control. For large fires, the department can also call upon the fire resources of other conservancies in a reciprocal arrangement.

The small labour force means that responses must be rapid and adequate. Few parts of the conservancy are more than one hour from a helicopter base, and fire equipment for them is rarely more than 20 minutes from a fire. Helicopters with monsoon buckets are frequently used at an early stage because they contain the fire quickly. As a result, 80% of the fires are less than one ha in size. These forces and equipment must be kept in a high state of readiness and good maintenance, so regular testing and training is vital.

Fire training

All staff are required to be available to fight a fire and everyone has a role in a large fire emergency. People should respond rapidly and efficiently and all should have some fire training with field staff being able to handle all fire-fighting equipment. The National Rural Fire Authority regulates training through its manual and through certification.

Fire training should also include joint exercises with fire crews of other rural fire authorities. This is particularly important in more remote localities where fire-fighting forces are small and are likely to work alongside other organisations at a fire. This ensures that people know one another, their respective equipment, and their fire-fighting skills and weaknesses. New skills and techniques must be continually tested in field trials.

Communications training

Good communications at fires are essential and require adequate training. Many fire exercises, and real fires, reveal that inadequate communications result in wasted effort and in failure to control the fire at an early stage when it is small. The radio network brings together information about a fire in the preliminary stages, and gets people to the fire. At the fire, it helps to co-ordinate the activities of many fire crews, especially in a big fire when several hundred people may be present. Good communication is also required for the safety of fire fighters.

Implementation

11.1.1 *The departmental response to fire will reflect the threat to life and property, and the natural, historic and recreational values that are at risk.*

11.1.2 *Fire wardens and volunteer fire forces will continue to serve areas such as the Marlborough Sounds, which are of high fire risk and not adequately covered by other means.*

11.1.3 *Fire danger will be monitored in co-operation with other local rural fire authorities during each fire season and the public will be notified when fire dangers are high.*

11.1.4 *All staff will be given regular training for a role in a fire emergency and certificated where appropriate.*

11.1.5 *Members of volunteer fire forces and fire wardens will be given training to integrate their skills with those of departmental staff.*

11.1.6 *Joint training exercises will be undertaken with other local fire authorities and their fire-fighting teams.*

11.1.7 *Fire and radio communications equipment will be regularly maintained and kept in a high state of readiness for a fire emergency.*

11.1.8 *Field trials to investigate new techniques for fire suppression and control will continue* (see §6, p.167).

11.2 FIRE PREVENTION

Fire risks

According to the five scale rating of the Rural Fire Management Code of Practice the Fire Danger Ratings of areas administered by the department in Nelson/ Marlborough are:

- coastal areas A (high);
- forest margins B; and
- upland areas C (low).

Four main factors contribute to fire danger:

- climate;
- weather;
- live and dead vegetation; and
- people.

The high rainfall mountain areas of the west have a very low fire risk whereas the drier areas of Marlborough have a high fire risk, particularly in low rainfall coastal areas. Weather during a fire can greatly increase or decrease the fire risk. Mountain beech forests can be quite flammable in a dry season but mixed broadleaf shrubland and forest may act as a significant firebreak. Grasslands are highly flammable, apart from a short period in the spring, and can carry fast moving fires.

People influence the fire risk in two ways, through their numbers and through their attitudes to fire. Few fires are reported from Abel Tasman coast because visitors are generally trampers or have a keen interest in the outdoors and are careful with fire, compared to Cloudy Bay where picnickers have a tradition of lighting beach fires.

In Inland Marlborough and the western mountains, fire risk is low both because the fire hazard and visitor numbers are low to moderate. On Molesworth, fire danger can be high and the risk is increasing because of increasing visitor numbers. In marginal or small areas, such as on the coast, the risks are high. The fire risk in the Marlborough Sounds is particularly high and large fires result because of the high level of human activity. The high danger is associated with the bracken, gorse and manuka or kanuka shrublands and steep slopes that make control difficult.

The risk is also reflected in the perceived values. Native forests are seen to have high value, whereas bracken or manuka - kanuka shrubland is perceived to have little value and is best cleared for productive uses such as pasture. Much of the native forest on areas administered by the department is bounded by plantations that are more flammable than it is. The conservancy has probably the longest boundary with plantations of any conservancy. This is significant because the higher level of human activity in plantations, for both management and recreational activity, creates a much higher fire risk than on developed pastoral land.

The general fire danger is translated into a day to day fire danger that is summarised in a fire weather index or FWI. In this, wind is a very important factor, as is the period since rain.

Relationship of fire risk to values

The highest fire-risk areas are coastal, often where regenerating vegetation predominates, whereas the highest natural values tend to occur in the wetter mountain areas where the fire risks are low. Nevertheless, isolated areas with high natural values occur in high fire-risk coastal areas, such as the moorlands of Puponga Farm Park and the only known locality for the native coastal tree broom, in Clifford Bay. Fires in shrublands and regenerating vegetation slow the development of forest which has an inherently lower fire risk and higher aesthetic appeal.

Objective

To minimise the likelihood of fire.

Issues

Reducing fire hazard

Reducing fire hazard is as important as putting out fires, and the most important areas for hazard reduction are on the margins of areas administered by the department. In coastal areas, planting of fire-resistant native species at high risk picnic sites will reduce the fire hazard. In other areas, restoration plantings, on the margins of larger areas of gorse and other flammable materials, may create an effective fire break. Generally, fire breaks are not a feature of areas administered by the department, except Puponga Farm itself that protects the adjacent internationally important Farewell Spit.

Where areas administered by the department are bounded by plantations, fire breaks that are grazed or cropped should be encouraged. Where grazing occurs in rough pasture the land manager should be encouraged to develop boundary areas first or maintain a grassed strip at the fence line. Where boundaries can be adjusted, ridge, footslope or other defensible boundaries should be sought to minimise fire hazard.

Risks from the public

At times of high fire danger, areas may be closed or fire prohibited under the Forest and Rural Fires Act. On areas administered by the department, the greatest fire risk is from the beach fires of visitors to coastal areas. This could be reduced by a targeted education programme and more regular patrols to areas of particular risk. The education process may begin by encouraging fires in safe fire places, although in the long term these are perhaps best removed. The real and perceived fire risks can be lowered through appointment of a local fire warden and removing rubbish, thus increasing the apparent value of picnic sites.

Education can heighten awareness and minimise risks. Within areas administered by the department, the major cause of large fires has been camp fires, although recent encouragement of gas cooker use has probably reduced this risk. Candles left on bunks have also caused several hut losses.

In the Fire Safety Margin, the major cause of fire call out is non-permit fires and escaped controlled burns. Fire call-outs to land clearance fires result from the many non-permit burns and 5% of the 150 authorised fires. Recovering the costs for control of illegal fires is a strong incentive for the land manager to get a permit or to be more careful next time. Land clearance fires on small areas often present the greatest risk because firebreaks may be too small or non-existent. In the past, inadequate fire breaks have led to a continual attrition of the natural forest edge. This perhaps means greater care should be used when granting permits for small fires because with larger fires a bulldozer is used to prepare adequate fire breaks. In all areas, farmers are encouraged to oversow and topdress following burning so that the fire does lead to permanent pasture improvement, rather than continual burning.

Sound relationships must be built with the land managers of a district so that they recognise the:

- need for permits for all fires in the fire safety margin;
- value placed on areas administered by the department;
- need to report illegal fires; and
- support required for fire-fighting teams during a fire.

Implementation

11.2.1 *During inspections for land clearance burns, encouragement will be given to lighting fires only where they will be followed by development or a general reduction in fire hazard to areas administered by the department.*

11.2.2 *Provisions of the Resource Management Act may be used for hill and high country to protect high natural values from unnecessary fire.*

11.2.3 *On the boundaries of areas administered by the department and in areas of high fire hazard, reduction in the risks will be sought through appropriate management, including restoration plantings, grazing and boundary adjustments.*

11.2.4 *The location and causes of fires will be monitored and analysed to identify areas and activities of high fire hazard.*

11.2.5 *Wherever practicable, costs will be recovered from those responsible for illegal fires. (See ƒ13, p.225).*

11.2.6 *Education will be used to reduce fire risk in critical areas, such as with bach owners in the Marlborough Sounds and with picnickers generally.*

11.2.7 *Visitors to areas administered by the department will be encouraged to use gas barbecues and portable stoves rather than open fires in approved places, to reduce fire hazard.*

11.2.8 *All booklets and pamphlets on recreation will contain adequate warnings on the danger of fires and conditions under which fires may be lit (see ƒ20.1, p.343).*

11.2.9 *Information advising the public on the dangers of fire will be provided in each hut, at major entry points, and in high hazard, public use areas (see §19.1, p.327).*

11.2.10 *At times of high or extreme fire danger a prohibition on fires may be declared, or an area completely closed, and patrols may be made to inspect areas of public use.*

11.2.11 *Through local press and radio, the public will be kept informed of high fire danger conditions when all fire permits are cancelled, and camp site and picnic fires may be prohibited.*

11.2.12 *Community awareness of local fire risks and problems will be fostered.*

11.3 FIRE IN MANAGEMENT

Fire is used as a tool in management in special circumstances. In routine management it may be used in a minor way in preparation for restoration projects and similar activities.

Objective

To allow fire to be used as a tool for management, provided the loss in conservation value is minimal.

Issues

Fire as a management tool on areas administered by the department.

Fire is not an important tool in management but is used occasionally, such as on farm parks and pastures, to clear scattered shrublands and clean up after plant pest cutting operations. In all situations a burn plan is required.

High country burning

Fires can have a wide range of effects on the environment including direct effects on vegetation, animals and their ecosystems, soil structure and composition and indirect effects on soil stability. As a result, the use of fire as a general management tool should be discouraged. Burn permits on high country lease land are usually issued by the local authority through their role in monitoring soil protection and water values. These should take into account the protection of areas identified under the Protected Natural Areas surveys, and the general protection of natural values. In some areas declaration of fire as a controlled or prohibited activity may be sought under the RM Act (§21.1, p.360) to give added protection. As many land clearance fires occur within the Fire Safety Margin of areas administered by the department other options to burning, such as spraying, will be explored before a permit is issued, and follow-up improvement with oversowing and topdressing should be sought.

Implementation

11.3.1 *Before a fire permit is issued for high country pastoral lease, other management options will be investigated and suggested to the leaseholder.*

11.3.2 *Fire may be used as a tool on small areas administered by the department only under stringent conditions, where it can be shown to be essential for management.*

11.3.3 *Burn plans will be required for all fires used for management purposes on areas administered by the department.*

11.3.4 *Wherever possible, the use of fire for land clearance will be discouraged.*

11.3.5 *In high country areas where the natural values are high, the declaration of fires as a controlled or prohibited activity will be sought through regional or district plans (§21.1, p.359).*

12. Environmental pollution

The conservancy with its small permanent population has few major sources of industrial or urban pollution. The most notable problems centre on partially treated sewage outfalls at Nelson, Blenheim and Picton and the freezing works at Blenheim. The main threats come from:

- chemical or oil pollution of waterways or the sea;
- rubbish disposal on land and at sea;
- the discharge of ballast water; and
- the dispersal of fertilisers, pesticides and herbicides from land.

These are major threats to land and water ecosystems. Environmental pollution is one of the most important issues of our time because it impacts on the way we live, on our surroundings and our lifestyles. The impacts can be dramatic and local, such as a chemical spill into a waterway, or quite insidious such as the effects of pesticides on a food chain.

Pollutants may be related to a well-defined source, such as a sewer outfall, or may come from many diffuse sources, such as the use of pesticides or fertiliser. The rate of degradation and physical dispersal of pollutants in the environment make some quite safe, particularly when associated with natural or biological degradation. On the other hand, pollutants such as some pesticides can become concentrated in the environment, for example through the actions of filter feeders or by predation, and cause serious long-term effects at considerable distances from the source.

The department has no power to control pollution but frequently becomes involved in the consequences of it in the aquatic environment, such as rescuing wildlife or mitigating its impact on flora and fauna. The main role of the department is to ensure that adequate controls are in place to minimise risk, usually through the provisions of the Resource Management Act 1991, and contingency plans under the Marine Pollution Act 1974. The control of chemical or oil spills is largely co-ordinated through the New Zealand Marine Oil Spill Response Strategy. It is the role of the local authorities and Maritime Safety Authority to have plans in place for major emergencies such as chemical or oil spills.

The department also has an important role in educating the public of local pollution threats, primarily those which impact directly on the flora and fauna of areas administered by the department, but also ways to minimise the risks to the environment.

Objective

To minimise the threats to biota from environmental pollution and to mitigate its impacts through raising public awareness of the issues.

Issues

Oil pollution

The Cook Strait seaway is a major route for marine transport and an accident within Cook Strait may affect any of the shores of the northern part of the conservancy. Over the last 150 years 11 shipwrecks occurred on Farewell Spit alone, the most recent in 1985. Oil spills from these pose a major threat to the huge wading bird populations of the Spit. Similar risks are also present at the Wairau Lagoons from oil or chemical spillages within Blenheim and to a lesser extent at the ports of Nelson and Picton where fuel is transferred and stored. The development of a new port at Shakespeare Bay could result in a significant increase in shipping use of Queen Charlotte Sound and the consequent increase in pollution risk.

Plastic debris

Many synthetic materials are resistant to decay and persist long after they are washed ashore. Debris, such as synthetic strapping and packaging, and discarded fishing gear from ships, is a major pollutant of shorelines. Floating at sea, it frequently entangles marine mammals and birdlife, threatening their lives.

Although campaigns are carried out to clean-up debris from accessible shorelines the material should be prevented from entering the water in the first place, and less persistent materials could be used. The debris comes from many sources including land-based tips, local and foreign fishing boats, recreational vessels and ships in transit through coastal waters of the conservancy. As most fishing boats are based at smaller ports, such as Motueka, or regularly use Port Nelson, debris from them as well as from recreational boats can be largely controlled through targeted, locally-based publicity campaigns.

Waste disposal

Improperly managed rubbish tips can cause water and air pollution. In the past, tips were frequently sited in estuaries and swamps and on other so called "waste ground" alongside waterways that they polluted, causing destruction of important wetland vegetation.

These attitudes are changing, with an emphasis on refuse transfer stations for local use, properly designed and managed landfill sites, and encouragement of waste reduction, reuse and recycling. The preparation of waste management plans by local authorities is a way of achieving integrated waste management including waste reduction, reuse, recovery and recycling.

Fertilisers and agricultural chemicals

Widespread use of chemicals for plant or animal pest control in areas of intensive agriculture and horticulture impacts on the ecosystem non-selectively. Fortunately the most harmful and persistent chemicals are now banned or largely discontinued, but inappropriate use and unwanted material can still cause problems if dumped in waterways. The current problems of storage and destruction of chemicals at the closed factory at Mapua are a good example.

Fertiliser run-off or drift into waterways or natural areas can cause nutrient enrichment. Because the two major lakes are sited in Nelson Lakes National Park they largely escape this problem but fertiliser run-off can be a problem in many rivers. Fertiliser drift from aerial operations can also occur onto important plant communities. For instance, at Puponga Farm Park it could greatly modify the natural vegetation of the adjacent naturally infertile moorland reserves.

Sewage

The discharge of raw or partially treated sewage into aquatic environments can have major impacts on water quality and hence on aquatic ecosystems. Septic tanks too, if not properly managed can also have significant local effects on water quality. The discharge of raw sewage is no longer acceptable and even the discharge of residual nutrients from tertiary treatment into waterways can still significantly effect water quality and hence aquatic ecosystems. More appropriate solutions which can be advocated include discharge onto land and composting toilets.

Implementation

12.0.1 *The department will work with the appropriate authorities in their preparation of oil spill contingency plans, particularly in the management of wildlife rescue.*

12.0.2 *The department will work with the Maritime Safety Authority, local authorities and developers to mitigate the risks of oil spills or pollution of water bodies.*

12.0.3 *A community-based plastics pollution education programme will be encouraged to reduce debris entering the sea and minimise the threat from debris at sea and elsewhere (§20.2, p.348).*

12.0.4 *Close liaison will be maintained with the local authorities or government departments during major pollution occurrences.*

12.0.5 *Local authorities will be encouraged to prepare Waste Management Plans to ensure that all refuse that cannot be avoided, reused, recovered or recycled, including hazardous waste, is disposed of in a controlled, environmentally sound manner (see §21.1, p.359).*

12.0.6 *The wise use of chemicals and fertilisers for agricultural and forestry purposes will be promoted.*

12.0.7 *The setting aside of buffer strips along waterways will be promoted to minimise the effects of accidental pollution to water and to filter nutrients, herbicides and pesticides in run-off (§5, p.85).*

12.0.8 *Adjacent landowners and managers will be made aware of the threats to waterways and low fertility habitats from fertiliser drift and means will be suggested to mitigate adverse effects.*

12.0.9 *Environmentally acceptable systems of sewage disposal will be advocated.*

13. Compliance

Many conservation-related activities of the public, on and off areas administered by the department, are governed by the Acts, regulations and bylaws that the department administers. In addition, the department may use Acts administered by other agencies to protect natural, historic and recreational values on private or leasehold lands, and to minimise the threat to values on areas administered by the department. This section deals with the mechanisms of compliance and general problems of enforcement faced by the department. Details of important specific provisions of the various acts, bylaws and regulations are dealt with in the respective thematic sections (see Species management §3, p.137; Animal pests §10.5, p.207; Fire §11.2, p.216; Use §14, p.231; and Recreation §16, p.273).

The department administers 21 Acts, of which nine have no relevance in this conservancy. Regulations have been created under the Conservation and six other acts, and locally applicable bylaws under a further three Acts (Table 34).

TABLE 34: ACTS CONTAINING REGULATIONS, BYLAW PROVISIONS FOR OFFENCES

ACT	BY-LAWS OR REGULATIONS
Conservation 1987	Regulations
Reserves 1977	Bylaws
National Parks 1980	Bylaws
New Zealand Walkways 1990	Bylaws
Wildlife 1953	Regulations
Wild Animal Control 1977	Regulations
Marine Reserves 1971	Regulations
Marine Mammals Protection 1978	Regulations
Native Plants Protection 1934	Regulations
Historic Places 1993	Regulations

The department may also use the provisions of the Resource Management Act 1991, Litter Act 1979, Dog Control and Hydatids Act 1982, Fencing Act 1978, Forest and Rural Fires Act 1977 and a few other Acts to protect natural, historic and recreational values. It may also behave as a common citizen under many other Acts for such things as fencing agreements and in contracts.

The various provisions that the department administers have relatively few purposes or themes but the most obvious are those that:

- protect areas administered by the department from fire, pollution and other hazards (§11.2, p.216; §12, p.221);
- concern the taking, handling and disturbance of plants and animals or rocks and thus the protection of values on areas administered by the department (§10.5, p.207; §14, p.231; §14.2, p.240);
- relate to the handling, holding and trading in wildlife, and either protected species or introduced species on areas other than those administered by the department (§10.5, p.207);
- cover the occupation of areas administered by the department for mining, grazing, or buildings and structures (§14, p.231); and

govern recreational activities on areas administered by the department (§16, p.273).

Objective

To ensure protection of natural, historic and recreational values and to regulate use of areas administered by the department.

Issues

Priorities for compliance

Offences against values of areas administered by the department, or threats to them, should be given priority. The most obvious and serious offence comes from fire. Stringent penalties exist for illegal fires, especially those lit close to areas administered by the department and in the Fire Safety Margin of one km, and as set out in the Forests and Rural Fires Act (§11, p.209). Another significant threat comes from pollution of rivers and waterways and similar disasters, offences for which are covered by the Resource Management Act (§12, p.221).

A second group of offences relates to use of areas administered by the department, particularly to mining and similar extractive uses because these violations can result in significant local effects. These are normally controlled by the provisions of the lease, licence or permit.

A third group of offences relate to the taking of plants and animals. Restrictions on these activities are covered by provisions under all the land management Acts, the Marine Reserves Act, and most bylaws as well as under some specific legislation. Enforcement of no-take restrictions is an especially critical aspect for the management of marine reserves. The protection of animals from harassment has become a major task with the rapidly expanding interest in whale watch and swimming with marine mammals, particularly at Kaikoura but increasingly elsewhere.

Other offences include those relating to the trade in endangered species and the taking of wildlife such as kereru and muttonbirds. Further offences include stock trespass and the clearance of departmental land for agriculture or forestry etc. without approval.

The most pressing cases are often about sorting out differing interests between people, rather than the values of areas administered by the department. For instance, the presence of dogs at a picnic site is often seen as a problem because they foul the area and frighten people rather than because they may endanger wildlife.

Those offences arising from activities on neighbouring areas administered by the department must be viewed in the same way as those on areas administered by the department. The most common offences that endanger values on areas administered by the department, apart from fire, relate to holding native or introduced animals in captivity. The holding of native animals poses a risk to wild animals through capture to increase stock. Holding introduced animals poses a greater threat to areas administered by the department through the risk of accidental escapes. This is most serious where the species is not present

because species such as wallabies, sika deer and koi carp can be particularly difficult to remove once established.

Prosecutions

In any prosecution two decisions must be made:

- Is the case legally sound?
- Is it generally acceptable to proceed?

Before a prosecution can proceed it must be shown to be legally sound through a legal opinion from the regional solicitor because if the evidence is incomplete or unsatisfactory the case will be rejected. Adequate training for key staff and other warranted officers in the taking and collection of evidence and other procedures and gaining a sound knowledge of the relevant legislation is required.

As prosecution is not the only means of seeking compliance, alternatives such as a warning or an out-of-court settlement should be considered. A judge or the Minister may also view the seriousness of the offence differently from the staff involved. An assessment of public attitudes to the offence may mean that, even if the case is proven, the penalty may be low. On the other hand, doing nothing may lead to the law falling into contempt. The greatest gains occur when problems are settled by negotiation.

Discovery

Most offences are discovered accidentally. Checking records, a patrol or inspection, reporting by the public of a single event or through an information network, or a pure accident, may lead to discovery of an offence. Thus it is important to build up networks that will provide information on offences, particularly those relating to wildlife. A good organisation of honorary conservation officers can provide this.

Other types of offences are discovered by computer searches of records and verification of returns. These are often the most difficult to process because the significance of many minor offences (leading to large conservation losses) or matters of precedence are not considered in examining individual cases.

By-laws

The Conservation Management Strategy or a Conservation Management Plan binds the department and the Minister. For enforcement, the provisions of the CMS must be supported as offences under an Act, regulation or bylaw. Generally, regulations apply to a whole land class or activity whereas bylaws apply to only an individual area. Bylaws have been created for some reserves and for all local national parks. A proliferation of areas with bylaws is undesirable so only areas with high recreational use are targeted.

Model bylaws are appended to the Reserves Act and similar provisions are included in the Forest Park Regulations 1979 for forest parks but are not currently enforceable. Where bylaws or regulations are in force they need to be well publicised to be effective.

Enforcement Officers

Acts under which staff and interested members of the public can be warranted are shown in Table 34, p.225. In addition, special warrants may be obtained under the Litter Act 1979 and RM Act. Normally a person warranted under the Conservation Act has full powers under the Wildlife, National Parks and Reserves Acts as well, but warrants under these Acts may be restricted to particular areas or powers. Although many staff may be warranted, only a few in each area have full powers under any Act.

Formerly Honorary Rangers and Honorary Warranted Officers were of two types: those who were actively involved in enforcement and those whose role was less active in parks and reserves. These have now been segregated into warranted Honorary Conservation Officers and less formal Conservation Trustees. Honorary Conservation Officers and Honorary Rangers will be fully warranted and trained for enforcement tasks. Conservation Trustees have no legal status but supplement a staff presence in heavily used or remote areas and serve a useful function in patrolling sites and reporting serious offences, for example, in marine reserves.

Public awareness

Staff should always be careful to set an example by complying with the legislation as otherwise this may compromise the departmental position elsewhere. In situations where they must act to solve a problem, staff must also be sensitive to public reaction to the matter.

Public awareness of the values at risk and of the reasons for the rules is very important. Thus any prosecution can be regarded as a failure because it means that the public awareness process has failed. Often it is a matter of building the appropriate public attitudes and this will require more than relying on signs at a site or a booklet. Only by a general acceptance that it is the right thing to do can a notice, rule or regulation be observed. Particular issues may need to be the target of public awareness campaigns, especially when changes to regulations are made or a visitor season is beginning.

Implementation

13.0.1 *Risk to areas administered by the department and their values will be a primary consideration in investigating an offence.*

13.0.2 *Any resolution of an incident will be used to get the maximum educational and deterrent benefit, whether dealt with out-of-court or by the court.*

13.0.3 *Where appropriate, warrants for staff will be sought under the Resource Management and Litter Acts.*

13.0.4 *By-laws will be sought and updated, where required, only for priority areas, and will be properly notified in booklets and signs.*

13.0.5 *Honorary Conservation Officers will be warranted to help in monitoring recreational use, particularly where visitor numbers are high.*

13.0.6 *All warranted officers will be given training appropriate to their warrants.*

13.0.7 *Regular patrols by staff and Honorary Conservation Officers will be used to actively enforce marine reserves.*

13.0.8 *Publicity campaigns will be instigated when changes are made to regulations or bylaws, and at other critical periods to raise public awareness of them (see §20.4, p.352).*

D USE OF AREAS ADMINISTERED BY THE DEPARTMENT

14. Introduction

Areas administered by the department are managed on behalf of the public. Any member of the public or a corporate entity may apply for specific authorisations for use of this land. Such use may be commercial (for example, for a trade or business) or non-commercial. The department's ability to provide for the granting of a right or authorisation is bound by statutory requirements, general policy, this conservation management strategy and the relevant management plans.

A particular authority (or concession) is formalised through either a lease, easement, licence or permit.

A LEASE is used only where it is intended to grant an interest in an area with exclusive possession and is often used for building sites.

AN EASEMENT provides for right of way over the land and, for example, is used for private road access, pipelines and transmission lines.

A LICENCE authorises an activity or occupation where exclusive possession of the land is not required.

A PERMIT authorises a particular action or entry to a particular place for a particular action, usually of a temporary nature.

A wide range of activities may be authorised on areas administered by the department, in many different situations. This means that each application must be assessed on its own merits regardless of whether it is a commercial or non-commercial activity. Both can be equally controversial. Existing uses vary from very low impact ones such as apiary sites, to high impact uses such as skifields or access arrangements for some prospecting and exploration or mining under the Crown Minerals Act 1991. Other examples of high impact uses include telecommunication sites on hill tops, hydroelectric schemes, accommodation, buildings and recreation concessions such as helicopter access. Concessions (with a term of one year or more) as at 1996 are listed in Table 35, p.232.

Although all uses have some impact, they may be considered and approved, in keeping with the purpose for which the area is held. This may include consideration of remedying or mitigation of effects on the protection of natural, historic and recreational values, as set out in §1, p.51; §15, p.267 and §15, p.270.

Applications for concessions are handled promptly, within the available resources of the department. Applicants are advised of the statutory and policy bases for decisions, the criteria that are used to assess their application and the costs and obligations of the application. Consideration of some concessions and some mining applications may require consultation with conservation boards, tangata whenua and public notification.

TABLE 35: NUMBERS OF CONCESSIONS AND ACCESS ARRANGEMENTS OR LICENCES (AS AT 1/6/96)

TYPE	NUMBER
Occupation of Sounds Foreshore Reserve	270
Grazing	108
Telecommunication sites	55
Mining (Access arrangements or licences under the mining Act 1971)	16
Recreation concessions	61
Apiary sites	3
Farm parks	2
Easements	20+
Baches	26

Part IIIB (Section 17 O-J) of the Conservation Act set out in detail the requirements for granting of a concession for areas the department administers. Many provisions in the implementation sections of this part of the document (§14) are carried out through conditions written into leases, licences and permits.

Objective

To allow the use of resources and areas administered by the department, only to the extent that it is not inconsistent with the status of an area, and protection of the values for which it is held.

Issues

Environmental impacts

Proposals to use areas administered by the department vary in the nature of their potential effects. Each must be assessed against specific site details, the status of the area and the proposed use. Nevertheless, it is helpful to specify those impacts on natural or historic values that would be inconsistent with this CMS, regardless of the circumstances.

The criteria for defining the natural value of an area are described on p.43. These relate to:

- the degree that a species may be endemic;

- the existing threats to a species or biotic community;
- whether a species or biotic community is rare; and
- the degree that a biotic community may be representative of the natural character of New Zealand.

Restoration of an area should comply with departmental guidelines (§7.2, p.183).

In addition to these criteria, the value of certain archaeological and historic sites is such that no impact on intrinsic values is acceptable. Sometimes the values are recognised in the land status.

As a general principle any proposed activity on areas administered by the department should be assessed to ensure that the best option for conservation has been selected, that no acceptable alternatives exist and that options to carry out the proposed activity elsewhere have been fully considered.

A concession or access arrangement will not be granted where it is likely to have measurable adverse effects on special values (§1, p.51) or on any protected species. Because of these criteria, access arrangements for mining or other major disturbances is unlikely to be approved for any special area (nature reserve, national park, scientific reserve or sanctuary). Any proposal that has no adverse affects on any of the above criteria will be assessed on the extent and permanence of any effect it may have on other natural, historic or recreational values and whether potential adverse effects can be remedied or mitigated.

Monitoring

The establishment of a concession should not be the end of the matter. There should always be some monitoring to ensure that conditions have been complied with and that unauthorised activities are not being carried out. For buildings and structures, monitoring may merely be to ensure that they are still being used for the authorised purpose. In contrast, where public use or ongoing disturbance is involved, such as with grazing or a recreation concession, a regular monitoring programme may be required.

Social impacts

Traditionally, areas administered by the department have been used as a recreational setting "to get away from it all" and to experience nature on its own terms. Any development on these areas usually involves some erosion of natural, historic and recreational values either by direct disturbance or by way of intrusion into the natural environment. Some development may be justified in terms of the department's responsibilities for recreation and some have social benefits, by providing improved public services, but the adverse social impacts must also be considered. Assessment of proposals for non-recreational use attempts to compare the loss of natural, historic and recreational values with the benefits from development, which need not be irreconcilable.

Cumulative impacts of concessions

Individual concessions may have little effect on their own, but may have a cumulative impact when combined with others. For instance, one hill top with communication facilities may not be too intrusive, but several hill tops with

similar facilities, could have a much greater impact. Similarly, one guiding concession may not detract from the enjoyment of other visitors to an area, but several may affect the carrying capacity of the location (see §15, p.270).

Exclusive use

Many applicants argue for the benefits of allowing exclusive use or the exclusive opportunity to conduct activities. While exclusive use is an option where buildings or structures are needed other activities do not require it. Exclusive use or access can usually be justified only where necessary to protect natural, historic and recreational values or for the protection of public safety or fixed assets as set out in Section 17 U(6) of the Conservation Act.

Term of concessions

The term of a lease or licence is sometimes crucial to the viability of a proposal, particularly where a large investment is proposed, or where a structure or facility is to be constructed. A lease or licence can be issued for 30 years, but may in exceptional circumstances be issued for 60 years.

Before a concession is issued there should be sufficient consideration of the implications for the area as a whole, both short and long term, and of the public need. Where there is uncertainty about the long term effects, the initial term of the concession should be no longer than necessary to assess the effects and in no case longer than 10 years. Where concessions are sought for extended periods there should be provision for renewals during that time. The terms of renewals should include a review of the terms and conditions of the licence or lease.

Processing applications

The applicant is required to provide a detailed application, as set out in section 17 S of the Conservation Act. Streamlined processing procedures enable applications to be treated in an efficient manner within 20 working days. A public register of all concessions is kept.

Consultation

The level of consultation required varies with the nature and scope of the application. In many cases this will require public notification but in some cases consultation is either not permitted or not required. The relevant conservation board will be advised of all applications where a potential exists for significant adverse effects and, where considered appropriate, will be consulted.

Revenue

Rentals may be set at the market price. Determining the market rate can be controversial and may require independent valuation by both parties and reviews may require arbitration. A three yearly rental review is required.

Cost recovery

Processing and administering concessions imposes a cost on the department, mostly through staff time. The true cost is high, given the need to consult widely among staff and with the public, and should be borne fully by the applicant.

As small proposals may cost more to process than the applicants can reasonably be expected to pay, some reduction in charges may be appropriate for those that contribute to conservation (eg plant collecting permits).

Relationship with Resource Management Act 1991 and other legislation

Leases or licences issued by the department do not necessarily mean that all approvals to proceed have been obtained. Because they are subject to the Resource Management Act, Building Act 1991 and other planning legislation, modification of land under a lease or licence will often still require application for a resource consent. This may involve statutory planning processes and an environmental impact assessment for uses that are likely to have substantial site impacts.

Implementation

14.0.1 *Concessions will not be permitted where adverse impacts on the natural, historic and recreational values of areas administered by the department will be significant.*

14.0.2 *On areas administered by the department, any consideration of a concession will ensure that options to carry out the activity elsewhere have been taken into account.*

14.0.3 *An application for a concession will be considered both in terms of the effects of the activity itself and its cumulative effects when combined with the effects of other concessions already approved for the same area.*

14.0.4 *As appropriate, concessions will be monitored on a regular or intermittent basis.*

14.0.5 *Exclusive use of a site or location will be granted only where it is essential for a building or for the safe operation of a facility or where it is necessary to protect the natural, historic or recreational values.*

14.0.6 *Where leases or licences are sought for extended periods the licence or lease will include provision at renewal for review of its terms and conditions at several points during that period.*

14.0.7 *Subject to the relevant legislation, the rental for a concession may take into account any relevant conservation benefits from the concession and any adverse impacts on natural, historic or recreational values.*

14.0.8 *Except as provided for in 14.0.7, rental for approved concessions will be at market rates and established by appropriate means which may include public tender.*

14.0.9 *Applications will be processed efficiently, according to the governing legislation.*

14.0.10 *Applicants will be informed that they also need to fulfil any obligations under the Resource Management Act, Building Act and other planning legislation.*

14.0.11 *Wherever possible, costs associated with the assessment of an application for a specific use and its subsequent monitoring will be met by the applicant.*

14.0.12 *Where the potential exists for a concession to have significant effects on natural, historic or recreational values the appropriate conservation board will be consulted.*

14.1 MAORI TRADITIONAL USE

Traditionally, Maori used and collected a wide range of plant and animal material from the land and water for food, shelter, tools and crafts. Species distribution and abundance has changed over time so that some species are now seldom found anywhere except on areas administered by the department or are protected under legislation administered by the department. The department, bearing in mind the constraints of legislation and the principles of the Treaty of Waitangi, must consider all requests by the tangata whenua for opportunities to conduct traditional taking or gathering. Such traditional taking or gathering may not be for commercial purposes (see §14.2, p.240).

Objective

To allow the taking of cultural materials according to approvals from, and the agreement of, the tangata whenua, where impacts on the population of the species being taken or other natural, historic or recreational values are not significant.

Issues

Philosophy

All the relevant legislation contains strong directives to protect natural resources under the department's care. The statutes, however, are subject to Section 4 of the Conservation Act which charges the department with giving effect to the principles of the Treaty of Waitangi. The degree to which taking can take place depends on the balance between the need for protection and the importance of the species to traditional practices of the tangata whenua. Taking will not be permitted where it involves threatened species or their habitats. Where the species are abundant, and their use is important, taking and gathering may be permitted within the constraints of the governing legislation. Where possible, taking from unprotected lands will be suggested.

Consultations

The department is aware only of those resources for which approaches have already been made by the tangata whenua. Decisions on traditional use and gathering requests must fully involve the tangata whenua. Any decision on whether taking is sustainable remains with the department in conjunction with the tangata whenua. Other interested groups should also have the opportunity to comment where appropriate. The final decision allowing the taking rests with the department after consultation with tangata whenua.

Distribution of already collected material that is scarce also requires consultation with the tangata whenua. The department will build on the approach developed for the distribution of whale bone and teeth that uses an appropriate Maori committee to rule on claims on the material, with the department considering the committee's recommendations.

Marine resources

The establishment of taiapure (under the Fisheries Act) should be encouraged, particularly alongside marine reserves, because taking from marine reserves is discouraged. The killing of marine mammals is not permitted.

Sea birds

Mutton birds (titi), including chicks of sooty, flesh-footed, and fluttering shearwater, have traditionally been taken by the tangata whenua. Nesting of these birds is now very restricted on the mainland and populations on islands in the Marlborough Sounds appear depressed despite only low amounts of illegal taking.

The right to take mutton birds on any island is usually restricted to particular families. For instance, under an Order in Council (1965), only the owners have the right to take mutton birds from the Trios Islands.

Taking from some mutton bird populations may be permitted if numbers of nesting birds build up significantly. If this occurs, some islands will be used as controls to assess the effects of taking. Any taking must be carefully controlled to minimise habitat damage.

Land and freshwater birds

Although some native water birds are gamebirds and not fully protected, native land birds are fully protected by the Wildlife Act. All land birds traditionally taken exist today in much lower numbers than in pre-European times, and consequently their taking will not be permitted.

Feathers of native birds are highly valued for cloaks (korowai). Dead birds and feathers may come from accidents, such as possum trapping, be handed in to the department, or come from confiscations. Legally, such feathers cannot be given to any body other than museums, but feathers of fully protected birds collected by the department can be placed on long-term loan to the tangata whenua.

Freshwater fish

Traditionally, a wide range of freshwater fish (kaiawa and kairoto) was taken by Maori but the range is now limited to eels (tuna), lamprey, koura, smelt and whitebait. The Whitebait Fishing Regulations 1994 provide special access for Maori. Freshwater mussels (kutai) were traditionally eaten and large shell middens are found near some lakes. Due to wetland and lake drainage most freshwater mussels are probably on areas administered by the department, and thus limited traditional use may be permitted provided the use is sustainable. Applications to take freshwater fish from national parks or reserves for traditional purposes will be considered on a case-by-case basis.

Plants

Total quantities of all plants used should be small (see also §14.2, p.240). Totara is the most sought-after timber for carving. Where suitable trees are not available from private lands, recovery of dead and dying trees in conservation areas and some reserves may be considered provided they can be recovered without undue

environmental damage. Rather than rely on natural areas, the best long term solution for providing timber and other plant materials for cultural purposes is often to establish plantations.

Kiekie for weaving is best recovered from areas where logging of native forest continues. As such areas are rare in this conservancy, limited taking may be permitted from suitable conservation areas if other sources are not available.

Pingao is sought for tukutuku work but the conservancy has only very limited remnant areas. The department will work with the tangata whenua to establish pingao in natural areas and around marae for their use.

Implementation

14.1.1 *Traditional Maori taking may be allowed under the joint approval and control of the department and the tangata whenua.*

14.1.2 *Where collecting in traditional take areas potentially conflicts with ecological values, close consultation will be required with the tangata whenua and where policy or the legal situation is unclear, with the relevant conservation board.*

14.1.3 *The establishment of kaimoana, kaiawa, and kairoto take areas may be supported under the appropriate legislation.*

14.1.4 *Mutton bird populations may be monitored in conjunction with the tangata whenua, and taking may be permitted at specific sites if it is sustainable.*

14.1.5 *Any seabird take will be carefully controlled to minimise habitat damage, and some islands will be kept free from taking for comparative purposes.*

14.1.6 *Taking of native land birds that are fully protected under the Wildlife Act will not be permitted.*

14.1.7 *Feathers of native birds may be placed on long-term loan to the tangata whenua for use in traditional cloaks and crafts.*

14.1.8 *Limited traditional taking of kaiawa, kaimoana and kairoto may be permitted from the conservation areas where natural, historic and recreational values are not likely to be significantly affected and the take is sustainable.*

14.1.9 *Where totara is not available from private land, removal of a few trees may be permitted from conservation areas.*

Limited taking of kiekie will be permitted from conservation areas only where other sources are not available.

14.1.10 *Limited taking of kiekie will be permitted from conservation areas only where other sources are not available.*

14.1.11 *Practical encouragement and advice will be given on the establishment of plants providing traditional materials on marae or in other localities.*

14.2 NATIVE PLANTS FOR COMMERCIAL USE

Native plants have a commercial value and requests are occasionally received for approval to take plants for sale. The material in demand varies from firewood and timber to seeds, cuttings, fungi, mistletoe and sphagnum moss. Although some proposals cannot be permitted, the most important approved activity is providing small amounts of material for propagation purposes to act as sources for future commercial stock. Non-commercial taking of plants may also requires a permit or concession (§3, p.137).

Objective

To allow the taking of limited amounts of native plant material for commercial purposes where there can be a proven conservation gain.

Issues

Taking of plant material for commercial purposes is not permitted in national parks or reserves. Section 30 of the Conservation Act permits take on conservation areas only where it is for traditional Maori purposes (§14.1, p.237) or under a concession or access agreement. As the Act further states that a CMS or management plan cannot allow wood to be sold, only commercial taking of non-woody plant products is allowed unless for traditional Maori purposes.

Sphagnum moss is the only non-woody native plant material currently in demand from areas administered by the department that has commercial potential. Guidelines for issuing licences to take sphagnum have been produced. Taking of sphagnum moss will only be considered in exceptional circumstances where all the following conditions apply:

- the taking area must previously have been heavily modified from mining, logging or grazing.
- the site must be of low ecological value; and
- the effects of taking must be monitored, at the licensee's expense.

In this conservancy very little sphagnum is available on modified land, where it could be removed. Only one licence has been issued.

Implementation

14.2.1 *Removal of small amounts of plant material from areas administered by the department for propagation purposes may be approved where natural, historic and recreational values will not be adversely affected..*

14.2.2 *Permits for taking of sphagnum moss will be issued only in exceptional circumstances.*

14.3 COMMERCIAL EELING

Eels are native fish and a part of the natural native ecosystems. Commercial eeling is generally prohibited in reserves. Where a management plan allows for it and there is an established traditional use prior to its establishment and the harvesting is sustainable it is may be allowed in national parks. Eeling may be permitted on conservation areas. Ministry of Fisheries manage all harvesting aspects of the fishery, whereas the department administers or advocates for habitat protection, fish passage or access issues relating to areas administered by the department.

Objective

To allow access for sustainable commercial taking of eels in waters of conservation areas while retaining some areas in their natural state.

Issues

Close contact must be maintained with Ministry of Fisheries because they licence the commercial taking of fish. Many lakes and waterways lacking introduced fish should be protected from eeling. In particular, remote, pristine or largely natural waters such as those in the interior of North-west Nelson, commercial eel fishing may be having serious effects on eel populations. Access to and within all areas is governed by the same constraints as those placed on other users (see §16, p.273).

Implementation

14.3.1 *Concessions for access for commercial eeling on conservation areas and national parks will be considered for those holding a permit from the Ministry of Fisheries.*

14.3.2 *The department will work with the Ministry of Fisheries and other interested parties to exclude areas of high natural value from commercial eeling.*

14.3.3 *Boats may be permitted for taking eels where this does not conflict with other access provisions or natural, historic or recreational values (see §17.1, p.284 for Whitebaiting).*

14.4 BEEKEEPING

A supply of nectar and honeydew is available from native vegetation on areas administered by the department. Some apiarists use this resource through hives sited on adjacent private land and some are licensed to site their hives on areas administered by the department. The greatest demand is for access to honeydew from the trunks of beech, a resource that is becoming scarcer where wasp numbers have increased.

The department produced guidelines in July 1990, which acknowledge the use of areas administered by the department for honey production except in special areas.

Objective

Apiary sites may be licensed on conservation areas where the adverse effects on public use of the area and natural values are not significant.

Issues

Although bees probably have an impact on food supplies of honey-eating birds and insects, their impact is generally regarded as insignificant and local. By contrast, wasp numbers increase dramatically throughout beech forests during late summer and autumn. As a consequence honeydew is heavily depleted, leaving virtually nothing for birds or other invertebrates including bees. Increasing evidence suggests that birdlife and forest health suffer. The extent to which the situation may be worsened by commercial taking for honey is likely to be small because apiarists usually poison intensively for wasps.

The selection of apiary sites must consider public use of the area and avoid reducing the viability of all hives by placing too many apiaries in one area. The number of hives on any one site is self-limiting because apiarists will not overstock.

Although smokers used by apiarists are a potential source of fire, the risk is low provided unspent fuel is well extinguished and removed from the site. Restrictions on apiarists may be necessary during times of high fire danger.

An apiarist must be licensed by Ministry of Agriculture and pay the department a resource rental in recognition of the commercial use of public land. Currently the demand is low and the number of sites is limited by road access, which is generally poor. Most sites are used regularly for a three-year term. If demand increases it may be necessary to tender the available sites.

Implementation

14.4.1 *Where evidence shows that the presence of bees is significantly threatening fauna, the licence will be revoked and the apiaries will be removed.*

14.4.2 *All apiarists applying for a licence must be registered with Ministry of Agriculture.*

14.4.3 *Apiary sites will be licensed only where no other apiaries occur within 1 km.*

14.4.4 *Where demand for sites exceeds the number available, the sites will be tendered.*

14.4.5 *Licensees will carry fire extinguishers and have current fire insurance.*

14.4.6 *Apiary licences will be for a three year term and will attract a resource rental.*

14.5 GRAZING

About 2,000 hectares are grazed under 118 licences. Because grazing severely affects the flora and has other site impacts, it is allowed only on land where the sites are already severely modified and not sought for restoration. Usually, the grazing land is in small, discrete units with limited conservation value but in other cases the area is of value for public access and enjoyment (§7.1, p.179) or acts as a buffer to land with higher natural qualities. Grazing can sometimes be of management benefit by reducing the fire risk, suppressing plant pest growth and, on archaeological sites, protecting the sites from becoming overgrown or disturbed by roots.

The major licences within the conservancy are for the river flats in the upper Glenroy and Matakitaki Rivers, a dairy farm run-off at Pelorus Bridge, and the farm parks at Puponga and Titirangi. A draft policy produced in 1991 forms the basis for administration of grazing licences.

Objective

To allow grazing on reserves and conservation areas, only where it is appropriate to the management objectives for the area and consistent with legislation.

Issues

Retaining areas in grazing

Grazing can be used to maintain public access and occasionally is useful to protect historic sites and for other management objectives. In other cases, where no significant current or potential natural, historic and recreational values exist, disposal of the land is a preferred option. Land disposal involves a lengthy procedure (§2.4, p.132) and costs incurred over survey and legal transactions cannot always be recovered, particularly for small areas. In these circumstances, a longer term licence may provide the necessary security for the licensee to invest in development of the land.

Grazing is often preferable to disposal where the area:

- is necessary to maintain public access;
- may be needed to satisfy Treaty of Waitangi claims;
- has potential for revegetation in the future;
- is too small for other conservation management options; or
- has high costs for fencing along the boundaries.

Local exchanges

Some land managers are licensed to graze land which has few natural, historic or recreational values. They may exchange forested land for freehold title to areas under their grazing licences. These circumstances can provide considerable conservation gains.

Cancellation

Conditions of a grazing licence should ensure that natural, historic or recreational values are not put at undue risk. To avoid risk the licence should contain conditions providing for cancellation when undue damage occurs.

Fencing

The boundary between areas administered by the department and private land is frequently unfenced and stock are able to graze across the boundary. Where natural values are not at risk, the cost of fencing cannot be justified. Although grazing such land requires a licence little stock control is possible.

Plant pests and fire

Areas that are currently grazed may eventually return to native vegetation if grazing is removed. A few licences have been cancelled for that reason but in other cases, continued grazing is justified for the suppression of plant pests and reduction in fire danger (§11.3, p.220; §7.1, p.179).

Revegetation

Land now licensed for grazing on fertile river terraces may have once supported lowland forest of great biological importance. Retention of this land in public ownership may provide an opportunity for forest restoration in the future and this should be considered before attempting to sell the land (§3, p.67).

Public use and access

Grazing occurs on recreation reserves, such as those in the Roding and Lee Valleys where grassed open space is maintained for picnicking, and on the farm parks. This provides a considerable saving in mowing costs, off-set by only a little inconvenience to the users. Licence conditions may restrict grazing during periods of peak recreational use, and may assure public vehicle access (§16, p.273).

Burning and cultivation

Burning or cultivation on areas under grazing occupation can lead to degradation of natural values and so is generally permitted only under special circumstances (§7.1, p.179). It may be appropriate where the land is held on a long-term licence to help recreation objectives or is too small for disposal (§11.3, p.220).

Special circumstances include:

- the need for plant pest control;
- the lack of potential for natural regeneration; or
- the management objective of the area, for example, recreational use.

Hunter access

Recreational hunters generally should be allowed access onto departmental grazing licences for hunting apart from certain times and exceptional circumstances identified by the department in consultation with the licensee.

Recreational hunting can encounter conflict on land held under a grazing licence particularly where the area occupies the valley floor and is enclosed by forest. In such conflicts, the interests of all parties are usually met through discussion and by altering management practices such as having stock present only during summer months. Where the public interest is seriously affected, a review of the grazing licence may be desirable.

Implementation

14.5.1 *The potential for restoration and maintenance of the values for which the area is held will take precedence over any other matter when considering a grazing licence (see also §7.2, p.183).*

14.5.2 *Leases issued for grazing of the two farm parks will seek to enhance opportunities for public recreation and will ensure maintenance of conservation resources.*

14.5.3 *Where land has insignificant natural, historic or recreational values, no potential for restoration and retaining public ownership presents no advantage, consideration will be given to its disposal.*

14.5.4 *Land suitable for grazing may be exchanged for private land of greater conservation value.*

14.5.5 *Existing grazing areas will be monitored regularly to ensure that conditions are met and natural, historic and recreational values are protected.*

14.5.6 *Areas for new licences or licence renewals will be assessed fully to decide whether grazing is the appropriate use of the land and whether special conditions are necessary.*

14.5.7 *Licences will specifically provide for public access on foot and will normally be for a maximum of five years.*

14.5.8 *Grazing licences will contain provisions for cancellation or non-renewal where natural, historic or recreational values may be placed at risk.*

14.5.9 *Where vehicle access across an area grazed under licence is significant for access to areas administered by the department, it will remain available to the public.*

14.5.10 *Burning and cultivation will be permitted only in special circumstances.*

14.5.11 *Negotiation of grazing licences will ensure adequate provision of access for recreational hunting.*

14.6 PLANTATIONS

Introduced conifers are normally regarded as a pest on areas administered by the department and priorities for their removal are discussed under PLANT PESTS (§9, p.187). Forest stands exist on land that the department has inherited from former agencies. They include small plantations, many areas of dense wilding pines, and extensive areas of soil conservation plantings and sowings such as on Mt Patriarch in the Richmond Ranges, in the Branch and Leatham catchments and on Beebys Knob.

Some forests were planted for revenue generation but the stands are of limited value because they are small and often isolated within areas administered by the department. Self-seeded pines usually have no value but sometimes they are sufficiently dense and accessible to warrant commercial extraction. Occasionally the revenue obtained justifies their removal from areas where it would not otherwise be a priority.

Objective

To remove plantations with commercial value where they conflict with the conservation of natural or historic values unless they protect significant natural values.

Issues

Plantation removal

Plantation management is not a function of the department but some management may be required to ensure the best value for the trees when they are removed.

Once the trees are removed from a site invasive plant pests such as gorse and regenerating pines may be a further problem. Part of the logging strategy must include follow up management of the site to ensure that its conservation potential is maximised (§7.2, p.183).

While the department has the option of replanting non-native production species on some classes of reserves, it would be rarely justified when weighed against the conservation benefits of encouraging the site to revert to native

Disease

As a responsible small forest owner, the department must be aware of forest health problems that may jeopardise nearby private forests. Consequently management of stands may require liaison with forest health agencies and owners of nearby private forests.

Realising market value

The timber market is highly unpredictable and requires expert advice to realise the best timber values. The key is to make the most of the opportunities the market offers.

Implementation

14.6.1 *Where practical, when non-native forests are removed, priority will be given to restoring native vegetation.*

14.6.2 *The department will work with forest health authorities to maintain forest health.*

14.6.3 *Expert advice will be sought to ensure that timber values are maximised at felling.*

14.6.4 *The removal of plantations will be managed so as to minimise the adverse effects on natural, historic and recreational values.*

14.7 RECREATION CONCESSIONS

The Conservation Act 1987 enables the department to foster the use of natural and historic resources for recreation on conservation areas and to allow use for tourism, as long as this does not interfere with the preservation and protection of natural, historic and recreational values. The National Parks and Reserves Acts also contain provisions for commercial activities. Current legislation requires a trade or business conducted on areas administered by the department, or a business that services visitor demands, to be authorised through lease, licence or permit - generally referred to as a concession. Concessions may involve activities as different as a transport service, guiding or interpretation, water sports and skifield operations and include special or sporting events such as the Lake Rotoiti Power Boat Regatta and the 'fun day' at the Whites Bay Recreation Reserve.

Concessions are granted where they bestow benefits such as managing visitor use and reducing social impacts in sensitive areas, providing expertise and experience that enhances the visitor's enjoyment and providing services that the department cannot. The main activities that have been granted concessions in this conservancy are as follows:

- Skifields:
  - a club field at Mt Robert; and
  - a privately managed ski area at Rainbow.
- Vehicle access through reserves such as Farewell Spit Nature Reserve.
- Transport operations that assist the public such as boat or road transport.
- Guided outdoor activities such as tramping, kayaking, rafting, fishing and hunting.

A few activities are more specialised such as guided caving or outdoor education. Other activities to service public needs and complement public experience on the adjacent land include restaurant and nature interpretation services at sites such as Marahau and Puponga Farm Park.

Outdoor recreation concessions within areas administered by the department give people an appreciation of natural and historic values and so assist in building support for their preservation. Increasingly, overseas and domestic visitors enjoy active outdoor recreation.

All applications for recreation concessions will be assessed and pr in accordance with the legislation and any General Policy.

Objective

To allow commercial visitor services and facilities that increase the wider enjoyment of areas administered by the department provided that they are not inconsistent with the purposes for which the land is held.

Issues

Assessment of new concessions

Concessions vary enormously in the size of operation, the benefits they may offer and their potential for harmful impacts. Therefore, the conservancy has adopted an open approach, accepting for consideration applications over all land, including nature reserves and scientific reserves, apart from the following constraints:

- the application must be consistent with the objectives for which the land is held;
- access constraints must be consistent with those imposed on other visitors to areas administered by the department (see §16, p.273); and
- commercial activities will not be allowed in the water at Waikoropupu Springs.

Opportunities for concessions may be more specifically identified in the appropriate conservation management plan. The conservancy has an informal agreement with the tangata whenua and the Nelson Conservation Board restricting use of the Springs for cultural reasons. Control over commercial operations within national parks will be exercised to ensure that values are not affected and that clients are offered a high standard of service promoting wider enjoyment and appreciation of the parks.

Generally, concessionaires are subject to the same access constraints as other users, although in some sensitive areas concessions provide an opportunity for supervision that is not otherwise possible. The concessions for vehicle excursions, on Farewell Spit for example, are granted by the department because they provide controls on clients and on vehicle routes. (See also 14.10, p.259; §16, p.273; §16.3, p.278; §17.1, p.284; §17.3, p.289; §17.4, p.291; §17.5, p.292; §17.6, p.294; §17.7, p.295; §18.4, p.312; §18.5, p.314.)

The main consideration in assessing an application is whether the proposal is compatible with the purpose for which the area is being managed (§14, p.232). This may involve assessment of:

- impacts on natural, historic and recreational values;
- the degree to which public enjoyment may justify some loss of natural, historic and recreational values;
- impacts on existing users;
- the scale of the operation;
- interpretation of the natural heritage; and
- the quality of service offered.

From time to time, to better manage visitors to an area and to protect natural, historic and recreational values, the need for a concession may be identified and in consultation with the relevant conservation board may be publicly offered.

Public consultation

All leases and licences and applications for concessions that are likely to be contentious or create public interest will be advertised and will involve consultation with the relevant conservation board.

Monitoring of concessions

Monitoring is essential for high impact operations as it ensures compliance with concession conditions and an ongoing liaison with concessionaires and enables the department to assess the actual effects of the operations. The costs of monitoring should be borne by the concessionaire.

Use of facilities

Often, in serving user needs, concessionaires require the use of public huts, campgrounds, tracks and other facilities. This use should be kept secondary to the needs of other users. Exclusive use of public facilities will not be granted to concessionaires. They may also be expected to contribute toward the cost of servicing public facilities and provide their own facilities where use is high. The department should not allow or provide accommodation on areas administered by the department where practical opportunities exist for private facilities on adjoining land (§14.0.2, p.235, §14.10.9, p.262).

Concessions fee

A concessions fee is required in return for the commercial use of public land for some concessions. Concessions vary so much that it is necessary to negotiate each fee separately.

Education

Concessionaires provide an important link with a wide range of visitors to areas administered by the department who often do not come into contact with departmental staff. They may provide a commentary on the area visited for which a knowledge of areas administered by the department and conservation generally can be important. Because their interpretation skills may reflect back on the department, concessionaires and their staff should be assisted, where possible, to ensure that they are properly trained and well informed.

Implementation

14.7.1 Preference will be given to concession applications that benefit conservation through nature tourism or education.

14.7.2 Applications for concessions will not be approved where the intended use is incompatible with the purpose for which the area is held.

14.7.3 Public notification, and consultation with the relevant tangata whenua and conservation board will be sought for all applications likely to create public interest.

14.7.4 Where appropriate, concession opportunities will be publicly offered.

14.7.5 *Within areas administered by the department, all commercial aircraft landings for recreation purposes will require a concession and non-commercial landings will require a permit.*

14.7.6 *Concessions fee reviews will occur at least three yearly, with a consistent approach toward fair market rates being adopted.*

14.7.7 *Exclusive use of public facilities will not be granted.*

14.7.8 *Accommodation will not be authorised on areas administered by the department where practicable opportunities exist on land nearby.*

14.7.9 *For the commercial use of public facilities, due consideration will be given to the existing and likely impacts on expected public use.*

14.7.10 *Concessions will be monitored with priority being given to monitoring major concessions and those on a trial basis.*

14.7.11 *Concessionaires involved in guiding or similar activities will be encouraged, where appropriate, to provide training for their staff in safety and conservation issues (see ∫17.7, p.295).*

14.8 EASEMENTS

The most common easements are for access, and for the right to convey water, sewerage, telephones or electricity over areas administered by the department. Examples include a right of way through the Glenhope Scenic Reserve for access to an adjoining property and a grant to the Marlborough District Council for the right to convey water across the Hillersden Recreation Reserve. All future easements will have terms of not more than 30 years, but in exceptional circumstances it may be for 60 years or longer if it is to give right of way access to land-locked land.

Subject to the legislative requirements of the various Acts the department may grant easements where:

- a legitimate need for the grant exists;
- natural, historic and recreational values are not adversely affected; and
- it does not significantly affect existing public use.

As well, the department may negotiate easements over private land on the Crown's behalf. For example, the department may seek access over private land to areas administered by the department or when creating a public walking track.

Objective

To allow easements where they do not significantly impact on natural, historic or recreational values or public use and where the purpose of the easement cannot be achieved on areas other than those administered by the department.

Issues

Location

Areas administered by the department are usually rural, large in area and contain major water catchments. Because they often partly or wholly enclose areas of other tenures, there will always be a demand for easements.

Survey costs

Access rights are usually granted through a registered easement. To be registered, an easement has to be surveyed to secure it against the title to a property. As survey costs can be high and must be borne by the applicant, applicants may seek ways to reduce this expense, but the survey standard must be that recognised under the Land Transfer Act 1952.

Processing applications

Through setting conditions to an easement, the department seeks to minimise impacts on natural, historic and recreational values and existing users. Many applications do not consider these values and negotiations are then required to satisfy both parties. In cases of road access, the formation standards must be set and responsibility for maintaining the road may need to be determined.

Compensation

Compensation may be required for the granting of an easement over national park or conservation areas and is usually a lump sum payment or an exchange of a similar right that favours the Crown. Because it is usually subject to negotiation, it should fairly reflect rights granted and be market-related. Independent valuers may be used in particularly difficult cases.

Implementation

14.8.1 *Easement applications will be favoured where the values for which the land is held and public interests are preserved.*

14.8.2 *Easement conditions will reflect the status of the land and public use of the area.*

14.8.3 *Compensation will reflect fair market values.*

14.8.4 *All costs associated with the processing of an easement will be borne by the applicant.*

14.9 MINING

Although the Nelson mineral belt was a major source of argillite for the Maori, mining interest in the conservancy has largely focused on gold since European settlement. Current applications and licences are inevitably in areas that have been worked in the past, where historic values are often more significant than natural values. Most mining is for alluvial gold and involves small plant such as a digger and rotary screen, or suction dredging which is a popular low impact, hobby pursuit. During the 1980s a flurry of mining occurred in the Buller River and its major tributaries, the Matakitaki, Glenroy and Howard and much of this was on conservation areas. Mining on Crown-owned riverbeds often occurs without the need for the Minister's consent. Golden Bay is also a tempting prospect for modern miners where some work is confined to riverbeds and the major environmental concerns are water quality and sedimentation. The main area worked is the alluvium on the peneplain above the Aorere River and on which relics are preserved from early gold rush days. These, as well as natural and other historic values, need careful protection.

The only large mine on areas administered by the department is a quarry for dolomite on Mt Burnett. Mining for asbestos, serpentine and magnesite has occurred in North-west Nelson. There are several large quarries for limestone and marble on areas other than those administered by the department, the largest being at Tarakohe.

The greatest threat to natural values comes from the pursuit of gold and base metals on unusual geological formations that also sustain important plant and animal communities within North-west Nelson. Hard rock exploration involves griding, trenching and drilling. The most advanced exploration is at Sam's Creek where adits and further bulk sampling are now needed to prove the prospect.

Besides administering mining activity on its own areas, department advises land managers and local authorities on the measures necessary to protect natural, historic and recreational values from mining activity. This may involve statutory action under the provisions of the Resource Management Act 1991.

The department administers 86 gravel or quarry reserves. Most of these are small areas along major roads in Tasman District and have never been used, whereas many others are administered by local authorities and where appropriate, are vested in them. In the past, sand has been removed from conservation areas at the mouth of the Waima River in South Marlborough. Currently most road metal, aggregate and sand comes from quarries and riverbeds on areas other than those administered by the department.

Prospecting, exploration and mining occur on areas administered by the department when authorised either under the Mining Act 1971, or its replacement the Crown Minerals Act 1991. Under the Crown Minerals Act 1991 an applicant must obtain a minerals permit from the Ministry of Commerce, resource consents from the local authority, and an arrangement over access with the landowner.

Objective

To ensure that mineral related activities occur only where natural, historic and recreational values are adequately protected, restoration is assured and adequate compensation is provided.

Issues

Licensing

Sixteen licences were current in June 1996, of which the majority were issued under the Mining Act. They include conditions of consent provided by the Minister of Conservation requiring that Minister to have regard to the purpose of the Mining Act, which was to facilitate mining.

Under the Crown Minerals Act 1991, the Minister of Conservation must have regard to the purpose for which the land is managed when considering access arrangements. The Minister may also address any other matters that are seen to be appropriate. The New Zealand Conservation Authority must be consulted in respect of applications for access arrangements on national parks. The arrangement may be subject to whatever conditions are necessary to protect natural, historic and recreational values.

Assessment

Land status may not, however, necessarily reflect the sensitivity of the land to disturbance or the natural, historic and recreational values it contains. The potential for direct adverse effects of mineral exploitation on the special values of an area, as well as the wider environmental implications must all be considered. Assessment of any application is subject to departmental guidelines issued in August 1991 and major issues are taken up in this CMS.

The environmental impact of any application must be accurately assessed, recognising the special values set out in §14, p.233. Access for mining will not be recommended for any activity likely to adversely affect these values. Where these values are not involved, many factors must be considered. They include other values of the land in question and the potential for impact on landscape, plant pest invasion, water quality and disturbance to the public.

Any access arrangement requires approval of a workplan for each stage of the proposal. This approval depends on the selected sites and their cumulative impact. Access arrangements must form the basis for subsequent workplan approvals and state the restrictions that the holder can expect. Conditions may be imposed to avoid, remedy, mitigate and/or compensate for any actual or potential adverse impacts.

Other matters

Mining applications involve the consideration of factors beyond the immediate impact of the proposed work. Applications to explore or prospect for minerals may be environmentally acceptable, whereas the effect of subsequent mining cannot be easily assessed as information is seldom sufficient. Nevertheless, the department has a responsibility to advise applicants of the natural, historic and recreational values present and how these may affect any future application for mining.

Mining has a high public profile and the department is often expected to decline applications because of issues such as past performance and an anticipated increase in activity. Similarly, matters of social impact such as employment, and whether the product is of monetary value only, or of industrial worth may be raised but these are not concerns of the department.

Closure to mining

The Crown Minerals Act allows for land to be closed to mining through an Order in Council, with the joint consent of the Ministers of Energy and Conservation. While the Minister of Conservation retains the authority to decline access regardless of land status, a clear indication of this intent is helpful if it is known in advance.

In 1990 the Minister of Conservation attempted to close a certain area within North-west Nelson to mining under Section 24 of the Mining Act. The basis of the move was that while exploration may not cause an unacceptable impact, any conceivable form of mining subsequently would be out of the question. This proposal did not gain the necessary consent of the Minister of Energy.

Compensation

The Crown Minerals Act allows the department to negotiate appropriate compensation under any access arrangement. As placing a dollar value on any loss of natural, historic and recreational values is subjective, guidelines are helpful in the interests of being seen as reasonable and consistent. Although compensation must be based on the loss of natural values, it need not be payable only in dollar terms. For example, a more appropriate conservation benefit may be land exchange or purchase, or provision of services.

Where an intention exists to grant access, the assessment of appropriate compensation may become a vital issue. Compensation must be based only on the value of the land, and any consideration of the mineral value or the ability of the developer to pay is irrelevant. Nevertheless, there may be circumstances where a proposal would lead to an undesirable impact on conservation resources, but is approved because of the applicant's ability to ensure through a negotiated compensation that there will be no nett loss of natural, historic or recreational values. There will be other areas where these values are too high to permit damage whatever compensation is offered.

Monitoring

Existing mining licences need regular monitoring while they are being worked, as the temptation to operate outside the conditions is often considerable. Working closely with other consent agencies will ensure a consistent approach. For effective monitoring, conditions must be relevant and clearly stated while liaison with the local authority ensures that conditions are consistent and enforceable. Staff and the licensee also need to know that the department will prosecute if conditions are seriously breached.

Rehabilitation

Any approval for mineral related activities will be assessed against the potential to rehabilitate the affected land. In most instances, rehabilitation is directed

towards returning the land to its original contour and cover. Where revegetation is required, emphasis is on retaining a soil structure conducive to long term natural regeneration. The use of nursery grown plants on a barren infertile site is seldom successful.

Implementation

14.9.1 *The relevant conservation board will be notified of any access application to enable it to exercise its statutory right to advise the Director General.*

14.9.2 *Applications for access for mineral related activities in special areas (p.x) will be recommended for approval only if the adverse effects can be remedied or mitigated.*

14.9.3 *Applications for access arrangements for any mineral related activity outside of special areas will be recommended for approval where there are no adverse effects on special values (ƒ7.1, p.180) or if the effects on special values can be remedied or mitigated.*

14.9.4 *Every application for an access arrangement will be investigated and a full report prepared on the potential effects.*

14.9.5 *When necessary, suitable conditions will be sought on resource consents to ensure that any operations will have minimal adverse effects on natural, historic or recreational values.*

14.9.6 *Applications for suction dredging will consider instream values and the status of adjacent areas administered by the department, and the power of the machinery will normally be restricted to 10 kilowatts or less.*

14.9.7 *Apart from suction dredging, access arrangements will not allow mining of alluvial ground or associated works within 20 metres of any water body, excluding diversion channels, unless otherwise approved through a resource consent.*

14.9.8 *Wherever possible, access arrangements will not allow clearance of relatively unmodified vegetation unless rehabilitation can be assured such that there will be no nett loss in natural, historic or recreational values.*

14.9.9 *Restoration methods will emphasise appropriate ground preparation for natural succession rather than sowing or planting.*

14.9.10 *Compensation will be required according to Section 76 of the Crown Minerals Act and will ensure that there will be no nett loss in natural, historic or recreational values.*

14.9.11 *Current licences that are being worked will be inspected regularly, in consultation with the Minister of Energy and jointly with other agencies if required, to ensure adherence to the conditions of consent (see also ƒ17.2, p.288 fossicking).*

14.10 OCCUPATION BY BUILDINGS

Buildings are licensed on areas administered by the department for a variety of private purposes and give the occupant exclusive use of public land. Buildings serving visitor needs are treated as recreation concessions, except for a few buildings on Sounds Foreshore Reserve, used as holiday resorts or guest houses that are treated as commercial buildings.

Community buildings

Nelson College has a lease over a conservation area for its outdoor education base at Tutaki and Nayland College has a licence for its base on scenic reserve land on D'Urville Island. The Deerstalkers Association and an outdoor education group are licensed to use the department's buildings at the Cobb and the Scouts have similar arrangements in the Lee Valley and at Redwoods Valley.

Private baches

About 22 baches on areas administered by the department are owned and used by families, being old buildings used by the present occupants for many years. Some are licensed for short terms whereas others are licensed for the life of the occupant. A draft policy precludes the construction of new baches and allows for existing use to continue only where natural, historic or recreational values are not affected.

Several unauthorised buildings exist on conservation areas that are used by miners working adjacent land.

Farm use

Several licensed farm buildings in the Marlborough Sounds are sited on areas administered by the department. In all instances, the values for which the area is held are not at stake.

Sounds Foreshore Reserve

The Marlborough Sounds coastline is some 1500 km long and the Sounds Foreshore Reserve occupies 900 km of this as a 20 m strip of land immediately above mean high water spring tide mark. The reserve is local purpose reserve subject to the provisions of Section 7 of the Reserves and Other Lands Disposal Act 1982, and the Reserves Act 1977. Guidelines for its management were established in the Marlborough Sounds Maritime Park Management Plan. The primary purpose of the reserve is to aid access between the sea and the land and the licensing of boat sheds is considered essential to this access. Houses belonging to the owners of adjacent land that are often partially or wholly on the reserve are also licensed.

Objective

To allow only limited exclusive occupation of public land by buildings used for private or commercial purposes, in keeping with the legislation, and where natural, historic or recreational values will not be adversely affected.

Issues

Community buildings

Certain reserves are used by community groups for clubhouses. Demand must be viewed carefully so that other groups are not encouraged to seek to build where the public benefit is slight. Recreation reserves are intended, in part, for use by sports groups and the necessary buildings and reserves used for this purpose should ideally be vested in the local authority. Problems arise with land where few natural, historic or recreational values exist and where in the absence of community use, the land could be sold to benefit other conservation work.

Private baches

The four baches within Abel Tasman National Park were present on private land or leased before the land became national park. Earlier agreements were for a fixed term, but later extended to lifetime tenancies to avoid evictions. No justification exists for allowing additional baches to be erected on public land.

All huts associated with mining were built before the formation of the department. The mining licences are due to expire and the bond held by Ministry of Commerce should be sufficient to ensure that these sites are fully restored. Baches elsewhere within the conservancy are subject to earlier licensing agreements which provide varying tenure.

Commercial buildings

A demand exists for commercial businesses based on areas administered by the department. Recreation concessions deal with those that provide opportunities for, or enhance, public enjoyment of the land. Other opportunities involve use of public land, purely because the setting is attractive and a demand can be created but no structure or facility is permitted if it can be reasonably placed in an another location. Any increase in this use may lead to a deterioration of those highly valued features, such as open space and a natural landscape.

Use of public land for private gain is not acceptable unless sufficient and appropriate return is obtained by way of public benefit and a fair rental as required by legislation. In particular, Sounds Foreshore Reserve is intended to provide access to the shore and further commercial buildings should not be allowed there.

Sounds Foreshore Reserve

Buildings and facilities on Sounds Foreshore Reserve create special and unique problems. They are particularly visible from the water and can obtrude conspicuously onto the landscape. Their presence can restrict access along the shoreline and can lead to further requests for the privilege, particularly on subdivision of the hinterland.

Careful planning and landscaping can minimise the impacts and sometimes sharing of facilities can limit unnecessary degradation of a beach or shore. To maintain some areas in a largely unmodified state, buildings are not permitted on foreshore between Spenser Bay and Snake Point, East Te Mahia and Kenepuru Head, fronting "the Pines" subdivision in Endeavour Inlet or west of the Grove Arm wharf.

18 Bla

Boat sheds and access structures on Sounds Foreshore Reserve may be permitted in special circumstances where:

- no acceptable site exists on the owner's adjacent property;
- the building will not result in a demand for more boat sheds in the locality;
- the building is of low profile and will have minimum impact on the surrounding environment;
- public access along the foreshore will not be restricted; and
- no acceptable form of alternative access to the owner's adjoining property exists.

Over 260 licences exist for buildings on the Sounds Foreshore Reserve. The legislation and management plan make special provision for the licensing of private buildings on reserve land that would not be possible otherwise. A strong sense of community and a mutual commitment to conservation has existed with many Sounds residents. Difficulties arise over the enforcement of policies such as refusal to allow the reconstruction of derelict buildings, or the requirement to remove buildings when their function is served by buildings on private land.

Although licensees have exclusive rights only over the land on which their buildings are sited, many have modified reserve land further for their own use with gardens and grassed areas which have prevented native forest regeneration and effectively excluded the public. In these cases awareness of the values for which the reserve is held should be increased through discussions with the licensees.

Implementation

14.10.1 Existing use of land for buildings providing a community benefit may continue, so long as natural, historic or recreational values are not affected.

14.10.2 Use of land for existing private baches other than on Sounds Foreshore Reserve may continue on short term tenure, so long as natural, historic or recreational values are not affected, but approval to assign the licence may be withheld.

14.10.3 Unlicensed buildings may be removed.

14.10.4 Legal proceedings will be taken against occupiers of buildings that are not licensed.

14.10.5 Any buildings currently licensed will not be re-licensed when buildings serving the same function are built on adjoining private land.

14.10.6 No new buildings or further extensions for living accommodation on private buildings will be allowed.

14.10.7 All applications to the local authority, and then to the department, for dispensation of front yard requirement and structures will be considered according to the likely impact on natural, historic or recreational values.

14.10.8 The owners of all buildings or parts of buildings erected on areas administered by the department may be required and will be encouraged, to paint them in a colour appropriate to the locality.

14.10.9 Any commercial building will only be permitted on the periphery of areas administered by the department in an essentially modified environment, where natural, historic and recreational values are not adversely affected.

14.10.10 Any use of areas administered by the department for existing commercial buildings must return a fair market rental.

14.10.11 The consideration of any application for commercial buildings involving the exclusive use of land (other than mining and telecommunication) requires consultation with the public through advertising and with the relevant conservation board. (See also ∫14.11, p.263).

14.10.12 All licences for private buildings situated on Sounds Foreshore Reserve will continue to be renewed, provided all conditions of the licence are met and the building(s) are adequately maintained.

14.10.13 Applications from adjoining owners for the siting of boat sheds and access structures on Sounds Foreshore Reserve will only be approved in special circumstances.

14.10.14 All approvals for structures on Sounds Foreshore Reserve will lapse if not completed within six months of approval being granted.

14.10.15 No building will be permitted on Sounds Foreshore Reserve between Spenser Bay and Snake Point, East Te Mahia and Kenepuru Head, fronting "the Pines" subdivision in Endeavour Inlet or west of the Grove Arm wharf.

14.10.16 Existing commercial accommodation on Sounds Foreshore Reserve will be licensed at market rates.

14.10.17 No new buildings will be permitted on Sounds Foreshore Reserve for commercial use.

14.11 COMMERCIAL STRUCTURES AND PUBLIC WORKS

Most works and the erection of structures formerly regarded as public works are now carried out by commercial organisations such as Electricorp, Broadcasting Corporation Limited (BCL) and Telecom. They often involve buildings, structures, or easements (see §14.8, p.253). The other significant public works are roads and highways. Other commercial structures include major works such as the proposal to re-instate a dam for electricity production in Golden Bay, new hydroelectric stations and communication facilities. The most numerous residual non-commercial structures on, or enclosed by, areas administered by the department are the 12 coastal navigational aids and many other coastal navigational markers.

Mountain tops are in demand for telecommunication sites and the most strategic of these are on areas administered by the department. Large towers exist on Mt Murchison, Mt Burnett, Maungatapu Saddle, Mt Robertson and within Black Birch and Kahikatea Scenic Reserves. The principal users of these sites are Telecom and BCL. Most of these sites are inherited from the previous government departments, now converted to state-owned enterprises or public companies. Smaller installations are used by the New Zealand Police, local authorities and private companies.

Objective

To allow structures for commercial use and public works only where there is a nett conservation benefit or where no other practical site on private land exists for a network utility.

Issues

Most of the land available for commercial purposes such as mining and skifields is on areas administered by the department. All Applications for commercial use must be carefully assessed to ensure that the impact on natural, historic or recreational values is minimised and that they cannot proceed elsewhere, if such use of the land is withheld. All proposals fall within the constraints of the RM Act and must follow its consents procedures.

Communication facilities

Mountain tops are extremely visible and, for the same reason, are attractive for communication installations. The natural lines of a mountain are easily disrupted by buildings and masts and the sense of isolation enjoyed by outdoor enthusiasts is affected by such structures. The department realises that society also requires an effective communication system and it must balance these opposing uses of the land. This conflict in use can be lessened in several ways, all of which involve seeking alternatives.

Most sites involve low impact helicopter access and solar power, but several larger installations require high impact power reticulation and roads. Public access to the sites must be allowed unless it is essential for safety or security (§16, p.273) and the public expect that impact on the site will be minimal.

Roading

Roading often presents particular problems as road widening and new alignments may involve land exchanges and alienation. Problems may arise in selecting storage sites and spoil dumps. Yet realignments may provide places for wayside picnic stops administered by the roading authority and at the same time provide opportunities to visit areas administered by the department. In all cases the public good must be weighed against the long-term conservation benefits.

Routine road maintenance may involve cutting vegetation and spraying of plant pests. Some of these activities may have adverse effects on areas administered by the department or arouse public concern even where these areas may not be affected. Close liaison is required with the roading authority to minimise these problems.

New roading proposals often involve several options and close liaison is required to minimise impacts on areas administered by the department. The main places of concern are the Buller Highway, Takaka Hill, Whangamoa Hill and the Kaikoura coast.

Implementation

14.11.1 Applications for new communications installations on unmodified sites will normally be regarded as inappropriate unless no alternative site exists and the use is in the national interest.

14.11.2 Applications for new communications installations will be declined if a practicable alternative exists on private land.

14.11.3 Where applications are considered for an existing communications site, sharing of facilities will be required, if at all practical.

14.11.4 A market rental will be charged unless contrary to a previous agreement or where the use is directly related to a health, scientific or educational purpose.

14.11.5 All agreements will require that sites will be kept in a clean, tidy and well maintained state.

14.11.6 Public use of the sites will not be restricted any more than is necessary for safety and security.

14.11.7 Power reticulation to any site will generally be underground or by armoured surface cable.

14.11.8 Close liaison will be maintained with roading authorities over new roads and routine road maintenance adjacent to areas administered by the department.

E VISITORS TO AREAS ADMINISTERED BY THE DEPARTMENT

15. Introduction

The role of recreation in conservation

Areas administered by the department often provide the only places to escape the pressures of modern society, particularly the crowding of urban areas. It is important that most of these areas remain a place of solitude where nature is met largely on its own terms.

Providing for recreation absorbs about a quarter of the conservancy budget. Although recreation management is a major activity of the department, its costs must be carefully considered, recognising the primary role of the department in protecting and conserving our natural and cultural heritage.

For many people it is recreation on areas administered by the department that provides their main link with the natural environment. As it raises their awareness of natural, historic and recreational values, this link must be nurtured by providing appropriate recreational opportunities in suitable areas while maintaining a quality visitor experience. In this way, the environmental and social impacts of recreation are minimised. The CMS must anticipate visitor needs into the future and provide clear guidelines for visitor management. The guidelines must allow for some flexibility, but avoid compromising natural, historic or recreational values. The department must also maintain a network of visitor centres to serve and enhance the visitor experience and guide visitors in the care of their environment.

Recreation themes

The conservancy provides unequalled opportunities for recreation, in a continuum from the mountains to the sea, covering a wide range of themes. The pristine alpine wildernesses of the Nelson Lakes, Kahurangi and the Mt Richmond Forest Park contrast with the golden beaches of Abel Tasman National Park and the more developed and altered landscapes of the Marlborough Sounds. Similarly, the natural peace and tranquillity of the lakes of Nelson Lakes National Park contrast sharply with the noises of human activity within the Marlborough Sounds especially during summer. An environment exists to suit the aspirations of any visitor, whether they seek a wilderness experience, family fun on a beach or lake shore, or to view marine mammals.

Distinctive local themes are evident and each of the three mountain parks contains extensive areas each with a different emphasis. Kahurangi provides a superb diversity of experiences, Nelson Lakes provides lakes, alpine tramping, skiing, fishing and hunting and Mt Richmond is a quiet backwater for tramping. The Abel Tasman National Park provides outstanding coastal tramping, the

reserves of the Marlborough Sounds provide for water-based activities, and the rugged Kaikoura coast has renowned marine mammal attractions.

Mountains, forests, beaches and marine mammals are the principal attractions of areas administered by the department but also many localised attractions exist, such as Waikoropupu Springs and Farewell Spit. The variety includes several historic attractions, world-renowned caving areas and a varied flora and fauna. Nearer urban areas, local authorities are the main providers of day-based recreation at local parks and places such as Rabbit Island and the Taylor Dam.

Visitor characteristics

Regional populations are relatively small in relation to the size of this forested and mountainous area. People move to the conservancy for its quiet life and outdoor recreation opportunities and make the most of both. In addition, the conservancy has about a million visitors a year. Peak use occurs in the summer when visitors come from throughout New Zealand and overseas.

Picton is the main "border point" with about 1.28 million vehicles arriving or leaving by ferry each year. Kaikoura and Murchison are the only two other "border points" with about 400,000 and 340,000 vehicles passing through each respectively each year (Figure 13, p.268). Judged on the base numbers on each route, the major traffic flow through the conservancy is between Picton and Kaikoura with fewer vehicles passing between Picton-Takaka or Nelson-Murchison. Fewer cars travel the Wairau Valley and on to Murchison whereas traffic flows to Takaka are high, though numbers decline markedly between Takaka and Collingwood.

Of the million visitors to the conservancy, about 683,000 spend at least one night in the conservancy (Table 36, p.267). Most visitors stay in either Nelson or Marlborough with only 4.7% staying in both areas.

The majority of overseas guests come from Australia, United States and the United Kingdom, although Germany and Canada also contribute about 8,000 each. Domestic guests are far more numerous than those from overseas. The largest number come from Canterbury (32%) with a further 17% from Wellington and 10% from Auckland. Most come for a holiday or to visit friends.

Tourism forecasts for visitors to New Zealand in 1989-1994 suggest a 38% increase in international visitors and a 15% increase in domestic visitors but the tourism industry hopes to treble the number of overseas visitors to New Zealand to 3 million by the end of the decade. The increase in international visitors will be significant for heavily used facilities. This will be particularly important for heavily visited places such as the Abel Tasman Coast Track where about 55% of overnight visitors are from overseas, many of whom are from Germany - their numbers are expected to treble by the year 2000.

The two most heavily visited sites are Pelorus Bridge (300,000) and the New Zealand fur seal colony at Kaikoura (265,000). The former is a halfway stop between Nelson and Blenheim with a pleasant walk and surroundings. The latter is an important overnight stopping point with special attractions of the whales, New Zealand fur seals and dolphins. Other important visitor points are Waikoropupu Springs, Marahau and Flora Saddle (Appendix VI, p.433).

TABLE 36: GUESTS* IN NELSON AND MARLBOROUGH FOR THE YEAR ENDED MARCH 1990

	NELSON		MARLBOROUGH		BOTH AREAS	
Source	Guest numbers	Length of stay (days)	Guest numbers	Length of stay (days)	Guest numbers	Length of stay (days)
International	86,000	5.7	82,000	2.3	125,000	5.4
Domestic	305,000	4.8	283,000	2.6	558,000	4.0
Total	391,000	5.1	365,000	2.5	683,000	4.2

** A guest is someone 15 years and over who spends at least one night in the area.*

Source: New Zealand Tourist and Publicity 1990.

Planning for recreation

The CMS provides the broad framework for recreation management. More detailed planning for intervals of up to 5 years is carried out at a conservancy level through a recreation strategy and at a detailed site level through work plans. These documents define the types of facilities, their location and costs and they detail the repairs and development priorities for each site, setting out the reasons for the priorities in detail.

Zoning for recreation opportunities

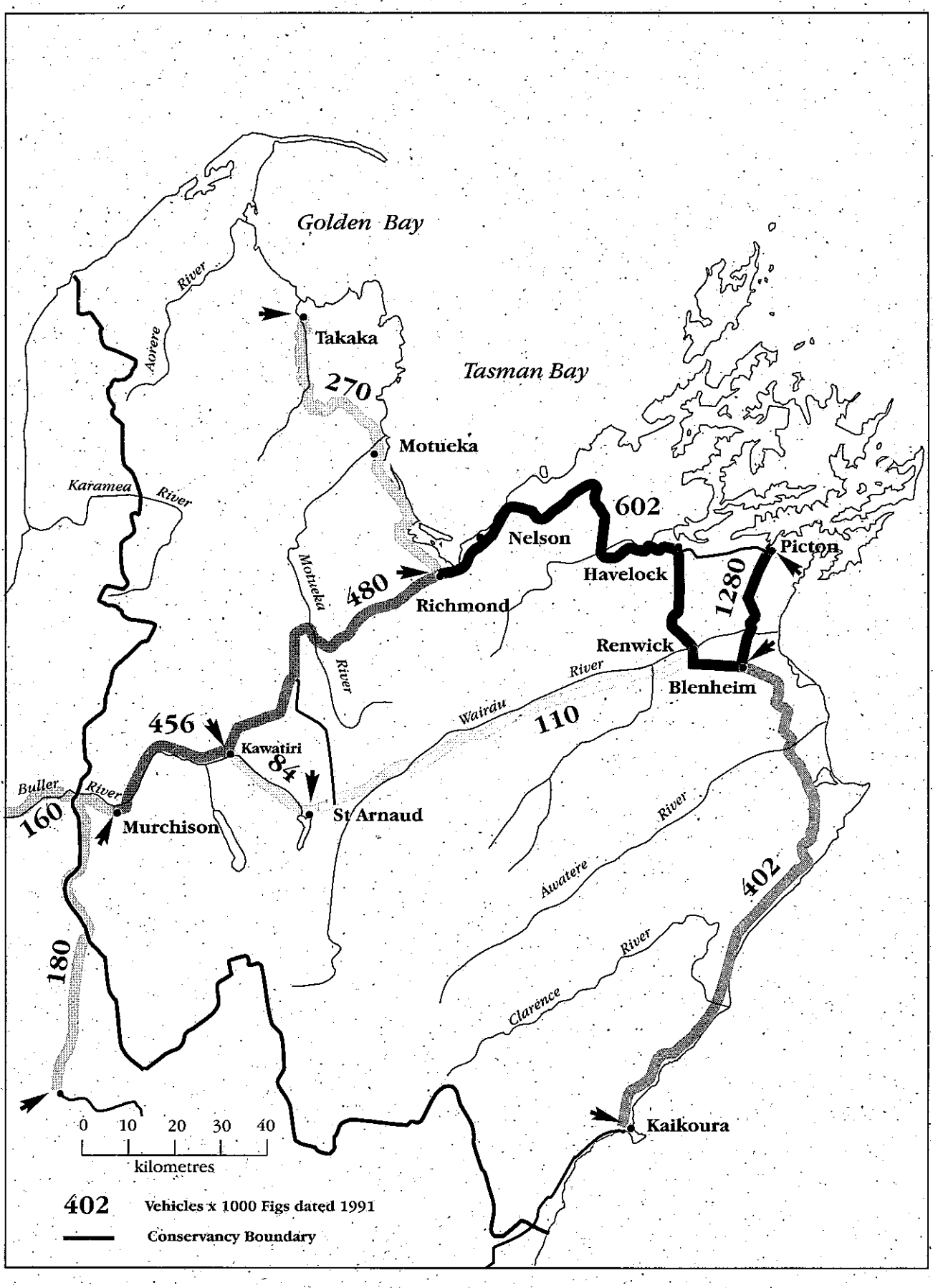
Recreation experiences are generated by participating in certain activities within specific settings. Most people are content with facilities placed close to transport, whether car or boat, whereas others seek a wilderness experience in areas totally lacking in facilities.

Providing for this diversity in outdoor recreation opportunities is the basis of the Recreation Opportunities Spectrum (ROS) zoning. Careful zoning provides for the preservation of the opportunities and allows for orderly development, where appropriate, of the full spectrum from intensive use to minimal or no development areas.

Within the zoning system retaining or restoring as many areas to "wilderness" is as important as developing sites for the casual visitor. The provision of facilities, particularly on the fringes of parks, can focus visitors and their impacts at a few points leaving more areas with low impacts for remote experience. The ROS concept therefore allows for careful planning of increased recreation pressure and is a system of mapping the social values of areas administered by the department.

A nationally standardised classification has been developed and mapping of ROS in the Nelson/Marlborough Conservancy is complete (see map at rear on the reverse of the Tenure map).

Map 13 Regional Traffic Flows



Objective

To allow for a diversity of recreational experiences and visitor opportunities which are compatible with the protection of natural, historic and recreational values on areas administered by the department.

Issues

Trends in visitor numbers

Greatly increased numbers will increase pressure on the well known areas which are already suffering problems from over use. Development priorities must also consider changing patterns of use. For example, Kahurangi National Park was established in 1996 from conservation areas in North-west Nelson, a change in land status which could see a rapid and significant increase in visitors to the conservancy and a greater requirement to provide for day visitors. Preferred facilities will be short road-end walks and lookouts. Pressure on tracks such as the Heaphy, Cobb-Tablelands, Karamea-Leslie and Wangapeka will also be increased, especially where good transport can readily provide for a loop walk. Changes of land status in other areas of the conservancy, such as around Murchison or the Kaikoura Ranges could result in increased interest in these areas.

On gazettal, the several proposed marine reserves may initially draw limited numbers of people, but as the marine ecosystem recovers and the areas become more attractive they could become important visitor foci. Marine reserves adjacent to Abel Tasman National Park or the Kaikoura Peninsula would have relatively limited effect because the areas already have high visitor numbers but impacts could be very significant in areas such as Whanganui Inlet with few visitors before gazettal.

Greatly increased visitor numbers will place increasing pressure on the visitor centre network for information. Centres will need to be well placed and able to provide quality services.

Changes in visitor expectations

The proportion of middle aged and older visitors is increasing. These people have more money and leisure time than most visitors, travel widely and are becoming more environmentally conscious. They make strong demands on road end facilities and short tramps rather than on longer walks with overnight stays, but this pattern is changing as the fitness of people improves.

The advent of new activities or a shift in focus of activities is difficult to predict. For example, innovations such as parapenting were never envisaged a few years ago and adventure tourism is gaining momentum. Helicopter-borne activities, such as heli-skiing and use of helicopters for access, are on the increase and have the potential to threaten wilderness values and solitude. Restrictions on aircraft landings need to be regularly reviewed to control and minimise impacts.

The country of origin of overseas visitors tends to vary with patterns of world prosperity, world events and tourism marketing strategies. Demands can change from adventure tourism to passive tours; or visitors on packaged tours to

independent travellers. The department must adapt to these situations without a major shift in basic visitor management philosophy.

Carrying capacity

The ROS zoning (see map at rear) helps to preserve visitor experiences by identifying and maintaining areas for various classes of visitors but a human tendency exists to accept ever increasing levels of use with time. Sites, facilities and activities each have a level of use beyond which the quality of experience starts to be reduced, although this tolerance level varies with individual perceptions. Specific sites and facilities where the carrying capacity is being reached or exceeded are those along the Abel Tasman Coast Track.

Some of the management options when the carrying capacity is approached or exceeded are:

- limit visitor numbers or, in extreme cases, close small areas such as camp sites: this option requires considerable management input and may be confronted by strong adverse public reactions;
- self regulation: the simplest response is often to do nothing. Where several sites are linked, such as by a track, pressures on one site may regulate use on the remainder;
- prepare alternative or additional sites, such as camp sites near huts or more camp sites in nearby locations: this option usually exhausts all the possible sites in an area and merely postpones coping with the increasing pressures;
- re-direct visitors to alternative opportunities;
- make use of publicity to raise awareness of crowding, cease advertising, or promote other opportunities, etc.;
- adjust the facilities charges (or instigate them) where facilities are provided;
- carry out site hardening: by upgrading track standards, using different grasses in camp areas, putting in boardwalks etc.;
- sacrifice some values of one area to save others; and
- develop and implement policy, bylaws, codes of practice, etc. to reduce impacts for example, Environmental Care Code, Water Recreation Regulations 1979.

Use on the Abel Tasman Coast Track could reach saturation in the next decade. To maintain the variety of opportunities currently present some regulation of numbers could be necessary. As a first step, promotion of use away from the peak season and adjustment of charges may alleviate pressure, for example, by offering off-season rates. Other options include cessation of further development at key sites and finally direct limitation on numbers. Another option could be to promote a second coastal track, such as the Queen Charlotte Walking Track, in a quite different area of the conservancy.

Research and monitoring

Data are required to monitor trends in recreational use and the effectiveness of the recreational planning programmes. Corrective measures based on that information can then be taken and the results judged.

Good data on visitor effects on tracks or huts is limited. Work began in 1992 to develop systems for more accurately assessing carrying capacity. This involves the collection of data on visitor numbers at specific sites or on site impacts. Visitor surveys provide information on the social impacts and carrying capacity of facilities. Further monitoring is necessary, especially the establishment of photopoints to monitor physical effects, and to assess social impacts.

Implementation

15.0.1 *Priority will be given to satisfying the needs of the large numbers of casual visitors in peripheral areas especially along the main routes between Picton-Kaikoura and Picton-Collingwood.*

15.0.2 *Management of popular tracks and sites in the conservancy will aim to spread use away from peak periods.*

15.0.3 *Where areas are reaching their carrying capacity, such as the Abel Tasman Coast Track, appropriate action will be taken to reduce physical and social impacts.*

15.0.4 *Management of areas by Recreational Opportunities Spectrum zoning will be used to retain and, where possible, enhance remote and wilderness experience.*

15.0.5 *Numbers of visitors on the most popular tracks and facilities will be continuously monitored.*

15.0.6 *Visitor numbers at all other significant sites will be monitored at regular intervals of not more than 5 years.*

15.0.7 *Areas with high visitor use will be monitored to assess the physical and social impacts of visitors, and to assist in determining maximum carrying capacities.*

15.0.8 *Databases of facilities and recreational use will be maintained to provide adequate management information.*

16. Visitor access

Walking access within most areas administered by the department is generally unrestricted. Nevertheless, areas are held for many different purposes and for some land classes entry is by permit only. Larger areas may be zoned for a variety of levels of activity through ROS zoning (see map at rear). Within these areas, a variety of recreation opportunities exist and are provided for in a manner compatible with the status of the land. Some of these recreational opportunities are provided for in specially designated areas.

The three acts (Conservation, Reserves and National Parks) under which land is administered, as well as the Wildlife Act, may place differing restrictions on access, use of vehicles or access by domestic animals. Bylaws also exist for the national parks and regulations apply to forest parks. In the future, regulations will be sought which will apply to all conservation areas. Generally, regulations or bylaws are used to control public behaviour within areas administered by the department and provide the means for carrying out some policies (§13, p.225).

Objective

To encourage foot access generally, and restrict activities and access only where necessary to protect natural values or the enjoyment of others.

Issues

Designated areas

Several types of recreational activity can influence the enjoyment of others through disrupting the peace and solitude. Motors can be especially disruptive but even large groups of people or vehicles such as mountain bikes may have a noticeable impact on a locality.

Designated areas are established to help solve impact problems. They recognise the importance of a particular activity as a recreational pursuit in places where the impacts are likely to be minimal and acceptable. Dogs, horses, mountain bikes, other vehicles and camping areas may all be provided for in this manner.

Designated areas are defined as: formally notified zones which may be established by bylaws or regulations. They are established under specific acts and are created to control specific activities on areas administered by the department. They may be notified by:

- public notice in a local newspaper;
- signpost; and
- a map located, where practical, at access points to the area..

Use of horses, dogs and vehicles by staff outside the designated areas often produces adverse comment by visitors so these activities should generally be kept to a minimum and limited to situations where they are essential for management tasks.

Exceptions for special purposes

For areas where land status restricts access or use of animals, exceptions may be required for management and a few other related purposes. These are usually allowed on a case-by-case basis and for a short duration.

Exceptions for special purposes include:

- search and rescue;
- fire fighting;
- control of plant and animal pests;
- scientific research that cannot be conducted outside the area and which is without conflict with the designation;
- tangata whenua visiting listed wahi tapu; and
- assisting the disabled.

Closures

Apart from restricted access areas which are dealt with below (§16.1, p.275) and allow entry only under permit, areas may be temporarily closed to the public or access controlled during emergencies, for management purposes or for special events. The areas may include revegetation sites, whale strandings, fire, accidents or other emergencies and commercial events. Closures should be indicated by signs and may be publicised through the media.

Implementation

16.0.1 *Bylaws or regulations will be sought, where appropriate, to allow for or regulate particular activities.*

16.0.2 *Designated areas will be used to provide for a range of restricted activities, where they are allowed on a discretionary basis by the appropriate act.*

16.0.3 *Designated areas may be used to manage visitor impacts on high use sites.*

16.0.4 *In areas where restrictions on access or activities apply, exceptions may be permitted for special purposes.*

16.0.5 *Parts of areas administered by the department may be closed for emergencies related to public health and safety.*

16.0.6 *Parts of areas administered by the department may be closed for major sports events in consultation with the relevant conservation board and must be notified in the media and by signs.*

16.0.7 *Wherever practical, staff will conform with the restrictions on access or activities that are placed on visitors.*

16.1 RESTRICTED ACCESS AREAS

For some classes of reserves, such as nature reserves, sanctuaries and scientific reserves, access is only by permit. Most are off-shore islands but some mainland reserves have restricted access, including Farewell Spit and Mt Uwerau Nature Reserves, and Muritai Scientific Reserve.

Objective

To restrict access only where it is necessary to protect important natural values or threatened species.

Issues

In areas such as Stephens Island and Maud Island, visitors are normally supervised because of the delicate habitats and rare species present. Visitor numbers may also be limited because of impacts on sensitive soils and habitats, or the capacity of facilities.

Where important natural values require protection, contingency plans are prepared setting out:

- steps to be taken to prevent rodent or other pest invasion; and
- action to be taken if a rodent or pest outbreak occurs.

Contingency plans for off-shore islands are operating on Maud and Stephens Islands and will be produced for Brothers, Titi and Chetwodes Islands.

Implementation

16.1.1 Visitor numbers and visitor movements may be restricted in special areas on off-shore islands.

16.1.2 Landings on off-shore islands may be restricted to specified points.

16.2 DOMESTIC ANIMALS

Domestic animals generally are not permitted in areas of recognised high scientific value such as National Parks, Nature Reserves and Wildlife Sanctuaries. Exceptions may apply for the special purposes set out in the introduction above (§16, p.274). Farming may occur in parts of scientific reserves or wildlife refuges and some recreation reserves, but dogs, cats and domestic pets are usually prohibited. Farming activities are described in the USE section (§14.5, p.244).

Under the Conservation Act the department may declare areas as controlled dog areas. Permits are required to take dogs into controlled dog areas.

Objective

To allow some domestic animals onto designated or gazetted areas administered by the department where land status allows, and where natural, historic or recreational values will not be adversely affected.

Issues

Horse riding

Horses spread plant pests and have pugging impacts on the tracks. Horse trekking has in the past also caused concern to other visitors. To lessen site impacts and conflict between visitor groups, the department sets aside opportunities for horse trekking on low use tracks that can absorb the impact.

Horse riding occurs in a few areas of the conservancy on or near areas administered by the department. It is an important visitor activity in the Murchison area where it is enjoyed together with farm rides on neighbouring properties. Old roads and four wheel drive tracks are used on former goldfields in the Aorere Valley and at Taitapu, and the shores and beaches of Cloudy Bay between the Wairau Bar and Rarangi.

Dogs and pets

A discussion document is to be prepared for public comment and submissions to identify open and controlled dog areas. Areas identified in this process could then be gazetted. Some domestic animals are a significant threat to wildlife and within North-west Nelson dogs are a particular threat to kiwis. As a result, visitors are limited in where they may take domestic animals. In many areas, the views of visitors who do not like or fear dogs must be respected although dogs can serve an important function in helping to control pigs and goats and have traditionally been used in hunting. By-laws will be sought to enforce the restrictions (§13, p.227).

Implementation

16.2.1 *Horse riding will be permitted on designated routes or at times of the year that do not conflict with other activities.*

16.2.2 *Horse riding and pack animals may be permitted on formed roads or tracks in designated areas, usually on the periphery of conservation parks or other conservation areas.*

16.2.3 *A discussion document will be prepared for formal public comment to identify places to be gazetted as open dog or controlled dog areas.*

16.2.4 *Dogs will be prohibited in shelters and huts.*

16.2.5 *Dogs may be kept in some gazetted areas overnight under permit and must be restrained overnight.*

16.2.6 *Dogs will be allowed in special areas under permit only for special purposes.*

16.2.7 *Guide dogs, as certified by the Royal New Zealand Foundation for the Blind, that accompany visually impaired people will be allowed in all areas open to the public.*

16.2.8 *Dogs will be allowed under permit for hunting only on gazetted areas administered by the department, as detailed on hunting permits.*

16.2.9 *Dog owners will be expected to control their dogs and to place them on a lead if requested by staff.*

16.2.10 *Unaccompanied dogs may be impounded* *(see also §13, p.225).*

16.3 BOAT, AIRCRAFT AND VEHICULAR ACCESS

Increasingly areas administered by the department will be seen as the last refuge from the mechanisation of space and time that is occurring in consumer societies. Many owners of mountain bikes, motor bikes and 4-wheel drive vehicles request access to areas administered by the department, and in some areas non-approved use, especially by cyclists, is occurring. Although use of areas administered by the department may represent the only local opportunities for some of these sports in a largely natural environment, considerable opportunity exists on areas other than those administered by the department for these activities and most of the current use is there.

Lake Rotoiti is used extensively for water-based recreation but Lake Rotoroa provides opportunities for those who prefer quieter forms of recreation, therefore water- and jet-skiing are prohibited. In all lakes precautions should be taken to prevent the spread of plant pests. No significant opportunities for jet boating exist on rivers within areas administered by the department in the conservancy.

The conservancy covers a vast area and access to the more remote parts may be by helicopter. The Civil Aviation Act 1992 and its regulations provide for the general control of aircraft, but landing of aircraft on areas administered by the department is subject to a permit from the Regional Conservator.

During 1995, only four operators were authorised to use helicopters for wild animal recovery in the Tasman Wilderness Area and they may operate between 14 May-31 December.

Objective

To allow the use of aircraft, boats or other vehicles in accordance with land status and the values for which the area is managed.

Issues

Land vehicles

Off-road vehicles and mountain bikes may cause conflict with other users of tracks and detract from the enjoyment of other visitors. Some formed roads and a few tracks could be designated to provide for these opportunities to reduce conflict with other visitors.

Boating and other water-based activities

The sea is a very popular place for water-based recreation, but for the most part the department provides only the shore base for such activities. Over much of the conservancy, including the Marlborough Sounds, the local authorities manage surface activites on coastal waters, rivers and lakes. Official ski lanes are urgently required along the Abel Tasman Coast to lessen the conflict between swimmers and boat users and to control noise levels in certain areas. At Lakes Rotoiti and Rotoroa control of boating and other water-based activities is through the Water Recreation Regulations 1979.

Air access

The Ministry of Transport controls the activities of all aircraft in the air but the department can control landings within areas administered by the department. Restrictions on flying below a height of 152 m (500 feet) exist over all land including national park and wilderness areas. Areas such as Farewell Spit Nature Reserve may be designated by MOT as a closed air space, for which aircraft require special permission from MOT for access.

Trampers, fishers and hunters create a demand for helicopter access into the more remote areas of the conservancy, particularly into the North-west Nelson. Most parts of the conservancy are open to helicopter access, subject to a landing permit. In areas such as North-west Nelson, restrictions may be required to reduce the impacts on other users, around preferred landing sites and to limit the number of landing sites.

The closed areas where a concession to land an aircraft is granted only for special purposes are:

- Abel Tasman National Park;
- Recreational Hunting Area (for commercial hunting);
- The Tasman Wilderness Area;
- closed nature and scientific reserves;
- Farewell Spit; and
- Nelson Lakes National Park.

Special concessions allow a service from Mt Robert carpark to the Mt Robert skifield.

Regular operators must obtain a concession (§14.7, p.249) and one-off commercial trips may be authorised by permit. Generally, these will be approved subject to the normal conditions of access to the area. For instance, public access to a scientific area for non-scientific reasons may be refused.

Problems can arise when areas of high wildlife value (for example, Wairau Lagoons), or valued as wilderness for their remoteness, are used as training areas, particularly for low flying. Some of these problems can be overcome through liaison with the Civil Aviation Authority, the New Zealand Air Force and other relevant organisations. Noise from aircraft over-flying the remote areas may detract from the enjoyment of visitors and so their use should be minimised. Air access may be confined to defined corridors.

Implementation

16.3.1 The department will maintain dialogue with other agencies sharing control of recreational opportunities with the department.

16.3.2 Motor vehicles will be confined to formed roads and designated parking areas unless otherwise authorised.

16.3.3 Mountain bikes will be confined to formed roads and formed walking tracks that have been designated for their use.

16.3.4 *Off-road motor vehicles will be permitted only on designated, established 4-wheel drive roads.*

16.3.5 *By-laws will be used to control and regulate water-based activities, and to reduce conflicts between visitor groups.*

16.3.6 *Boating activities on Lake Rotoiti will be controlled by the Water Recreation Regulations 1979.*

16.3.7 *Lake Rotoroa may be used only for low key boating activities such as fishing and sightseeing with a prohibition on water skiing and jet skis.*

16.3.8 *Except where specified by a Conservation Management Plan or National Park Management Plan, powered boats will not be permitted on any lake or water body within areas administered by the department.*

16.3.9 *Aircraft landings will not be permitted in closed areas, except for special purposes.*

16.3.10 *Aircraft may be restricted to specified landing points.*

16.3.11 *An Air Access Strategy will be prepared in consultation with the Civil Aviation Authority and the conservation boards and the public.*

16.3.12 *Approved aircraft operators may be given access to the wilderness areas when necessary for the purposes of wild animal control.*

16.3.13 *Operation of a helicopter or fixed wing aircraft, involving the ferrying of goods, materials or people onto or from areas administered by the department, will require a concession.*

16.3.14 *The department will liaise with the Civil Aviation Authority, the Royal New Zealand Air Force and other organisations to minimise the effects of low flying exercises over wilderness areas and wildlife sanctuaries.*

17. Visitor opportunities

The conservancy is best known for its tramping opportunities (especially on the Heaphy and Abel Tasman Coast Tracks), hunting, fishing and caving. The national and forest parks, extensive conservation areas and its enormous coastal area provide a greater range of recreational opportunities than any other conservancy. On areas other than those administered by the department, local authorities and extensive plantations managed by companies provide opportunities for localised activities such as swimming, and active recreation such as trail biking, cycling and hunting.

The department is often the sole provider of mountain land recreational opportunities. Many activities, such as off-road vehicle use or swimming, are often better provided for by other agencies. For coastal recreation, the department may often provide the shore-based facilities such as picnic sites, camp areas, boat ramps, or access to the beaches on areas administered by the department but it has limited or no control over the associated water-based activities.

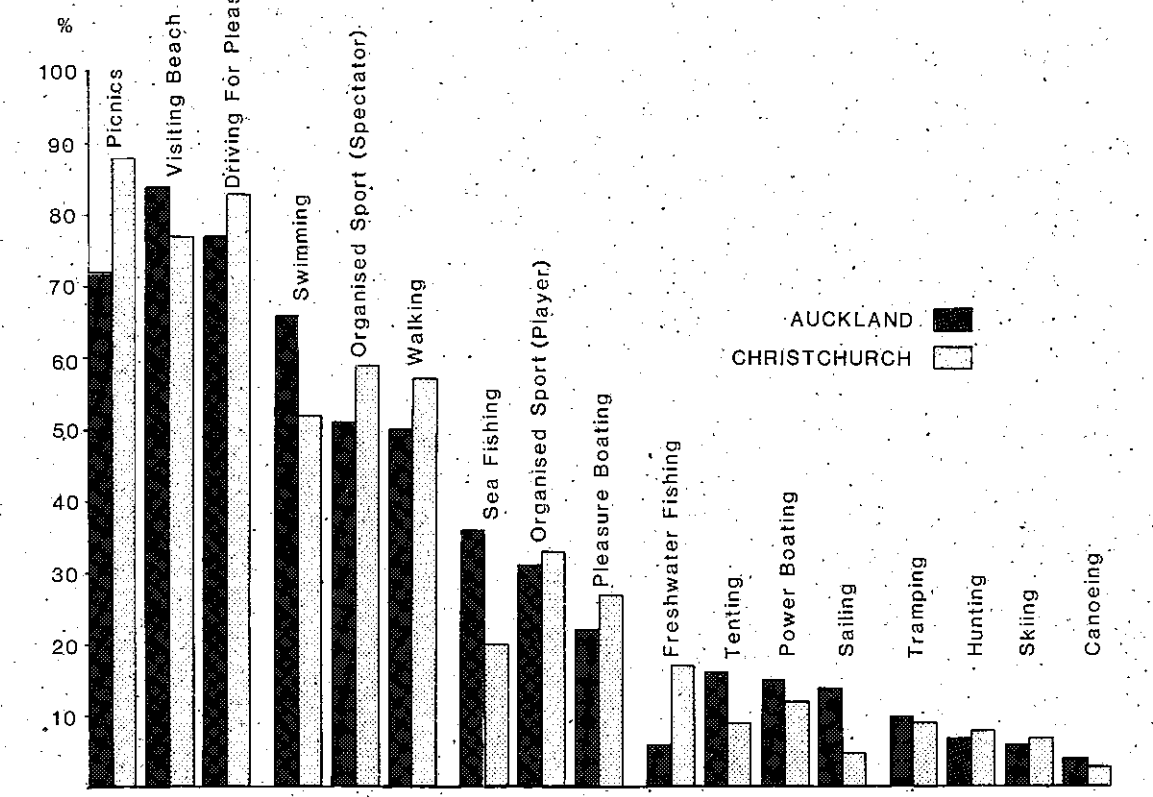
Various studies have explored the nature of outdoor recreation in New Zealand and the results of several are summarised in Figure 13, p.282. The major outdoor activities are those associated with day trips, for example, picnicking, swimming, sunbathing and relaxing, walking and rambling. The next most important activities centre round organised sport and water-based activities, such as fishing and pleasure boating.

Picnickers and short stay visitors make the greatest use of areas administered by the department, as shown by records from Pelorus Bridge (Appendix VI, p.433). Less than 10% of people seeking outdoor recreation are involved in activities such as hunting, camping, tramping and skiing, yet these are often perceived to be the main activities provided for on areas administered by the department (Figure 13, p.282).

Most visitors are recently retired or in the 30-39 age class with young families. The lowest use is from the 15-19 age group. A Hillary Commission report indicates that young people prefer strenuous activities which, apart from hunting, include surfing, motor biking and cycling and are not usually provided for on areas administered by the department. Older visitors prefer less active pursuits such as picnics and short walks. Most of the use is at weekends or during holidays.

This section deals with activities undertaken by visitors that often have only minor or local impacts but which may require special management. Apart from planning development for them (§18, p.297), most acitivites need few special guidelines. Nevertheless, some of the activites that have significant site impacts, or involve taking of animals, or minerals that may require a permit, are covered in §14, p.231. Enforcement issues are elaborated in §13, p.225.

Fig. 14 Participation in Outdoor Recreation



Source: Policy for Outdoor Recreation in New Zealand 1985 (NZ Council for Recreation and Sport)

Objective

To encourage a range of recreational activities within areas administered by the department in a manner consistent with the status of the area and the protection of the values for which it is held.

Issues

General activities

Often, areas administered by the department have the best or only local opportunities for activities such as tramping and mountain climbing. In these cases the department has an obligation to provide for them to the extent that land status and other restrictions allow.

Most activities have little impact on the environment. Among the wide range of possible activities, only a few require very particular conditions, such as hang

gliding, paragliding and orienteering. These activities may be site- or time-specific and a one-off authority may be sufficient.

Rafting is popular on the Karamea River, but most opportunities exist on rivers not wholly within areas administered by the department such as the Gowan below the outlet of Lake Rotoroa. Other activities rarely occur on areas administered by the department because opportunities are better elsewhere. Where activities involve conflict with other visitors and better opportunities are available elsewhere, enquirers will be re-directed. Liaison is maintained with other land managers to help co-ordinate and complement the opportunities that the department cannot provide.

Implementation

17.0.1 *Publicity will be used to promote appropriate recreational activities and to indicate restrictions or appropriate routes and sites.*

17.0.2 *Appropriate areas may be designated for activities that may have an impact on areas administered by the department or on other visitors, consistent with natural, historic and recreational values (§16, p.273).*

17.0.3 *Any recreational activity not specifically covered in this section, and having a potential for adverse effects on natural, historic and recreational values may be approved by the Regional Conservator in consultation with the relevant conservation board and appropriate restrictions may be imposed in keeping with the Recreational Opportunities Spectrum zoning for the area.*

17.0.4 *Wherever practical, provision for recreation will complement recreational opportunities on other areas.*

17.1 HUNTING AND FISHING

Recreational hunting is a popular activity within the conservancy. Red deer are hunted throughout, and pig or goat hunting is a major attraction in many peripheral areas. Fallow deer are present in a few areas and chamois are present in Marlborough and southern Nelson. Over much of the conservancy recreational hunting is important because it is the only means of wild animal control (see §10.3, p.205).

Gamebird and sports fish management in the conservancy is the responsibility of Nelson/Marlborough Fish and Game Council for all areas except the upper Karamea area which is the responsibility of the West Coast Fish and Game Council (§10.5, p.207). The department is responsible for the conservation of native fish, including eels and whitebait, although commercial taking of eels is licensed by Ministry of Agriculture (§14.3, p.241).

The Nelson/Marlborough Conservancy provides many opportunities for the waterfowl hunter in its extensive river systems, estuary areas and many lakes and ponds, but few of the favoured areas are on areas administered by the department apart from the Wairau Lagoons. As upland gamebird species generally prefer the extensively farmed areas as habitat, most hunting occurs away from areas administered by the department. The conservancy has some of the best brown trout fishing in the country. Internationally recognised areas include the upper Karamea, Motueka, Takaka, Buller, Wairau and Clarence Rivers.

Whitebaiting is a traditional activity undertaken between August and November each year. It is an important activity on the North-west Coast rivers such as the Anatori River and Whanganui Inlet (Westhaven) and in the Aorere and Takaka Rivers. Under the Conservation Act the department is responsible for the management of the fishery both on and off areas administered by the department (§4, p.141). The taking of native fin fish is subject to the provisions of the Freshwater Fisheries Regulations 1983 (administered by Ministry of Agriculture) and the Whitebait Fishing Regulations 1994 (administered by the department, Table 34, p.225). Most whitebaiting occurs on areas other than those administered by the department and small nets are used. Whitebait stands are prohibited throughout areas administered by the department.

The major part of the coastal fisheries in areas such as the Marlborough Sounds is accessed by boat from points areas other than those administered by the department. A few areas, such as Puponga Farm Park, adjoin important recreational sea fisheries. Management of these fisheries is entirely the responsibility of Ministry of Agriculture.

Objective

To encourage the pursuit of harmful animals for the conservation benefits, and allow the taking of gamebirds, and sports fish for recreational purposes and to regulate the whitebait fishery.

Issues

Weapons

A permit is required to carry a firearm for hunting on areas administered by the department. Generally, shot guns are prohibited except for gamebird hunting or shooting small game, such as rabbits and hares. Small calibre rifles are also generally banned as they are inadequate to kill wild animals and have often been identified with illegal shooting of native birds. Small calibre weapons such as .22 rim fire rifles may only be permitted for rabbit and hare shooting.

Recreational hunting

Block systems operate in several areas to help ensure the safety of other hunters (see also Hunter access §14.5, p.244). A returned permit enables useful information to be gathered on animal numbers and trends. Permits are issued at Nelson, Murchison, Motueka, Takaka, St Arnaud, Havelock, Picton, Renwick and Kaikoura. Guided hunting is permitted under a standard concession (§14.7, p.249). During holiday periods the number of visitors to certain areas may be high and it may be necessary to close particular areas to specified types of hunting.

Restrictions may be placed on hunters for the safety of other park visitors and for protection of other wildlife, including constraints on the calibre of the rifle, and on the use of dogs. Shooting by the public after dark is prohibited as targets cannot be readily identified at night.

Possum hunting is carried out with the aid of poisons or traps. Where poisons are used the hunter must have the necessary poisons licences. Trapping of animals by methods other than live capture traps, such as box traps, places wildlife at risk. Hunters can minimise the risk by skilled trap placement and by using other types of trap. Gin traps are prohibited in North-west Nelson because of the risk to kiwis.

Gamebird hunting

Close liaison is necessary between the department and the Fish and Game Council to manage and administer the resource. Generally, limited opportunities exist for gamebird hunting on areas administered by the department although the Fish and Game Council administers Wildlife Management Reserves at Top Valley and Kaituna. On areas administered by the department, maimais generally are best removed between seasons because their visual impact can be significant.

Recreational fishing

Recreational fishing is rarely controlled by the department but land status sometimes prohibits taking of any animal, or particular fish species. Recreational fishing is normally prohibited in marine reserves, and in scientific and nature reserves that extend to low water mark. Within the Wairau Lagoons the department controls access and the lagoon bed. Here, set netting may be prohibited to protect diving birds, in co-operation with Ministry of Agriculture.

Taking

Freshwater fish that may be taken include the five *Galaxias* species known as whitebait, the two species of eels, smelt, lamprey and the freshwater mussel. The freshwater mussel requires survey of its status to decide if its populations could sustain taking. Whitebait and eels are often exploited inappropriately or by some exclusive means. For instance, commercial taking of eels reduces the availability of them to Maori or other non-commercial fishers (see also §14.1, p.237; §14.3, p.241).

The effect of taking on native fish populations is unclear. Research suggests that declining populations are most likely related to habitat modification or loss. Taking of eels may be an exception as they may be mainly affected by commercial over-use.

Implementation

17.1.1 *Recreational hunting will be encouraged, where appropriate, to the fullest extent consistent with the safety of other visitors to the area and the protection of natural values.*

17.1.2 *Guided hunting of wild animals will be encouraged in all places except designated areas.*

17.1.3 *Where appropriate, restrictions on hunting will be displayed on signs at carparks and in publicity material.*

17.1.4 *Hunting permits must be obtained through offices of the department or an agent.*

17.1.5 *Shooting by members of the public on areas administered by the department is prohibited during the hours of darkness.*

17.1.6 *Spotlighting by approved staff of the department or local authorities may be carried out in closed areas.*

17.1.7 *The use of shot guns and .22 rim fire rifles will be prohibited except for specified purposes in designated areas.*

17.1.8 *Gamebird hunting will be allowed in designated areas, subject to a permit from the local field centre manager and a current gamebird hunting licence.*

17.1.9 *Structures such as maimais will be subject to a shooting permit and must be constructed to respect landscape and other natural, historic and recreational values and be removed on expiry of the permit unless specifically authorised on the permit.*

17.1.10 *Non-powered boats may be used as a gamebird shooting platform within designated parts of the Wairau Lagoons.*

17.1.11 *Rod or line fishing will be generally permitted, but netting is prohibited within the Wairau Lagoons and Farewell Spit Nature Reserve.*

17.1.12 *Guided sports fishing concessions on areas administered by the department will be issued following consultation between the department and the Fish and Game Council (see also Eeling §14.3, p.241).*

17.1.13 *The department will manage freshwater recreational fishing, to the extent that is responsible, to ensure the natural freshwater ecology and biodiversity are sustained.*

17.2 FOSSICKING

Rock hounding and recreational gold fossicking are both permitted on areas administered by the department outside scientific areas and national parks. Recreational gold fossicking is defined as a non-commercial, casual activity using non-mechanical methods by people spending only a limited time in the area.

In this conservancy, the Director-General of Conservation holds six mining licences for recreational fossicking. Two of these are in the Aorere River, three in Glenhope Scenic Reserve and one in Top Valley, Wairau. Fossicking is a popular recreational pursuit and, if managed well, need not adversely affect natural, historic or recreational values.

Objective

To allow the taking of small quantities of non-renewable resources by casual visitors where it is compatible with both the status of the land and the values for which the area is held.

Issues

Increased interest in prospecting by mineral companies and individuals has led to concern that recreational fossicking for gold may eventually be prevented by company claims. As a result, the department has obtained special licences for recreational fossicking under the Mining Act 1971. The continued administration of licences for public fossicking is expensive and could be better managed through gazettal of areas as provided for in the Crown Minerals Act 1991. Any change to an existing special licence will be undertaken following consultation with the affected user groups.

The taking of small amounts of material for recreational purposes need not be restricted but collection of fossils or taking larger amounts could endanger the source. Collecting fossils for commercial gain requires a mining licence

Implementation

17.2.1 *Existing recreational fossicking licences will be surrendered and the same and other suitable areas will be gazetted with the same conditions for this purpose under the Crown Minerals Act.*

17.2.2 *Under permit, visitors may collect rock samples (less than five kilograms per party) by hand outside of special areas, provided it does not adversely affect natural, historic or recreational values.*

17.2.3 *Rock hounding, fossil collection or gold fossicking for profit, which would amount to prospecting or mining, will be subject to a licence under the Crown Minerals Act 1991.*

17.2.4 *Collection of fossils will be allowed only under a special permit (see also §14.9, p.255, Mining).*

17.3 CAVING AND ROCK CLIMBING ACTIVITIES

In recent years caving within North-west Nelson has become increasingly popular. Interest has centred on the Ordovician marble cave systems of the Mt Owen and Mt Arthur areas because of the potential exploration of these systems to attain considerable depths and due to the high relief of the marble (§6, p.95). Caving is an important visitor attraction, although the main commercial caves currently lie in areas other than those administered by the department (see also §14.7; p.249).

A few areas for rock climbing have been developed by local clubs. The most important area in the conservancy is at Paynes Ford Scenic Reserve near Takaka which has recently become an area of national importance to rock climbers, because of its easy access and range of climbing difficulty.

Objective

To encourage the protection of sensitive formations and ecosystems through adoption of environmentally sound climbing and caving practices.

Issues

Caving

As the recreational use of caves may conflict with the preservation of their many other values, access may need to be controlled. The draft departmental General Policy and Guidelines for Karst and Cave Management, if adopted, will set out how karst areas and related cave systems can be best both enjoyed and preserved.

A basic introduction to caving as a recreational activity is provided through the department's outdoor education centre at St Arnaud. Here, most Nelson and Marlborough secondary school students are instructed in caving technique during a visit to the small robust system at Huia Cave Scenic Reserve, near Tadmor.

Because the impacts of human activity in caves are largely on physical features, rather than biological, caves have little or no capacity for recovery from damage. Use of caves and cave passages should therefore be seen in terms of their susceptibility to damage, rather than their carrying capacity. In this context acceptable levels of damage may need to be assessed. Some passages or caves may be approaching or have exceeded these levels. In some cases of readily accessible caves, damage may be controlled by placing responsibility for keeping damage to a minimum with an exclusive concession. A range of other factors may also need to be considered and a concession may be permitted where:

- the use is already high and damage at an equilibrium;
- the expected level of impact can be sustained (robust caves);
- the values can be effectively protected by management techniques;
- access will not place other more valuable restricted access or closed caves at risk through improved access to the area etc; and

- the cultural values will not be compromised.

A karst and cave strategy will be prepared to identify and resolve these issues (§6, p.95).

Rock climbing

Rock climbing can cause severe impacts on vegetation and the surrounding terrain, and that can be cumulative where the rock is relatively soft. The particularly concentrated nature of the use can cause physical site damage, and without proper guidance, climbers may clutter the area with bolts and other equipment. Early consultation between climbing groups and the department can help to avert these problems.

Implementation

17.3.1 *All caves on areas administered by the department will be classified by access categories which will define the degree of access permitted.*

17.3.2 *Concessionaires, outdoor experience and education groups seeking a caving experience will be directed to appropriate safe, robust caves.*

17.3.3 *Where a concession is an acceptable use, only one concessionaire will be given access to any one cave and constraints may be placed on that access to protect cave values.*

17.3.4 *Visitor groups will be required to comply with the New Zealand Speleological Society's ethical guidelines, and the Society's standards on safety and party size will be promoted.*

17.3.5 *Where appropriate, access for the public may be developed to safe, robust caves but general enquiries on the locations of other caves will be referred to local caving clubs.*

17.3.6 *In areas of high recreational demand, some open access caves may be developed for unaccompanied inspection (§6, p.95).*

17.3.7 *Caves of high scientific or cultural value may be closed to the public.*

17.3.8 *Consultation between rock climbing groups and the department will be promoted to ensure visitors are made aware of the need for protection of natural values.*

17.3.9 *Areas regularly used for rock climbing will be frequently inspected to assess site impacts and areas may be closed to climbing if impacts are unacceptable (see also §17.7, p.295).*

17.4 WINTER SPORTS

All the opportunities for skiing in the conservancy occur on areas administered by the department. Two skifields have been developed and there are limited opportunities for ski-touring. The Mt Robert field has been used for over 40 years but remains a low key club field whereas the Rainbow Skifield, in operation since 1982, is a popular commercial field (§14.7, p.249). These fields have high local impacts.

Objective

To allow snow sports where the impacts on the environment and other recreational values are acceptable.

Issues

Few known opportunities for more skifields exist within the conservancy. On the other hand many areas offer opportunities for heliskiing for limited periods during the ski season. In general, where aircraft are not otherwise restricted, this will be permitted under a concession.

Management of skifields such as at Mt Robert and the Rainbow requires maintenance of buildings, ski tows and other facilities and activities such as slope grooming and snow making. The areas are managed under licence and must have an approved management plan.. All works must have an approved work plan which should ensure that site impacts are minimised. Activities should be carefully monitored to assess impacts on natural and other recreational values and to ensure that they are minimised.

Heliskiing has the potential to occur widely throughout the montane areas of the conservancy but because of the noise intrusion, concessions need to carefully consider the other recreational values of an area, in particular, the ROS classification. Any heliskiing requires a concession or permit.

Implementation

17.4.1 *Development of any new skifields will be subject to detailed environmental impact assessments and public consultation.*

17.4.2 *The management of current skifields and other areas used for skiing will be monitored to assess site damage and where the damage is unacceptable, action will be taken to remedy or mitigate the problem.*

17.5 OVERNIGHT STAYS

In 1994 the department provided 157 public huts, 6 serviced campgrounds and 85 formal camp areas close to road or water transport (see §18.5, p.314). As well, it permits remote camping over a large part of the areas administered by the department. To minimise the impact on some high use track systems and to ensure that natural values are retained, camping may be restricted to designated sites.

Backcountry Hut Tickets, Annual Passes and Great Walks Passes are used to collect fees for huts and some camping areas. Self-registration camp sites are provided for more remote sites with road or boat access where demand is too low to support full time staff, although peak-season wardening of sites is undertaken by volunteers when available. The six serviced campgrounds provide for a wide range of visitors. Overnight stays at remote campsites are permitted, usually without charge (§299, p.315).

Objective

To prevent visitors from staying long term in accommodation facilities provided by the department except in serviced campgrounds.

Issues

Some groups and individuals tend to take over huts for long periods causing pressure on facilities and conflicts with other visitors. This pressure may be alleviated by restricting the maximum period of continuous occupancy to 7 days or less. Reasonable requests for longer stays will be assessed on their merits and may be approved by special permit.

Stays at serviced campgrounds are governed by the specific site rules, while stays at other localities are governed by environmental considerations and pressures on the facilities. Demand on the Abel Tasman Coast and Heaphy Tracks is particularly high and camping is accordingly restricted to designated areas (§16, p.273). Pressure on other track systems may result in the application of designated campsite policies to those areas as well.

Freedom camping is generally not a major problem in remote areas. Although picnic and service areas with appropriate facilities are available to casual campers on a one-night basis, controls may be necessary where roadside camping on areas administered by the department causes health or environmental concerns.

Concession operators may place particular hut capacities under strain. This can be alleviated by restricting the periods when the huts may be used by concession operators (see §18.5, p.316), or by permitting them to place their own relocatable accommodation in the area.

Implementation

17.5.1 The maximum period of continuous occupancy for any hut will be 7 nights, except in designated areas where it will be 2 nights, unless authorised by a special permit.

17.5.2 *Camping for 500 m either side of designated track systems will be confined to designated camping areas, and restricted in the same manner as hut use.*

17.5.3 *Stays at self registration sites will be limited to 14 days unless authorised by a special permit.*

17.5.4 *Informal camping will be subject to a maximum period of 7 days at any site unless authorised by a special permit.*

17.5.5 *The use of huts or camping facilities by concessionaires may be restricted to avoid conflicts with other users.*

17.6 ORGANISED GROUPS

Organised groups use areas administered by the department for a range of activities including club outings, school trips, sports events and, in some areas, military exercises.

Objective

To reduce conflicts between large organised groups and other visitors, and to minimise their impact on the environment.

Issues

Sports and school visits

Without some form of control, visits by school, sports and other large groups can have adverse environmental and social impacts. Currently, liaison between the department and groups is all that is required. Most conflicts arise when a large group fills a hut. Management systems should be developed to resolve such conflicts through devices such as permit systems or seasonal restrictions. Major sports events are governed by permits or concessions. (For commercial events, see §14.7, p.249.)

Military use

Under the Military Manoeuvres Act 1915 the Governor General may proclaim lands (including areas administered by the department) to be available for military manoeuvres. Use of areas administered by the department by Armed forces is governed by the inter-departmental Defence Training Agreement and preference will be given to activities which have conservation benefits.

Implementation

17.6.1 *Major activities, such as large sports events that are likely to impinge on other uses, may require written permission or, if a commercial event, will be subject to a concession.*

17.6.2 *Schools and other large groups will be encouraged to notify the nearest office of the department of their intentions, so that other visitors may be made aware of their presence.*

17.6.3 *Requests for intensive use of localities by large organised groups, other than the armed forces, will each be examined in terms of the impact on natural, historic and recreational values and may require a permit.*

17.6.4 *When approving the armed forces activities on areas administered by the department, encouragement will be given to activities which result in conservation benefits.*

17.6.5 *Requests for intensive use of localities by the armed forces will be in terms of the inter-departmental Defence Training Agreement.*

17.7 VISITOR SAFETY

All outdoor recreational activities contain an element of risk, and therefore visitor safety is impossible to guarantee. While individuals are primarily responsible for their own safety, all reasonable precautions will be taken by management for the safety and protection of visitors.

Objective

To ensure that visitors are aware of hazards and that appropriate precautions are taken to minimise risks.

Issues

Although the department is responsible for constructing and maintaining facilities to a standard appropriate to their maintenance classification, facilities should not necessarily be provided purely for the protection of visitors. Existing facilities should be safe to use and conform with the risks expected of the maintenance classification for the route or area.

The provision of information and advice about natural hazards by the department, in conjunction with the local committees of the New Zealand Mountain and Water Safety Councils, aims to make visitors aware of their responsibility for their own safety. For most natural hazards, it is not appropriate or practical to minimise the danger.

In emergencies, the New Zealand Police are responsible for co-ordinating Search and Rescue, but may draw on departmental staff who have the appropriate training and local knowledge.

Concessionaires will be required to show that their equipment, staff operating practices and training programmes meet appropriate safety standards, and are responsible for the safety of their clients (see also §14.7, p.249).

Implementation

17.7.1 *While recognising that individuals are primarily responsible for their own safety, where practicable and appropriate, hazards will be minimised.*

17.7.2 *Visitor safety will be promoted by education and by provision of information about any potential problems or dangers.*

17.7.3 *Continued liaison will be maintained with the New Zealand Police and search and rescue groups.*

17.7.4 *All facilities will be maintained to a safe standard.*

17.7.5 *Concessionaires will be expected to be responsible for the safety of their clients.*

18. Recreational facilities

The department provides for a wide range of outdoor recreation activities on areas administered by the department. Most visitors to these areas do not venture far from their vehicles and favour activities such as short walks, swimming and sun bathing. Most sites are associated with the natural environment and are on the fringes of remote areas. Water-based activities close to the sea are especially favoured. A small proportion, probably about 10%, venture further into areas administered by the department for hunting, tramping, fishing and many other activities.

Away from the fringes of areas administered by the department, use is concentrated in a few localities. They include the Abel Tasman Coast Track, Heaphy Track, Travers-Sabine-Speargrass Circuit, and Robert Ridge-Lake Angelus routes in Nelson Lakes National Park and the Tablelands-Karamea-Wangapeka route. Visitors generally prefer short tramps of a few days duration, particularly where they can readily return to the starting point.

The main points of the recreation demand are:

- most visitors are urban-based and must travel to areas administered by the department;
- most recreation is family-based with popular activities being swimming, picnicking and short walks; and
- favoured sites are concentrated in a few areas.

Thus two classes of facilities are provided: road-end facilities for day visitors; and facilities associated with tramping and overnight stays for the backcountry visitor. In a few places the department administers areas held for intensive peri-urban activities such as golf courses, go kart tracks and rifle ranges because of past land administration patterns.

The facilities are the most evident part of the department's activities to most of the public. These are the places where people come into most regular contact with, and become involved with areas administered by the department. Therefore the quality of the experience is very important.

Tables 39 and 40 (pp.303-306) list the main facilities provided by the department. As well, designated picnic areas, self registration and informal campgrounds may be used for picnicking. The carparks and road ends are normally starting points for walks and tracks at remote localities and are not often used for picnics.

The presence of facilities focuses the visitor activities and can be used to direct attention or use away from sensitive areas. It may mean the difference between a broad, boggy track and a boardwalk or well formed track through a sensitive alpine bog; or the placement of a hut or campground to reduce damage from many temporary camps in a popular area; or the construction of a track to a spectacular vantage point over a wildlife refuge. The nature, size and quality of the facilities can help regulate visitor numbers (§15, p.270).

Objective

To provide facilities to enhance visitor experience, minimise visitor impacts and to manage visitor numbers.

Issues

Strategic planning

Visitor numbers are increasing. Pressure on facilities from activities such as picnicking, day walks, swimming and relaxing is very low, although use is often very high. The growing numbers of backpackers visiting the conservancy are increasing demands on track systems, particularly those that are easily accessible. Better transport services will further increase pressure in many areas.

The Abel Tasman Coast Track is heavily used for at least 6 months of the year and further expansion of facilities is not desirable. Limits on numbers may be required within the next 5 years. Promotion of use at off-peak periods and on other routes has reduced the seasonal peak and lengthened the season.

Provision, improvement, or extension of existing facilities must be carefully considered. By such developments, use can be concentrated, or controlled and damage to a wider area minimised. By providing interpretation with the facilities, public awareness of specific or general natural, historic and recreational values can be widened. On the other hand, improved facilities may increase the use in an area and place inordinate or unexpected demands on the surrounding areas. Incremental changes in facilities may have significant cumulative effects on natural, historic or recreational values.

The greatest numbers of visitors to areas administered by the department are those who undertake low key activities of brief duration. This usually involves road end facilities for activities such as a tea break, lunch stop and a short walk. These activities place little demand on areas administered by the department, but provide the best opportunities to supply information to the greatest numbers of people. They can be used to greatest advantage by providing quality facilities, maintained to a high standard, and by using the opportunities to promote conservation in all its aspects.

Site impacts

The development and maintenance of facilities such as tracks needs to take into account the values in the area (§1, p.51; §15, p.267; §18, p.297). The site damage should be kept to a minimum and use of materials such as gravel for track surfaces should be from replenishable sources, such as stream beds and screes, and taken in such a way that the evidence is soon removed naturally.

An integral part of any site development is landscape planning. It can minimise the impacts on natural values, especially the visual ones, and also assist in the recovery of, or minimise the damage to, the less visible local flora and fauna. Site restoration may also be required, the principles of which are set out in §7.2, p.183.

The department is bound by many provisions of the RM Act (§21.1, p.359) and the Building Act 1991. In general, it tries to maintain high standards both for

those activities that it is required to and also those activities for which it has no statutory obligation.

Rationalisation

Recreation management systems and the patterns of development within the conservancy have been derived from the actions of two former departments. Many facilities were originally put in for wild animal control. In the past, development has centred on sites or field centres, with little conservancy-wide co-ordination. Continual review of facilities is needed to ensure that the range of facilities and opportunities remains in keeping with changing visitor demand. The current distribution of huts and tracks does not reflect the patterns of current, or projected future use. During the next decade considerable debate and change can be expected.

Access

Access to mountain lands, lakes, rivers and the coast is frequently by the grace of the land managers because the best access is across private land. Some of these access routes can be formalised through an access agreement or created through RM Act requirements for esplanade reserves on subdivision. Legal easements also provide for public access over some forest roads in former State Forest, especially adjacent to Mt Richmond Forest Park. The department may contribute towards the maintenance of them where they provide access to important areas administered by the department. Water is a major recreational attraction, especially in lowlands and on the coast. In these areas monitoring of subdivisions can identify opportunities to improve access (§16, p.273; §21.1, p.359; §7.1, p.179).

User group participation

User groups often have the interest and ability to assist in routine maintenance. Where appropriate, they may assist through the volunteer or holiday programmes (§20.5, p.355). Other groups may prefer to adopt a hut or track, particularly where the maintenance may otherwise cease or the facility be removed. In these cases, a formal agreement may be established with the group.

Liaison

The roading authorities and New Zealand Automobile Association provide wayside stops for travellers at intervals along highways, some of which are near or on areas administered by the department. The department can help directly or indirectly by promoting the protection of important natural landscape components and by fostering the use of various roadside scenic enhancement opportunities (see §19.2, p.328). Stops are often placed on road reserve where short walks could provide a brief break in a journey.

Local authorities, particularly in Nelson and Tasman, provide for day visits on the coast and rivers in places such as Rabbit Island and the Maitai River. In Marlborough, the department provides most of the important sites, such as along the scenic corridor on the Kaikoura Coast, and at Whites Bay, Rarangi and Marfell's Beach.

The department frequently needs to co-operate and co-ordinate its activities with other organisations to maximise the benefits to visitors. Co-operation with local tourism promotion groups is important. Co-ordination with local authorities provides facilities, particularly along roadsides, and working with local groups provides unified development of local attractions such as scenic highways.

Changes in the nature of backcountry facilities will require continual consultation with the various interest groups. In some cases assistance may be sought for maintenance of facilities, particularly where these might otherwise be removed or abandoned.

Education use

The department has lodges at Rotoiti and Totaranui and a similar facility is managed by Nelson College at Matakitaki, near areas administered by the department. Outward Bound in the Marlborough Sounds also provides outdoor education for adults. These outdoor education centres place quite high local demands on facilities. In some cases, groups such as Outward Bound give assistance with development and maintenance of departmental facilities.

Implementation

18.0.1 *Priority will be given to satisfying the needs of the large numbers of casual visitors in peripheral areas with integrated facilities comprising tracks, picnic sites and interpretation without compromising natural or historic values.*

18.0.2 *Appropriate resource consents will be sought from the local authorities for development work.*

18.0.3 *The use of natural materials such as gravel for facility development or maintenance will be limited to small quantities taken from naturally replenishing sources.*

18.0.4 *Where appropriate, landscaping or restoration will be an integral part of the development.*

18.0.5 *Existing facilities will be given priority for upgrading before any new sites are developed.*

18.0.6 *Selection of new sites for facilities will consider interpretive opportunities and will favour short walks and road end facilities.*

18.0.7 *Backcountry facilities will be continually reviewed, with particular regard to the needs of recreational visitors.*

18.0.8 *A recreation strategy for the conservancy, based on ROS concepts, will be prepared and implemented in consultation with the conservation boards, visitor groups and iwi.*

18.0.9 *Co-operation will be sought with local authorities, visitor groups and other organisations to ensure effective and integrated provision of facilities.*

18.0.10 *Subject to public consultation, under-used huts may be downgraded or removed and under-used walks, tracks and routes downgraded or not maintained.*

18.0.11 *When huts are removed, advertisements will be placed in the appropriate media and warning signs placed at appropriate entry points to the area.*

18.0.12 *Where appropriate, the assistance of user groups may be sought for maintenance of facilities.*

18.0.13 *Information will be collected on all significant points of public access to areas administered by the department, any problems identified and priorities established for remedying them.*

18.0.14 *Efforts will be made to improve legal and practical access to important sites.*

18.0.15 *Land access to existing coastal picnic and swimming opportunities will be improved, where practical, in consultation with the appropriate authorities and through advocating for provisions in district plans.*

18.0.16 *Where use exceeds carrying capacity in sensitive environments, all options should be considered to reduce pressure.*

18.0.17 *Education centres will be maintained to provide opportunities for community education.*

18.1 ENVIRONMENTAL CARE

The New Zealand Environmental Care Code was developed by the department and other organisations as a guideline to help visitors protect our natural environment. It covers issues relating to flora, fauna, rubbish, sewage and fire. Consideration of others and respect for our historic and cultural heritage is also promoted.

Objective

To raise visitor awareness of their impacts and to seek ways to minimise adverse effects.

Issues

Rubbish

To ensure that the problem of rubbish disposal is kept to a manageable level and to maintain the environment in its natural state, most visitors to natural areas now carry out their own rubbish. Rubbish pits and containers are no longer an acceptable means of controlling rubbish and they will be removed from most sites. A carry in-carry out philosophy is promoted to all visitors and litter bags are available at major field centres.

Cooking fuels

Many visitors consider that a wood burning fire enhances their experience. Most huts contain open fireplaces or stoves that can be used for cooking and heating. In high use huts, gas, wood or coal may be supplied for cooking and heating. Where fuel is not supplied, visitors generally gather dead material but sometimes live trees are cut from around the huts, a practice that is no longer acceptable.

Visitors are encouraged to carry their own cookers to minimise the impacts of gathering firewood on the environment. In all areas, the need for and standard of cooking and heating facilities will be reassessed. Where the impact of the gathering of firewood is becoming unacceptable more efficient wood burners may be provided. Other actions may include modifications to huts such as internal lining, insulation and layout which can reduce heating demands. Careful consideration will be given to user experience, expectation, safety, ability to regularly maintain facilities and environmental impacts, making use of maintenance opportunities to remove fireplaces and to upgrade facilities where appropriate.

Public education

The public is kept informed of changes through educational publicity associated with the purchase of hut passes or tickets. Education through publicity, interpretation and staff contact is the prime means of minimising the litter disposal problem and informing visitors of issues such as self sufficiency.

Sewerage, washing facilities and water supplies

Growing awareness of disease risks caused by organisms such as *Giardia* means that the quality of the drinking water supply must often be improved. Where a

health risk is known, notices will warn of disease risks and the need to boil water.

The public has expressed dissatisfaction with toilets at several localities and standards obviously strongly influence the visitor's recreational experience. Apart from the primitive nature of the toilets, a serious problem often exists with wasps. This is an important area that needs improvement both through improved toilet systems and wasp control. Long drop toilets should be replaced with improved toilet systems such as septic tank systems at high use sites. In medium use areas, small flush systems such as the Norski flush are preferable. Composting toilets cannot generally be used because they require daily use to keep them active (see also §15, p.270).

Whatever sewerage system is used selection will take into account:

- environmental impacts;
- social compatibility;
- health considerations; and
- operating costs and sustainability.

Education is required to reduce health risks and the impacts on natural values of sanitary practices such as through providing advice on the appropriate techniques to reduce environmental pollution at a personal level.

Implementation

18.1.1 *The public will be encouraged to bring the least amount of potential rubbish onto areas administered by the department and to take all rubbish with them when they leave.*

18.1.2 *Publicity and signs will encourage the public to take their own rubbish away from service areas.*

18.1.3 *At all huts, use of rubbish pits will be discontinued and the pits filled in.*

18.1.4 *Where possible, local authority tips will be used for rubbish disposal.*

18.1.5 *In exceptional circumstances, such as at serviced campgrounds, rubbish collection points may be established where public use is particularly high.*

18.1.6 *Where rubbish is collected it will be disposed of in a way that least affects the natural environment.*

18.1.7 *Boat owners will be encouraged to minimise rubbish and sewage pollution in the off-shore environment and appropriate policies will be promoted to other agencies.*

18.1.8 *Self-sufficiency cooking will be promoted to all visitors.*

18.1.9 *Where possible, open fireplaces will be retained.*

18.1.10 *Where collecting material for firewood for an open fireplace has an unacceptable impact on natural values, huts may be improved to*

reduce heating demands and efficient wood burning stoves may be installed.

18.1.11 *Where collecting material for firewood is totally unacceptable, huts may be improved to reduce heating demands and either fuel supplied or stoves removed.*

18.1.12 *Gas cooking facilities may be provided only at high use huts and may be charged for.*

18.1.13 *Priority will be given to upgrading all water supplies that have proven health risks.*

18.1.14 *Appropriate sewage disposal will be provided at alpine huts and huts on poorly drained sites.*

18.1.15 *High use huts on Great Walks will have an internal water supply and separate washing facilities but other huts may have only external facilities.*

18.1.16 *All huts or camp sites with proven health risk problems will be properly signposted with health warnings.*

18.1.17 *Where practical, full flush sewerage systems or effective alternatives will be installed at high use picnic, camp and hut sites.*

18.1.18 *At medium use sites, low flush systems or effective alternatives will be installed.*

18.1.19 *Generally, low use, remote sites will continue to have long drop toilets.*

18.1.20 *Where practicable, all toilets will be sited downstream of points where people draw water and at least 50m from waterways.*

18.1.21 *Guidelines in the environmental care code will be promoted to minimise environmental health problems.*

18.2 SERVICE AREAS AND VEHICULAR ACCESS

Basic facilities such as toilets, parking areas and perhaps tables at roadside carparks and road ends are provided for activities at some of the highest used sites on areas administered by the department. These sites are usually associated with particular attractions such as rivers, lakes, waterfalls, historic or other interpretive opportunities or with main track entrances.

Visitors appear well provided for both on and off areas administered by the department in the Nelson area and few sites are heavily used. In the Marlborough Sounds the department is the main provider of facilities. Elsewhere, few picnic sites are present on or off areas administered by the department and, near Blenheim, no real opportunities exist to create further sites.

The Marlborough Sounds and Abel Tasman coastline are two popular areas for boating. The department is responsible for 13 boat jetties and seven boat ramps. Several of these serve departmental needs for access to remote localities but others serve only the local boating community.

Objective

To reduce the impacts of visitors at vehicle access points and to enhance the visitor experience by providing appropriate facilities.

Issues

Development priorities

Existing sites throughout the conservancy require upgrading. The traffic flows suggest that the department could provide for large numbers of travellers on the visitor pathways (Figure 12, p.267). In particular, further sites are possible along the Kaikoura Coast and these should be developed in liaison with Transit New Zealand and the Kaikoura District Council. Along the Buller highway potential exists to provide for picnicking and interpretation opportunities to improve visitor appreciation of the area.

The department is involved in the development of a Picton-Farewell Spit Heritage Trail (§19.2, p.328). This may require development of sites along this route. The greatest demand for picnicking is likely to occur in or near urban areas. Although roadside stops satisfy a continuing demand, the nature and extent of demand in more distant areas is hard to predict.

Internal roads

A few roads, such as those to Mt Robert, Flora Saddle, Brown Hut, Wangapeka Track and into the Cobb Valley in North-west Nelson are important routes. In other areas old roads have been closed to vehicles or maintenance has been minimised because of high costs and intrusion into the natural environment. Only relatively short spur roads serving important facilities are being maintained.

At several locations, roads are maintained under a licence for communication purposes by corporations such as Telecom and Broadcasting. These roads often have steep grades and sharp bends suited only to off-road vehicles and not usually available for recreational purposes.

Carparks

Carparking facilities are often under stress at high use sites, particularly at some more popular walking track entrances. Improvements are necessary to ensure that vehicle use is controlled and the impacts reduced.

Boating facilities

Boating creates a demand for marinas, jetties, ramps, moorings and carparks servicing launching, picnic and camping areas. The most affected areas are Abel Tasman National Park and the Marlborough Sounds.

Demand for facilities such as jetties, boat ramps and parking or picnicking areas is usually satisfied by other agencies, but in a few areas the department provides such facilities on coastal reserves. Where jetties and boat ramps are not required by the department responsibility for them should be relinquished.

Implementation

18.2.1 *Priority sites for development and maintenance of facilities will be as set out in Table 36, p.307.*

18.2.2 *Where appropriate, amenities for disabled persons will be provided at high use sites.*

18.2.3 *New sites for facilities will only be developed where a particular attraction and a proven or predicted demand exists.*

18.2.4 *Maintenance of current sites will be compatible with current and predicted demand and some sites may be disestablished.*

18.2.5 *The department will foster the protection or enhancement of scenic values and provision of facilities to enable their appreciation on important highways.*

18.2.6 *Establishment and maintenance of facilities at appropriate roadside sites will be carried out in consultation with local authorities and Transit New Zealand.*

18.2.7 *Formal picnic sites will be signposted and opportunities for activities at the sites will be notified appropriately.*

18.2.8 *Further roading, identified in consultation with the respective conservation board, will be limited to recreational sites with a high recreational potential and will be restricted to short sections.*

18.2.9 *High use roads will be maintained to two-wheeled drive standard.*

18.2.10 *Tracking and roading for vehicles in high use sites will be used only where it is warranted to control the dispersal of vehicles.*

18.2.11 *Existing 4-wheeled drive tracks will be maintained only where they are required for management purposes.*

18.2.12 *As circumstances allow, roads constructed under licence will be made available to recreational visitors.*

18.2.13 *Under-used internal roads may be downgraded or closed to motorised traffic.*

18.2.14 Roading easements providing access across former State Forest to important tracks will be rationalised and maintenance of those necessary continued, in conjunction with the new managers.

18.2.15 New launching ramps or jetties will be constructed only after detailed investigation.

18.2.16 Where a jetty or boat ramp is not serving departmental needs it may be removed or management transferred to local user groups or the local authority.

18.2.17 Consideration will be given to charging for use of all ramps.

TABLE 36: PRIORITY FOR DEVELOPMENT AND MAINTENANCE OF SERVICE AREAS

PICNIC AREAS		CARPARKS		LOOKOUTS	
Paynes Ford	1	Caanan	1	Abel Tasman Memorial	1
Canaan	1	Brown River	1	Cobb Ridge	1
Coquille cove	1	Pigeon Saddle	1	Wainui Hill	1
Goat Bay	2	Puponga	1		
Kaihoka Lakes	2	Waikoropupu Springs	1		
Milnthorpe	2	Wainui	1		
Onekaka	2	Kaituna	2		
Taupo Point	3	The Grove	2		
Pakawau	3	Waikoropupu Walkway	2		
		Whareriki	2		
		Lake Peel	2		
		Washbourne	2		
		Peat Flat	3		
		Sylvester	3		
Courthouse Flat	1	Flora Saddle	1	Hawkes Lookout	1
Hacket	1	Marahau	1	Riwaka Resergence	2
Riwaka Resurgence	1	Prices Clearing	1		
Snowdens Bush	1	Cable Bay	2		
Eves Valley	2	Dun Mountain	2		
Left Bank Wairoa Gorge	2	Glen	2		
Lee	2	Wangapeka	2		
Mid Wairoa Gorge	2	Barnicoat	3		
Moss Bush	2	Hori Bay	3		
Otuwhero	2	Lower Sharlands Creek	3		
RB Wairoa Gorge	2	Pukatea Trail	3		
Motueka Gorge	3	Totara Trail	3		
Wilkes Reserve	3				
Kawatiri Junction	1	Maruia Falls	1		
Kerr Bay	1	Mount Robert	1		
Lake Rotoroa	2	Nelson Lakes Park Visitor Centre	1		
		Six Mile Walk	2		
		Skyline Walk	2		
Ngakuta Bay	1	Karaka Point	1	Kowhai Point	1
Momorangi	1			Motuara Island	1
Ships Cove	1			Governors Bay	2
Anakiwa	2				
Governors Bay	2				
Kumutoto Bay	2				
Mistletoe Bay	2				
Kaipakirikiri	3				
Pickersgill Island	3				
Robin Hood Bay	3				
Tom Canes Bay	3				

TABLE 36: PRIORITY FOR DEVELOPMENT AND MAINTENANCE OF SERVICE AREAS (CONT)

PICNIC AREAS		CARPARKS		LOOKOUT	
Cullens Creek	1	Cullens Point	1	Cullens Point	1
Duncans Bay	1	Pelorus Bridge	1	Fench Pass	2
Pelorus Bridge	1	Kaiuma	2		
Totara Flat	1	Carluke	3		
Motutapu Bay	2	Cullens Creek	3		
Penzance Bay	2	Pelorus River	3		
Piwakawaka	3				
Elterwater	1	Chalice	1	Monkey Bay	1
Kowhai Point	1	Lake Chalice	1	Rarangi	1
Marfells Beach	1	Monkey Bay	1	Port Underwood	3
Onamalutu	1	Wairau Lagoons	1	Enchanted	3
Whites Bay	1	Timms Creek	2		
Robin Hood Bay	2	Pukaka	2		
Top Valley (Forks)	2	Waikakaho	2		
Rarangi	2	Wakamarina	2		
Wairau Bar	2	Pine valley	2		
Pine Valley (Mill Flat)	3	Forks	2		
		Enchanted	3		
		Goulter	3		
		Teme	3		
		Branch	3		
		Leatham	3		
		Mt Royal	3		
		Rimu Falls	3		
Goose Bay	1	Ohau Stream	1	Ohau Bluff	1
Keikei	1	Seal Colony	1	Omihi	2
Hinau	2	Clarence	2		
Clarence Bridge	2	Nga Niho Pa	2		
Puhipuhi	2	Fyffe-Palmer	3		
		Hapuka River	3		

1. High priority 2. Medium priority 3. Low priority

18.3 WALKING OPPORTUNITIES

Well constructed facilities provide opportunities to enjoy the natural environment. Track systems lead visitors to rewarding places, concentrate use, and thus aim to restrict impacts to places that can tolerate the expected levels of use.

Most visitors remain close to the road-end or roadside picnic areas, particularly on highways and near urban areas where short walks provide for family groups and day visitors. Those close to road ends and associated with picnic and camping areas receive the heaviest use.

Of the longer walks the most well known are the Abel Tasman Coast and Heaphy Tracks. The level of use varies considerably from the Abel Tasman Coast Track at over 50,000 visitors/year to many systems that receive little use (Appendix VI, p.433). The conservancy has 32 walks and over 280 tracks and routes covering over 1900 km.

Objective

To provide opportunities for people to visit rewarding places on foot and to manage visitor impacts.

Issues

Strategic planning

Many tracks were put in primarily for wild animal control and now do not necessarily reflect the current requirements or future needs. Priority will be placed on major loop tracks, short walks and selected backcountry routes to provide for a diverse range of visitors (Table 39, p.318). Consideration will be given to discontinuing the maintenance of low use tracks that do not link with other track systems. National track and bridge standards established by the department and Hillary Commission govern construction and maintenance of facilities by all recreation organisations.

At present, only the Abel Tasman Coast and Heaphy Tracks are classified as Great Walks and visitors must obtain a single pass for the whole of their trip. Any proposal to extend the Great Walks system to other routes, must be carried out, in consultation with the relevant conservation board.

A conservancy recreation strategy, prepared with opportunities for public consultation, will pay particular attention to minimising ecological impacts arising from growing visitor numbers on the following tracks: Heaphy, Karamea-Leslie, Wangapeka, Travers-Sabine-Speargrass, Queen Charlotte Walking Track, Pelorus River-Nelson and the Nydia Track.

To complement these developed tracks, a range of backcountry opportunities is required. Several lower use tracks and routes need to be maintained to provide remote experience, while some routes should be left unmarked to preserve a genuine wilderness experience. Some opportunities will be provided for wheelchair access.

Water is a major recreational attraction, especially in lowland and coastal areas. In the Marlborough Sounds, in particular, access to beaches is often poor or limited to boats. Situations exist where foot access can be improved.

Community-based facilities

From time to time local interest groups or volunteer labour are interested in creating tracks in their area. They may have the resources and dedication to produce a high quality track but continuing resources from the department may be required for maintenance. This is not always available outside current work priorities especially if the tracks have only local interest and limited potential use. Sometimes these energies can be directed to nearby areas where facilities are planned or require upgrading, thus benefiting both parties.

Bridges

All bridges must be regularly inspected and carefully maintained. Resource consents under the RM Act are required for all work. In the past many bridges were built to ensure all weather access to major hunting areas by experienced backcountry people, but today many of these areas see few people. In areas of high use the quality of the bridges has been greatly improved and most streams on major tracks such as the Abel Tasman Coast and Heaphy Tracks are bridged. Elsewhere, even on relatively popular tracks, streams may be too numerous to bridge and are normally forded. As a result, even minor storms may cause temporary isolation of visitors by flooded creeks in some areas.

Implementation

18.3.1 *Forming and upgrading of walks and tracks will be carried out according to approved development plans and design manuals, in keeping with the conservancy recreation strategy.*

18.3.2 *All walks, tracks and routes will be classified in terms of their design and intended use as set out in the national track standards and will be maintained to that standard.*

18.3.3 *Construction of tracks and bridges will conform with the national standards.*

18.3.4 *Forming and upgrading of walks and tracks will be carried out according to the priorities listed in Table 39, p.318.*

18.3.5 *Where resources exist for the development of high quality tracks, priority will be for short walks at road ends and interpretation stops along scenic highways.*

18.3.6 *Alpine routes will be marked only where they form part of a significant track system.*

18.3.7 *A range of routes will be left unmarked to ensure that remote and wilderness values are retained.*

18.3.8 *Within key scientific areas the level of tracking and facilities will be kept to a minimum.*

18.3.9 *Outside organisations that propose developments on areas administered by the department will be encouraged to place tracks where they are consistent with conservancy priorities and to construct them to departmental design standards.*

18.3.10 *Where outside organisations wish to establish tracks outside departmental priorities, approval will be given only if it is in accordance with the ROS zoning and if ongoing maintenance can be assured.*

18.3.11 *New tracks will be developed only where a demand has been established, and for tramping tracks and routes, extensive public consultation will be required.*

18.3.12 *All bridges and structures will be constructed to approved engineering design.*

18.3.13 *Construction or maintenance of walk bridges or other structures will be to a level consistent with the track classification, level of use and the safety of visitors.*

18.3.14 *On high use tracks, swing or wire bridges will be replaced by solid beam or suspension structures.*

18.3.15 *No further track or walk in the conservancy will be designated as a Great Walk without consultation with the relevant conservation board.*

18.4 WALKWAYS

Walkways were originally set up to provide a nation-wide track network across public and private land but the concept has changed. It now provides an enhanced profile for some tracks and a mechanism for giving the public access across private land, usually that under pastoral management. This access is generally for walking and usually prohibits firearms and dogs. They were often sited near urban areas. Since walkways were first established in 1975 they have proved a valuable mechanism for negotiating access over private land. The conservancy has 11 walkways and tracks administered under the New Zealand Walkways Act 1990, ranging from urban to those fairly remote in location.

Objective

To establish and maintain a system of walking tracks over both private and public land for access to the countryside.

Issues

New walkways

Because walkways are often remote from field centres and their maintenance must be co-ordinated with that of other track systems, new proposals must be carefully considered. Proposals for new walkways must:

- satisfy a public need for additional walking opportunities;
- minimise the requirement for an ongoing commitment to maintenance;
- have low development costs; and
- have the consent of the land managers.

Maintenance of walkways

The high public profile of walkways means that they have to be maintained to a high standard although they may conform with standards of other track systems (§18.3, p.309). Similarly, opportunities will be taken for provision of interpretation, in conformity with the recreation strategy (§18, p.298).

In some areas voluntary groups show a strong interest in a local walkway and can help in maintenance. Where a walkway such as the Barnicoat or Dun Mountain Walkways is primarily on public land under the control of a local authority, or is of local rather than national importance, it may be more appropriate for local authorities to manage it.

Much of the day to day management remains the responsibility of the land manager who may control commercial activities and access at times such as lambing.

Legal easements

Walkways on private land are established as an easement on the title of the land. This means that if the owner changes or attitude of the current owner changes the access continues to be secure. Of the nine walkways that traverse private

land, only two have a gazetted easement to secure access. Some urgency should therefore be given to legalising access on the remainder. Gazettal of the walkway also benefits the land manager. Through the New Zealand Walkways Act the land manager is assured of compensation in event of misdemeanours by the public.

Implementation

18.4.1 New walkways will be considered where strong justification and a recognised public need exist.

18.4.2 Priority will be given to those walkway proposals that have low establishment and maintenance cost.

18.4.3 New walkways that provide for a wide range of visitors and strategically complement existing track systems on areas administered by the department will be favoured.

18.4.4 Walkways administered by the department will be maintained to a high standard to preserve their high public status.

18.4.5 Walkways will be classified according to the national track standards.

18.4.6 When appropriate, natural, historic and cultural values will be interpreted on walkways.

18.4.7 Local authorities will be encouraged to take over the administration and maintenance where a walkway is primarily of local importance.

18.4.8 Commercial use of walkways will be at the discretion of the affected land managers and the department (see also ∫14.7, p.249).

18.4.9 Urgency will be given to securing legal public access over existing walkways on private land.

18.5 ACCOMMODATION

Huts and camping areas form an integral part of experience for visitors spending more than one day on areas administered by the department. They can act as a focus for the journey as much as the natural features of the area, and their siting needs to consider this fully. Neither huts nor campgrounds are permitted in a wilderness area but elsewhere the size and nature of the facilities must be carefully considered in relation to the expected visitor numbers and their impacts.

TABLE 38: ACCOMMODATION AS AT JUNE 1996

AREA	HUTS G. WALK OR CAT. 2	CAT. 3	CAT. 4	LODGES RECREATION CENTRES	STAFF OPEN	STAFF LOCKED	TOTAL
Takaka	8	6	11	1	4	5	35
Motueka	5	30	4	-	-	5	50
St Arnaud	1	28	7	1	3	3	49
Havelock	1	4	1	1	-	4	11
Picton	-	-	-	1	-	1	2
Blenheim	-	20	5	-	18	1	45
Kaikoura	-	4	1	-	16	-	25
Total	**15**	**92**	**33**	**4**	**41**	**19**	**205**

G. Walk	Facilities that form part of a Great Walks system.
Cat. 2	Bunks or platform with mattresses, toilet and washing facilities and water supply. May include cookers and fuel.
Cat. 3	Bunks or sleeping platform, toilet and water supply.
Cat. 4	Shelters, bivouacs with basic facilities only.

The conservancy has 145 public huts graded in 4 classes, of which 153 are subject to national hut fee systems. No category 1 huts exist within the conservancy and the 15 heaviest used ones are category 2 or on Great Walks. The remainder are category 3 and 4 (Table 38, p.314) which have low use (Appendix VI, p.433).

The department maintains 41 huts for wild animal control which are available to the public when not in use by staff. Another 19 huts and lodges, are principally for staff while on duty. In addition education lodges at Rotoiti, and Totaranui are used principally for education purposes by school groups. These buildings may also be available to the public during school holiday periods or at weekends.

Mistletoe Bay and Nydia Bay Recreation Centres are more remote, without road access, and generally have a low occupancy.

There are three types of camping:

- informal, usually remote;
- standard (casual and often self registration); and
- serviced campgrounds (commercial campgrounds).

The conservancy has 84 standard campgrounds and 6 serviced campgrounds. With the exception of Pelorus Bridge and St Arnaud most formal or managed campgrounds serve only coastal recreation, for example, Totaranui provides camping as part of the Abel Tasman Coast Track.

Objective

To provide opportunities for overnight and extended stays appropriate to the Recreation Opportunities Spectrum zoning and natural values of the area.

Issues

Huts

Overcrowding in huts is generally not a problem but at peak season and holiday weekends crowding does occur on many popular tracks. Usually the addition of extra bunk space or the construction of new huts is not a solution. Promoting use during the off-peak seasons and publicising the likelihood of overcrowding allows numbers to be self limiting.

Under the Building Act 1991 the department is obliged to comply with New Zealand Building Codes when constructing new buildings. Building permits, standards, and fire safety regulations govern the type, size and location of future huts in the backcountry. Because of the location and purpose of public huts they do not comply with general standards for commercial or residential buildings and consequently an exemption must be sought to cover the special circumstances.

Most huts within the conservancy were originally built for wild animal control purposes and their distribution does not reflect current public use patterns. South Marlborough and the Kaikoura Ranges have many low use category 4 huts. About 35 of them are only used for protection work and require land manager permission for access. Many category 3 huts in the Matakitaki, Rainbow and Leatham forests receive low use. Huts elsewhere are receiving low-moderate use, with over 80% receiving less than 400 visitor nights per year.

The location and classification of all huts will be reviewed. In this review process, new huts may be proposed or existing ones may be moved to other areas because they are no longer used or are too closely spaced. Where practical, the minimum walking distances between huts and from road-end to hut should be four hours, based on the speed of a person of average fitness. In areas where users are experienced and generally at a high level of preparedness the four hour rule may be inappropriate and greater distances should be considered. Conversely where huts receive a high percentage of family use, shorter distances may be more appropriate.

Facilities appropriate to the hut category should be provided at each hut, as many huts do not fully comply with the category in which they are placed. Where new huts are built, proper hut siting and design can minimise heating requirements (see also §18.1, p.302).

Staff buildings that are normally kept locked may be available to the public when not in use. Changing work patterns have resulted in some staff accommodation receiving little or no use. Buildings close to public huts may be removed and replaced by quarters within the public hut, as this results in better contact with the public.

Exclusive use of buildings

As private buildings for exclusive use do not benefit the wider public, they will not generally be permitted. Proposals from commercial interests and clubs will be treated as a licence application (§14.7, p.249). Where a concession is involved, approved buildings should be removable at the end of the concession (or if it fails).

Camping areas

Camping areas along the Abel Tasman Coast Track show a high level of occupancy suggesting they may be close to capacity. Along the Abel Tasman coast, pressure is also present on overnight camping facilities accessible only by boat. Otherwise, current and foreseeable use presents few demands. The Marlborough Sounds contains many sites used for picnicking and camping, but many are informal or self-registration sites with only peak season use.

Along some popular tracks camping needs to be restricted to particular localities, usually close to huts, to reduce impacts between huts. Some of these huts may be category 2 which provide cooking and heating facilities and other services which may be used by campers. As a result a fee may charged for camping in these areas. Most of the camping areas are managed by the department, but where it leads to more efficient management they are managed under contract or by a concessionaire. In particular, the serviced campgrounds are better managed in this way. Examples include Momorangi, Pelorus Bridge and Goose Bay.

Overnight stays by campervans occur at some roadside areas without facilities. Provided the sites remain tidy no action is required. If use grows, the sites will either need to be developed or steps taken to prevent camping. Where camping is occurring on a road reserve or is becoming a health hazard, action may be required through the local authority.

Implementation

18.5.1 *Huts will be maintained according to conservancy maintenance schedules and priorities set out in Table 40, p.321.*

18.5.2 *Any maintenance or upgrading of existing huts will ensure that facilities provided are entirely according to particular hut categories and take account of energy saving issues.*

18.5.3 *Agreements will be sought with local authorities for standards applicable to new huts and those undergoing major renovations.*

18.5.4 *Where practical, and taking into account other user constraints, new huts will be placed a minimum of 4 hours walk from the nearest neighbouring hut or a road end.*

18.5.5 *The size and design of new or upgraded huts will take into account the environmental impacts on the track and site, and the social impacts on visitors.*

18.5.6 *All accommodation will be regularly inspected by field staff and will be maintained to a safe and hygienic standard.*

18.5.7 *Some inappropriately sited low value huts may be considered for removal or relocation, after consultation with the relevant conservation board.*

18.5.8 *Where appropriate, existing departmental buildings, such as staff quarters, may be made available for public use when not required for management purposes.*

18.5.9 *Generally, exclusive use or club buildings will not be permitted.*

18.5.10 *Commercial or club huts, where a fee is charged for their use, may be permitted and will be dealt with on a case-by-case basis and licensed accordingly.*

18.5.11 *Huts put in by concessionaires must be of relocatable construction.*

18.5.12 *Priority for maintenance of camp areas will be as set out in Table 41, p.323.*

18.5.13 *Standard camping areas with limited facilities will be provided in backcountry areas where a recognised need exists, and to reduce impact.*

18.5.14 *Camping areas maintained near well-patronised huts on designated tracks, may be subject to a fee.*

18.5.15 *Roadside camping will only be permitted where appropriate facilities are available and then limited to one-night stays.*

18.5.16 *Self-registration camping facilities may be provided at high use sites having boat or vehicular access.*

18.5.17 *When casual roadside camping regularly occurs on areas administered by the department, the department will take steps to control it.*

TABLE 39: TRACK PRIORITIES BY AREA

TRACK	CLASS	PRI.	TRACK	CLASS	PRI
ABEL TASMAN			**NW NELSON (cont)**		
Abel Tasman Coast	WT	+1	Kakapo Peak	R	1
Abel Tasman Memorial	P	1	Kakapo Saddle (Taipo)	R	*3
Cleopatra's Pool	TT	+1	Kiwi	TT	2
Falls River	TT	1	Kiwi Saddle-Mount Luna	R	3
Gibbs	WT	2	Kiwi-Mount Patriarch Ridge	R	2
Gibbs Totaranui	WT	2	Kiwi-Taylor Flats	R	3
Harwoods Hole	TT	+1	Lake Cobb	TT	+2
Headlands	TT	1	Lake Peel	TT	1
Inland	TT	+1	Lead Hills	R	*3
Marahau Coastal Walk	P	1	Leslie-Karamea	TT	+1
Moa Park	TT	+2	Lodestone	TT	2
Mount Evans	TT	*3	Lookout Range	TT	3
Mount Richards	R	*3	Lost Valley	TT	2
Pithead	WT	1	Loveridge Spur	TT	3
Pukatea	P	1	Luna-Orbit Creek	TT	2
Rameka	TT	+1	Luna-Saxon Falls	TT	2
Separation Point	WT	+1	Matiri Tops Route	R	3
Taupo Point	TT	2	Mini Mountain	TT	2
Tinline	TT	+1	Mount Arthur Hut	P	1
Torrent Bay-Holyoake Clearing	TT	1	Mount Arthur Route	R	1
Waiharakeke	TT	3	Mount Arthur-Flora Hut	TT	+3
Wainui	TT	3	Mount Ellis Hut	TT	3
Wainui Falls	WT	1	Mount Gommorrah	R	3
			Mount Stevens	R	3
GOLDEN BAY			Myttons	P	*3
Fossil Point	WT	1	Nuggety Creek	P	1
Pillar Point Lighthouse	WT	2	Nuggety Gorge	TT	+2
Wharariki Beach	TT	1	Parapara Peak	R	2
Goldfields	TT	1	Pearse	TT	2
Grove Lookout	WT	+1	Peel Ridge	TT	2
Paynes Ford Tramline	WT	+1	Pyramid	R	2
Puponga Farm Walk	WT	2	Riwaka Resurgence	WT	+1
Richmond Flat	TT	3	Salisbury	WT	+1
Waikoropupu Springs	DP	1	Shakespeare Flat	TT	3
Waikoropupu Springs	P	1	Stone-Mt Luna	R	2
Waikoropupu Walkway	TT	1	Sylvester Lakes	WT	2
			Tablelands-Lake Peel	WT	+1
NORTH-WEST NELSON			Upper Takaka	TT	+1
Anatoki	TT	2	Waingaro-Stanley	TT	2
Asbestos Forest Walk	P	2	Wangapeka	TT	+1
Asbestos Track	TT	2			
Baton-Wilkinson	TT/R	*3	**WAIMEA & MOUTERE**		
Biggs Tops	R	2	Barnicoat Walkway	TT	2
Billies Knob via Blue Creek	TT	2	Cable Bay Walkway	TT	2
Billies Knob-Granity Pass	TT/R	1	Champion Rd Walkway	TT	*2
Blue Creek	P	1	Dun Mountain Walkway	WT	1
Boulder Lake	TT	+1	Eves Valley Walk	WT	2
Brown River	P	2	Snowdens Bush	P	*1
Bullock Track	TT	3			
Chummies	TT	2	**SOUTHERN UPLANDS**		
Cloustons Mine	TT	3	Angelus-Mount Cedric	R	1
Cobb Ridge	TT	2	Black Hill	TT	+2
Cobb Valley	TT	+1	Black Valley Stream	WT	1
Cowin Spur	TT	3	Braeburn	P	1
Cullifords Hill	TT	*3	Brunner Peninsula	WT	+1
Ellis Basin	R	2	Bull Creek	TT	*3
Ellis Hut Track	TT	2	Burn Creek	R	*3
Flora Hut	P	1	Cascade	TT	2
Gibbs Route	R	3	Cupola	TT	2
Granity Creek	TT	3	D'Urville	TT	2
Heaphy	WT	+1	Downies	R	*3
Kaituna	WT	1	East Matakitaki	TT	*2
Kaituna (Knuckle Hill)	R	3	Fishermans	TT	3

TABLE 39: TRACK PRIORITIES BY AREA (CONT.)

TRACK	CLASS	PRI
SOUTHERN UPLANDS (cont)		
Flowers	P	1
Hill Forty	R	*3
Hopeless	TT	+2
Howard	TT	+2
Jamieson Ridge	TT	2
Junction Creek	R	*3
Lakehead	TT	+1
Lakeside	TT	+1
Loop Track (St Arnaud)	TT	+3
Louis Creek Gold Fossicking	R	2
Matakitaki	TT	2
McKellar Stream	R	2
Mole	R	2
Moraine Walk	WT	2
Moss Pass	TT/R	2
Mount Cedric	TT	+1
Mount Misery	R	3
Mount Robert Shortcut	R	3
Nardoo Creek	R	2
Nardoo Trig	R	*3
Nature Walk (Rotoroa)	P	1
New Creek Gold Fossicking	R	2
Paddys	TT	+1
Peak Creek	R	*3
Pinchgut	TT	+1
Porika Stock Track	WT	2
Robert Ridge	R	1
Rotoroa	TT	2
Sabine	TT	1
Sabine-D'Urville	TT	2
Speargrass	TT	+2
St Arnaud Range	TT	+2
Sunset Valley	R	*3
Tiraumea	TT	2
Tiraumea-3 Peaks	R	*3
Tiraumea-Mole Saddle	TT	2
Travers Saddle	TT/R	+1
Travers Valley	TT	+1
Unnamed Stream (Glenroy V)	TT	*3
Upper Glenroy	TT	*2
Waiau Pass	R	1
Watsons	R	3
MURCHISON		
1000 Acres	TT/R	+2
Bulmer	R	*3
Eight Mile Lake	TT	3
Fyffe River	R	*2
Johnstons Creek	TT	3
Kahikatea	DW	+1
Kawatiri Railway Walkway	P	1
Left Branch Route	R	*3
Matiri	TT	1
Mount Mantel	R	3
Six Mile Lake	TT	2
Six Mile Walkway	P	1
Skyline Walkway	TT	1
Sunrise Ridge	R	+2
MT RICHMOND		
Beebys	TT	*3
Ben Nevis	TT	2
Browning	TT	2

TRACK	CLASS	PRI
MT RICHMOND (cont)		
Bushedge-Gordons-Inwoods	R	3
Chalice Hut	TT	1
Chalice Loop	TT	1
Chromite Mine	TT	3
Circle	TT	2
Devils Creek-Mount Royal	R	3
Doom	WT	2
Edelweiss	WT	*3
Elvy Waterfalls	TT	3
Enchanted Lookout	TT	2
Forks	WT	1
Forks-Old Man	R	*3
Goulter	TT	+1
Goulter-Tarn Hut	TT	2
Goulter-Old Man Hut	R	3
Hacket	WT	3
Hori Bay	TT	*2
Lake Chalice-Old Man Peak	R	2
Lee Valley-Starveall	TT/R	3
Lee-Bishops Cap	TT	2
Left Branch Motueka	TT	*3
Lower Goulter-Mount Patriarch	R	1
Matai Pool	P	3
Maungatapu Saddle-Dun Saddle	R	3
Mid-Goulter	R	2
Mid-Wairoa	TT	3
Middy-Mount Fell	R	1
Middy-Rocks	R	*3
Mount Baldy	R	3
Mount Duppa	R	2
Mount Fishtail	R	2
Mount Patriarch Road	R	3
Mount Riley-Sunday	R	3
Mt Ellis-Bushline	R	+1
Pelorus	TT	1
Pelorus Bridge River Access	TT	2
Pine Valley Hut	WT	2
Pine Valley Nature Trail	WT	2
Pukatea (Hira)	WT	2
Quartz Creek (Mount Royal)	R	3
Red Hills	R	1
Richmond Saddle	R	2
Right Branch Wairoa	TT	2
Rimu Falls	WT	2
Riverside	WT	+1
Rocks Hut-Dun Saddle	R	3
Rocks-Totara Saddle	R	3
Roebuck-Mount Fell	R	3
Saddle Hill	R	3
Serpentine Rd-Starveall	R	3
Sharlands	WT	1
Star Hill	R	*3
Starveall Hut-Slatey Peak	TT	1
Stone Huts	R	3
Tarn-Mount Rintoul-Slatey	R	2
Tawa (Hira)	WT	3
Tawa Path	DW	1
Timms Creek	WT	1
Timms Creek	R	1
Totara (Hira)	WT	2
Totara Camp	TT	+2
Totara Path	DW	1
Trig K	TT	3

TABLE 39: TRACK PRIORITIES BY AREA

TRACK	CLASS	PRI
MT RICHMOND (cont)		
Wairoa-Bushy Top	TT	2
Wakamarina	WT/TT	+1
Mount Royal	R	3
Waterfalls	WT	+2
Whispering Falls	TT	+1
SOUNDS		
Antimony Mine	TT	2
Archers	WT	1
Bridle Track	TT	3
Catherine Cove	TT	3
Cullens Point Coastal	WT	2
Cullens Point Lookout	WT	*3
Exercise Trail Nydia	P	1
Ferndale Loop	TT	3
Ferndale-Long Bay	TT	3
French Pass Lookout	TT	+1
Governors Bay	WT	+1
Hard Beech	TT	*3
Jacobs Bay-Fairy Bay	TT	+2
James Vogel Nature	TT	+2
Karaka Point	P	1
Kumutoto Bay	TT	2
Mistletoe Bay (Peninsula)	P	1
Momorangi Campground	TT	3
Motuara Track	TT	+1
Mount Robertson Loop	TT	2
Mount Robertson Summit	R	3
Mount Stokes	TT	2
Nydia Lodge	WT	1
Nydia Track	TT	+1
Piwakawaka	WT	2
Putanui Point	TT	2
Queen Charlotte Walking Track	WT/TT	+1
Ships Cove Waterfall	P	1
Stone Wharf	WT	2
Waikakaho-Cullens Creek Walkway	WT/R	2
INLAND MARLBOROUGH		
Black Birch	R	*3
Black Jack	TT	1
Glenfield Bush	R	*3
Monkey Bay	TT	1
Onamalutu	P	1
Pukaka Valley	TT	+2

TRACK	CLASS	PRI
INLAND MARLBOROUGH (cont)		
Pukatea (Whites Bay)	P	+1
Rarangi-Whites Bay	TT	*2
Teme Walkway	R	3
Wairau Lagoons Walkway	WT	1
WAIRAU		
Begley	R	2
Branch	4WD/R	1
Bull Paddock Stream	TT	*3
Connors Creek	R	2
Gordons	R	2
Hamilton	R	2
Hellfire Stream	R	2
Isolation	R	3
Lake Alexander (Teme Walkway)	R	3
Leatham	4WD/R	2
Lees Creek	R	2
Lost Stream	R	3
Misery	R	2
Nesbits Creek	R	*3
Paske	R	3
Pig Whare Saddle	R	3
Rainbow River	R	2
Sandfly	R	*3
Scotts Bivvy	R	*3
Silverstream	R	2
Silverstream-Scotts Knob	R	*3
Six Mile Creek	R	*3
St Ronans	R	*3
Tourist Spur Road-Mount Morris	4WD/R	3
Wye	R	3
KAIKOURA		
Dempsys	WT	2
Fenceline Spur	R	*3
Fyffe-Palmer	TT	2
Goose Bay Lookout	TT	2
Hapuku	R	2
Hinau (Mt Fyffe)	TT	+2
Kowhai	R	2
Kowhai-Fyffe route	R	*3
Mt Fyffe Summit	TT	1
Ohau Stream	TT	+1
Paparoa Point Lookout	TT	*3
Peninsula Walkway	TT/R	+1
Puhipuhi	W	1

CLASSES

DP	Disabled Path
P	Path
WT	Walking track
TT	Tramping track
R	Route
4WD	Vehicular route
DW	Disabled walk

PRIORITY

1.	High
2.	Moderate
3.	Low

\+ To be upgraded

* To be downgraded or maintenance ceased (as at 1/7/93)

TABLE 40: PUBLIC HUT MAINTENANCE PRIORITIES

NAME	PRIORITY	NAME	PRIORITY
NW NELSON		**ABEL TASMAN**	
Adelaide Tarn	+1	Anchorage	1
Aorere Shelter	1	Awaroa	1
Boulder Lake	1	Bark Bay	1
Brown	1	Whariwharangi	+1
Crow	+2	Awapoto	2
Flora	+1	Castle Rock	+2
Fenella	1	Wainui	3
Gouland Downs	1	Moa Park	+3
Helicopter Flat	1	Holyoake Clearing	*3
Karamea Bend	+1	Torrent Bay	R
Kings Creek	+1		
Lonely Lake	+1	**MT RICHMOND**	
Mount Arthur	1	Bushedge	1
Perry Saddle	1	Captains Creek	1
Salisbury Lodge	1	Lake Chalice	1
Saxon	1	Middy Creek	1
Stone Creek	1	Rocks	*1
Taipo	+1	Roebuck	1
Venus	1	Browning	2
Asbestos Cottage	2		
Stag Flat	2	Beebys	2
Trevor Carter	2	Devils Creek	2
		Fishtail	2
Anatoki	2	Fosters	2
Bushline (Sylvester)	+2	Lower Goulter	2
Ellis	+2	Mid Goulter	2
Flanagans	2	Mid Wairoa	2
Granity Pass	2	Mount Fell	+2
Gridiron Shelter (Upper)	2	Mount Rintoul	+2
John Reid	2	Old Man	+2
Kahurangi Keepers House	+2	Pine Valley	2
Kiwi Saddle	2	Porters Creek	2
Old Kings	2	Richmond Saddle	2
Smokey Drip	2	Slaty	2
Trilobite	2	Starveall	2
Waingaro Forks	2	Tarn	2
Balloon	2	Red Hills	3
Chaffey	*3	Right Branch Wairoa	3
Cobb Valley Tent Base	*3	Top Wairoa	3
Dry Rock Shelter	3	Devils Slab Hut	*3
Growler Rock Shelter	3	Doom Creek	R
Kiwi Shelter (Log Cabin)	R	Hacket	*3
Leslie Clearing	3	Maitland	R
Lake Cobb	*3		
Loveridge	*3	**NELSON LAKES**	
Lower Gridiron Shelter	3	Angelus	1
Lower Junction Tent Camp	R	Blue Lake	1
Luna	*3	Bushline	1
Splugeons Rock Camp	3	Coldwater	1
Mackay Downs	3	D'Urville	1
Meyers Shelter	R	John Tait	1
Myttons	*3	Lakehead	1
Riordans Hut	*3	Sabine	+1
Roaring Lion	*3	Speargrass	1
Rolling Junction	*3	Upper Travers	+1
Taplins Shelter	*3	West Sabine	1
Thor	3		
Tin Hut Shelter	3		

TABLE 40: PUBLIC HUT MAINTENANCE PRIORITIES (CONT)

NAME	PRIORITY	NAME	PRIORITY
NELSON LAKES (cont)		**WAIRAU (cont)**	
Bushedge shelter	2	Island Gully	2
Cupola	2	Lees Creek	2
Ella	2	Paske	2
Hopeless	2	Top Leatham	2
Mole	2		
Morgans	2	Barber	*3
Prospect Ridge Shelter	2	Bottom Silverstream	R
Relax Shelter	2	Bull Paddock Creek Bivvy	*3
Tiraumea	2	Mid Silverstream	3
		Nesbits	R
Bobs	3	Rainbow	*3
Burn Creek Bivvy	R	Siberia	3
D'Urville Bivvy	3	Lost Stream Bivvy	3
East Matakitaki	3	Top Branch Bivvy	3
Forks	R	Top Gordon Creek	3
Howard	R	Top Misery	3
Matakitaki Base	*3		
Mid Glenroy	3	**MARLBOROUGH SOUNDS**	
Mt Misery Bivvy	3	Matai Bay (Godsiff)	*3
Nardoo Bivvy	3		
Teetotal	R	**AWATERE**	
Upper Glenroy (Log Cabin Hut)	*3	Isolated Hill	2
		Zoo	+2
MURCHISON			
Larrikin Creek	+2	Black Birch Bivvy	3
Lake Matiri	2	Blue Mountain Hut	3
McConchies	2	Brian Boru Bivvy	3
		Mead Bivvy	3
Branch (Fyffe)	3	Top Omaka Bivvy	3
Hurricane	3	Tummil	3
Poor Petes	*3	Penk	3
Haystack	*3		
Rainy River Bivvy	R	**KAIKOURA**	
Teetotal	R	Mt Fyffe	1
WAIRAU		Hapuku	2
Greigs Base	1	Kowhai	2
Begley	2	Barretts	3
Bottom Misery	2	Fidget Hut	3
Bottom Gordons	2	George	R
Caves	2	Snowflake	R
Connors Creek	2		

1. High 2. Medium 3. Low + Upgrade

* Down grade, cease maintenance (as at 1/7/96) R Removed

TABLE 41: CAMPING AREAS BY AREA AND PRIORITY

PRIORITY	AREA
ABEL TASMAN	
Akerston Bay	1
Anapai	1
Anchorage	1
Appletree Bay	1
Awaroa	1
Bark Bay Hut	1
Bark Bay Spit	1
Medlands	1
Mosquito Bay	1
Mutton Cove	1
Observation Point	1
Stilwell Bay	1
Te Pukatea	1
Tinline	1
Tonga Beach	1
Tonga Quarry	1
Torrent Bay Township	1
Torrent Bay Hut	1
Totaranui Camping Ground	1
Waiharakeke	1
Watering Cove	1
Whariwharangi	1
NORTH-WEST NELSON	
Aorere	1
Brown River	1
Courthouse Flat	1
Gouland Downs	1
Perry Saddle	1
Saxon	1
Siberia	1
Trilobite Flat	2
Cobb Valley Reservoir	3
NELSON LAKES	
Kawatiri Junction	1
St Arnaud Campground	1
Lake Rotoroa	2
Maruia Falls	2
PELORUS	
Pelorus Bridge Campground	1
Butchers Flat	2
SOUTH MARLBOROUGH	
Onamalutu	1
Whites Bay	1
Kowhai Point	2
Marfells Beach	2
Acheron	3
Molesworth	3

PRIORITY	AREA
MARLBOROUGH SOUNDS	
Bay of Many Coves	1
Black Rock	1
Blumine Island	1
Camp Bay	1
Cowshed Bay	1
Elaine Bay	1
French Pass	1
Harvey Bay	+1
Mistletoe Bay	1
Momorangi	1
Pipi Beach	1
Ratimera Bay	1
Umungata Bay (Davis)	1
Whatamango Bay	+1
Aussie Bay	2
Buchers Flat	2
Cannibal Cove	2
Duncan Bay	2
Ferndale	2
Jacobs Bay	2
Kenepuru Head	2
Kumutoto Bay (East)	2
Nydia Campground	2
Schoolhouse Bay	2
Kumutoto Bay (West)	2
Ngaruru Bay	2
Ngawhakawhiti Bay	2
Nikau Cove	2
Putanui Point	2
Picnic Bay	2
Tawa Bay	2
Wharehunga	2
Chance Bay	3
Chestnut Bay	3
Kanoroa Bay	3
Lucky Bay	3
Mill Arm	3
Penguin Bay	3
Rene Cove	3
South Arm	3
Sheepen Bay	3
Waiona Bay	3
Waimaru	3
Wander Bay	3
KAIKOURA	
Goose Bay Campground	1
Peketa	1

Priority: 1. High 2. Medium 3. Low * close + upgrade

19. Visitor information

Gathering information often begins before a visit to areas administered by the department with a call at a visitor information centre. The information gained is an important part of the experience as it builds on what is seen and informs about what cannot readily be seen, or it guides the visitor to places that are sought. Both on and off areas administered by the department, the visitor centres provide the link between the department and the public.

People tend to plan their holidays along aranui (or scenic corridors). By integrating visitor information services along an aranui the visitor is led through the attractions of an area and gains information about the areas ahead. It also allows information to be drawn in about sites that may have no facilities.

The four major aranui in the conservancy are:

1. Picton to Farewell Spit, via Queen Charlotte Drive.
2. Picton to Kaikoura.
3. Picton to Murchison via Blenheim.
4. Picton to Murchison via Nelson.

Other pathways through the conservancy exist such as the Molesworth road, and Nelson and Motueka to Christchurch via Lewis Pass. Each of these is served by a range of services.

Visitor centres are normally part of a local field centre office or other staffed locality but may also be integrated with the visitor information services of the community. Information shelters may be sited at track entrances to provide information on attractions in the locality. They are present at Prices Creek, Marahau, Cobb Valley and several other localities where they are part of the site interpretation.

On areas administered by the department, signs serve several important functions. They can direct visitors to attractions, facilities or places; they can inform and educate; and they can warn. Many signs have an interpretive role, adding to the visitor experience. Signs can be divided into three groups:

- orientation or directional;
- information, such as fire or health risks; and
- interpretive, enhancing the visitor experience.

Objective

To enhance visitor experience by providing information.

Issues

Signs and interpretation are the first obvious contact the public has with the department at a visitor point. The nature and quality of these signs and services creates an image of the department in the mind of the individual so it is essential to maintain the highest quality.

The department's original signs and interpretation currently in existence came from several sources. A uniform departmental standard and character for signs has been established. Once signs and interpretation are in place they should be maintained to a high standard as failure to do so fosters vandalism and lowers the corporate image. A local signs manual exists and a national sign system is being developed in conjunction with the roading authorities.

Information must be of high quality and standardised across the conservancy to ensure that information given at each location is consistent. It should link both departmental and non-departmental information systems. All information about the department's role, use of areas administered by the department availability of transport, commercial ventures on areas administered by the department and conservation generally, must be kept up to date.

Implementation

19.0.1 *Interpretation and orientation signs will conform to the standards set by the Policy and Sign Design Manual and the standards for the relevant planning unit.*

19.0.2 *All signs and interpretation will be maintained to a high standard.*

19.0.3 *A "welcoming" atmosphere will be created and maintained, and a friendly, efficient, quality service will be provided.*

19.0.4 *All conservancy visitor centres will have displays standardised in basic form with appropriate local content.*

19.1 ROUTE PLANNING

Orientation information, including directional signs and map boards, is an important part of trip planning. Hut notices cover a range of issues including environmental care, fire and general safety as well as maps of the surrounding area.

Objective

To help route planning by visitors.

Issues

Many major attractions within the conservancy have been poorly signposted at access points from highways. To be truly effective, signs must be well designed and carefully located. This requires liaison with roading authorities to ensure they are safely placed and effective.

The provision of information at strategic entrances to tracks or recreation areas is often currently inadequate. Standards are included in the Policy and Sign Design Manual to ensure a consistent approach throughout the conservancy.

Implementation

19.1.1 *Urgency will be given to establishing the uniform standard signs at all sites.*

19.1.2 *Attractions on areas administered by the department will be clearly identified by signs along highways and major routes.*

19.1.3 *Improved road signs will be erected in liaison with the local authority and other relevant organisations.*

19.1.4 *Information shelters may be provided at major track entrances or where several attractions are present.*

19.2 INTERPRETATION

Interpretation allows visitors to learn about natural systems and the history of human interaction with those systems. Interpretive information enhances a visit, turning a good experience into a more satisfying one. Providing good information about our heritage increases support for conservation generally, and raising awareness of environmental impacts on sensitive areas or diverting attention from them may also help to protect them.

Objective

To enhance visitor experience by providing background information that reflects both Maori and pakeha perspectives on our natural and cultural heritage at a site.

Issues

Selection of sites for development

Interpretation must be co-ordinated with the development of other recreational facilities (§18.2, p.305) and one determinant in setting priority for sites is visitor numbers in an area. Nevertheless, many worthwhile areas remain undeveloped because, for example, few marine and lowland reserves exist to provide suitable sites. Many sites with high heritage values, such as historic sites may also be too remote or infrequently visited to justify the provision of interpretation, particularly historic sites (§5.2, p.163).

Linking of sites on aranui can help fill these gaps in interpretation by encouraging people to visit less well known localities or simply providing information about more remote ones that cannot be readily visited.

The Picton to Farewell Spit aranui is the conservancy's most important aranui for outdoor recreation because it:

- is more representative of Nelson/Marlborough than the other aranui;
- traverses the greatest diversity of natural and human heritage values;
- traverses some of the most popular conservation areas in the conservancy;
- touches most of the conservancy's resident population; and
- complements the proposed heritage trail.

The diversity of natural and cultural values and popularity of the Kaikoura area identifies it as the second most important area. It has priority for development because its public profile is high and growing rapidly but currently it has few interpretation facilities.

Co-ordinated development of aranui

Currently, the conservancy has little high quality interpretation, even at important road ends and entry points. The development of aranui will correct this and will be co-ordinated with other visitor information services, including maps, brochures and displays in information centres (§19.3, p.333, §20.1, p.343). Co-ordinated development of visitor information services along a single aranui

ensures that services are of uniform quality and form a single package. Interpretation will be developed in a diverse range of ecosystems and will reduce the pressure on some traditionally popular sites and facilities.

Interpretation themes

Analysis of themes is important when considering interpretation. The natural and human values of the conservancy are extremely diverse, but existing interpretation services do not represent this diversity. Therefore potential interpretive projects should be identified to reflect the full diversity of the conservancy.

Interpretation quality

Visitors are mostly representative of the general population, particularly where the access is easiest: close to road ends, on the coast and on the fringes of areas administered by the department. Consequently interpretation should be as widely understood as possible.

Visitor information services should enhance the enjoyment of areas administered by the department. Exciting design and thought-provoking text can be a significant means of generating conservation awareness. It should be professional in appearance, interesting and enjoyable. The text should be simple and direct because it is unlikely to succeed if it is confrontational or jargonistic. Poor or inadequate information can reduce benefits and detract from the overall image. Standardisation and grouping into sets along the aranui that match publications and orientation signs, enhances the professional image.

Maintenance

The quality of interpretation services deteriorates rapidly through weathering, graffiti and general damage so they should be checked and maintained regularly. Because the aranui are being developed as units over several years some interim changes are required to existing material, such as maintenance of poor quality material and removal of substandard material.

Liaison with other conservancies

Natural and historic features of areas administered by the department extend across conservancy boundaries into Canterbury and the West Coast Conservancies and visitors are not aware of these departmental administrative boundaries. Consequently, liaison with neighbouring conservancies is required to ensure that visitor information services are co-ordinated along aranui such as the Molesworth and Buller roads.

Maori place names

The department has an important role to play in putting forward the Maori cultural history of the area. A significant part of this is in the use of Maori place names. A review of Maori place names will be undertaken together with the Kaupapa Atawhai Manager and the tangata whenua. Maori place names will be incorporated with European names wherever they are known. Maori names of plants and animals will be used in all interpretation.

Priorities

General priorities are set out below (Table 42) but may change with the designation of marine reserves, major changes of land status, new visitor centre initiatives and major sponsorship opportunities.

Separate work plans will identify and prioritise individual visitor information services and will be developed for each phase of development through a visitor services strategy.

TABLE 42: GENERAL PRIORITIES FOR INTERPRETATION

Short term: Abel Tasman National Park Kaikoura coast and mountains
Medium term: Picton-Farewell Spit aranui The Wangapeka Valley State Highway 6 - Nelson to Hope Saddle
Long term: Blenheim-Murchison aranui
Short term: 1-3 years; Medium term: 2-5 years; Long term: 5-10 years

Sponsorships and other sources of interpretation material

Interpretation is one area of the departmental work in which a variety of funding opportunities exist. Sponsorship opportunities should be used where they are in keeping with overall development plans. Concessionaires may also wish to advertise their services and opportunities may arise. They should be encouraged to provide high quality visitor information services.

Implementation

19.2.1 Visitor information services will be developed along aranui according to priorities listed in Table 42, p.330.

19.2.2 Development and maintenance of interpretation will be co-ordinated with publications and other visitor services.

19.2.3 Visitor information services will collectively reflect all the values of the conservancy.

19.2.4 Particular consideration should be given to themes that are traditionally under-represented on areas administered by the department.

19.2.5 Interpretation services will be developed at popular and accessible amenity areas to reach the widest range and largest number of people.

19.2.6 Detailed planning for interpretation services will be set out in the Nelson/Marlborough Visitor Information Strategy and its work plans.

19.2.7 *Interpretation listed in Table 43; p.332 will be maintained until replaced.*

19.2.8 *Liaison will be maintained with adjacent conservancies to ensure continuity of interpretation development.*

19.2.9 *Maori place, plant and animal names will be used wherever available in conjunction with European names.*

19.2.10 *Sponsorships will be actively sought for interpretation projects from concessionaires and others.*

TABLE 43: INTERPRETATION PRIORITIES AS AT 1993

AREA	PRIORITY
Pupu Springs Scenic Reserve	2
Abel Tasman Memorial	1
Totaranui Visitor Centre	1
Wainui Carpark	1
Cobb Ridge	2
Heaphy Track	2
Myttons Walk	R
Asbestos Walk	R
Pukatea Walk	R
Puponga Farm Park	2
Price's Creek	1
Flora	2
Courthouse Flat	2
Marahau Information Shelter	1
Abel Tasman Coast Track	2
Riwaka	1
Cable Bay Walkway	2
Mt Robert Road end	1
Peninsula Nature Walk	3
Kawatiri Walkway	3
Skyline Walkway	3
Six Mile Walkway	3
Maruia Falls	3
Kahikatea Walk	3
Cullens Point	2
Pelorus Scenic Reserve	2
French Pass	2
Karaka Point	2
Queen Charlotte Walking Track	2
Ship Cove	2
Cable Station, Whites Bay	3
Wairau Lagoons	3
Molesworth	3
Hinau Walk (Mt Fyffe)	1
Peninsula	1
Puhipuhi	1
Otamakura	1
Ohau Point	1
Goose Bay Lookout	1

R	remove
1	upgrade in next 1-3 years
2	upgrade in next 2-5 years
3	upgrade in next 5-10 years

19.3 VISITOR CENTRES

Visitor centres act as significant points of contact between the department and visitors to areas administered by the department. Generally, they are strategically located at important gateways to make maximum contact with the public and Picton is particularly important both nationally and locally. Visitor centres serve both recreational visitors and others with a more general interest in the natural and historic resources that the department administers.

Visitor centres make information available through staff knowledge of the area and brochures concerned with huts and tracks, recreational opportunities, educational or general aspects of conservation. They provide items such as maps, posters, postcards and books and many centres contain displays. In the not too distant future much of the hut and track condition information may be available from on-line computer terminals. Four categories of services are provided at visitor centres (Table 44, p.335).

The locations of the visitor centres are shown in Figure 14, p.334. Their siting, and the services they provide, are largely determined by visitor demand, the position of recreation opportunities in the conservancy, and the location of field centres.

Objective

To provide services at visitor centres which are relevant to conservation and inform the greatest numbers of people of opportunities on areas administered by the department.

Issues

Siting of visitor centres

Where possible, the department provides information services in its own visitor centres. In some cases centres run by other agencies are more appropriately sited. In these cases the department either operates in partnership with or appoints an agent. Some sites may provide limited services, as determined by the presence of staff or other services, such as at a campground.

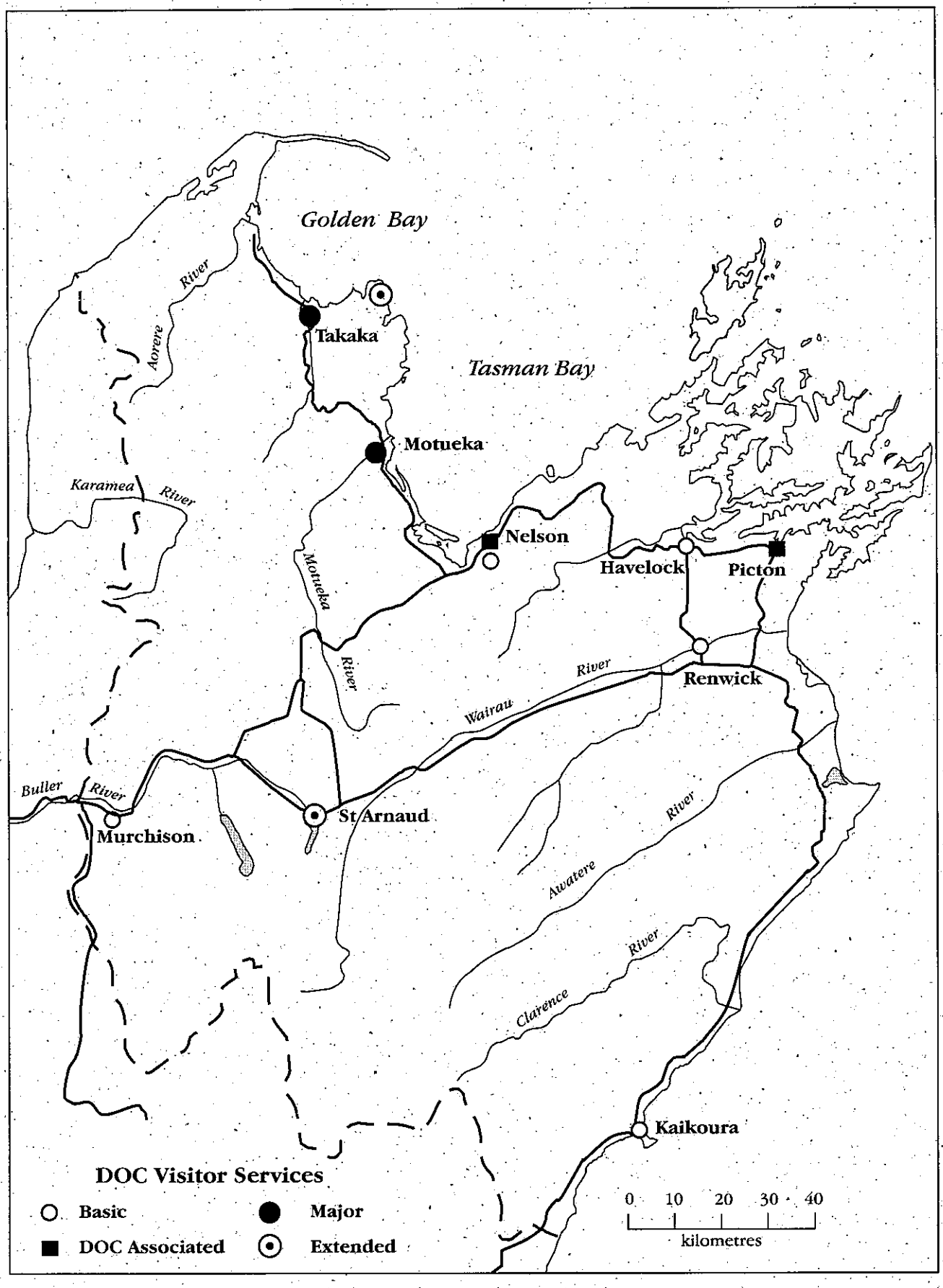
Where non-departmental visitor information centres (VIC) are used, preference is given to Visitor Information Network members. Comprehensive information displays are provided by the department and only basic services are maintained in departmental premises in that area. Airports, privately run campgrounds and similar places also have the potential to distribute information to the travelling public through brochures and displays.

Service

Front-line staff are an important, and sometimes the sole link, between the department and the public. Whether they are departmental staff or contracted agents, their service must be of high quality, professional and friendly to be effective. The department has an obligation to provide training to ensure that standards are met and maintained.

The layout of the visitor centres should be welcoming and "user friendly" to encourage people to browse and so offer opportunities for maximum gains in

Map 15 Visitor Centres



public awareness. To recognise the importance of young people, layout, design, information and activities should, where possible, take account of their interests.

TABLE 44: RANGE OF SERVICES (AS AT 1/11/93)

OUTLET TYPE	OFFICE	MANAGEMENT	SERVICES	HUNTING PERMITS
Takaka	Field Centre	DOC	Major	Yes
Totaranui	Campground	DOC	Extended	Yes
Motueka	Field Centre	DOC	Extended	Yes
Nelson	Conservancy	DOC	Basic	Yes
Nelson	Visitor Centre	PART	Major	No
St Arnaud	Field Centre	DOC	Extended	Yes
Rotoroa	Field Base	CAS	Information	Yes
Murchison	Field Base	CAS	Basic	Yes
Pelorus Bridge	Campground	DOC	Information	Yes
Havelock	Field Centre	DOC	Basic	Yes
Momorangi	Campground	PART	Information	No
Picton	Field Centre	DOC	Extended	Yes
Renwick	Field Centre	DOC	Basic	Yes
Blenheim	Visitor Centre	COM	Basic	No
Kaikoura	Visitor Centre	PART	Extended	No
Kaikoura	Field Centre	DOC	Basic	Yes
Goose Bay	Campground	CAS	Information	No

INFORMATION — Basic orientation information and local route guides.

BASIC — Basic orientation information may include sales of local topographic maps and park handbooks for the conservancy.

MAJOR — Basic information services plus detailed recreation maps and recreation information including sales of the full range of publications, some tramping essentials and items such as T shirts.

EXTENDED — Major information services plus interpretation displays, tramper's supplies and souvenirs.

MANAGEMENT — DOC Departmental; CAS Not manned full time; PART Partnership; COM Commercial

Development programme

Development of visitor centres on the main aranui through the conservancy targets the well used urban centres but this development cannot be viewed in isolation from the development of recreation sites (§18, p.298). As part of this development programme the range of displays and retail services in the visitor centres will be reviewed. Planning for these changes is summarised in Table 45, p.336.

Retail sales

Information services at visitor centres are complemented by retail sales that generate revenue to support conservation activities. Items sold focus on the conservation theme and aim to enhance the promotion and appreciation of both the conservation ethic and the visitor's experience. Information publications of a non-departmental origin are also stocked if they fulfil a similar or complementary role.

The three types of retail units are BASIC, MAJOR and EXTENDED (Table 44, p.335). An EXTENDED range is stocked in centres where a special need is identified. Sites are allocated their grade of retail service according to visitor numbers and how it complements other retail opportunities in the area.

TABLE 45: DEVELOPMENT PRIORITIES FOR DISPLAYS AND SERVICES

OUTLET	DISPLAYS			RETAIL	
	CURRENT (1/11/93)	FUTURE	PRIORITY	PRIORITY	FUTURE SERVICES
Takaka	Orientation	All	2	3	?
Totaranui	All	Same	m	1	Same
Motueka	All	Same	3	2	?
Nelson	None	General	1	3	Same
Nelson VC	None	Orientation	m	2	Same
St Arnaud	All	Same	3	2	Same
Murchison	Orientation	Same	3	3	?
Havelock	Orientation	Same	2	3	?
Picton	All	Same	2	3	?
Renwick	Orientation	Same	3	1	Same
Blenheim VC	None	Orientation	m	3	Major
Kaikoura VC	All	Same	1	3	Same
Kaikoura	None	Orientation	1	3	Same

Priorities for displays are:

1	next 2-3 years	2	next 3-5 years
3	over 5 years	m	maintain as developed
?	possible upgrade	VC	Visitor Centre
All	Orientation, interpretation and general displays		

Implementation

19.3.1 Opportunities will be sought to provide information services at campgrounds, airports, ferry terminals and other non-traditional outlets.

19.3.2 Information displays in visitor centres will be developed in the order of priority in Table 45, p.336.

19.3.3 Displays will be mounted in appropriate independent visitor information outlets to ensure a strategic departmental presence.

19.3.4 Existing displays in departmental visitor centres will be regularly maintained and reviewed according to priorities set out in Table 43, p.335.

19.3.5 All departmental visitor centres will have at least BASIC information displays.

19.3.6 Displays in new visitor centres will be planned according to visitor numbers, location and the presence and quality of non-departmental visitor centres in their area.

19.3.7 New visitor centres will be planned to include both interpretive and orientation displays as well as space for retail items.

19.3.8 All information will be regularly updated.

19.3.8 *All information will be regularly updated.*

19.3.9 *A welcoming atmosphere will be created and maintained through the physical layout of visitor centres and staff service.*

19.3.10 *Training will be provided for staff as necessary to ensure effective, professional, efficient and friendly service.*

19.3.11 *Outside distributors of departmental material will be kept well informed to ensure that the quality of the information they pass on reflects the departmental role and conservation ethic.*

19.3.12 *Stocking of non-departmental material will be controlled and limited to that relating to areas administered by the department or conservation.*

19.3.13 *Guidelines for retail sales will be developed.*

19.3.14 *Where possible, aspects of the visitor centre layout and design and services provided will meet the special needs of children and the disabled.*

F PUBLIC AWARENESS

20. Introduction

Public awareness is about education and advocacy - increasing the understanding of and commitment to conservation. It aims to:

- increase understanding of the department's role as the guardian of New Zealand's heritage, and enhance its image as a professional and competent organisation;
- build relationships between the department and key groups in the community;
- foster responsible recreational use of areas administered by the department; and
- work to bring about change that will benefit the conservation of New Zealand's natural and historic resources - for both the present and future generations, on and off areas administered by the department.

The Conservation Act 1987 enables the department to advocate and promote conservation actively, a function given further potential by the Resource Management Act 1991. This Act allows the department to influence local authority planning and policies for the benefit of conservation as a whole.

As such, public awareness permeates almost every aspect of the department's work. This is shown throughout this document - where implementation in most sections reflects a need for some degree of public awareness input.

To help the department achieve its objectives, public awareness must be properly used to make the most of opportunities for increasing and improving awareness, understanding and support for the department and conservation. Currently, public views are not always in keeping with any of these.

Public awareness is a large task and one in which each staff member must play their part; from the field centre conservation worker, who maintains a high public use roadside reserve, to the conservancy office planner who has input into local authority plans to ensure that natural, historic and recreational values are protected.

The challenge is to identify the many public awareness obligations and opportunities. Goals are drawn up and priorities assigned to determine how to achieve these effectively and by whom. Already this document has given explicit priority to advocacy and education for coastal and lowland ecosystems, wetlands, and values and threats in South Marlborough and Kaikoura (§5.3, p.93; §2.6, p.72; §3.1, p.72).

The task in promoting conservation and the obligations of raising public awareness are enhanced through building specific relationships with key groups such as tangata whenua, local authorities, land managers, conservation and recreation groups.

One of the most effective methods open to the department is to help people create personal links with their natural, historic and cultural heritage. For example, most people experience the department and conservation through roadside service and picnic areas, visitor centres, short walks and overnight stays (§15, p.265). High quality facilities at those sites make use of the opportunity to promote conservation in all its aspects. An informed, supportive community in turn helps the department to achieve long-term goals, especially when these are heavily supported by public opinion.

Objective

To create a greater understanding of and commitment to conservation through raising public awareness of the natural and historic heritage.

Issues

Associates

Careful planning is needed to ensure that resources are used efficiently and to the best advantage for conservation. Co-operation with key groups such as local and central government agencies, community groups, business, environmental and recreation organisations should be encouraged and aim to eliminate duplication and wasted effort.

Treaty responsibilities

Staff have a responsibility to incorporate Maori culture and history into all public awareness activities. Ongoing consultation with tangata whenua builds confidence in the department's commitment, intentions and abilities.

The role of staff

All staff in some way contribute to public awareness. The potential for staff to influence community attitudes both formally and informally is immense. Key staff in public awareness roles must project an image of professionalism. All public contact staff, from those in information offices to field people, must project a helpful, knowledgable and friendly image. The success of much public awareness activity rests on these personal contacts.

Resources

When conducting specific promotions, or creating interpretation and information displays, equipment and resources should be professional and of high quality. An extensive library is essential, containing a comprehensive range of slide and print material.

TABLE 46: PUBLIC AWARENESS PRIORITIES

TASKS	PRIORITY	IMPACT
Build public understanding of and support for:		
protecting marine and coastal environments	1	1
protecting and restoring freshwater systems	1	1
protecting and restoring wetlands and lowland forests	1	1
protecting the natural values of South Marlborough and Kaikoura	1	1
departmental pest control priorities	1	1
cooperative pest control operations	1	1
protecting areas from recreational impacts	2	1
methods to minimise impacts	2	1
protecting historic sites	2	2
protecting island sanctuaries	2	2
reducing fire risk	3	1
managing and effectively protecting cave and karst systems	3	2
Build and improve relationships with:		
politicians	1	1
local authority staff and councillors	1	1
iwi	2	1
the Marlborough Sounds community	2	1
associates in general	2	2
the Marlborough community	2	2
Federated Farmers and private landowners	2	2
supporters	3	1
Develop processes to:		
integrate advocacy into activities of the department	1	1
ensure staff acknowledge and fulfil their public awareness role	1	1
improve consultation and community involvement	1	1
ensure effective media coverage	1	1
improve public awareness skills of staff and agents	1	2
rationalise information	1	2
provide effective departmental input into specific campaigns	1	2
guide sponsorship proposals	2	2
To Achieve:		
better provision of information for visitors and local communities	2	1
increased volunteer opportunities	2	1
increased use of recreation as outdoor education opportunities	2	2
development of Picton Visitor Centre as a national facility	3	1
Key:		
Priorities/Impact: 1. High		
2. Medium		
3. Low		

Rationale for priorities

Because public awareness is a changing and opportunistic activity, it presents special challenges. To meet these, flexibility must be built into programmes to capitalise on opportunities as they arise. Examples range from whale strandings and oil spillages, to sponsorship proposals and joint venture information office proposals.

The conservancy has natural barriers dividing it, creating discrete areas (§1, p.29). These physical barriers are also psychological barriers to the communities, leaving the communities isolated from one another. Energy must be put in to overcoming these barriers so that all the communities feel they are part of a wider understanding of conservation.

The conservancy must define its regional priorities which should reflect the various public awareness priorities elsewhere in this document. The aim is to build links with the community, and meet obligations under the Conservation Act.

The main priorities are set out in Table 46, p.341 where they are divided into four parts:

- building awareness of resources;
- building relationships; and
- establishing the processes aimed at
- achieving concrete outcomes.

These priorities will be implemented through a series of action plans which will set out detailed strategies to achieve specific public awareness goals.

Implementation

20.0.1 *Priorities for public awareness will be in accordance with Table 46, p.341.*

20.0.2 *Public awareness programmes will reflect, and be consistent with, current policy.*

20.0.3 *Relationships will be fostered with key groups.*

20.0.4 *Co-operation with other agencies will aim to avoid duplication, and joint initiatives will be encouraged to minimise costs.*

20.0.5 *Where appropriate, staff will be made aware of their individual public awareness responsibilities through training and support.*

20.0.6 *All staff in public contact areas will show professionalism in communication and presentation skills, with training and support provided where necessary.*

20.0.7 *Through liaison with iwi, the special significance of Maori legends and stories considered appropriate by the tangata whenua will be woven into public awareness projects.*

20.0.8 *Resource libraries will be upgraded, catalogued and maintained, using material from both internal and private sources.*

20.1 PUBLICATIONS

Publications are an important means of communicating information about natural, historic and recreational values. Because the conservancy produces publications for a wide range of audiences they must be effectively targeted. Visitors to areas administered by the department are the most important audience because of the opportunity they provide for the department to promote both its role and the general conservation ethic. Visitors require general and specific information about opportunities on areas administered by the department.

A second important audience is people seeking general information about conservation or the department, often away from areas administered by the department. Many of these are young people seeking to widen their knowledge of conservation and the basic resource information of the area. A third audience is scientific, provided for through more technical information.

By far the largest number of publications are provided for recreational users on areas administered by the department. Usually they contain a core of orientation information, with further information about the values or things of interest in an area. Many also become souvenirs of a visit.

The department produces two formal series of publications, one for technical information and scientific reports and one for management plans and reserve proposals. Head Office also provides a range of general publications on national campaigns, particular programmes or topics of national interest.

The Department of Survey and Land Information (DOSLI) maps or departmental handbooks are available for parks, the Marlborough Sounds and major tracks.

Objective

To provide a comprehensive range of high quality conservation information through publications.

Issues

Existing site-specific publications

About 90 recreation publications were inherited by the department from its parent agencies (Table 47, p.345). As the information in many is outdated and the quality inadequate, a review is required to identify the full range of publications needed to cover recreational opportunities in the conservancy. A new recreation guide to the conservancy is required and is perhaps best prepared in co-operation with professional writers and other recreational organisations.

Changes to existing publications will:

- ensure they accurately cover all recreational opportunities;
- suit visitor needs; and
- conform to current standards.

The programme for producing publications needs to be co-ordinated with the development of on-site interpretation (§19.2, p.329). For example, a route guide

for the Seaward Kaikoura Ranges should be produced along with all interpretive information for that region.

Flexibility should exist in the production programme to enable field centre staff to create publications independently. These are guided by, and conform with, local and national publications standards and programmes.

The sale of advertising space in brochures is used to help cover production costs. Guidelines are required to help field staff obtain advertising for these publications.

Maps

Although maps are a DOSLI product, they are important tools for users of areas administered by the department. The timetable for reprinting maps is set by the DOC/DOSLI mapping committee, and is based upon stock exhaustion dates for individual maps. The committee also allows conservancy input into map compilation.

General conservation information

Few publications providing general conservation information are available. Most of these are prepared by Head Office and other organisations with a conservation interest. Education publications detailing issues of particular interest to this conservancy are needed. Subjects include:

- each park;
- freshwater ecosystems, especially native fish;
- water quality;
- water-borne refuse, especially from boat users;
- marine and coastal ecosystems;
- local endangered species;
- restoration and protection of lowland forest;
- historic values;
- South Marlborough and Kaikoura - threats and values;
- local Maori history; and
- wetlands.

Educational resources and informal publications

Fact sheets and educational resource packages and other informal publications cover both local and national conservation topics. Guidelines and standards are required for their production to enable field centre staff to create fact sheets relevant to their area.

Major technical reports and management plans

Detailed resource summaries, prepared on particular areas for management plans and reserve proposals, may be accompanied by very brief summary leaflets. Some technical and scientific reports are of wide interest, particularly in

education and therefore should be summarised in non-technical language for use outside the department.

TABLE 47: RECREATION PUBLICATIONS

GENERAL PUBLICATIONS	PRI	FACILITY-BASED PUBLICATIONS	PRI
Abel Tasman National Park Facility User Pass System information	1		
Abel Tasman National Park handbook	1		
Abel Tasman National Park information	1		
Abel Tasman National Park map	1		
Conservancy recreation guide	1		
Hunting in Nelson Conservancy	R		
Mt Richmond alpine route guide	2		
Mt Richmond Forest Park information	2		
Mt Richmond Forest Park Information	2		
Mt Richmond Forest Park map	2		
Mt Richmond route guide	2		
North-west Nelson Forest Park information	1		
North-west Nelson Forest Park map	1		
Golden Bay walks	2	Aorere Goldfields/caves walks	2
Heaphy Track transport	R	Asbestos Forest Walk	R
Heaphy Track map	1	Cobb Valley	2
Landscapes of Golden Bay	2	Farewell Spit	2
Guide for bird watchers	2	Geology of Cobb Valley	2
		Myttons nature walk	R
		Puponga Farm Park	2
		Pupu Springs Reserve	2
		Pupu Walkway	2
		Pukatea Walk	2
		Te Mata o te Moana	2
Wangapeka transport	R	Baton/Pearse/Ellis	2
		Ben Nevis	2
		Beebys Knob	R
		Cable Bay Walkway	2
		Gordons Knob	2
		Leslie/Karamea Track	1
		Mt Arthur/Tablelands	1
		Rolling River	2
		The Hacket	2
		Torrent Bay/Astrolabe/Tinline	R
		Trips around the Wangapeka Valley	2
		Wangapeka Track	1
		Wangapeka Tracknap	2
		Wangapeka transport	R
Nelson Lakes National Park handbook	3	Buller Gorge	3
Nelson Lakes National Park information	1	Lake Rotoiti Walks	1
Nelson Lakes National Park map	1	Matiri Valley	3
		Mt Robert Walk	R
		Peninsula Nature Walk	3
		Rainbow Forest	3
		Rotoroa walks	3
		Route guide Travers/Sabine/D'Urville valleys	3

TABLE 47: RECREATION PUBLICATIONS (CONT)

GENERAL PUBLICATIONS	PRI	FACILITY-BASED PUBLICATIONS	PRI
		Route guide Robert/Angelus	3
		Route guide Travers Saddle/Moss Pass	3
		Route guide Waiau Pass	3
		Rainbow State Forest	1.
		Short walks Rotoiti	3
		Six Mile Walkway	3
		Skyline Walkway	3
Marlborough Sounds campgrounds	1	Karaka Point Historic Reserve	1
Marlborough Sounds camp sites locations	2	Maud Island	2
Marlborough Sounds handbook	2	Nydia Track	2
Marlborough Sounds Holidaymaker Map)	1	Pelorus Bridge Scenic Reserve	2
		Pelorus Track	2
		Queen Charlotte Walking Track	1
Marlborough:		Ferny Gair	3
Central recreation areas	3	Forks/riverside walks, Top valley	3
Southern recreation areas	3	Lake Chalice/Goulter River	3
Molesworth recreation guide	R	Mt Patriarch	3
Molesworth trip guide	1	Mt Riley	R
Mt Richmond Forest Park eastern sector	3	Mt Royal	3
		Onamalutu Scenic Reserve	3
		Pine Valley Nature Trail	3
		Pukaka Valley	3
		Top Valley	3
		Waikakaho/Cullens	1
		Wairau Lagoons Walkway	3
		Wakamarina Track	1
		White's Bay, Blenheim	R
		White's Bay Recreation Reserve	3
		Kaikoura Peninsula Walks	1
		Mt Fyffe Forest	1
		Seaward Kaikoura Range	1

Key: 1. High Priority 2. Medium Priority 3. Low Priority R. to be discontinued

Implementation

20.1.1 Recreation publications will be rationalised by 1996 and reviewed in accordance with Table 47, p.345.

20.1.2 A new recreation guide to the conservancy will be prepared in co-operation with other organisations.

20.1.3 Production of recreation publications will be co-ordinated with the development of on-site interpretation.

20.1.4 Recreation publications will conform to national standards.

20.1.5 The colour and layout of recreational publications will be standardised to ensure that they are professional in appearance.

20.1.6 A system will be developed and implemented to ensure that informal publications meet required standards

20.1.7 Field centre staff will be encouraged to produce local publications.

20.1.8 Usually, recreation publications will include information on several different recreation opportunities.

20.1.9 Education publications will be developed on topics specific to this conservancy as well as conservation in general.

20.1.10 Topics will be given a relative priority, and production guidelines and standards will be drawn up for fact sheets and education packages.

20.1.11 Guidelines will be developed for advertising in departmental publications.

20.1.12 The department will continue to work within the recreational mapping programme set by the DOC/DOSLI mapping committee.

20.1.13 Technical reports and management plans will be managed as conservancy publications series, according to Head Office and National Library procedures.

20.1.14 Where appropriate, summaries of conservancy technical and scientific reports will be prepared for distribution to the layperson.

20.2 EDUCATION

Education is a vital tool for raising public awareness of the department and conservation. It has many facets; from interpretation and information provided on-site on areas administered by the department; to classroom fact sheets; to feature newspaper articles on conservation issues; and to personal contacts between staff and the public.

Personal understanding and experience of conservation varies widely, along with individual views. Educating such a diverse range of people poses huge challenges that are offset by the many varied and often creative ways in which the ideas can be transmitted.

To date, education activities have targeted specific happenings, such as evening talks for summer programmes, or national campaigns such as conservation week. Some general conservation fact sheets have been produced locally and by Head Office as resources for schools and others.

Objective

To make use of educational opportunities to produce a personal commitment to natural, historic and recreational values.

Issues

Strategies

For the future, the educational tools that can be used by the department depend on constraints on resources and competing priorities. These constraints require the department to select the most effective ways to educate, such as those that strengthen the personal conservation ethic.

A two-pronged approach is favoured. First, because conservation messages are greatly enhanced when heard on-site in the natural environment, the department gives priority to opportunities that add an educational component to first-hand experiences.

Second, recognising the importance of the formative years of young children, education programmes target pre-school and early primary institutions.

Learning institutions

Children are potentially important advocates for conservation because key principles established in formative years often become lifelong values. Within resource constraints, full use is made of initiatives and opportunities to bring the conservation message to students at all levels of the education system, but priority should be given to children in their formative years.

Often the most effective way to achieve these aims is to educate the educators, leaving them to spread the conservation word to their much wider audience. Consultation ensures that educational programmes and information meet the needs of both the department and the educators. Activities specific to young children also instil key conservation principles. Resources for these activities are made available to appropriate institutions and individuals and their use is actively encouraged.

When possible, the department works to integrate the conservation ethic into school programmes such as through school charters. Educational resource material also supports programmes covering the natural, historic and recreational values of the area visited.

Visitors to areas administered by the department

Summer holiday activities and conservation volunteer programmes are two "captive audience" opportunities for conservation education occurring on areas administered by the department, often for an older audience (§20.5, p.355). Full use should be made of these opportunities by ensuring that relevant education resources are available to staff leading programmes. Opportunities are taken during on-site programmes to promote conservation as a whole.

Opportunities are also taken to educate visitors on areas administered by the department. Field staff and concessionaires should be provided with resource materials, encouragement, and training to maximise these opportunities.

Implementation

20.2.1 *Educational opportunities in the natural environment and especially with young children will receive priority.*

20.2.2 *Outdoor education programmes in learning institutions will be supported.*

20.2.3 *Active support and encouragement will be given to educators to teach conservation principles, especially to young children.*

20.2.4 *Through consultation, educators will be made aware of, and encouraged to use, existing educational resources and to identify their future needs.*

20.2.5 *Resource materials will be created to promote specific issues, topics and campaigns.*

20.2.6 *Opportunities will be provided for training staff, educators and concessionaires to ensure that they present high quality information and make full use of educational opportunities presented by visitors on areas administered by the department.*

20.2.7 *Education information will be kept up to date.*

20.2.8 *Educational institutions will be encouraged to incorporate the conservation ethic into their charters.*

20.3 MEDIA

The media can have a powerful impact on attitudes. Conservation and 'green' issues are receiving greater attention, even among people who may otherwise be unaware of conservation issues. The department can also direct public opinion and attitudes by taking the initiative and promoting specific topics, issues, or conservation policy through the media. Through reporting its actions, the department can subtly or forcefully speak for the habitats, species and the natural, historic and recreational values of areas administered by the department. Media can also be used to raise awareness of the department's role in conservation and statutory advocacy.

Head Office focuses mainly on national media issues, particularly those with political significance, whereas at a conservancy level the focus is on issues of special local interest and ensuring that those of wider significance reach the national forums. The conservancy must also monitor the media to ensure that conservation issues are accurately reported and help anticipate possible adverse publicity or conflict situations. When dealing with the latter, the department must maintain accuracy and integrity.

Objective

To use all media opportunities effectively to raise awareness of the department and conservation generally.

Issues

Staff and media

By "putting a face" on the department, and creating a higher media profile for staff in key roles, important links are established between areas administered by the department and the community. Training can enhance the skills of those key staff and others who have the appropriate attributes to work successfully with the media.

All staff, especially those in field centres, are encouraged to recognise opportunities to promote both the department's work and role, and conservation in general through the media.

Priorities

Protection and recreation stories, or those on use of areas administered by the department, should be promoted most widely. Local media can be used to promote local conservation issues, and television should be used whenever possible.

As many visitors to the conservancy come from Christchurch and Wellington, those regions should be targeted for items about the many and varied conservation activities in Nelson and Marlborough. Articles in relevant national publications can ensure that recreation and protection information and departmental views are shared with the wide range of people who may have a major influence on impacts in areas administered by the department.

Implementation

20.3.1 *Frequent contact will be maintained with local media, both press and radio.*

20.3.2 *Press releases will be made about departmental initiatives, staff activities and general conservation news.*

20.3.3 *Responses to adverse publicity events will be made at the appropriate level.*

20.3.4 *Recreation and protection issues will have priority for media releases.*

20.3.5 *Staff awareness of media opportunities will be fostered at all levels and training given as required.*

20.4 CAMPAIGNS

By targeting specific conservation issues, publicity campaigns aim to arouse public interest, awareness, support, participation and understanding of those issues.

They can fall into two categories:

- annual topics, such as conservation week; and
- locally generated issues, such as marine reserve applications.

The second category of locally generated issues, can be further split into two groups:

- consultation campaigns required by legislation; and
- issues identified for their public awareness importance.

Whatever their type, campaigns demand a range of approaches including some or all of the following:

- public meetings;
- displays;
- activities; or
- education programmes.

Essential elements in a successful campaign are originality of approach, high quality resource material and presentation, and staff who can work in public forums. Effective campaigns target specific audiences that can be grouped under three broad headings:

- **Visitors** - who visit areas administered by the department or take part in conservation oriented activities elsewhere, such as beach clean-ups, and tree plantings. Through these experiences they often progress to become supporters.
- **Supporters** - who are already supportive of conservation and often wish to know more.
- **Associates** - who interact with the department on a more formal basis on management issues. At a high level they include: iwi, local and central government agencies. Others include land managers, tourist operators, professional and business people.

Objective

To raise participation levels, awareness, support and understanding of major conservation issues.

Issues

Targeting

Campaigns involve a significant financial investment and use a wide range of specialists within the department. To maximise this investment, target

audiences must be clearly defined and the appropriate media or consultative options set up to ensure that they are reached.

Monitoring

Because of the financial investment in campaigns, they must be monitored for effectiveness. Although assessing attitudinal change is difficult, a simple cost-effective monitoring process needs to be developed to help in planning later campaigns.

Regular and annual events

Local participation in national promotions such as Conservation Week and Arbor Day is important but the level of involvement must be carefully assessed. For example, it may be appropriate for associate agencies to take the lead with the department in a supportive role, but involvement at some level is usually necessary to ensure that opportunities to promote conservation are not missed. Annual local events such as A & P shows are excellent opportunities for field centres to maintain a conservation presence in their communities.

Liaison, both within the department and with associates, is essential for effective national campaigns. Each year an events calendar is drawn up in consultation with Head Office, staff within the conservancy, field centres and associates.

Sponsorships

The business sector of the community has the potential to be a powerful ally in changing attitudes towards conservation, and through sponsorships, provide a valuable opportunity to work co-operatively.

Sponsorship is co-ordinated at a national level for major campaigns. Opportunities also exist to negotiate packages at a local level. Consultation with Head Office will ensure that no conflict occurs with national sponsors. As well, care is required to ensure that business activities of the sponsor are consistent with good conservation practice.

Careful consideration must be given to whether possible gains match the effort required in achieving sponsorship support. Caution must be exercised to ensure that the sponsorship accepted does not compromise conservation or the department's image.

TABLE 48: PRIORITY FOR MAJOR EVENTS

CAMPAIGN OR EVENT	PRIORITY
Conservation Week	High
McDonalds Tree Planting	High
Arbor Day	Moderate
Walk Week	Moderate
Trees & Forests Week	Low
Keep New Zealand Beautiful Week	Low
World Environment Day	Low
A & P Shows	
Nelson	Moderate
Blenheim	Moderate
Motueka	Moderate
Flaxbourne	Moderate
Tapawera	Moderate
Golden Bay	Moderate
Kaikoura	Moderate
Murchison	Moderate
Rai Valley	Moderate

Implementation

20.4.1 *Annual activities such as Conservation Week will be given priority as set out in Table 48, p.354.*

20.4.2 *A calendar of promotional events will be compiled each year as part of the business plan cycle.*

20.4.3 *The department will liaise with relevant associates to determine who should co-ordinate particular campaigns of common interest.*

20.4.4 *All campaigns will be carefully planned to ensure maximum effectiveness.*

20.4.5 *The process and progress of each campaign will be recorded to help in planning future campaigns.*

20.4.6 *Sponsorship will be actively sought, when appropriate, to extend departmental abilities.*

20.5 COMMUNITY PARTICIPATION

Many people like to volunteer to help the environment, or a specific worthy cause, and because the work load is always more than can be completed, those people should be given the opportunity to help. Providing such opportunities has many mutual benefits, such as reinforcing those people as advocates for conservation, helping the department and the community.

Several established opportunities already exist, including Conservation Volunteers and Tu Kakariki. Tu Kakariki provides sponsorship support for native tree plantings on public land and encourages the care and planting of native plants generally, involving community groups and schools. Conservation volunteer programmes and Conservation Trustees enable individuals or groups to participate in local activities, either through ongoing projects such as the Kumeras wetland restoration, or in an ad hoc way, involving their special skills or knowledge. Conservation Holidays allow the department to undertake projects that normally could not be undertaken, while providing an interesting and worthwhile working holiday for those taking part.

Where a volunteer programme cannot be run, support is given to associated programmes, such as the New Zealand Conservation Corps funded by the Ministry of Youth Affairs.

Objective

To involve the public in conservation through volunteer programmes in order to achieve conservation gains and to foster a greater understanding of the department's role.

Issues

Activities

Activities must be enjoyable, within the potential ability of those undertaking the task, and have achievable goals. The social aspects of volunteer work are very important and volunteer and holiday programmes must be planned accordingly.

A major problem in establishing volunteer programmes is the large amount of effort required before they become self sustaining.

Priorities

In the first instance, priority is given to community-based initiatives such as the Marsden Valley restoration project. Activities which fulfil management priorities set by various sections within the department have second priority.

The criteria used to determine priorities for projects include:

- availability of funding, especially sponsorships;
- matching the work to the ability of the target group;
- providing rewarding experiences for participants;
- likelihood of public interest in the project;
- availability of staff resources;

- accessibility; and
- potential conservation gains.

Major conservation priorities particularly suitable for community participation are summarised in Table 49.

TABLE 49: PRIORITIES FOR COMMUNITY PROJECTS

Restoration of coastal vegetation
Restoration of lowland wetlands
Restoration of lowland forest remnants
Establishment of new lowland reserves
Control of old man's beard in Nelson
Hut and track maintenance

Implementation

20.5.1 *Established volunteer opportunities will continue to be provided.*

20.5.2 *Opportunities for volunteers will be identified or created at both field centres and the conservancy office.*

20.5.3 *Initiatives of associates will be supported.*

20.5.4 *Volunteer programmes and activities will maximise gains for conservation, in real terms and through raised public awareness.*

20.5.5 *Priority will be given to community-based initiatives for volunteer projects.*

20.5.6 *Volunteer opportunities will only be supported if they satisfy the criteria set out above.*

20.6 COMMUNITY LIAISON

Communication and contact with the community serves two main purposes--increasing public acceptance of the department's work; and increasing awareness of community perspectives, priorities and expectations.

The department administers areas in its care on behalf of the people of New Zealand. Public input into decision-making processes is important because of the strong public interest in areas administered by the department. To achieve the most effective and honest input, strong relationships must be built, based on trust and mutual respect so that contentious issues may be addressed in the most constructive way possible.

Two main avenues exist for the public to influence the management of areas administered by the department. The first is formal, through the Conservation Act, requiring consultation with tangata whenua and conservation boards respectively. Both these groups have strong links with the community. The second is through non-statutory meetings and forums, often called to discuss important, single issues.

Objective

To build strong links with the community by encouraging effective input into conservation issues and the management of areas administered by the department.

Issues

Tangata whenua

The primary relationship is between iwi and the Crown, and tangata whenua play an increasingly significant role in all management (§1, p.111). An obligation and willingness exists to give effect to the principles of the Treaty of Waitangi. Issues specific to Maori permeate much of the department's work and involvement occurs at all levels. By involving iwi in management decisions that relate to Maori, their needs can be reconciled with conservation goals, thereby building a strong and trusting relationship between the department and iwi.

Contact ranges from one-to-one discussions between staff and local iwi to official meetings with runanganui, runanga, and hapu. Members of iwi are consulted both as tangata whenua and as members of the public.

Conservation boards

Conservation boards fulfil the role of monitor, advisor and overseer of planning policy. They also ensure community input into conservation management, such as approvals for commercial use of areas administered by the department and land status changes.

Boards have a responsibility to promote conservation, particularly in local body planning. Because they can act independently of the department in public hearings, their ability to represent public opinion fully is not compromised.

The conservancy has two conservation boards, one each in Nelson and Marlborough. Representatives are appointed by the Minister of Conservation

from nominations received from tangata whenua, conservation groups and other members of the public.

Relations with other groups

Whether relationships with other community groups have been traditionally strong, difficult, weak or non-existent, they must be strengthened or new ones created. Every contact provides opportunities for discussion, explanations, understanding and support. Since much of the department's activity is in rural areas, it is essential to build sound relationships with neighbours over issues such as access to areas administered by the department, plant and animal pest control and to keep each other informed of activities near shared boundaries.

Existing good working relationships with conservation and recreation groups, the Fish and Game Council, local communities, the New Zealand Historic Places Trust, and media should be maintained and strengthened. Regular forums with non-governmental organisations (NGOs) such as local branches of the Deerstalkers Association and with staff of environment centres must continue, to encourage informed community comment on conservation issues.

Links have been forged with some important parts of the business community, local authority staff and councillors, but contact with less traditional groups such as industry is not as well developed. Dialogue with all groups should be maintained and strengthened. Links with local authority councillors and staff and local members of Parliament must be further strengthened. In particular, the department should work more closely with organisations with overlapping responsibilities. Sharing information systems and carrying out joint projects may be cost effective and improve outcomes.

Implementation

20.6.1 *Conservation boards will be consulted on major issues of policy, beyond their statutory requirements.*

20.6.2 *Through consultation, attempts will be made to reconcile Maori needs with conservation goals.*

20.6.3 *Working relationships with current supporters will be maintained and strengthened.*

20.6.4 *Relationships with new supporters will be sought and developed wherever possible.*

20.6.5 *The range of effective contacts with associates will be extended particularly in the rural, business and political communities.*

20.6.6 *Contacts with associates will be developed to foster mutual respect and trust.*

20.6.7 *Knowledge and information will be shared with the community, within the requirements of the Official Information Act.*

20.6.8 *Where the effectiveness of the department can be improved, it will initiate and participate in joint projects with associates to achieve cost efficiencies and improve outcomes.*

20.6.9 *Staff will be made aware of their individual role in community liaison.*

21. Planning

21.1 STATUTORY PLANNING

In many areas where the department seeks to protect natural, historic and recreational values, the land or resources are not managed by the department. This is particularly significant in the lowland and coastal areas where the greatest part of the population resides. One of the most important direct mechanisms for achieving protection of natural values on these areas is through the statutory planning procedures of the local authorities. The Resource Management Act 1991 (RM Act) is the main vehicle for statutory planning.

Statutory advocacy itself is a little broader. It is the use of the processes provided in Acts of parliament to put forward a particular viewpoint. Section 6 of the Conservation Act allows the department to promote its views on conservation in these forums. Section 3 of the Wildlife Act 1953 is also used in a few instances. The department is the only central government voice for conservation in statutory processes. The department may also become involved in plans and policies of other agencies such as the native forests policy. These are not usually statutory processes. Only those statutory processes where the department has a right to be heard are considered here. Advocacy under legislation such as the Biosecurities Act is not considered here.

The RM Act sets out the planning procedures for local authorities and for the department in its statutory advocacy responsibilities. The corner stone of the Act is the concept of sustainable management. The RM Act requires a New Zealand coastal policy to be prepared, and allows for the preparation of national environmental standards and policy statements that bind the local authorities.

Regional policy statements and coastal and district plans must be prepared by each local authority. Other regional plans may be prepared for a range of issues, such as waste or freshwater management, tourism or heritage management. All such policy statements and plans must have regard to any relevant Conservation Management Strategy. In this way, the department may influence objectives in local body planning, not just for areas managed by the department, but also on conservation issues generally. The key areas of concern for this conservancy are set out in the OVERVIEW section of this document (pp.29-63). Many other sections in this document detail instances where advocacy is appropriate. (§1.5, p.53; §2.2, p.65; §3.1, p.72; §6.2, p.100; §7.6, p.106; §5.3, p.93; §4.7, p.83; §2.2.6, p.127; §9.0.14, p.192; §10.1.12, p.201; §11.3.5, p.220; §12.0.5, p.223; §13.0.3, p.228; §14, p.235; and §14.11, p.264).

District and regional plans established under the RM Act set out the rules for the use and management of resources, including land, water and air. The process for the preparation of the plans allows for public and therefore departmental input into them. Similarly, consents required under the act allow for departmental input. The Planning Tribunal is the primary body responsible for adjudicating on any appeals. Appeal is to the High Court on points of law only.

This conservancy is covered by the Nelson, Tasman and Marlborough Unitary Authorities and the Kaikoura District Council. The Kaikoura District and a few

parts of south-western Marlborough lie within the Canterbury Region while small parts of south-western Nelson lie within the Buller District of the West Coast Region.

Objective

To protect natural and historic values through advocacy during statutory processes administered by local authorities.

Issues

Need to be proactive

Regional policy statements, regional district and other plans are required to be regularly reviewed. The review process is a critical opportunity as it is a time to build support for the conservation viewpoint in the wider community (§20, p.339).

Through rules, performance standards, and other means, plans can establish constraints on particular activities. Promoting provisions that support conservation at this stage may reduce involvement in resource consent applications later because provisions that deal specifically with the exceptions are more effective than trying to influence them later.

The RM Act binds the Crown

Because the RM Act binds the Crown, provisions in the policy statements and plans of local authorities apply to the department. The department, and other organisations or individuals with proposals on areas administered by the department, must apply for resource consents for activities, as required by the RM Act (see §14, p.235; §14.9, p.255; §14.11, p.263; §18.2.6, p.306; §18.3, p.310; §18.5, p.315). Section 4 of the RM Act, however, gives limited exemption to the department provided the activities comply with a management plan or CMS. To carry out its activities effectively the department seeks to obtain appropriate provisions in policies and plans for areas administered by the department. This can act in addition to conditions in leases to limit the options of lease holders.

Protection of private lands

Designations, Water Conservation and Heritage Orders are the tools available to the department under the RM Act to set aside areas for particular purposes (§2.2, p.101). Under the RM Act limitations exist on the ability to protect natural and historic values which vary with the particular instrument used. This may often result in the need for asset acquisition of the area or for compensation to be paid.

Building goodwill

One of the best measures of the success of statutory advocacy is the lack of instances requiring involvement. The use of goodwill and co-operation is generally more effective than legal force. Hence, it is important to work with local authorities and other interested parties to create and maintain a climate in which interests are mutually declared, understood and respected.

Consultation maintains or enhances support from interest groups, and local authorities, and is generally preferred to statutory action. It is often more effective to negotiate and mediate to achieve an interim goal, especially if this is also likely to achieve longer term goals. Statutory action is generally only used as a last resort.

Techniques and tactics

Putting a case to the local authority is not the only means of achieving a solution to a problem. Options range from doing nothing, to the use of education, persuasion, lobby groups, conservation boards, tangata whenua, politicians and news media, to covenants, purchase and direct negotiation. Regular liaison with allied parties can avoid duplication of effort and ensure that submissions complement each other. Discussion can identify these opportunities and then each party can represent those interests it is best able or qualified to speak on. For instance, the New Zealand Historic Places Trust has the prime responsibility for promoting heritage plans and the general protection of historic buildings and places. The department usually acts only in a supporting role (§5, p.155).

In the absence of an environmental protection agency the department has an important role in advocating environmental protection. Sometimes it is better for the department to take no direct part but instead to assist conservation boards or other allies to make submissions (§20.6, p.357).

Priorities

Sustainable management is a broad concept and the brief for conservation is very wide. The number of issues involving the department means that, in relation to its full potential for involvement, only a portion can be actively taken up at one time because of the limited staff time available.

Issues may range widely from preventing pollution to protection of known heritage values. The major challenges for the department are along the coast where development is concentrated. Specific provisions in coastal and district plans can help to integrate activities or protect areas administered by the department from activities on adjacent land.

The extent to which the department should get involved in such issues is set by:

- opportunities;
- ability to achieve conservation goals;
- Tribunal and High Court precedents;
- need to set precedents locally and nationally;
- lack of other recourses;
- whether others can address an issue;
- need to highlight a problem, regardless of outcome; or
- availability of staff.

Resource consent applications are monitored and assessed and a response is made when an impact is of significant concern to conservation. Of particular

interest are opportunities to enhance protection of natural, historic and recreational values.

Priorities should ideally be set according to the relative importance of the issue at the time. Actions can be proactive through district and other plans or reactive in dealing with resource consent applications.

Factors considered in setting a priority include:

- degree of threat;
- level of current protection;
- requirement for protection;
- sensitivity to use; and
- long-term conservation benefit at stake.

Other factors may be:

- cost effectiveness;
- precedent;
- educational value;
- interference with established activities;
- availability of resources; or
- ability of other agencies to effectively deal with the issue.

Implementation

21.1.1 *The main statutory planning priorities will be determined by the factors listed above and generally relate to those subjects listed in Table 50, p.363.*

21.1.2 *Input into preparation and reviews of policy statements and plans under the Resource Management Act will be made to ensure that natural, historic and recreational values are considered.*

21.1.3 *Appropriate provisions will be sought in plans to ensure protection of natural, historic and recreational values and management flexibility on areas administered by the department, within the RM Act framework.*

21.1.4 *Liaison will be maintained with tangata whenua to assess mutual interest or concerns relating to relevant planning issues.*

21.1.5 *Liaison with allied groups on planning issues will be used to achieve greatest conservation gain or to avoid duplication of effort.*

21.1.6 *Liaison will be maintained with local authorities to identify the department as an interested party and address conservation issues generally and in consent applications.*

21.1.7 *The department will participate in statutory procedures under other legislation to optimise conservation benefits.*

21.1.8 *Appropriate provisions will be sought in regional and district plans to protect known natural, historic and recreational values on areas administered by the department and to establish buffers to them.*

21.1.9 *Pre-hearing meetings will be requested where solutions seem feasible, both before and after placing a submission.*

TABLE 50: RESOURCE-RELATED PRIORITIES FOR STATUTORY PLANNING

ISSUES	PRIORITY	MAIN CONCERNS
Areas administered by the department	High	Natural, historic and recreational values
Protection and buffers for areas administered by the department	High	Takaka Hill karst
Coastal	High	Aquaculture Coastal development Water quality Marine reserves Visual impacts of change
Marginal protection zones of lakes, rivers, the coast and other water bodies	High	Fire Noxious plants and animal pests Ecological corridors Access Aesthetic or landscape values Esplanade reserves
Habitats	High	Lowland or riparian Marine and estuaries Flora and fauna Freshwater wetlands Coastal and marine wetlands Islands Ultramafic areas Alluvial forests
ACTIVITY RELATED PRIORITIES FOR STATUTORY PLANNING		
Waste management	High	Waste reduction, reuse, recycling Sewage disposal Hazardous chemicals Rubbish disposal Spiritual/cultural values
Forestry	High	High country Marlborough Sounds Roading and other access issues
Subdivision	High	Esplanade reserves contribution Coastal
Mining	Moderate	Effects on water habitats Roading

TABLE 50: RESOURCE-RELATED PRIORITIES FOR STATUTORY PLANNING (CONT.)

ISSUES	PRIORITY	MAIN CONCERNS
Energy development	Moderate	Hydroelectric Thermal (nuclear, coal, gas)
Gravel extraction	Moderate	Riverbed Native fish Visual impact
Drainage, flood control	Moderate	Habitat Natural, historic and recreational values
Freshwater fishing	Moderate	Fish farming Commercial use
Industrial development	Moderate	Pollution
Horticulture	Moderate	Water abstraction

21.2 MANAGEMENT PLANNING

Until 1990, the main means of public input into management of areas administered by the department was through management plans. These were required for all reserves and national parks although out of 388 reserves in the conservancy only 14 have approved management plans (Table 52, p.356). Plans were also approved for the forest parks and some other areas under the Forests Act 1949 and saved under the Conservation Act. As at 1996 most major tracts in this conservancy had current management plans and current or draft plans exist for an additional 34 other areas.

The amendment to the Conservation Act in 1990 changed the requirements for management plans and established conservation management strategies (CMS) to implement general policies and establish objectives for the integrated management of natural and historic resources. In this, they serve as the primary management planning document for all the area and departmental interests. They link the Conservation Act and General Policies approved by the Minister and guidelines produced by Head Office with the management of areas.

In most respects the CMS is the single management planning document for this conservancy that supersedes almost all older management plans and avoids the need for new ones. Except for national parks, management plans are no longer legally required for all areas. Management plans relate to particular areas, whereas the CMS is an umbrella document for all areas and all conservation management plans (CMPs), including national park management plans.

The function of a CMP is to implement conservation management strategies and establish detailed objectives for the integrated management of natural and historic resources within an area. In this it draws together the different and often competing interests of functional strategies, site prescriptions and other non-statutory documents for a particular area. It sets out a uniform path for management for an area and allows for public comment on management directions of local interest.

Besides the CMS and CMPs many types of non-statutory planning documents exist. Some are of a one-off nature and based on areas, such as detailed work plans for a site (site prescriptions, operational plans). Others are based on functions of the department (functional strategies) and provide a programme for particular activities, such as recreation, wild animal control or species recovery, for a five to ten year period.

Manuals and guidelines set out the details of the construction of facilities and particular procedures. For instance, development of a picnic area will be determined by a site prescription, the design of equipment, tracks and signs on it by design manuals, and the general layout by a landscape plan.

Objective

To integrate management of particular places and to provide a means for public comment on substantive issues that may arise from the department's activities and proposals.

Issues

Changing basis for management plans

The role of management plans within the new planning framework has been redefined. In the past, management plans allowed the public to comment on issues for the management of a particular area. The management plan then provided a record of the resolution of the issues in a way that bound the land managers. These plans concerned themselves almost solely with the particular land unit and often ignored significant adjacent lands and issues that were shared with them.

Only the most recent plans provide an adequate basis for resolving many current issues. Most plans are either too narrow in their scope or now dated and can be discontinued. Usually the CMS will provide a better basis for management because the CMS looks at activities on an individual reserve in relation to the conservancy priorities as a whole, rather than as a separate unit. Also, the CMS is proactive in responding to problems by providing the policy framework for resolving a wide range of issues not currently encountered in an individual land unit.

Role of conservation management plans

In the past, the first step in attempting to resolve a problem in a reserve was to consult the management plan or call for one to be prepared and the submission process was the only means of public input into the management process. Now, the CMS is the first point of reference. Today several other means can achieve public participation in management. They include direct consultation with interest groups, often on a regular basis, and statutory processes such as those for land status changes (§2, p.115), leases or concessions (§14, p.231).

Management plans usually focused on the management of one land unit. Many of the issues for management plans are generally applicable and appropriate to the CMS and now are covered by it. Detailed site planning is now carried out through site prescriptions on a conservancy-wide basis. As a result the role of management plans is considerably reduced and will focus on integrating activities for major developments.

This leaves one important role for CMPs. This role is to provide a vision for the management of a large unit such as a new park when it is constituted, especially where the issues are complex and not adequately covered by the CMS. A CMP would help give that area recognition. Such plans would have a defined term and not necessarily be renewed.

Need for conservation management plans

The following factors may determine the need for a management plan:

- the need to focus public or management attitudes;
- special problems that are not covered by the CMS prevail;
- this conservation management strategy does not cover the issues in sufficient detail;
- the range of functional activities needs to be co-ordinated; and

- public pressures and conflicts need to be resolved.

The issues must generally be of an enduring nature and not able to be resolved by consultation or other processes. Table 51 lists the CMPs that are required by the CMS (see Figure 15 and also §2.3, p.129).

Review of conservation management plans

All CMPs must be reviewed after 10 years. Sometimes amendments are required because of unforeseen circumstances. Amendment of the plan can be:

- major amendment requiring public notification; or
- minor amendment made directly by the relevant conservation board.

At any major review the continued need for the management plan should also be assessed.

The relevant criteria for a minor amendment are:

- no substantial deviation from the intent of the plan;
- no deviation from the objectives or policies of the relevant section of the CMS; and
- no conflict with users of areas administered by the department.

Minor amendment will normally accommodate technical changes such as new names for organisations or clarifications of the intent of statements in a management plan.

Role of functional strategies

Functional strategies provide a greater level of detail than that contained in the CMS or a CMP, particularly in resource information, but lack the wider vision of the CMS. They are prepared with varying levels of consultation but have no statutory basis. The essentials of these documents are incorporated in the CMS.

The development of recreation and interpretation strategies provides a better basis for the management of most the reserves than ever existed formerly. Similarly, coherent programmes for habitat and species management and many other aspects of management draw together aspects of planning within each functional area.

Role of manuals and guidelines

Manuals are particularly important for standardisation in recreation management. They set detailed standards for all facilities. Similarly, manuals and guidelines set details of practices in other functional areas. Some of these have a statutory basis such as those for handling poisons. Their role is to provide a uniform technical framework for the department's actions.

Role of operations plans

Operations plans include landscape plans, site prescriptions, recovery plans and similar documents that bring together several projects based on the one area. They have no statutory basis. They may be carried out over one or several years. Their purpose is to ensure continuity of funding to see the completion of a

particular task in a particular area, such as restoration of a reserve. It may include such things as the planning of plantings, plant pest control, planning of tracks and provision for public facilities, as prescribed in general terms in the CMS (§21.1, p.360; §18, p.298).

Implementation

21.2.1 CMPs will be prepared and maintained for the national parks and other significant areas as set out in Table 51.

21.2.2 All existing management plans apart from the those listed in Table 51 will be superseded by this CMS.

21.2.3 Further CMPs may be prepared according to the criteria set out above and following approval by the Minister.

21.2.4 Minor amendment to CMPs may be approved directly by the relevant conservation boards, and minor changes to national park management plans may be recommended directly to the New Zealand Conservation Authority.

21.2.5 The need for any CMP will be subject to a review paper prepared for the relevant conservation board before referral to the Minister.

21.2.6 Any CMP will be preceded by the preparation of a resource summary or any review by a resource review.

21.2.7 Any review of a plan will re-assess the continuing need for that plan.

21.2.8 The CMP will refer to the CMS rather than repeat policies stated in that document.

21.2.9 Functional strategies will be prepared only where short-term detailed functional planning is required.

21.2.10 Manuals and guidelines will be prepared to set out details of management practices.

TABLE 51: MANAGEMENT PLANS REQUIRED BY THE CMS

AREA	REASONS
Significant areas:	
Nelson Lakes National Park Abel Tasman National Park Marlborough Sounds Maritime Park Kahurangi National Park Puponga/Farewell Spit	Required by the National Parks Act Required by the National Parks Act Sounds Foreshore Reserves, islands issues Very complex land unit, many issues Farm park, with important protective function
The following would be one term plans:	
Murchison conservation areas Inland and Seaward Kaikouras Inland Marlborough	New land unit, draw together different status New land unit, draw together different status New land unit, conifer spread problem

Map 16 Major Management Planning Units

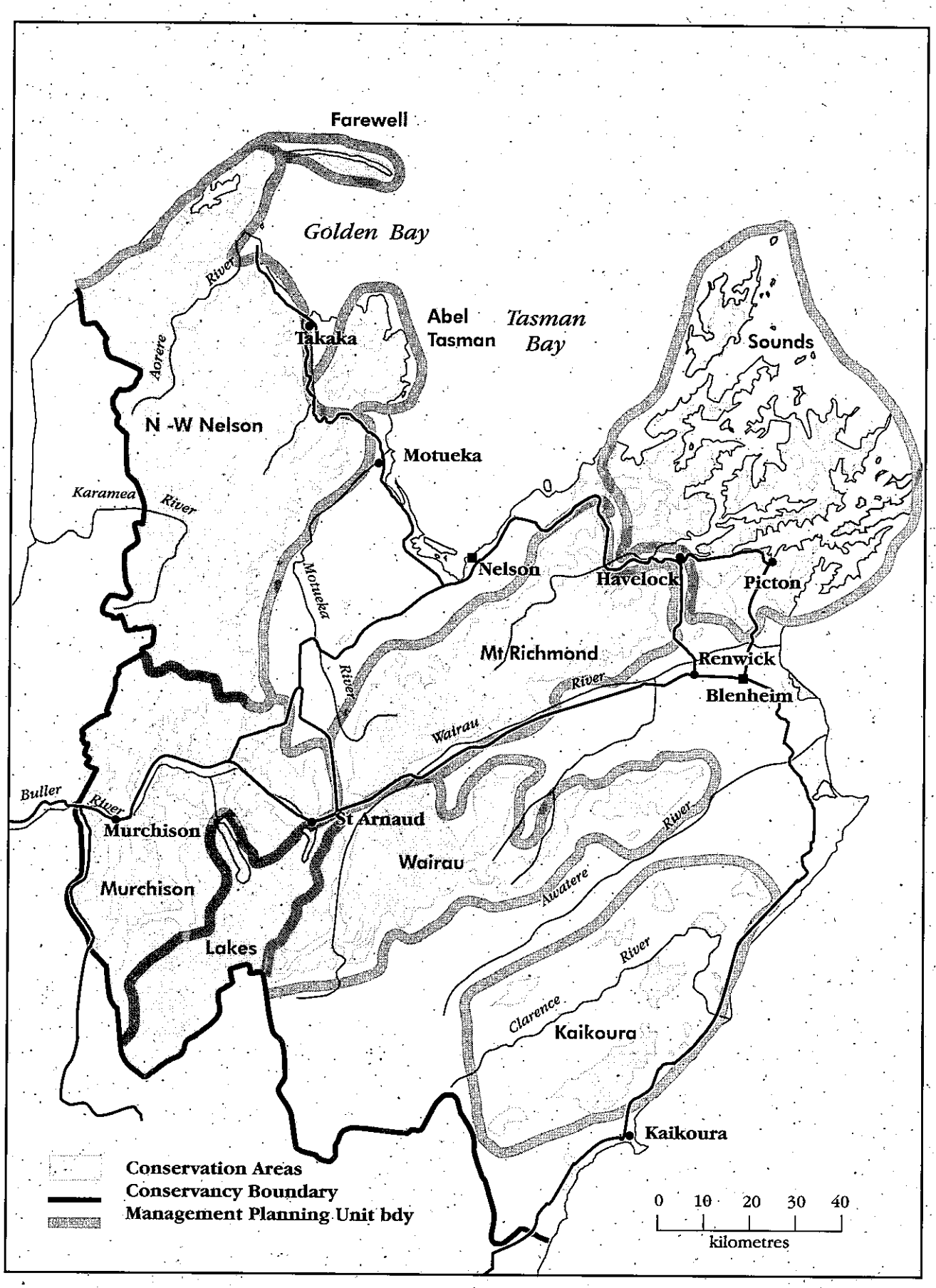


TABLE 52: LIST OF MANAGEMENT PLANS AS AT 1/6/96

PLAN	DATE	NOTES
Major Areas		
Abel Tasman National Park	1986	Current
Farewell Spit Nature Reserve	1990	Current
Marlborough Sounds Maritime Park	1987	Current
Mt Richmond Forest Park	1982	Lapsed
NW Nelson	1990	Current
Nelson Lakes National Park	1988	Current
Puponga Farm Park	1990	Current
Other areas		
Aorere Goldfields	1987	Draft
Arapawa Island Scenic Reserve	1982	Current
Chetwodes Islands	-	Draft
Dry River Scenic Reserve	1984	Draft
Ferny Gair Crown Land	-	Draft
Glazebrook Farm Settlement	1985	Draft
Grove Scenic Reserve	1982	Draft
Kaihoka Lakes	1983	Draft
Karaka Point	1978	Draft
Kowhai Crown Land	1978	Current
Mabel Scenic Reserve	1985	Current
Mangarakau Scenic Reserve	-	Current
Marfells Beach Scenic Reserve	-	Draft
Milnthorpe Development	1983	Current
Mt Fyffe	1985	Lapsed
Onamalutu Scenic Reserve	1984	Current
Paynes Ford	1982	Current
Pelorus Bridge	1972	Current
Pupu Springs	1985	Draft
Rameka Scenic Reserve	-	Draft
Rolling River (Goldfield)	1985	Draft
South Marlborough State Forests	1982	Draft
Takaka Hill Scenic Reserve	1982	Draft
Tapuaenuku Scenic Reserve	1986	Current
Tawaho Fans	1985	Current
Titi Island Nature Reserve	1983	Current
Titirangi Farm Park	1984	Current
Tom Shand (Maud Island)	1983	Current
Top Valley	1987	Draft
Waimaru Scenic	1983	Current
Wairau Lagoons	1984	Draft
Warbeck Scenic Reserve	-	Draft
Washborne	1983	Draft
Whites Bay Domain	1974	Current

PART FOUR
IMPLEMENTATION

22. Business Plan

CMS priorities are put into effect through the annual Business Plan. Each year each conservancy prepares a plan setting out the activities it intends to complete in the current year. This forms the basis for managing finance allocated to the department and directed for use in the conservancy.

The department is funded by an annual appropriation from parliament as a result of agreement between the Chief Executive and the Minister to carry out an agreed range of activities which the Minister, and the government of day, wish the department to achieve. These achievements are classified as Outputs.

One of the main purposes of the Conservation Management Strategy (CMS) is to provide a guide to the priorities to be pursued by the department over the next 10 years. Thus the CMS will establish targets which the conservancy will aim to achieve. Annual business plans will seek to reach these targets as personnel and finances permit and depending on the priorities of the government of the day.

Objective

To implement the CMS priorities through the annual Business Plan.

Issues

Priorities in any one year may vary from those set out in the CMS according to national priorities and the extent to which priorities were satisfied in previous years. Threats to natural, historic and recreational values, finance, national priorities, and many other factors can re-direct the priorities from year to year. Within these constraints this CMS will be implemented

Priorities as tabulated in the CMS will change over time as activities are completed and new issues arise. Priority tables will need to be interpreted each year as part of the business planning process and will involve consultation with the conservation boards

Implementation

22.0.1 *The Business Plan will acknowledge the priorities set out in this Conservation Management Strategy.*

22.0.2 *Each year an annual report will be presented to the conservation boards summarising progress on implementing this CMS and reviewing progress on priorities of the CMS prior to the preparation of the business plan.*

22.0.3 *The conservation boards will be consulted on priorities prior to and during the preparation of business plans.*

23. Regional priorities

INTRODUCTION

This section is necessarily incomplete because of large information gaps. For business planning purposes, this section draws together the major priorities arrived at in the various preceding FUNCTIONAL sections by region, but excludes priorities common to all field centres. The priorities in this section, as elsewhere in the document, are not ranked in any order. The basis for the priorities and integration of them across the conservancy is covered in the respective INTRODUCTION and OVERVIEW sections of the document (p.49 and p.111). The priorities set out in this section give a general direction for activities rather than forming a definitive list of actions that will be taken over the next decade. Priorities from year to year are developed through the Business Plan (§22, p.373) as resources and personnel permit and at the direction of the Minister.

The major areas correspond with the current Field Centres (Figure 3, p.50).

Golden Bay

The area includes the rugged North-west Coast and extensive shallow bays and estuaries of Golden Bay. The small area of modified lowlands are surrounded and enclosed by forest-clad mountains including the northern part of Abel Tasman National Park. Most of the upland area is within North-west Nelson which is more or less continuous with Farewell Spit and its tidal flats which are a Nature Reserve.

Waimea Basin and Upper Karamea

The Waimea Basin and Upper Karamea is a varied area of four parts: a broad plain mainly in private tenure; mountains to the east contained in Mt Richmond Forest Park; the forested southern part of Abel Tasman National Park; and mountainous headwaters of the Karamea and Motueka Rivers within North-west Nelson and form part of Kahurangi National Park.

Upper Buller

The Upper Buller River and its tributaries form the basis of this area. Although most of the valley floors are under pastoral management half the area is national park and much of the remainder is conservation area.

Marlborough Sounds

The Marlborough Sounds area is half water and half land - an intricate mosaic of bays, peninsulas and islands. Most of the land area is in lowland shrubland and forest although the Outer Sounds and inland valleys are dominated by farmlands. A large part of the area is held by the department in an intricate tangle of reserves.

South Marlborough

Much of South Marlborough is upland tussock grassland cut by three major rivers, the Wairau, Awatere and Clarence, although forested mountains occur in the north-east, at Isolated Hill and along the north bank of the Wairau. Only about 15% of the area is protected as conservation areas or Forest Park with most of that in the north and wetter west.

Kaikoura

The Seaward Kaikoura Ranges form the backbone to this area. Most of the population lives along the narrow coastal strip. Areas above 1000 m in the Seaward Kaikoura Ranges are largely protected but elsewhere reserves are small and scattered.

Management of species and communities

- Active management of *Powelliphanta gilliesi brunnea* at Paturau (Table 23, p.148).
- Active management of the remaining coastal peppercress near Separation Point, including removal of browsers, encouragement of seabirds, and extensive replanting (Table 23, p.148).
- Maintain the best areas of pakihi on protected land in the Aorere Valley in a seral stage for the preserve distinctive communities (Table 24, p.151).
- Identify and protect the freshwater wetland areas on the North-west coast (Table 9, p.86).
- Protect the aquatic community of the Waikoropupu Springs (Table 9, p.86).
- Protect the habitat of the Nelson cave spider and other rare cave species (Table 23, p.148).

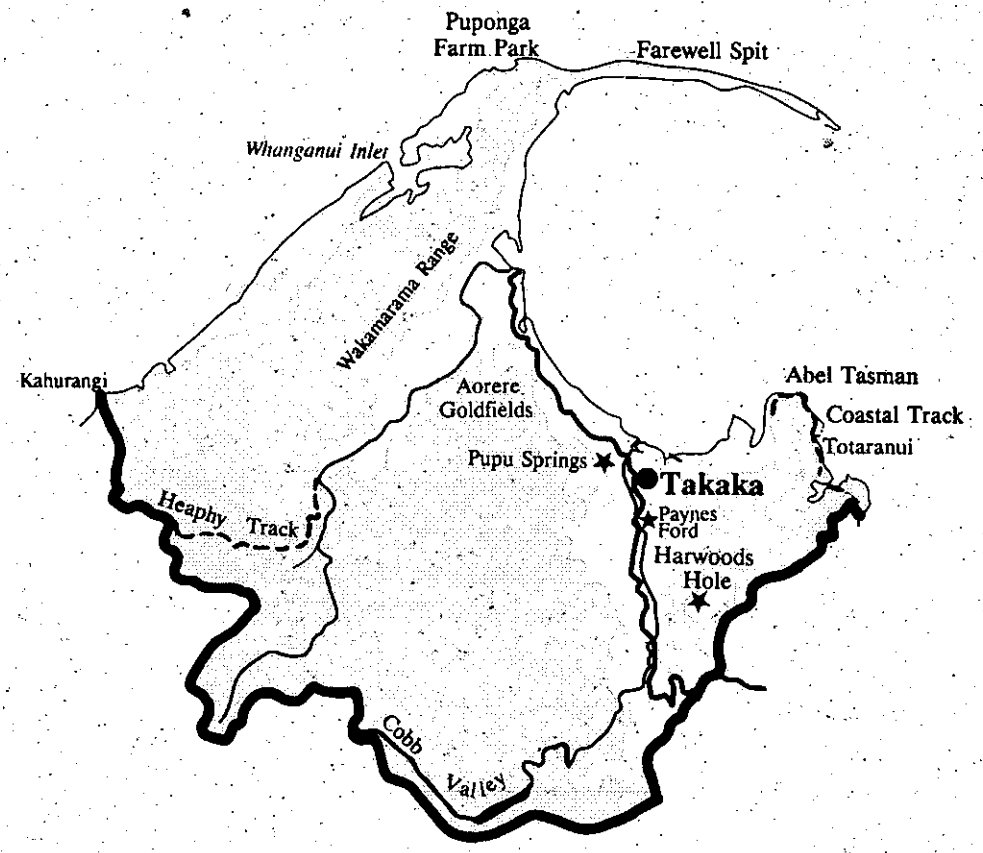
Threats

- Control the westward spread of goats into the Tasman Wilderness Area (Table 33, p.202).
- Control goats in the limestone and marble areas, with the priority on areas of plant endemism (Table 25, p.153; Table 33, p.202).
- Control pigs and possums in *Powelliphanta* snail areas and in areas of vulnerable endemic plants, particularly in coastal limestone forest (Table 25, p.153; Table 33, p.202).
- Remove stock from eroding dunelands and coastal forest (particularly near Kahurangi) (Table 25, p.153).
- Control plant pests (particularly gorse) in the ultramafic areas (Table 25, p.153; Table 32, p.194).
- Eradicate old man's beard from Golden Bay (Table 32, p.194).
- Control plant pests on lowland margins with a focus on banana passionfruit and wilding pines (Table 32, p.194).
- Prevent introductions of non-native species into freshwater systems lacking them (Table 9, p.86; §10.5, p.207).

Legal protection

- Protect unlogged coastal forest extending to the sea at Big River, forest remnants running to rocky coasts, dune systems and estuaries (Table 25, p.153; Table 50, p.363).
- Obtain legal protection for freshwater fish habitat, particularly at Mangarakau, Rakopi wetland and the Whanganui estuary (Table 25, p.153).

Map 17 Management Units
A - Golden Bay



KEY

Land administered by the Department of Conservation

Department Office ●

- Settle appropriate status and designation for Aorere goldfields area as part of establishment of boundaries for Kahurangi National Park (Table 22, p.131).
- Gain protection for all the inter-tidal shores adjacent to the Abel Tasman National Park (§2, p.115).
- Promote further marine reserves on the Abel Tasman and North-west coasts (§7, p.77).
- Establish the range of marine community types not protected by the resulting reserves and develop further proposals for suitable representative areas (§7, p.77; §2.2, p.122).
- Develop more effective protection for the Separation Point coral beds, in association with the Ministry of Fisheries (§7, p.77; §2.2, p.122; Table 50, p.363).

Research and survey

- Survey to determine priorities for control of pests in relation to values with a particular focus on possums and gorse (Table 28, p.173).
- Monitor land snail and great spotted kiwi populations in upland areas (Table 28, p.173; Table 29, p.175).
- Survey coastal archaeological sites and gold mining sites in the Taitapu area (Table 27, p.165).
- Investigate the distribution, ecological significance, sources of damage and trends in condition of the bryozoan coral beds (Table 29, p.175);
- Complete survey of freshwater fish and flora within North-west Nelson (Table 28, p.173).
- Monitor impacts of management activities at Farewell Spit (Table 28, p.173).

Recreation

- Maintain facilities and access to Kahurangi Point for horses and off-road vehicles with suitable constraints to protect natural, historic and recreational values (§16.2, p.276; §16.3, p.278; §18, p.297).
- Provide appropriate walking and historic interpretation opportunities at Taitapu, Pupu power scheme, and Lake Otuhie (Table 27, p.165; §18, p.297).
- Provide quality visitor experience on Puponga Farm Park and allow carefully controlled development of visitor opportunities associated with Farewell Spit (§15, p.265; §18, p.297).
- Gazette a fossicking area and maintain appropriate facilities, including interpretation, at Kaituna (§17.2, p.288).
- Negotiate access over Boulder Block and Quartz Range and maintain appropriate facilities at the Boulder Block, including interpretation of historic features (Table 27, p.165; §18, p.297).

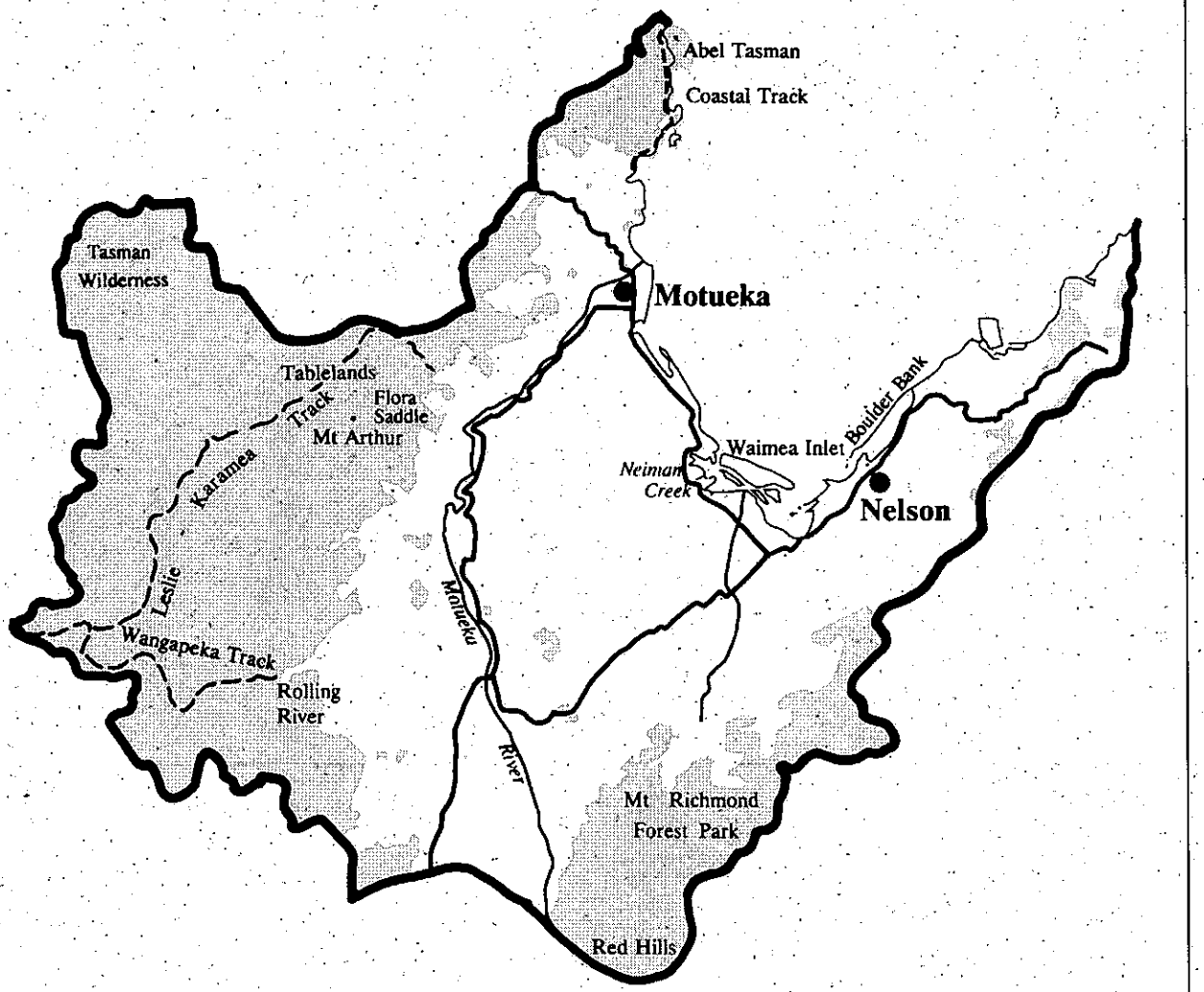
- Maintain and enhance facilities for remote recreation on the Inland Track in the Abel Tasman National Park (§15, p.265; §18, p.297; Table 39, p.318).
- Provide only essential facilities to enjoy natural environment at Totaranui campground (§18, p.297; §18.5, p.314).
- Maintain high quality interpretation facilities at key sites in Abel Tasman National Park particularly at sites associated with Abel Tasman's visit (§18, p.297; Table 43, p.332).
- Provide a high quality experience for large visitor numbers at Harwoods Hole (Table 13, p.100; §18, p.297; Table 39, p.318).
- Encourage and facilitate recreational hunting in the Cobb Valley and at Barrons Flat (§17.1, p.284).
- Maintain quality of visitor experience on the Heaphy Track through good facilities maintained to a high standard (§15, p.265; §18, p.297).
- Provide interpretation on the Heaphy Track (§6, p.94).
- Sensitively develop a wide range of visitor opportunities focused in the Cobb Valley (§15, p.265; §18, p.297; Table 36, p.307).
- Designate areas for horses and off-road vehicles, including mountain bikes in Aorere goldfields and elsewhere (§16, p.273).
- Sensitively develop visitor facilities at Waikoropupu Springs (§15, p.265; §18, p.297; Table 37, p.307).
- Allow sensitive development of facilities at Paynes Ford in conjunction with the rock climbing groups (§17.3, p.289; §18, p.297; Table 37, p.307).
- Negotiate agreement for access to Barrons Flat (§18, p.297).

Public awareness and planning

- Raise public awareness of water quality issues associated with recreational boating on the Abel Tasman Coast (§14, p.232; §20, p.339).
- Manage visitor information and promote conservation to both residents and visitors through facilities in Takaka (Table 45, p.336).
- Seek to protect high value areas from mining and hydroelectric development, and minimise impacts of mini-hydroelectric developments (Table 50, p.363).
- Advocate for controls on land use in areas with high natural values and on archaeological sites (Table 27, p.165; Table 50, p.363).
- Advocate for the protection of historic sites from contemporary mining (Table 27, p.165; Table 50, p.363).
- Participate in pastoral events to foster community interest in conservation (Table 48, p.354).
- Maintain consultation and negotiation with the local community over North-west Nelson boundaries (§20, p.339; Table 22, p.131).
- Review management plans for Farewell Spit, Abel Tasman National Park and Puponga Farm Park (Table 51, p.368).

- Prepare a management plan for Kahurangi National Park.
- Seek protection of estuaries from development pressure and encourage their mitigation.
- Develop community-based revegetation projects at Parapara Inlet (Table 25, p.153).

Map 18 Management Units
B - Waimea Basin & Upper Karamea River



KEY

Land administered by the Department of Conservation

Department Office

Management of species and communities

- Revegetate Pearl and Neimans Creeks (§4, p.141).
- Develop restoration projects at Motueka and Whakapuaka (§4, p.141).
- Protect key nesting bird habitat by appropriate restrictions on access to Motueka sandspit and Boulder Bank (§4, p.73; Table 25, p.153).
- Protect and monitor *Powelliphanta* land snail populations (Table 23, p.148).
- Manage marine mammal watching to protect seals and dolphins (§3, p.137).

Threats

- Control pigs, goats and possums in snail areas on the Arthur Range, particularly the Flora Stream, Billies Knob and the Richmond Range areas (Table 25, p.153; Table 33, p.202).
- Control goats, with emphasis on preventing further westward spread in North-west Nelson (Table 33, p.202).
- Control wilding pines and gorse in the ultramafic areas of the Richmond Ranges (Table 25, p.153; Table 32, p.194).

Research and survey

- Systematically collect more detailed biological information about the central Wangapeka Ecological District (Table 18, p.119).
- Survey for native fish in Abel Tasman National Park (Table 28, p.173).
- Monitor marine reserve at Abel Tasman National Park (Table 28, p.173; Table 29, p.175).
- Monitor impacts in high visitor-use areas at Abel Tasman National Park (Table 29, p.175).
- Investigate impact of sewage from boats on benthic communities Abel Tasman Coast (Table 29, p.175).
- Produce an inventory of Tasman Bay and Abel Tasman Coast estuaries and associated values (Table 28, p.173).
- Produce a North-west Nelson vegetation map (Table 28, p.173).
- Survey and protect archaeological sites on the coast associated with mining in North-West Nelson, and argillite quarries in the Richmond Ranges (Table 27, p.165).
- Survey for aquatic flora and fauna in North-west Nelson (Table 28, p.173).
- Seek to protect the natural and historic values of the Waimea estuary (Table 8, p.82).
- Monitor blue duck populations in Flora Stream (Table 28, p.173).

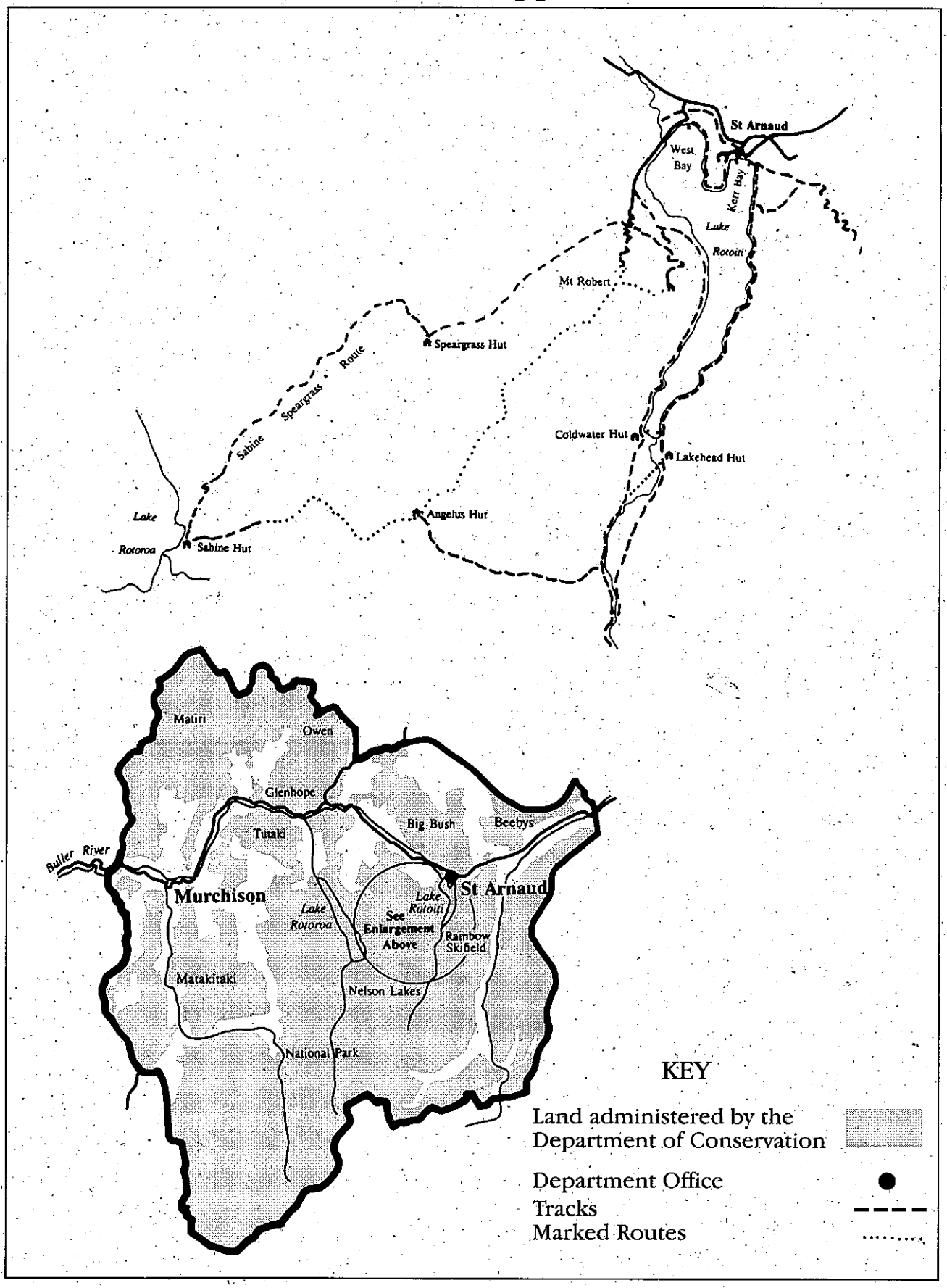
Recreation

- Maintain the integrity of the Tasman Wilderness Area (§15, p.267).
- Provide high quality and environmentally sensitive facilities on the Abel Tasman Coast Track (§15, p.265; §18, p.297).
- Maintain high quality facilities on Abel Tasman Coast for both day and overnight visitors (§18, p.297).
- Encourage private initiatives to provide for appropriate visitor services adjacent to the Abel Tasman National Park (§14.7, p.249).
- Develop quality visitor facilities at Flora Saddle-Mt Arthur (§15, p.265; §18, p.297; Table 37, p.307).
- Allow utilisation of remote recreational fishing and hunting opportunities in the upper Karamea (§14.7, p.249; §17.1, p.284; §18, p.297).
- Maintain facilities, including interpretation, for day visitors at Rolling River in the Wangapeka, and Riwaka resurgence (§18, p.297; Table 37 p.307; Table 43, p.332).
- Develop quality facilities for longer walks from Rolling River and Flora Saddle to upper Karamea and the Cobb Valley (§18, p.297; §18.3, p.309).
- Liaise with local authorities for development of short overnight trips in the Nelson area (§18, p.297).
- Provide for high quality day use facilities for water-based recreation in co-ordination with local authorities near Nelson (§18, p.297; Table 37, p.307).
- Develop short walks and maintain peri-urban walkways in conjunction with land managers and local authorities (§18, p.297; §18.4, p.312).
- Maintain the facilities on the links with Pelorus Valley and across the Richmond Ranges to the Wairau Valley (§18, p.297; Table 39, p.318).
- Provide appropriate additional facilities for day visitors, associated with Abel Tasman marine reserves (§15, p.265; §18, p.297).
- Maintain and enhance facilities for remote recreation on the Inland Track in the Abel Tasman National Park (§18, p.297; Table 39, p.318).
- Designate areas for mountain bikes and maintain facilities to an appropriate standard (§16, p.273; §16.3, p.278).
- Maintain access through adjacent exotic forests to key areas of the Richmond Ranges (§18, p.297).
- Encourage and promote hunting opportunities in the Tablelands-Cobb-Mt Arthur area and Richmond Ranges (§17.1, p.284).
- Maintain quality visitor services in Nelson in a prominent location (Table 45, p.336).
- Maintain visitor information services at key localities in Abel Tasman National Park (§19, p.325).

Public awareness and planning

- Advocate for the prevention of further modification to estuaries and their streams by infilling or pollution (§4, p.73; Table 50, p.363).
- Advocate for the protection of estuaries and rocky shoreline and their banded rail, variable oystercatcher, reef heron, shag and New Zealand fur seal populations from the consequences of uncontrolled development, including visitor use (§4, p.73; Table 50, p.363).
- Participate in pastoral events to promote community awareness of conservation (Table 48, p.354).
- Maintain consultation and negotiation with the local community over the national park in North-west Nelson (Table 22, p.131; §20, p.339).
- Review management plan for Abel Tasman National Park and prepare management plan for Kahurangi National Park (Table 51, p.368).
- Support National Water Conservation Order for the Motueka River (Table 11, p.93).

Map 19 Management Units C - Upper Buller



23.3 UPPER BULLER

Management of species and communities

- Obtain legal protection for, and fence major populations of, *Olearia polita* at Glenhope (Table 23, p.148).

Threats

- Control goats over the whole area to protect the unique plant communities (Table 33, p.202).
- Control pigs in snail areas (Table 25, p.153; Table 33, p.202).
- Prevent the further spread of goats into Nelson Lakes National Park (Table 33, p.202).
- Control possums in areas with rata and mistletoe at Lake Rotoiti (Table 23, p.151).
- Control old man's beard in alluvial forest remnants and broom in riverbeds (Table 25, p.153; Table 32, p.194).

Legal protection

- Resolve tenure of areas adjacent to Nelson Lakes National Park and seek appropriate status for residual areas (Table 22, p.131).
- Support National Water Conservation Order on the Buller River system (Table 11, p.93; Table 50, p.363).

Research and survey

- Investigate the status of kea in the upland zone (Table 29, p.175).
- Survey to identify locations with long-tailed bats, and protect their habitat (Table 23, p.148; Table 29, p.175).
- Survey, protect and interpret archaeological and historic sites (Table 26, p.160).
- Monitor the Rainbow and Mt Robert skifield concessions (Table 28, p.173).
- Monitor aquatic plant communities in Nelson Lakes National Park (Table 28, p.173).

Recreation

- Negotiate legal access to the forests in the major valleys (§14.5, p.245; §18, p.297).
- Assess potential for a track through the Matiri Valley to the Wangapeka and Mokihinui River Valleys (§18, p.297).
- Maintain tramping facilities in Matiri Valley to minimise impacts (§18, p.297).

- Maintain quality campground at Kerr Bay and West Bay at Lake Rotoiti (Table 41, p.323).
- Develop and maintain Travers-Sabine-Speargrass route in Nelson Lakes National Park (§18, p.297; §18.3, p.309).
- Maintain high quality facilities on Mt Robert ridge for alpine walks (§18, p.297).
- Sensitively provide for low-key, snow-based activities and climbing opportunities on the Travers Range (§18, p.297).
- Gazette areas and maintain recreational fossicking opportunities in Glenhope Scenic Reserve (§17.2, p.288).
- Maintain roadside facilities for day visitors along the Buller Highway (§18, p.297).
- Designate areas for off-road vehicles, horse trekking and mountain bikes (§16, p.273; §16.2, p.276; §16.3, p.278).
- Encourage hunting and maintain facilities in upper valleys of Nelson Lakes National Park for recreational hunting, especially chamois (§17.1, p.284).
- Maintain high quality visitor services at St Arnaud (Table 45, p.336).
- Develop visitor services in Murchison in conjunction with the local visitor information services (Table 45, p.336).

Public awareness and planning

- Assist in provision of educational experiences at Rotoiti and Matakitaki Lodges (§18, p.300; §20.2, p.348).
- Provide conservation education to the community through liaison with the Lake Rotoiti Outdoor Education Trust (§18, p.297).
- Develop healthy communications with the community (Table 47, p.352).
- Participate in pastoral events to promote conservation (Table 48, p.354).
- Support legalisation of the road through the Rainbow Station to Hanmer (§18, p.297; Table 50, p.363).
- Advocate restrictions on moss taking in the forest margins of good quality forest and protection of forest areas from logging (Table 50, p.363).
- Advocate strict controls on works in braided river beds (Table 50, p.363).
- Review management plan for Nelson Lakes National Park and prepare management plan for remainder of the area (Table 51, p.368).

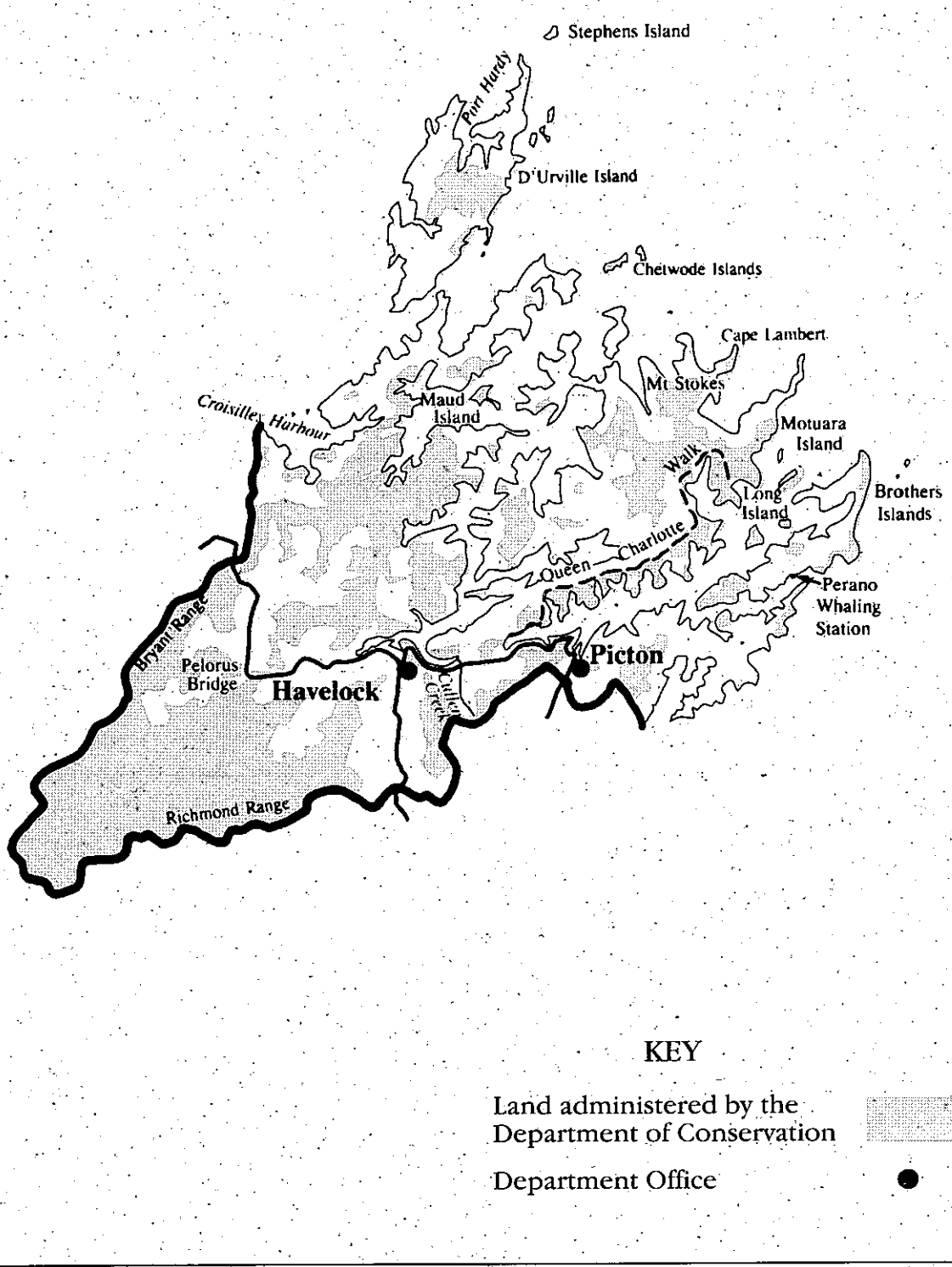
Management of species and communities

- Control access to sensitive, closed islands (§7, p.101; §16, 273).
- Progressively revegetate Stephens Island (Table 15, p.105; Table 25, p.153).
- Maintain D'Urville and Arapawa Islands and their small outlying islands and rocks as habitats for remnant Cook Strait forests and for endemic and threatened plants (sand spurge and Cooks scurvy grass; Table 15, p.105; Table 23, p.148; Table 25, p.153).
- Manage Maud Island as habitat for threatened species (Table 15, p.105; Table 23, p.148).
- Establish further island habitats for Brothers Island tuatara, Hamilton's frog, South Island saddleback, kakapo, Duvaucel's gecko (Table 23, p.148; Table 25, p.153).
- Develop Motuara Island as a predator-free sanctuary for threatened species (§7, p.101; Table 25, p.153).
- Propagate, and where appropriate, plant titirangi (Table 23, p.148).
- Actively manage the pygmy button in Pelorus Valley, including cultivation and re-establishment (Table 23, p.148).
- Manage marine mammal watching to protect seals and dolphins (§3, p.137).

Threats

- Establish and maintain a possum-free forest area at Cape Lambert (Table 25, p.153; Table 33, p.202).
- Prevent mammal invasion onto priority islands (§7, p.101; Table 25, p.153; Table 33, p.202).
- Prevent animal pest release on D'Urville Island and possum release on Arapawa and D'Urville Islands (§10.5, p.207; §7, p.103).
- Control goats and pigs on Mt Stokes and Arapawa Island (Table 33, p.202).
- Control goats generally in Richmond Ranges (Table 33, p.202).
- Control possums to protect rata forest and *Powelliphanta* snails, on Mt Robertson-Piripiri and Tennyson Inlet forests (Table 25, p.153; Table 33, p.202).
- Control possums and pigs in snail areas of Richmond Ranges (Table 25, p.153; Table 33, p.202).
- Control mustelids and rats to protect yellowhead nests on Mt Stokes (Table 33, p.202).
- Restore the Chetwode Islands as refuges for threatened species by elimination of rodents and weka (§7, p.101; Table 33, p.202).

Map 20 Management Units
D - Marlborough Sounds



- Remove weka from Blumine Island (§7, p.101; Table 33, p.202).
- Control *Spartina* in the Pelorus Sound (Table 32, p.194).
- Control wilding pines in the ultramafic areas in the Richmond Ranges (Table 25, p.153; Table 32, p.194).
- Maintain an efficient fire fighting organisation in conjunction with other fire authorities and Sounds residents (§11.2, p.216).
- Prevent exotic fish liberations into pristine Marlborough Sounds streams (Table 9, p.86; §10.5, p.207).

Legal protection

- Establish a single park for the majority of the Sounds reserves (Table 22, p.131).
- Protect representative and important intertidal and subtidal marine habitats (§7, p.77).

Research and survey

- Investigate the ecology of king shag and protect the species from identified threats (Table 29, p.175).
- Survey to identify freshwater habitats for protection (Table 29, p.175).
- Identify important marine habitats and their extent (Table 28, p.173).
- Monitor Long Island-Kokomohua Marine Reserve (Table 28, p.173).
- Survey Hector's dolphin (§4, p.73).
- Support research into elephant fish spawning areas (§4, p.73).
- Survey cultural and archaeological sites in the Sounds and argillite areas of the ultramafic belt (Table 26, p.160).

Recreation

- Develop and maintain quality facilities and interpret historic features of island and other sites in the Sounds (Table 27, p.165; Table 43, p.332).
- Restore significant historic structures such as at Peranos whaling station (Table 27, p.165).
- Provide for nature appreciation opportunities on Maud, Blumine and Motuara Islands (Table 15, p.105; §15, p.265; §18, p.297).
- Maintain low key facilities for coastal recreation for day visitors as well as camping (Table 37, p.307; Table 41, p.323).
- Maintain opportunities for camping at Momorangi (§18, p.297; Table 41, p.323).
- Maintain facilities at Titirangi Farm Park for open space recreation and camping (Table 41, p.323).
- Develop and maintain Queen Charlotte Walking Track and Nydia Track (§15, p.265; §18, p.297; §18.3, p.309).

- Encourage private initiatives to provide for appropriate visitor services adjacent to the Queen Charlotte Walking Track (§14.7, p.249).
- Maintain Cullens Creek-Waikakaho Walkway and provide interpretation (§18, p.297; §18.3, p.309).
- Maintain facilities for remote recreation in the Pelorus River Valley and link with those of the Pelorus Bridge and the Nelson-Wairau system (§18, p.297).
- Provide for day visits, overnight stays, interpretation and information services at Pelorus Bridge in association with water-based recreation (§15, p.265; §18, p.297; Table 37, p.307; Table 43, p.332).
- Co-ordinate development of facilities in northern Richmond Ranges with local authorities (§18, p.297).
- Designate and maintain areas for mountain bikes (§16.3, p.278).
- Develop a visitor centre at Picton with a national emphasis (Table 45, p.336).

Public awareness and planning

- Maintain facilities for education purposes at Nydia and Mistletoe Bays (§18, p.297).
- Improve community awareness of conservation issues (§20, p.339).
- Participate in pastoral events to promote conservation (Table 48, p.354).
- Review management plan for Marlborough Sounds (Table 51, p.368).
- Seek protection of water quality and prevention of habitat disturbance created by some fishing methods (Table 8, p. 82).
- Seek active public involvement in management of areas of sea and foreshore and adjacent to reserves.
- Seek to preserve the landscape qualities of the Sounds (Table 8, p. 82).

23.5 SOUTH MARLBOROUGH

Management of species and communities

- Expand *Carex inopinata* communities at Kowhai Point by replanting controlling plant pests and relocating the camping area (Table 23, p.148).
- Identify and protect traditional falcon nesting sites in Western Molesworth and Inland Marlborough (Table 23, p.148).
- Survey and monitor threatened lowland plants, obtain legal protection for habitat, fence from stock and propagate species where necessary (Table 16, p.117; Table 25, p.153).

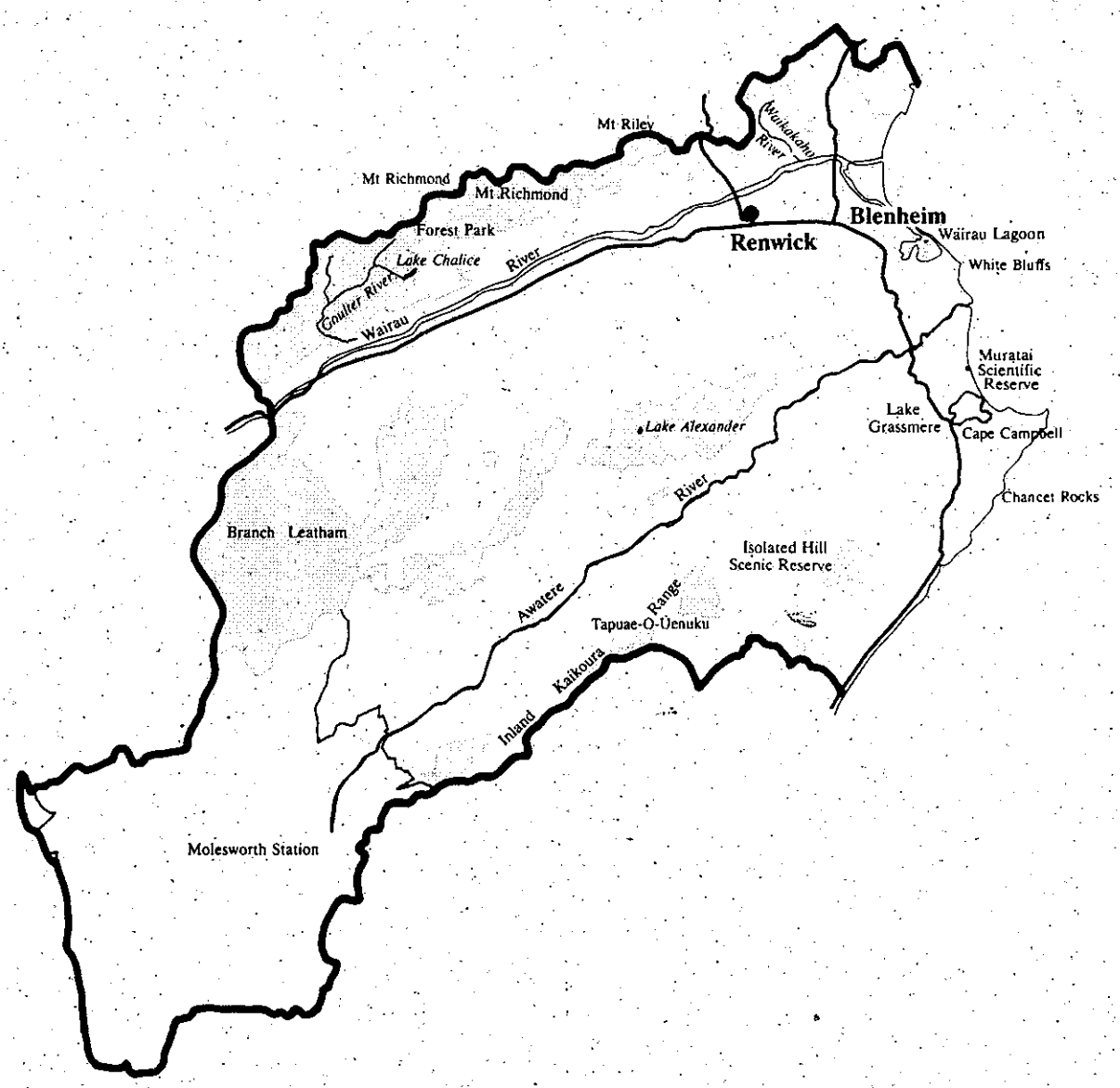
Threats

- Control goats in the limestone plant communities (Table 25, p.153; Table 33, p.202).
- Control goats and possums at Isolated Hill (Table 33, p.202).
- Control old man's beard and buddleia in important plant communities at Isolated Hill (Table 33, p.202).
- Control plant pests in important plant communities at Onamalutu and Kowhai Point (Table 6, p.71).
- Control goats to protect endemic plants at the Richmond Ranges, Inland Marlborough and Inland Kaikoura Ranges (Table 33, p.202).
- Control the spread of wilding pines in Red Hills ultramafic areas, on Ferny Gair and on Molesworth (Table 32, p.194).
- Exclude cattle and control Canada geese and plant pests, including invasive pasture grasses in sensitive areas such as Sedgemere tarns (Table 4, p.64; Table 25, p.153).
- Control marram in the best native dune communities in Clifford Bay and on the coast between Cape Campbell and the Waima River (Table 25, p.153).
- Control plants pests in Muritai Scientific Reserve (Table 6, p.71).
- Control plant pests where they affect important bird breeding colonies in the braided portions of the Wairau River bed, Wairau Boulder Bank and Wairau Lagoons (Table 25, p.153).

Legal protection

- Obtain legal protection for threatened species habitat, and important plant communities on private land particularly in the lowlands (Table 16, p.117; Table 25, p.153).
- Plan for unified management of the coastal strip of lands managed by the department (Table 22, p.131).
- Resolve status of conservation areas and reserves in Inland Marlborough and Inland Kaikoura Ranges (Table 22, p.131).

Map 21 Management Units E - South Marlborough



KEY

Land administered by the Department of Conservation

Department Office ●

- Ensure maintenance of historic buildings and provide appropriate interpretation (Table 27, p.165).

Research and survey

- Survey and monitor threatened plants of lowland areas (Table 28, p.173).
- Survey for freshwater fish throughout (Table 28, p.173).
- Investigate the effect of hares and control where required (Table 29, p.175).
- Survey and provide interpretation in conjunction with facilities at historic sites especially in coastal areas (Table 26, p.160; Table 28, p.173).

Recreation

- Improve and maintain facilities at Wairau Lagoons Walkway and at Marfells Beach and provide appropriate interpretation (§15, p.265; §18, p.297; Table 43, p.332).
- Provide quality facilities for camping at Whites Bay, Onamalutu and Kowhai Point (Table 41, p.323).
- Provide for day visitors along the coast highway (§15, p.265; §18, p.297; Table 37, p.307).
- Provide opportunities for short walks, especially in conjunction with camping areas (§18, p.297; §18.3, p.309).
- Co-ordinate development of facilities at various sites with local authorities (§15, p.265, §18, p.297).
- Maintain Cullens Creek-Waikakaho Walkway and provide interpretation (§18, p.297; §18.3, p.309).
- Provide facilities for remote recreation at Mt Richmond, Mt Riley and Fishtail (§18, p.297).
- Maintain tramping links with the Pelorus, Motueka and Wairoa River valleys (§18, p.297).
- Provide for remote recreation in the Inland Kaikoura Ranges and Western Molesworth (§18, p.297).
- Negotiate and assist with maintenance of access through adjacent exotic forests at key localities in the Wairau Valley (§18.2, p.305).
- Negotiate access and provide for remote tussockland tramping in Inland Marlborough, Western Molesworth and Inland Kaikoura Ranges (§18, p.297).
- Maintain facilities and seek opportunities to improve access for recreational hunting, particularly in the Branch and Leatham Catchments but also elsewhere in South Marlborough (§17.1, p.284).
- Delegate management of areas for gamebird management at Top Valley, and Woodburys (§2.5, p.134; §17.1, p.284).

- Designate and maintain areas on a through route for mountain bikes in the Mt Richmond Forest Park on Wakamarina Track and in the Branch/Leatham conservation areas (§16, p.273).
- Gazette areas for gold fossicking at Top Valley (§17.2, p.288).
- Designate areas for horse trekking on Cloudy Bay coast (§16, p.273).
- Provide interpretation for historic sites at Wairau Bar and Wairau Lagoons and on the north bank of the Wairau River (Table 27, p.165; Table 43, p.332).
- Provide services for visitors on Molesworth Road, including interpretation, in co-operation with the managers of Molesworth (Table 43, p.332).
- Maintain visitor centre services in Blenheim in conjunction with the community (Table 45, p.336).
- Manage areas of Para Swamp and Wairau Lagoons for gamebirds in conjunction with the Fish and Game Council (§17.1, p.284).
- Upgrade and improve facilities on Chalice-Goulter route (Table 39, p.318).
- Provide for a wayside stop at Lake Elterwater (Table 37, p.307).

Public awareness and planning

- Participate in community events to promote conservation (§20.4, p.354).
- Seek controls on activity around the Wairau Lagoons including discharges, marginal development and modification to the Bar (Table 50, p.363).
- Seek controls on land clearance and prevent fire in lowland areas and in Inland Marlborough (Table 50, p.363).
- Seek control of those effects of pastoral farming that are detrimental to natural values (Table 50, p.363).
- Support legalisation of the road through Rainbow Station (§18, p.299; Table 50, p.363).
- Protect freshwater fish habitat through statutory advocacy (§21.1, p.359).

23.6 KAIKOURA

Management of species and communities

- Manage marine mammal watching to protect whales, seals and dolphins (§3, p.137).

Threats

- Control mustelids in the Hutton's shearwater colony at Mt Uwerau Nature Reserve (Table 23, p.148).
- Control goats in Inland and Seaward Kaikoura Ranges (Table 25, p.153; Table 33, p.202).
- Control goats in forest, and fence remnant plant communities to prevent stock damage in coastal areas (Table 25, p.153).
- Eradicate hawthorn from Clarence River valley before its spread adversely affects landscape values (Table 25, p.153).
- Control old man's beard in coastal reserves (Table 32, p.194).

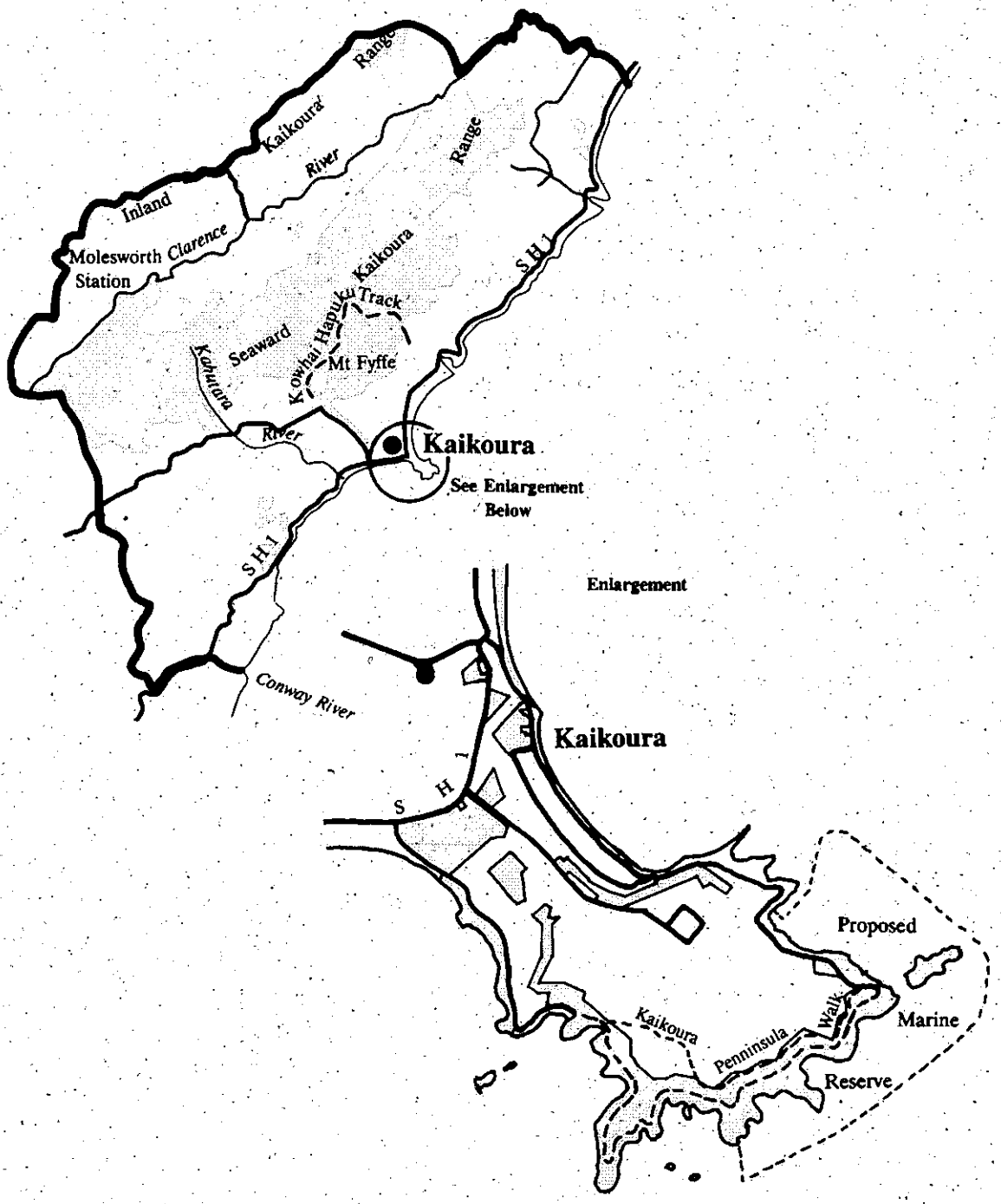
Legal protection

- Resolve status for conservation areas and reserves in both Inland and Seaward Kaikoura Ranges (Table 22, p.131).
- Identify and seek protection of areas of significant natural or historic value on pastoral leases (Table 18, p.119).
- Rationalise land status on the Kaikoura Peninsula to facilitate management of proposed marine reserve (Table 22, p.131).

Research and survey

- Investigate the effects of mustelids and cats on crested grebe on Lake McRae or Lake Rotoroa and control if necessary (Table 11, p.93).
- Investigate the distribution and conservation status of reptile and giant invertebrate species (Table 23, p.148; Table 29, p.175).
- Survey for freshwater fish and aquatic plants at Lake McRae (Table 28, p.173).
- Promote marine mammal research, notably survey of fur seal populations and research into impacts of marine mammal watching (Table 29, p.175).
- Monitor proposed marine reserve on the Kaikoura Coast (Table 28, p.173).
- Monitor effects of fencing on ecology of Kaikoura Lakes (Table 11, p.93; Table 28, p.173).
- Survey and record archaeological sites (Table 26, p.160).
- Investigate the status of remnant natural areas of the Hundalee for protection and management (Table 18, p.119).
- Monitor Hutton's shearwater populations in the Seaward Kaikoura Ranges (Table 28, p.173).

Map 22 Management Units
F - Kaikoura



Recreation

- Provide quality facilities for short nature walks including interpretation on Mt Fyffe (§15, p.265; §18, p.297; Table 43, p.332).
- Develop integrated facilities on Kaikoura Peninsula including maintaining Peninsula Walkway to high standards for visitors, associated marine mammal watch, both onshore and offshore (§15, p.265; §18, p.297; Table 37, p.307).
- Provide walking opportunities for visitors in association with camping areas (§18, p.297).
- Provide quality accommodation and camping at Peketa and Goose Bay (§18, p.297; Table 41, p.323).
- Provide facilities including interpretation along the scenic corridor, in conjunction with the local authority (§18, p.297; Table 37, p.307; Table 43, p.332).
- Provide lookout point facilities for whale and seal watching (§15, p.265; §18, p.297).
- Designate an area, and maintain facilities, for mountain bikes on Mt Fyffe (§16, p.273).
- Provide walking opportunities between Kowhai-Hapuku on Mt Fyffe (§15, p.265; §18, p.297).
- Provide appropriate facilities for recreational activities in the remote zone as shown on the ROS Map (§18, p.297).
- Negotiate appropriate access agreements to key areas (§18, p.297).
- Maintain wilderness of central ranges and facilitate wilderness climbing experiences (§15, p.267; §18, p.297).
- Promote and maintain facilities for recreational hunting of chamois and other species (§17.1, p.284).
- Provide opportunities for gamebird hunting (§17.1, p.284).
- Maintain high quality visitor information and interpretation in conjunction with the community visitor information services in Kaikoura (Table 45, p.336).

Public awareness and planning

- Initiate and participate in community programmes to foster conservation (§20, p.339; Table 48, p.354).
- Seek controls on effects of pastoral farming on areas with high natural value in the Inland Kaikoura Ranges (Table 50, p.363).
- Seek controls on land clearance in the coastal area (Table 50, p.363).
- Advocate retention of the coastal scenic corridor (Table 50, p.363).

24. Term and review of this Conservation Management Strategy

This document has a statutory term of 10 years from its approval by the New Zealand Conservation Authority.

To keep up with changing circumstances it will require periodic review and amendment. As this is the first CMS for this conservancy it is expected to require many minor amendments to keep up with changing circumstances and regular reviews to accommodate and incorporate new material arising from issues not currently covered in this document (§22, p.357).

Minor amendments may result from consultation with affected parties and constitute only clarification of statements in the document.

The relevant criteria for a minor amendment are:

- no substantial deviation from the intent of the strategy;
- no deviation from the objectives or implementation of the relevant section of the CMS;
- no conflict with users of areas administered by the department; and
- no public interest in the topic or area concerned.

Minor amendment will be according to Section 17 I(4) of the Conservation Act. Major reviews will require full public consultation in terms of Section 49 and 17H(2) of the Conservation Act.

Implementation

24.0.1 *The term of this plan will be within 10 years from the date of final signature.*

24.0.2 *Minor amendments proposed by the department may be recommended directly to the New Zealand Conservation Authority by a joint committee of the two conservation boards.*

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P403
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APPENDIX I.

LAND UNITS AND THEIR STATUS

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
1	26823.8	SFP	NW Nelson	M26	620520	NWN
2	165211.2	SFP	Mt Richmond	O28	500730	MRFP
3	300.0	SF	Wangapeka	M28	030515	
4	15674.0	SF	Big Bush	N29	930430	MCP
5	159.7	SF	Slippery Creek	M28	877865	
6	114.6	SF	Lake Matiri	M29	545505	
7	8769.4	SF	Howard	M29	880320	MCP?
8	20581.5	SF	Rotoroa	M29	720250	MCP?
9	17369.2	SF	Matakitaki	L29	590220	MCP?
11	779.1	SF	Golden Downs	N28	895820	
12	26410.7	SF	Rainbow	N29	050250	WCP
13	47935.6	SF	Leatham	N29	200270	WCP
14	19.6	SF	Motueka	N26	055243	
15	338608.0	NP	Kahurangi	M26	700080	
16	22774.2	NP	Abel Tasman	N26	080380	ATNP
17	101871.4	NP	Nelson Lakes	M30	860150	NLNP
19	199618	SF	Mataktaki	M30	620180	
21	11423.4	NAT	Farewell Spit	M24	960770	
22	999.6	FP	Puponga Farm Park	M24	855775	
23	160.0	UCL	Milnthorpe	M25	854513	REC
25	47.7	SCE	Kaihoka lakes	M24	762723	
28	10.3	SCE	Washbourn	M25	851485	
30	62.0	SCE	Paynes Ford	N26	942353	
31	448.5	SF	Pretty Bridge	N28	025755	
32	25.8	SCE	Pupu Springs	N26	908402	
33	431.5	SCE	Takaka Hill	N26	975207	
37	1737.4	SCE	Glenhope	M29	800510	MCP
39	410.6	SCE	Owen River	M29	640470	
40	1338.2	SCE	Warbeck	M30	530095	MCP
41	170.8	SCE	Whangamoa	O27	468982	MRFP
42	12.5	SCE	Shenandoah	L29	465215	MSP
50	0.2	QUA		M25	735516	disp
51	0.2	QUA		M25	748529	disp
52	2.3	QUA		M25	731508	disp
53	0.4	QUA	Quarry site	M25	752504	disp
54	0.4	QUA		M25	771513	disp
55	52.9	REC	Aorere Caves	M25	784488	
58	2.6	UCL		M25	788546	disp
63	5.9	UCL		M25	790480	
67	4.0	UCL	Aorere Island	M25	792596	disp
69	0.3	REC	Onekaka Inlet	M25	854509	
79	8.3	ESP	Rangihaeata Spit	N25	914445	
80	90.3	SCE	Dry River	N26	990363	
83	11.3	SCE	Hanson Winter	N26	006416	
89	0.1	UTI	Old library site	N25	988404	disp
91	14.9	SCE	Rameka	N26	971349	
92	12.5	SCE	Grove	N26	985397	
95	6.1	CEM		M25	831517	ves
96	0.5	CEM		M25	831589	ves
103	8.0	UCL		N26	944206	disp
104	824.3	UCL		N26	915155	
110	1528.9	UCL		M26	895195	
114	84.3	UCL	Abel Tasman addition	N25	040429	Sce
116	0.8	QUA		N26	979191	
117	0.7	CEM		N26	105378	ATNP

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
118	0.1	UTI		M25	838550	ves
119	0.1	UCL	Abel Tasman addition	N26	938398	Loc
121	2.1	UTI		M25	834690	ves
122	0.1	UCL		M25	834587	
127	44.6	UCL	Abel Tasman addition	N25	040405	ATNP
128	25.5	UCL		N26	919128	
132	0.1	UCL	Abel Tasman HQ	N26	936386	Loc
133	1.5	UCL		N26	963264	ATNP
135	0.2	UCL	Rangihaeata town	N26	924441	disp
136	0.1	UCL	Takaka Office	N26	936383	Loc
142	0.2	UCL		N29	972337	
143	19090.0	UCL	Rainbow	N30	000040	WCP
144	16.3	UCL		N29	968340	
145	0.4	ESP	Pupu Springs	N25	904400	
146	0.3	UCL		M29	645460	
147	2.6	UCL		M30	703182	
148	404.6	UCL		M30	745145	
149	248.2	UCL		M30	710138	
150	4.2	STO		N26	991198	
151	48.6	UCL		M30	685103	
153	72.4	SCE		M25	697441	
154	0.7	UCL		N26	954316	
155	3.6	UCL		M25	683427	
156	4.3	SCE	Aorere River	M25	820586	
158	10.5	SCE	Collingwood	M25	820586	
159	11.2	HIS	Parapara Peninsula	M25	836544	
160	128.5	UCL		M25	775785	
162	2.2	UCL	Pupu Pipeline	M25	795619	
163	33.6	SCE	Boudary Bay	N26	133296	
164	2112.5	WIL	Westhaven-Whanganui Inlet	M25	760700	
165	51.0	SCE	Bar Point	M25	718090	
167	19.7	UCL	Cat Creek	O28	503667	
169	566.0	UCL	Tinline	O27	510915	
170	61.5	UCL	Tinline	O27	542903	
171	11.4	ESP		O27	185050	
172	72.9	SCE	Whangapeka	M28	740050	
173	2.2	SCE		N29	008351	
203	35.2	SCE	WF Moss	N26	045175	
204	0.2	CEM	Waimea Cemetery	N26	080209	ves
206	0.4	REC	Kaiteriteri	N26	108187	ves
208	0.1	LOC		N26	114186	
209	1.9	SCE	Otuwhero Inlet	N26	090216	
210	9.5	SCE	Fry	N26	039119	
212	2.3	UCL		N26	104234	
213	2.8	UCL		N26	108137	disp
214	2.0	UCL		N26	080115	
219	11.0	UCL		M28	838784	MSP
220	2.1	UCL		M28	832782	MSP
221	3.6	UCL		M28	872758	MSP
232	0.5	GRA		M28	643531	disp
233	0.4	GRA		M28	805739	disp
234	0.4	GRA		M28	808735	disp
235	0.4	GRA		M28	808724	disp
236	0.4	GRA		M28	810704	disp
237	0.4	GRA		M28	813704	disp
238	0.2	GRA		M28	847616	disp
239	0.2	GRA		M28	845608	disp
240	0.2	GRA		M28	840598	disp

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
241	0.3	GRA		M28	818519	disp
242	0.2	GRA		M28	818527	disp
243	0.3	GRA		M28	819535	disp
244	0.2	GRA		M28	820542	disp
245	0.3	GRA		M28	823632	disp
246	0.3	GRA		M28	838519	disp
247	0.4	GRA		M28	830518	disp
248	0.2	GRA		M28	89034	disp
249	0.5	GRA		M28	883632	disp
250	0.2	GRA		M28	854621	disp
251	0.2	GRA		M28	857624	disp
252	0.2	GRA		M28	892666	disp
253	0.1	GRA		M28	883708	disp
254	0.2	GRA		M28	882717	disp
256	0.3	GRA		M28	903572	disp
257	0.3	GRA		M28	867627	disp
259	226.7	SCE	Kaka	M28	844568	MCP
261	7.3	UCL		M29	655487	MSP
262	91.5	UCL		M29	674486	MCP
263	8.0	UCL		M29	651480	MCP
264	264.0	UCL		M29	704486	MCP
265	117.4	UCL		M29	545480	MCP
267	2.8	UCL		M29	603407	
268	138.3	UCL		M29	625395	MCP
269	464.6	UCL		M29	632415	MCP
270	216.9	UCL		M29	612380	MCP
271	177.7	UCL		M29	625375	MCP
272	135.6	UCL		M29	632388	
273	2.0	UCL		M29	529365	
274	31.4	UCL		M29	543346	MSP
276	0.8	UCL	House	M29	538335	Loc
277	0.6	UCL		M29	539335	Loc
278	0.6	UCL		M29	538335	Loc
279	267.5	UCL		M29	615358	MCP
280	80.9	UCL		M29	660365	MCP
281	8.1	UCL		M29	756365	MSP
282	12.1	UCL		M29	733348	MCP
283	175.2	UCL		M29	710340	MCP
284	191.0	UCL		M29	735340	MCP
285	404.6	UCL		M29	710325	MCP
286	380.8	UCL		M29	730315	MCP
289	30.0	UCL		M29	555436	Sce
290	1.7	REC	Braeburn	M29	664309	ves
291	0.8	GRA		M29	579349	MSP
292	0.4	GRA		M29	640313	disp
293	0.4	GRA		M29	678345	disp
294	0.4	GRA		M29	664316	disp
295	0.4	GRA		M29	673338	disp
296	0.4	GRA		M29	686345	disp
297	0.8	GRA		M29	547291	disp
298	0.4	GRA		M29	599292	disp
299	0.9	GRA		M29	603275	disp
300	0.6	GRA		M29	607263	disp
301	0.4	GRA		M29	665295	disp
302	0.4	GRA		M29	675292	disp
303	0.4	GRA		M29	663264	disp
304	0.4	GRA		M29	667228	disp
305	0.1	GRA		M29	683458	disp

UNIT	AREA	CLAS	NAME	MAP	GRDREF	GROUP
306	0.9	GRA		M29	691475	MCP
307	0.4	GRA		M29	613438	disp
308	2.0	GRA		M29	550425	NLNP
309	2.9	STO		M29	759348	NLNP
310	2.4	STO		M29	536467	MSP
311	1.0	STO		M29	612437	MSP
312	0.2	GRA		M29	590384	disp
313	43.5	SCE	Longford	M29	554354	
314	3.5	UTI		M29	575350	MSP
316	1.3	CEM		M29	55245	ves
317	40.1	SCE	Matakitaki Bridge	M29	529335	MCP
321	6.0	UCL		M29	538302	MSP
322	2.1	UCL		M29	538315	MSP
323	24.0	UCL		M29	531356	MCP
324	0.1	UTI		M29	539335	
333	16.2	UCL		M30	531195	MCP
335	8.1	UCL		M30	546126	MCP
337	81.7	UCL		M30	714133	MCP
338	97.5	UCL		M30	708098	MCP
339	122.6	UCL		M30	553074	MCP
340	139.2	UCL		M30	516067	MCP
341	73.0	UCL		M30	537062	MCP
342	106.1	UCL		M30	505058	MCP
343	144.4	UCL		M30	555025	MCP
344	364.0	UCL		M30	580944	MCP
345	245.6	UCL		M30	553008	MCP
346	198.3	UCL		M30	540993	MCP
347	196.3	UCL		M30	548987	MCP
348	155.0	UCL		M30	535980	MCP
349	308.0	UCL		M30	572992	MCP
350	150.9	UCL		M30	560988	MCP
351	127.5	UCL		M30	580990	MCP
352	178.1	UCL		M30	570975	MCP
353	242.8	UCL		M30	573956	MCP
354	215.3	UCL		M30	574925	MCP
355	182.9	UCL		M30	570910	MCP
356	182.1	UCL		M30	570895	MCP
357	144.5	UCL		M31	570863	MCP
358	98.3	UCL		M31	57063	MCP
359	347.2	UCL		L30	474186	MCP
360	265.7	UCL		L30	445138	MCP
361	223.0	UCL		L30	462136	MCP
362	308.0	UCL		L30	472116	MCP
363	404.6	UCL		L30	480100	MCP
364	248.9	UCL		L29	490210	MCP
365	62.7	UCL		L29	482315	MCP
366	103.1	UCL		L29	470328	MCP
367	160.0	UCL		L29	465357	MCP
368	103.7	UCL		L29	465355	MCP
371	16.7	UCL		L29	495372	MCP
372	0.2	GRA		L29	472221	MSP
374	1.3	GRA		L29	481304	disp
375	0.4	GRA		L29	483302	disp
376	698.0	SCE	Sphinx	L29	485335	MCP
377	0.4	GRA		L29	480361	disp
378	0.2	GRA		L29	495372	disp
380	0.1	UTI		M30	594100	ves
381	12.1	UTI	Ferry	L29	498376	MCP

UNIT	AREA	CLAS	NAME	MAP	GRDREF	GROUP
383	3.3	CEM		N29	001468	ves
384	0.4	GRA		N29	004454	disp
385	0.4	GRA		N29	007436	disp
386	0.4	GRA		N28	939508	disp
387	0.4	GRA		N29	934490	disp
388	0.5	GRA		N29	938479	disp
389	0.4	GRA		N29	016409	MRFP
390	0.8	GRA		N29	013418	MRFP
391	0.5	GRA		N29	014396	MRFP
392	0.8	GRA		N29	024377	NLNP
393	0.8	GRA		N29	031371	disp
394	0.6	GRA		N29	009428	MRFP
396	37.5	SCE	Top House	N29	015385	MRFP
399	97.7	UCL		N29	993348	MCP
400	7.7	SCE	Rainey River	N28	922522	
401	0.4	GRA		N28	922536	disp
402	0.4	GRA		N28	927547	
403	6.1	STO		N28	929545	
405	0.1	GRA		N28	909591	
409	0.4	GRA		N28	025685	disp
410	0.4	GRA		N28	032679	disp
411	0.2	GRA		N28	033698	disp
412	0.2	GRA		N28	042699	
413	0.4	GRA		N28	044698	disp
414	0.6	GRA		N28	026696	
415	215.7	SCE	Spooners Range	N28	030705	
417	9.6	REC	Wairoa Gorge	N28	168696	ves
420	0.3	GRA		N28	234729	disp
421	0.8	REC	Lee Valley	N28	222774	ves
425	0.6	GRA		N28	236720	disp
426	83.4	SCE	Aniseed Valley	N28	295793	MRFP
427	39.7	REC	Aniseed Valley	N27	296815	ves
429	22.6	SCE	Little Ben (Wairoa)	N28	179720	
430	14.0	UCL	Motupiko River	N28	918580	MSP
431	0.2	UCL	Wakefield town	N28	135780	disp
432	361.4	UCL		N28	123686	MRFP
434	5.5	UCL	Motueka River	N27	953964	MSP
436	2.0	UCL	Motueka River	N27	013030	
437	1.7	UCL	Motueka River	N27	012031	MSP
438	3.6	UCL	Motueka River	N27	012033	MSP
440	1.9	REC	Thorpe	N27	990921	ves
443	5.3	GRA		N27	132896	disp
445	2.4	QUA		N27	098833	disp
446	2.4	QUA		N27	100827	disp
447	28.3	SCE	Eves Valley	N27	143860	
455	1.0	STO		N27	160948	ves
457	2.6	UCL	Brightwater	N27	171807	MSP
460	0.4	GRA		N27	199874	disp
461	5.6	SCE	Snowdens Bush	N27	186820	
464	0.5	GRA		N27	206818	disp
469	0.3	UTI		N27	200813	ves
482	21.8	UTI		N26	120080	
483	43.3	SCE	Motueka Sandspit	N26	130105	MSP
543	0.1	CEM	Poynters	O27	325935	ves
600	452.4	SCE	Six Mile	N29	064385	MRFP
800	0.3	UTI		O27	308875	ves
802	0.1	UTI		N26	108223	ves
817	2.2	REC	Cable Bay	O27	458035	

UNIT	AREA	CLAS	NAME	MAP	GRDREF	GROUP
819	0.8	SCE	Cable Bay	O27	458035	
824	0.8	WILL	Neimans Creek Wildlife	N27	224887	
825	2.9	UCL		L30	435198	MSP
826	145.7	UCL		M29	815434	P
827	30.0	UCL		M29	845320	
828	272.4	UCL		M29	630326	MCP
829	21.2	UCL		M29	555313	Loc
832	0.1	UTI	House Murchison	M29	539335	Loc
833	0.9	UCL		M29	539335	oz
834	340.0	UCL		M30	745120	MCP
835	600.0	UCL		M30	694030	MCP
836	625.0	UCL		M30	613030	MCP
837	111.4	UCL		M30	585920	
838	3.0	UCL		M30	550112	MCP
839	16.0	UCL		M31	575865	NLNP
841	3.2	GRA		L29	460209	MSP
842	0.5	UCL		N27	034050	ves
843	3.6	UCL		N27	096014	ves
844	1.0	UCL	Motueka Office	N26	090091	
845	19.8	UCL		N28	930542	
846	467.0	UCL		N29	022410	FP
847	109.5	UCL		N29	020365	
848	40.0	UCL		O26	573145	
849	38.0	UCL		M29	710452	MCP
850	3.1	UCL		M28	817528	disp
851	4.0	UCL		M30	554114	MCP
852	24.2	UCL	Kaiteriteri	N26	065213	Sce
853	12.2	UCL	Kaiteriteri	N26	092214	Sce
854	11.8	UCL		N29	968337	
856	82.3	UCL		M29	640445	MCP
858	182.1	UCL	Kaiteriteri	N26	110175	Sce
859	1.5	UTI		L29	474225	vest
863	0.1	HIS	Belgrove Windmill	N28	068731	
864	0.1	UCL	House	O27		
865	31.5	UCL		L29	496355	MCP
866	5.0	UCL		L29	495372	MCP
867	4.8	UCL		L29	466378	
868	80.1	UCL	Burnbrae	L30	495068	
869	1016.2	UCL	Red Hills	N29	080400	
870	5.5	UCL		N29	980335	
871	89.0	UCL	Boulder Bank	O27	350971	
872	2.0	NAT	No Man's Island	N27	184937	
873	45.9	WIL	Whakapuaka	O27	377992	
874	1.2	SCE	Ruamanuka	N26	125120	
876	69.3	UCL		M29	655332	
877	1.3	ESP		N27	208901	
878	212.5	UCL		N29	955450	
879	6.9	SCE		M29	549436	
880	0.2	UCL		N26	940380	
881	0.6	ESP		N27	143860	
882	225.2	UCL		L29	470201	
883	306.1	UCL		M29	610325	
885	302.9	UCL		N28	293745	
886	258.4	SCE		M29	770420	
887	20.8	SCE		L29	480275	
888	0.2	LOC		N27	173934	
889	0.2	UCL		N29	249346	
900	8.9	SCE	Motuanauru	O26	637182	MSP

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
901	651.8	SCE	Okiwi & Moncrieff	O26	638115	MSP
902	2.8	REC	Whangarae Bay	O26	624128	MSP
903	19.4	SCE	Otuhaereroa (Goat) Island	O26	654183	MSP
904	0.8	SCE	Motukirikiri	O26	650168	MSP
908	88.3	UCL		O26	595162	MRFP
909	207.9	UCL		O26	674137	MSP
910	146.5	UCL		O26	700200	
911	814.2	SCE	Garne and Saville Bays	P26	750210	MSP
912	66.0	SCE	Odlins	P26	764184	MSP
913	23.4	REC	Round Hill	P26	724163	MSP
914	2.5	REC	Red Point	P26	758165	MSP
916	0.5	REC	Elaine Bay	P26	746165	MSP
917	754.2	SCE	Deep Bay	P26	840230	MSP
918	102.8	SCE	Bulwer	P26	904295	MSP
919	0.6	REC	Bulwer	P26	900290	MSP
920	13.9	SCE	French Pass	P26	806308	MSP
921	0.1	REC	French Pass	P26	809308	MSP
924	2.0	SCE	Hamilton (Karaka) Island	P26	833266	MSP
926	4072.5	SCE	D'Urville Island	P25	840420	MSP
927	60.7	REC	Whakatere-Papanui Island	P25	940500	MSP
929	0.1	UCL		P26	844268	MSP
930	0.1	UCL		P26	900290	MSP
931	0.1	UCL		P26	904278	MSP
932	1738.5	SCE	Pelorus Bridge	O27	560880	MRFP
933	77.4	REC	Pelorus Bridge	O27	585900	
937	1.3	REC	Hakahaka Bay	P27	035897	MSP
938	3.0	REC	Carluke	O27	600988	
939	0.8	CEM		O27	587993	ves
942	17.0	REC	Ronga	O27	605995	
943	4.8	SCE	Carluke	O27	595988	
944	4.4	SCE	Te Kopi	P26	310931	
950	4702.7	SFP	Victoria Forest Park	M29	505297	MCP
1000	358.3	SCE	Kumutoto	P27	985995	MSP
1001	95.5	SCE	Golden Point	P27	008974	MSP
1002	0.9	SCE	Schoolhouse Bay	P27	021018	MSP
1003	401.3	SCE	Ruakaka	P27	032990	MSP
1004	5.8	REC	Ratimera Bay	P27	034997	MSP
1005	509.5	SCE	Bay of many Coves	P27	075035	MSP
1006	3.8	UTI	Blackwood Bay	P27	025995	ves
1007	523.0	SCE	Ngarua	Q27	115978	MSP
1008	970.9	SCE	Arapawa Island	Q27	245010	MSP
1009	288.7	SCE	Kahikatea	P27	037934	MSP
1010	17.4	SCE	Allports Island	P27	985960	MSP
1011	0.9	HIS	Karaka Point	P27	993945	MSP
1012	31.6	SCE	Dieffenbach Point	P27	058962	MSP
1013	332.5	SCE	Ruaomoko Point	P27	088964	MSP
1014	222.0	SCE	Katoa Point	P27	085963	MSP
1015	0.9	SCE	Moioio	Q27	119952	MSP
1016	0.4	REC	Tawa Bay	Q27	109932	MSP
1017	4641.3	SCE	Roberston Range	P27	990870	MSP
1018	1.2	HIS	Horahora-Kakahu Island	P27	049856	
1019	61.9	REC	Tipi Bay	Q27	183970	MSP
1020	2.4	SCE	Pattern Passage	Q27	156021	MSP
1022	2.2	STO	Port Underwood	P27	032910	MSP
1023	2.0	UTI	Lighthouse	Q27	195997	ves
1024	0.1	ESP	Waikakaramea Bay	Q27	150997	MSP
1025	0.4	REC		P27	978928	MSP
1026	4501.5	SCE	Mt Stokes	P26	045139	MSP

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
1028	1.2	STO	Endeavour Inlet	P27	072055	MSP
1029	13.8	SCE	Waitaria Bay	P27	973049	MSP
1030	1557.2	SCE	Tahuakai	P26	040125	MSP
1031	549.9	SCE	Big Bay	P27	060110	MSP
1033	30.8	REC	Camp Bay	P27	062078	MSP
1034	3.1	REC	Okoha	P26	033163	MSP
1035	61.5	REC		P26	028228	MSP
1036	882.5	FP	Titirangi	P26	060195	MSP
1037	471.0	SCE	Grants Lookout	P26	080145	MSP
1038	224.5	SCE	Puzzle Peak	P26	082205	MSP
1039	1.3	UTI	Endeavour Landing	P26	086116	ves
1040	229.1	SCE	Toenga	P27	086054	MSP
1041	65.2	SCE	Edgecombe Point	P27	010045	MSP
1042	1093.2	HIS	Ship Cove	Q26	130120	MSP
1043	693.5	SCE	Tawa Bay	Q27	105097	MSP
1044	139.4	SCE	Resolution Bay	Q27	125010	MSP
1045	69.2	SCE	Pari Kawau	Q26	111138	MSP
1046	405.0	SCE	Howdens Bush	Q26	108120	MSP
1047	166.5	SCE	Endeavour Inlet	P26	098130	MSP
1048	166.7	SCE	Cape Lambert	Q26	125224	MSP
1049	376.7	SCE	Blumine Island	Q27	140030	MSP
1050	20.0	SCE	Cooper Point	Q27	209083	MSP
1052	96.3	SCE	Pickersgill Island	Q27	176044	MSP
1053	578.7	SCE	Cannibal Cove	Q26	155145	
1054	58.7	SCE	Motuara Island	Q26	170120	MSP
1055	116.7	SCE	Long Island	Q27	177097	MSP
1056	3.8	SCE	Spenser Bay	Q27	105020	
1057	27.6	SCE	Malcolms Bay	Q27	150965	MSP
1058	2.5	REC	Opua Bay	Q27	115926	MSP
1059	8.0	NAT	Brothers Island	Q27	302092	MSP
1060	0.4	REC	Hakahaka Bay	P27	032892	MSP
1061	0.1	ESP		P27	032892	MSP
1062	1.3	REC	Karaka Point	P27	993942	MSP
1063	3.9	REC	Whatamango Bay	P27	000927	MSP
1064	0.1	UTI	Kaipapa Bay	P27	004977	ves
1065	91.2	SCE	Goodwin Bay	P27	050017	MSP
1066	1.6	REC	Ruakaka	P27	052992	MSP
1067	0.5	REC	Bay of many Coves	P27	068024	MSP
1068	247.1	SCE	Momorangi Bay	P27	885926	MSP
1069	393.1	SCE	Mt Cawte	P27	800920	MSP
1070	358.5	SCE	Mt Oliver	P27	843922	MSP
1071	710.6	SCE	Iwituaroa	P27	908944	MSP
1072	62.4	SCE	Whenuanui	P27	918929	MSP
1073	228.5	SCE	Wedge Point	P27	930026	MSP
1074	325.5	SCE	Lochmara Bay	P27	930983	MSP
1075	0.8	SCE	Mabel Island	P27	950928	MSP
1076	271.5	SCE	Kaiuma Bay	P27	785962	MSP
1077	2753.3	SCE	Paradise Bay	P27	814025	MSP
1078	1.1	SCE	Ohingaroa	P27	848958	MSP
1079	18.9	REC	Pipi Bay	P27	812033	MSP
1080	129.9	SCE	Putanui Point	P27	835978	MSP
1081	1619.9	SCE	Kenepuru Sound	P27	880050	MSP
1082	74.0	SCE	Ferndale	P27	919018	MSP
1083	1.2	SCE	Te Mahia	P27	915990	MSP
1084	68.0	SCE	Weka Point	P27	935013	MSP
1085	459.7	SCE	Rocks	P27	955980	MSP
1086	129.8	SCE	Torea	P27	966994	MSP
1087	4.8	REC	Governor's Bay	P27	913929	MSP

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
1088	6.6	REC	Momorangi	P27	885927	MSP
1089	5.1	SCE	Waterfall Bay	P27	913972	MSP
1090	111.4	REC	Mistletoe Bay	P27	917980	MSP
1091	2.3	SCE	Ngakuta Pt	P27	909929	MSP
1093	562.0	SCE	Ngakuta Bay	P27	893915	MSP
1094	5.6	REC	Ngakuta Bay	P27	903925	MSP
1095	0.4	REC	Lochmara West Bay	P27	932980	MSP
1096	133.2	SCE	Picton	P27	960890	MSP
1098	0.4	UTI	Onahau Bay	P27	909977	ves
1099	5.5	SCE	Pukatea Bay	P27	953003	MSP
1100	5.0	SCE	Onahau Bay	P27	919967	MSP
1101	0.3	REC	Lochmara Bay	P27	934981	MSP
1102	321.4	SCE	Mahakipawa Hill	P27	762912	MSP
1103	0.2	REC	Wahitanihi	P27	812965	MSP
1104	3.2	SCE	Broughton Bay	P27	902991	MSP
1105	73.3	SCE	Aorangi	P27	923988	MSP
1106	22.1	REC	Portage Bay	P27	965998	MSP
1107	27.3	SCE	Kaipupu Point	P27	944920	MSP
1108	425.8	SCE	Wakaretu	P27	750950	MSP
1109	1645.4	SCE	Chance Penguin & Fail	P26	814119	MSP
1110	3.9	SCE	Goulter Bay	P27	946028	MSP
1111	0.8	SCE	Clark Island	P27	958034	MSP
1112	232.9	SCE	Bobs Knob	P27	930055	MSP
1113	85.9	SCE	Elie Bay	P27	950090	MSP
1114	2.0	STO		P27	969097	MSP
1115	1.7	SCE	Four Fathom Bay	P27	846060	MSP
1116	17.5	HIS	Crail Bay	P27	913072	MSP
1117	68.4	REC	Four Fathoms Bay	P27	870058	MSP
1118	169.2	SCE	Yncyca Bay	P27	865093	MSP
1119	1408.3	SCE	Nydia Bay	P27	740060	MSP
1120	6171.9	SCE	Tennyson Inlet	P26	745116	MSP
1121	155.8	SCE	Jacobs Bay	P26	835100	MSP
1122	0.2	REC	Betty Archer	P26	744129	MSP
1123	54.4	SCE	Cullens Pt	P27	755930	MSP
1124	4.4	REC	Robin Hood Bay	P27	998829	MSP
1125	62.7	REC	Henry Brown	P26	755155	MSP
1126	271.5	SCE	Deep Bay	P26	750140	MSP
1127	64.7	SCE	Tuna Bay	P26	725119	MSP
1128	121.8	SCE	Stafford Point	P26	855135	MSP
1129	364.1	SCE	Kenny Island	P26	910185	MSP
1130	0.9	SCE	Bird Island	P26	970233	MSP
1131	2.3	SCE	Clova Bay	P26	977102	MSP
1132	15.8	SCE	Otomiro	P26	838134	MSP
1133	138.6	REC	Nydia Bay	P27	770035	MSP
1134	309.3	SCI	Tom Shand	P26	850200	MSP
1135	32.1	SCE	Tarakaipa Island	P26	770151	MSP
1136	23.6	SCE	Tawhitinui Island	P26	773171	MSP
1137	325.8	NAT	Haystack etc	P26	010340	MSP
1138	32.4	NAT	Titi foreshore	P26	060278	MSP
1143	1.2	UCL		P26	033162	
1144	1.2	UCL		P26	083168	
1145	2.4	UCL		P26	097157	
1146	0.1	UCL		P26	892128	
1147	0.1	UCL		P26	892128	
1148	295.0	REC	Waimaru	P26	960154	MSP
1150	0.1	REC	Te Rawa	P26	862143	MSP
1151	231.6	SCE	Brooklyn Bay	P27	730955	MSP
1152	1.8	ESP	Moenui	P27	766918	MSP

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
1153	219.8	SCE	Blackwood Bay	P27	020050	MSP
1154	3.3	SCE	Okiwa Bay	P27	862930	MSP
1155	1.1	LOC		P27	911015	
1157	0.3	UTI	Picton	P27	942900	ves
1158	0.2	REC		P27	941898	ves
1168	0.2	PRI	Staff House	P27	743908	Loc
1170	4.0	QUA		P27	739918	
1171	0.5	REC	Endeavour Inlet	P26	095111	MSP
1172	0.0	SAN	Duffers Reef	P26	062355	MSP
1173	149.7	SAN	Stephens Island	P25	945590	MSP
1176	0.1	LOC		P27	942900	disp
1177	3.5	ESP		P27	960019	MSP
1179	0.2	SAN	White Rocks	Q26	244137	MSP
1180	158.2	REC	Wharehunga Bay	Q27	185018	MSP
1181	72.8	UTI	East Head	Q27	200985	MSP
1182	32.4	LOC	Onakau watering place	Q27	257082	MSP
1183	253.5	UCL		Q27	16640	MSP
1184	3.9	UCL	Motungara Island	Q27	215095	MSP
1185	4.7	UCL	Ruakawa Rock	Q27	245996	MSP
1186	4.5	UCL	Tory Channel Rocks	Q27	204984	MSP
1187	0.9	UCL	Amerikiwhati Island	Q27	138001	MSP
1188	0.2	UCL	Anatohia Bay Rocks	Q27	211071	MSP
1189	1.6	UCL	Kokomohua Island	Q26	199119	MSP
1190	0.6	UCL	Twins	Q26	214103	MSP
1191	3.0	UCL	Combe rocks	P27	069834	MSP
1192	37.7	UCL		P27	015875	MSP
1193	1.8	UCL		P27	938889	ves
1194	154.2	UCL		P26	995165	MSP
1195	4.9	UCL		P26	082104	
1196	0.7	UCL		P26	979108	
1197	0.7	UCL		O27	631835	MSP
1198	6.5	UCL		P27	720942	MSP
1199	3.2	UCL		P26	982179	
1200	1.8	UCL		P26	094125	
1202	15.6	UCL		P27	904965	MSP
1203	0.7	UCL		O27	62132	MSP
1205	2.0	UCL	Rai River bed	O27	591974	MSP
1206	1.4	UCL		O27	584942	
1207	4.8	UCL		O27	654864	
1208	1.3	UCL		O27	596972	
1209	3.5	UCL		O27	597810	MSP
1210	9.9	UCL		P26	089130	
1211	1154.9	FOR		P27	995000	
1212	0.1	UCL	Workshop Picton	P27	940902	
1213	829.3	SCE		P26	725145	MSP
1218	0.4	UCL		O27	631835	
1219	128.7	SCE		P26	080158	
1220	0.1	UCL		P27	944904	
1222	22.8	SCE		P27	032042	
1223	4.6	SCE	Tunoamai Point	P27	017990	
1224	1.4	LOC	Youth Hostel	O27	743915	
1225	12.0	UCL		O27	606825	
1226	0.4	UCL		O27	627833	
1227	0.0	SAN	Duffers Reef	P26	980277	
1228	186.9	UCL		P27	825818	
1229	7.7	ESP	Kenepuru	P27	042035	
1230	354.0	SCE		P27	795930	
1231	1.5	UCL	Two Island Point	P26	780279	

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
1233	1.6	LOC	Waitaria Bay School site	P27	175049	
1234	0.1	LOC		P27	001917	
1236	3.5	REC	Picton Botanic	P27	942392	
1238	470.2	LOC	Picton Water Conservation	P27	069861	
2000	35.8	REC	Marfells Beach	Q29	113412	
2002	1.4	SCI	Chancet Rocks	P29	095294	
2005	4.3	REC	Blind River	P29	068470	
2006	4.6	SCI	Muritai	P28	064508	
2009	38.8	WILL	Tuamarina wildlife	P28	900774	
2010	0.9	REC	Grovetown	P28	924697	ves
2013	830.3	REC	Whites Bay	P28	970800	
2019	222.9	SCE	Mount Freeth	P27	910890	MSP
2020	3.4	ESP	Rarangi	P28	970770	ves
2021	12.5	REC	Rarangi	P28	969770	ves
2024	0.4	LOC	Kaituna Hall	P28		
2031	134.8	HIS	Tukutukuiwi	O31	438645	
2032	441.2	SCE	Goose Bay	O32	540598	GB
2033	6.7	REC	Goose Bay	O32	536658	GB
2034	31.8	REC	Oaro	O32	505543	GB
2035	0.0	NAT	Rileys Lookout	O31	559605	RI
2036	1.7	REC	Hundalee	O32	388555	
2037	6.9	REC	Conway River	O32	483440	
2038	0.4	WILL	Otumatu Rocks	O32	535589	GB
2040	4.2	SCE	Limestone Creek Sce	O32	463488	
2041	73.0	WILL	Lake Rotorua WL	O31	584665	
2042	12.1	SCE	Fyffe Palmer	O31	525750	KK
2043	26.3	REC	Peketa	O31	616653	
2045	63.5	SCE	Hapuku	O31	685770	
2050	80.0	WILL	Kaikoura Wildlife	O31	693648	KKPt
2052	14.1	RIV		O31	625730	ves
2054	65.5	UCL		O31	562721	KK
2055	2155.0	SF	Waimangarara Ecol. Area	O31	600750	SKK
2056	14.5	LOC	Lighthouse Reserve	O31	671638	KKPt
2057	16.5	SCE	Mangamuanu	P31	749812	
2058	14.8	SCE	Puhipuhi	P31	704818	
2059	26.3	SCE	Karetu	P31	730805	
2060	1241.6	SCE	Jordan Stream	O31	690870	KK
2061	0.7	SF	Ludstone Rd Workshop	O31	656672	Loc
2062	152.7	SCI	Blue Duck	P31	745858	
2063	3412.4	SCE	Mt Manukau	O31	660850	
2064	2.7	SCE	Rakautara	P31	762820	
2065	1011.7	NAT	Mt Uwerau	O31	600835	SKK
2066	0.1	HIS	Nga Niho Pa	O31	662656	
2068	4.3	SCE		O31	676657	KKPt
2069	0.3	LOC	Signal Station	O31	676657	KKPt
2070	17.8	SCI		O31	570660	
2071	24.4	SCE		O31	680642	KKPt
2072	0.1	LOC	Settlers Grave	P30	838938	ves
2074	46.5	SCE	Paparoa Point	P31	794856	
2075	13.0	SCE	Okiwi Bay	P31	804867	
2076	3.0	SCE	Half Moon Bay	P31	768832	
2077	15.7	SCE	Waipapa Pt	P31	821885	
2078	1.7	CEM	Kekerengu Cemetery	P30	838914	ves
2079	2836.9	SCE	Isolated Hill	P30	915215	
2081	3.5	STO	Rag Saddle	P30	838176	disp
2082	6522.1	UCL		P30	730000	SKK
2083	2428.0	UCL		P30	730180	
2084	569.1	UCL	Tawaho Fans	P30	855995	
2085	774.0	UCL		O30	683918	KK
2086	2909.0	UCL		O31	380715	

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
2087	9084.3	UCL		O31	570780	SKK
2088	16.0	ESP		P30	868924	
2089	4.0	UCL		P31	702799	MSP
2096	2963.3	SCE	Black Birch	P29	790430	WCP
2098	0.1	LOC	Esplanade	P28	880633	ves
2106	1.3	ESP	Onamalutu	P28	715705	MSP
2109	1.4	CEM	Fabians Valley	O28	593658	ves
2110	26.4	SCE	Onamalutu	O28	688717	
2113	7.4	WILL	Top Valley Wildlife	O28	476601	ves
2116	1705.6	SCE	Te Arowhenua	O29	410390	WCP
2118	2225.8	SCE	Tapuaenuku	O30	630110	IKK
2121	7.3	STO	Manuka Island	N29	205457	disp
2122	0.4	REC	Bankhouse	P28	712640	ves
2123	18700.6	UCL	Glazebrook	O29	360320	IKK
2124	11804.5	UCL	Ferny Gair	O29	710400	WCP
2125	428.1	UCL		O29	675305	CP
2126	3176.8	UCL		O30	410990	KK
2127	5.5	UCL		O31	673780	
2128	0.5	UCL		O31	694772	
2129	2.0	UCL		O31	575622	RI
2130	2309.8	UCL	Wairau Lagoon	P28	000630	
2131	234.9	UCL		P28	960710	ves
2132	10.0	UCL	Awatere River	P29	895467	ves
2133	14.0	UCL	Ben More Stream	P30	930165	
2134	35.8	UCL	Clarence River	P30	780000	Sce
2135	4.6	UCL	Hapuku foreshore	O31	700749	NKK
2136	4.0	UCL	Access Black Birch	P29	798393	WCP
2137	28.9	UCL		P29	023215	
2138	55.8	UCL		P29	020341	
2139	15.6	UCL		P29	090425	
2140	45.0	UCL		P28	059596	ves
2141	6.5	UCL		P28	061571	ves
2142	34.6	UCL		P28	983669	ves
2143	12.5	UCL		P28	785702	disp
2144	29.7	UCL		P28	855733	disp
2145	13.6	UCL		P28	945689	disp
2146	0.4	UCL	Goose Bay house	O32	534586	oz
2147	0.4	UCL	Section Kaikoura	O31	683656	Loc
2148	47.0	UCL		O31	565658	
2149	1.7	UCL	S58 L Rotorua	O31	578655	
2151	4.0	UCL		O31	662672	KKt
2152	16.5	UCL		O31	685644	
2153	7.5	UCL		O31	642745	Kkt
2154	0.1	UCL		O31	663668	
2155	4.8	UCL		O31	670654	KKPt
2156	2.6	UCL		O28	376528	disp
2157	5.5	UCL	Avon	O28	664532	MSP
2158	2.4	UCL	Pine Valley	O28	561638	MSP
2160	30.7	UCL	Blue Slip	P30	965147	Sce
2161	1.4	UCL		P30	938110	Rec
2162	0.3	UCL		P28	899649	disp
2163	0.5	UCL		P28	906686	
2164	0.2	UCL		O28	695740	MRFP
2166	7.3	UCL		O28	599648	MSP
2167	9.3	UCL		O31	668715	NKK
2168	1.5	UCL		O31	689739	NKK
2169	1.4	UCL		O32	518552	GB
2170	0.1	UCL		O32	528564	GB

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
2171	17.3	UCL	Station Creek	P28	065515	
2172	0.5	UCL		P29	030222	Sce
2173	3.6	UCL		P30	013024	
2174	12.5	UCL		P28	974784	ves
2175	3.2	UCL		O32	498473	Sce
2176	2.0	REC	Kowhai Pt	N29	194439	
2178	0.5	UCL		O28	555642	disp
2179	30.8	REC	Leased from Railways	O31	562614	RI
2180	0.1	UCL		O31	663668	KKt
2181	0.3	UCL	Lyell Creek	O31	663668	KKt
2182	10.6	UCL	Conway Mouth	O32	483039	
2183	22.1	UCL		O31	625732	NKK
2184	0.2	UCL		O31	658679	KKt
2185	0.1	UCL	Conway R	O32	444454	Rec
2187	0.4	UCL		P28	784666	
2188	3.2	SCE		O31	647688	
2191	4.0	UCL	Teme	O29	818387	
2192	1.4	UCL		O31	658678	
2193	73.8	SCE		O31	582630	
2194	4.0	STO		P30	884160	
2195	3.1	STO		P30	838175	
2196	0.0	NAT	Pinnacle Rock	O31	581619	
2197	24.0	UCL		P29	923477	
2198	85.4	SCE	Sweets Stream	O29	494490	
2199	1.2	UCL		O31	661682	
2200	568	UCL	Blarich	P29	745435	
2202	6.8	SCE	Pingao	P30	874012	
2203	519.2	UCL		O29	463394	
2204	0.3	Oaro		O32	574544	
2205	14.5			P27	850415	
2206	1241.0	SCE		P30	780900	
2207	0.4	UCL		P30	830905	
2208	680.7	SCE		O31	550610	
2209	1737.0	SCE		P30	835125	
2210	108.0	UCL		P30	848986	

KEY

Unit	Land unit number as in the land register
Area	in Ha
Class	Classification
CEM	Local purpose, cemetery
ESP	Local purpose, esplanade reserve
FOR	Local purpose, Sounds Foreshore (500 km)
FP	Recreation reserve, Farm Park
GRA	Government purpose, quarry reserve
HIS	Historic reserve
LOC	Local purpose, other categories
MAO	Local Purpose, Maori
NP	National Park
QUA	Government purpose, quarry reserve
REC	Recreation reserve
SAN	Wildlife and Conservation Act sanctuary
SCE	Scenic reserve
SCI	Scientific reserve
SF	Conservation areas (former State Forest)
STO	Government purpose, Stock Reserve
UCL	Conservation areas (former crown land)

Key (cont):

UTI	Government purpose, Utility reserve
Map	Map number
Grd ref	Grid reference
Name	Where available, generally only for parks, recreation and scenic reserves
Group	Land unit groups or other status
	Blank, no change likely
ATNP	Potential Abel Tasman NP
disp	Potential disposal
GB	Goose Bay unit
IKK	Potential Inland Kaikoura unit (or merge with Seawards)
KKpt	Kaikoura peninsula unit
KKt	Kaikoura Town unit
Loc	Used for houses etc - Local purpose reserve
MCP	Potential Murchison Conservation Park
MRFP	Mt Richmond Forest Park unit
MSP	Potential Marlborough Sounds Park
NKK	Potential north Kaikoura coastal unit
NLNP	Nelson Lakes National Park
NWN	North-west Nelson unit
Sce	Potential Scenic Reserve
SFP	Forest Park (Conservation Park)
SKK	Potential Seaward in Inland Kaikoura unit
WCP	Potential upper Wairau unit
Rec	Potential recreation reserve
RI	Riley's Lookout
ves	Potentially vest in local authority or transfer control

APPENDIX II.

DATABASES OF SURVEY INFORMATION

(i) Sites of Special Wildlife Interest (SSWI)

Between 1977 and 1985, the Fauna Survey Unit of the Wildlife Services surveyed the whole of New Zealand on a region by region basis to identify all "sites of special wildlife interest". All natural or semi-natural areas important as habitat for one or more species of protected wildlife were evaluated and each site ranked, according to a set of standard criteria, into five groups on the basis of their value to wildlife, i.e., outstanding, high, moderate-high, moderate and potential.

This information was published for the Nelson and North Buller regions but, while the conservancy holds all the field sheets for the Marlborough region, those have never been distilled into a published form. The raw data are still used by staff, but as they require interpretation and have dated, are not normally available to the public.

(ii) Wetlands of Ecological and Representative Importance (WERI)

This is a computer-stored inventory of all permanently or temporarily wet, shallow water and land-water margin areas, either fresh, brackish or saline. Co-ordination of the compilation of all existing information on wetlands held by Government agencies, public groups and individuals, was initiated by the Commission for the Environment in 1984. The Biological Resource Centre completed the data entry onto computer in 1986. None of the data has been updated since then.

The printout for each individual site provides information on a wide range of parameters, as well as giving a significance rating based on the values and quality of each wetland. The six significance categories are: international, national, regional, local, nothing special, and insufficient information.

(iii) Protected Natural Area Programme (PNAP)

This programme, which was initiated in 1983/84, is aimed at identifying what natural areas remain and evaluating which are the best or most representative examples. Identification is done on the basis of field assessment on an Ecological District basis, each district possessing characteristics of climate, geology, landform, soils and biological features which, in combination, form a recognisable ecological pattern different from adjacent districts.

The objective is to identify and preserve representative examples of all classes of natural ecosystems and landscapes in each ecological district. Because of this, it has tended to concentrate primarily on landform and botanical features, species or communities, although generally information on birds, lizards and invertebrates has also been collected. The best examples are listed as

Recommended Areas for Protection (RAP) in a ranked priority order for legal protection and conservation need.

The conservancy contains 31 complete and 10 part ecological districts, in 13 of which field assessments have been completed, but only four have so far been published.

(iv) Coastal Resource Inventory (CRI)

This programme gathers information on intertidal and adjacent land areas, and to a lesser extent, subtidal areas, and was initiated in 1987. Details on the natural, historic and recreational values, existing threats and human modification were collected for 121 stretches of coastline that were felt to form discrete, recognisable units.

The information has been analysed and summarised in a report published in 1990, which outlines the distinctive and significant features of each discrete length of coastline.

Each of these stretches have been grouped into five categories based primarily on the presence of species of conservation importance, for example, international, national, regional, local and unknown.

These groupings into sites of similar site importance are not a ranking system, but merely an indication that a feature of known conservation importance is present.

(v) Freshwater fisheries database

This is a computer-based inventory administered by the Freshwater Division of NIWAR (National Institute of Water and Atmospheric Research). They have been progressively compiling information on the presence, location, abundance and some habitat parameters of freshwater fish since the 1970s. Information is derived from Fish and Game Councils, Ministry of Fisheries, the Department of Conservation and a few private individuals. The database is still being added to and updated. Detailed or general information can readily be obtained and the conservancy office holds a limited copy which is updated on a three monthly basis.

(vi) Geopreservation database

This database is maintained by the Geological Society of New Zealand and Joint Earth Science Society Working Group. It covers sites of physical, geological and mineral significance.

(vii) Other surveys

Besides these broad conservancy-wide inventories, many types of detailed site-specific or species-specific studies are carried out. These include quantitative studies of areas such as Whanganui Inlet and Long Island-Kokomohua for marine reserve purposes, and Waimea Inlet and Pelorus Sound to identify tidal and subtidal natural, historic and recreational values. As well, numerous assessments include the distribution, density and status of threatened, vulnerable or rare plant and animal species such as blue duck. A general index of departmental databases is maintained.

APPENDIX III.

TE TIRITI O WAITANGI

Ko Wikitoria te kuini o Ingarani, i tana mahara atawai ki nga Rangatira me nga Hapu o Nu Tirani i tana hiahia hoki kia tohungia ki a ratou o ratou rangatiratanga, me to ratou wenua, a ki mau tonu hoi te Rongo ki a ratou me te Atanoho hoki kua wakaaro ia he mea tika kia tukua mai tetahi Rangatira hei kai wakarite ki nga Tangata maori o Nu Tirani - kia wakaaetia e nga Rangatira maori te Kawanatanga o te Kuini ki nga wahikatoa o te Wenua nei me nga Motu - na te mea hoki he tokomaha ke nga tangata o tona Iwi Kua noho ki tenei wenua, a e haere mai nei.

Na ko te Kuini e hiahia ana kia wakarite te Kawanatanga kia kaua ai nga kino e puta mai ki te tangata Maori ke te Pakeha o noho ture kore ana.

Na, kua pai te Kuini kia tukua ahau a Wiremu Hopihona he Kapitana i te Roiara Nawi hei Kawana mo nga wahi katoa o Nu Tirani e tukua aianei, amua atu ki te Kuini e mea atu ana ia ki nga Rangatiratanga o te wakaminenga o nga hapu o Nu Tirani me era Rangatira atu enei ture ka korerotia nei.

Ko te tuatahi

Ko nga Rangatira o te Wakaminenga me nga Rangatira katoa hoki ki hai i uru ki taua wakaminenga ka tuku rawa atu ki te Kuini o Ingarani ake tonu atu - te Kawanatanga katoa o o ratou wenua.

Ko te tuarua

Ko te kuini o Ingarani ka wakarite ka wakaae ki nga Rangatira ki nga hapu ki nga tangata katoa o Nu Tirani te tino rangatiratanga o o ratou wenua o ratou kainga me o ratou taonga katoa. Otiia ko nga Rangatira o te Wakaminenga me nga Rangatira katoa atu ka tuku ki te Kuini te hokonga o era wahi wenua e pai ai te tangata nona te wenua - ki te ritenga o te utu e wakaritea ai e ratou ko te kia hoko e meatia nei e te Kuini hei kai hoko mona.

Ko te tuatoru

Hei wakaritenga mai hoki tenei mo te wakaaetanga ki te Kawanatanga o te Kuini ka tiakina e te Kuini o Ingarani nga tangata maori katoa o Nu Tirani ka tukua ki a ratou nga tikanga katoa rite tahi ki ana mea ki nga tangata o Ingarani.

TRANSLATION OF MAORI TEXT BY PROFESSOR SIR HUGH KAWHARU

Victoria, the Queen of England, in her concern to protect the Chiefs and Subtribes of New Zealand and her desire to preserve their chieftainship and their lands to them and to maintain peace and good order considers it necessary to appoint an administrator one who will negotiate with the people of New Zealand to the end that their chiefs will agree to the Queen's government being

established over all parts of this land and (adjoining) islands and also because there are many of her subjects already living on this land and others yet to come. So the Queen desires to establish a government so that no evil will come to Maori and European living in a state of lawlessness.

So the Queen has appointed me, William Hobson a Captain in the Royal Navy to be Governor for all parts of New Zealand (both those) shortly to be received by the Queen and (those) to be received hereafter and presents to the chiefs of the Confederation chiefs of the subtribes and other chiefs these laws set out here.

The first

The Chiefs of the Confederation of all Chiefs who have not joined that Confederation give absolutely to the Queen of England forever the complete government over their land.

The second

The Queen of England agrees to protect the Chiefs, the Subtribes and all the people of New Zealand in the unqualified exercise of their chieftainship over their lands, villages and all their treasures. But on the other hand the Chiefs of the Confederation and all the Chiefs will sell land to the Queen at a price agreed to by the person owning it and by the person buying it (the latter being) appointed by the Queen as her purchase agent.

The third

For this agreed arrangement therefore concerning the Government of the Queen of England will protect all the ordinary people of New Zealand (i.e. the Maori) and will give them the same rights and duties of citizenship as the people of England.

THE TREATY OF WAITANGI (ENGLISH TEXT)

Her Majesty Victoria Queen of the United Kingdom of Great Britain and Ireland regarding with Her Royal Favour the Native Chiefs and Tribes of New Zealand and anxious to protect their just Rights and Property and to secure to them the enjoyment of Peace and Good Order has deemed it necessary in consequence of the great many of Her Majesty's Subjects who have already settled in New Zealand and the rapid extension of Emigration both from Europe and Australia which is still in progress to constitute and appoint a functionary properly authorised to treat with the Aborigines of New Zealand for the recognition of Her Majesty's Sovereign authority over the whole or any part of those islands - Her Majesty therefore being desirous to establish a settled form of Civil Government with a view to avert the evil consequences which must result from the absence of the necessary Laws and Institutions alike to the native population and to Her Subjects has been graciously pleased to empower and authorise me William Hobson a Captain in Her Majesty's Royal Navy Consul and Lieutenant Governor of such parts o New Zealand as may be or hereafter shall be ceded to Her Majesty to invite the confederated and independent Chiefs of New Zealand to concur in the following Articles and Conditions.

Article the first

The Chiefs of the Confederation of the united Tribes of New Zealand and the separate and independent Chiefs who have not become members of the Confederation cede to Her Majesty the Queen of England absolutely and without reservation all the rights and powers of Sovereignty which the said Confederation or Individual Chiefs respectively exercise or possess, or may be supposed to exercise or to possess over their respective Territories as the sole sovereigns thereof.

Article the second

Her Majesty the Queen of England confirms and guarantees to the Chiefs and Tribes of New Zealand and to the respective families and individuals thereof the full exclusive and undisturbed possession of their Lands Estates Forest Fisheries and other properties which they may collectively or individually possess so long as it is their wish and desire to retain the same in their possession; but the Chiefs of the United Tribes and the Individual Chiefs yield to Her Majesty the exclusive right of Pre-emption over such lands as the proprietors thereof may be disposed to alienate at such prices as may be agreed upon between the respective Proprietors and persons appointed by Her Majesty to treat them in that behalf.

Article the third

In consideration thereof Her Majesty the Queen of England extends to the Natives of New Zealand Her royal protection and imparts to them all the Rights and Privileges of British Subjects.

PRINCIPLES FOR CROWN ACTION ON THE TREATY OF WAITANGI

Principle 1:

THE PRINCIPLE OF GOVERNMENT

THE KAWANATANGA PRINCIPLE

The government has the right to govern and to make laws.

Principle 2:

THE PRINCIPLE OF SELF-MANAGEMENT

THE RANGATIRATANGA PRINCIPLE

The iwi have the right to organise as iwi, and, under law, to control their resources as their own.

Principle 3:

THE PRINCIPLE OF EQUITY

All New Zealanders are equal before the law.

Principle 4:

THE PRINCIPLE OF REASONABLE COOPERATION

Both the Government and the iwi are obliged to accord each other reasonable cooperation on major issues of common concern.

Principle 5:

THE PRINCIPLE OF REDRESS

The Government is responsible for providing effective processes for the resolution of grievances in the expectation that reconciliation can occur.

These five principles are further detailed in "Principles for Crown action on the Treaty of Waitangi", Department of Justice (1989) - ISBN 0-477-07229-1.

QUOTATIONS FROM THE WAITANGI TRIBUNAL AND THE COURT OF APPEAL WHICH ILLUMINATE WHAT THE TREATY PRINCIPLES ARE PRESENTLY UNDERSTOOD TO BE.

THE ESSENTIAL BARGAIN

The Waitangi Tribunal

"[Kawanatangi] means the authority to make laws for the good order and security of the country but subject to an undertaking to protect particular Maori interests" (Manakau Report p. 90).

Court of Appeal

"... the basic terms of the bargain were that the Queen was to govern and the Maoris were to be her subjects; in return their chieftainships and possessions were to be protected, but sales of land to the Crown could be negotiated." These aims partly conflicted. The Treaty has to be seen as an embryo rather than a fully integrated set of ideas. (*New Zealand Maori Council v Attorney-General* [1987] 1 NZLR 641 at 663 per Cooke P, the *Lands* case).

THE TREATY RELATIONSHIP

The Waitangi Tribunal

The Treaty signifies a partnership between the Crown and the Maori People and the compact between them rests on the premise that each partner will act reasonably and in the utmost good faith towards each other (Orakei, p.150).

"The Treaty ... was not intended to merely fossilise a status quo, but to provide a direction for further growth and development .... the foundation for a developing social contract..." (Motunui, p.52).

" ... neither partner in our view can demand their own benefits if there is not also an adherence to reasonable state objectives of common benefit. It ought not to be forgotten that there were pledges on both sides." (Muriwhenua Fishing Report, p. 195).

Court of Appeal

Signing of the Treaty "... called for their protection by the Crown of both Maori interests and British interests and rested on the premise that each party would act reasonably and in good faith towards each other within their respective spheres." (*Lands* at pp 680-681 per Richardson J).

"... those principles [of the Treaty] require the Pakeha and Maori Treaty partners to act towards each other reasonably and with the utmost good faith. That duty is not a light one. It is infinitely more than a formality. If a breach of the duty is demonstrated at any time, the duty of the Court will be to insist that it be honoured." (*Lands* at p. 667 per Cooke P).

The Treaty does not authorise

"... unreasonable restrictions on the right of a duly elected Government to follow its own chosen policy ... and ... although ... clearly entitled to decide on such policy, as a reasonable Treaty partner it should take the Maori race into its confidence regarding the manner of implementation of the policy." (*Lands* at p.665 per Cooke P).

RANGATIRATANGA

Waitangi Tribunal

" ... a great deal needs to be done to give formal recognition to properly structured tribal bodies, ... to provide for consultation between local and tribal authorities in proper cases, and to furnish resources for tribal councils to be adequately informed and effectively involved." (Mangonui p. 55).

Court of Appeal

"The Maori chiefs looked to the Crown for protection from other foreign powers, for law and order. They reposed their trust for these things in the Crown believing they retained their own rangatiratanga and taonga. The Crown assured them of the utmost good faith in the manner in which their existing rights would be guaranteed and in particular guaranteed down to each individual Maori full exclusive and undisturbed possession of their lands which is the basic and most important principle of the Treaty in the context of the case before this court." (*Lands* at p. 715 per Bisson J).

ACTIVE PROTECTION

Waitangi Tribunal

"The Treaty of Waitangi obliges the Crown not only to recognise the Maori interest specific in the Treaty but actively to protect them." .... "It follows the omission to provide that protection is as much a breach of the Treaty as a positive act that removes those rights." (Manukau p. 95).

" ... the Treaty both assures Maori survival and envisaged their advance, but to achieve that in Treaty terms, the Crown had not merely to protect those natural resources Maori might wish to retain but to assure the retention of a sufficient share from which they could survive and profit, and the facility to fully exploit them." (Muriwhenua Fishing Report, p. 194)

Court of Appeal

"... the duty of the Crown is not merely passive but extends to active protection of Maori People in the use of their lands and waters to the fullest extent practicable." (*Lands* at p. 664 per Cooke P).

DUTY TO BE INFORMED

Court of Appeal

"... the responsibility of one treaty partner to act in good faith fairly and reasonably towards the other puts the onus on a partner, here the crown, when acting within its sphere to make an informed decision ... to be able to say it has had a proper regard to the impact of the principles of the Treaty" (*Lands* at p. p.683 per Richardson J).

APPENDIX IV.

ACTS AND REGULATIONS REFERRED TO IN THIS DOCUMENT

Agricultural Pests Destruction Act 1967 (repealed by Biosecurities Act 1993)
* Animals Protection Act 1960
Animals Protection (Codes of Ethical Conduct) Regulations 1987
Antiquities Act 1975
Biosecurity Act 1993
Building Act 1991
Civil Aviation Act 1992
* Conservation Act 1987
* Conservation Law Reform Act 1990
Crown Minerals Act 1991
Dog Control and Hydatids Act 1982
Fencing Act 1978
Fire Service Act 1975
Forests 1949
* Fisheries Act 1983
* Forest Park Regulations 1979
* Forest and Rural Fires Act 1977
* Freshwater Fisheries Regulations 1983
* Freshwater Fish Farming Regulations 1983
Historic Places Act 1993
Land Act 1948
Land Transfer Act 1952
Litter Act 1979
Maori Affairs Act 1953 (replaced by the Maori Land Act 1993)
Maori Land Act 1993
Marine Farming Act 1971
* Marine Mammals Protection Act 1978
Marine Pollution Act 1974
* Marine Reserves Act 1971,
Marine Transport Act 1994
Military Manoeuveres Act 1915
Mining Act 1971 (superseded by Crown Minerals Act 1991)
* National Parks Act 1980
* Native Plants Protection Act 1934
* New Zealand Walkways Act 1990
* Noxious Plants Act 1978 (repealed by the Biosecurities Act 1993)
Noxious Animals in Captivity Regulations 1969
Official Information Act 1982
Queen Elizabeth II National Trust Act 1977
* Reserves Act 1977
* Reserves and Other Lands Disposal Act 1982
* Resource Management Act 1991
Trade in Endangered Species Act 1989
Transport Act 1962
* Water Recreation Regulations 1979
* Whitebait Fishing Regulations 1994 (annual)
* Wild Animal Control Act 1977
* Wildlife Act 1953
Wildlife Regulations 1955

* Denotes acts for which the department has administrative responsibilities

APPENDIX V.

CLASSIFICATION OF AREAS ADMINISTERED BY THE DEPARTMENT

This table lists the existing categories of protective status, showing the purposes emphasised in each class of area (the classes are grouped to illustrate how the statutory purposes relate to broad management objectives).

CLASSIFICATION OF AREAS

CLASS	PRIMARY PURPOSE	SECONDARY PURPOSES
GROUP A: The maintenance, as far as possible in a natural state, of ecosystems representing the full ecological diversity of New Zealand for protection of scientific values		
Scientific Reserve (Section 21 Reserves Act)	Protecting and preserving in perpetuity for scientific study, research, education, and the benefit of the country, ecological associations, plant or animal communities, types of soil, geomorphological phenomena, and like matters of special interest.	Protecting any scenic, historic, archaeological or natural features; maintaining soil, water, and forest natural, historic and recreational values.
Ecological Specially Protected Area (SPA) (Section 2, 18, 21 Conservation Act)	Protection of the scientific value for which it is held (1).	Preserving and protecting 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 for future generations (2).
GROUP B: The protection of rare or endangered species and their habitats		
Nature Reserve (Section 20 Reserves Act)	Protecting and preserving in perpetuity native flora or fauna, or natural features that are of such rarity, scientific interest or importance, or so unique that it is in the public interest to do so.	Managing and protecting any scenic, historic, archaeological, biological, geological or other scientific features; maintaining soil, water and forest natural, historic and recreational values.
Wildlife Sanctuary (Section 9 & 10 Wildlife Act)	The absolute protection of all wildlife in the sanctuary.	If also a government purpose reserve, then refer to Group F.
Sanctuary SPA (Section 2 & 22 Conservation Act)	Preserving in their natural state the native plants and animals in it, and for scientific and other similar purposes.	Preserving and protecting 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 for future generations.

CLASSIFICATION OF AREAS (CONT)

CLASS	PRIMARY PURPOSE	SECONDARY PURPOSES
GROUP C: The conservation of outstanding landscapes or natural features of aesthetic value and maintenance of samples of New Zealand's natural heritage, representative of the full ecological diversity of New Zealand		
Scenic Reserve (Section 19(1)(a) Reserves Act)	Protecting and preserving in perpetuity for their intrinsic worth and for the benefit, enjoyment and use of the public, suitable areas possessing such qualities of scenic interest, beauty, or natural features or landscape that it is in the public interest to do so.	Managing and protecting any historic, archaeological, geological, biological, or other scientific features; maintaining soil, water, and forest natural, historic and recreational values.
Scenic Reserve (Section 19(1)(b) Reserves Act)	Providing, in appropriate circumstances, suitable areas which, by development and the introduction of native or introduced plants, will become of such scenic interest or beauty that their development, protection, and preservation are desirable in the public interest.	Managing and protecting any historic, archaeological, geological, biological, or other scientific features; maintaining soil, water, and forest natural, historic and recreational values.
Wildlife Refuge (Section 14 Wildlife Act)	Not specified.	If a government purpose reserve, then refer to Group F.
Esplanade Reserve (Section 229 Resource Management Act & Section 23 Reserves Act)	Contributing to the protection of natural, historic and recreational values and enabling public access to or along the sea, a river or a lake.	Enabling public recreational use of the reserves and adjacent sea, river or lake; managing and protecting scenic, historic, archaeological, biological or natural features; maintaining soil, water and conservation forest values.
Conservation Park (Section 19 Conservation Act)	Protecting natural and historic resources.	Facilitating public recreation and enjoyment.
Conservation Area (Section 2 & 25 Conservation Act)	Managing and protecting natural and historic resources.	Maintaining the intrinsic values of the resources, providing for their appreciation and recreational enjoyment by the public, and safeguarding the options of future generations.
Watercourse Area (Section 23 Conservation Act)	Protecting the wild, scenic and other natural or recreational characteristics of the area and the adjacent protected river, lake or stream.	As for original purpose(s).
Marginal Strip (Section 24 Conservation Act)	Maintaining adjacent watercourses or bodies of water and water quality and aquatic life, and protecting natural values and controlling harmful species of aquatic life, and enabling public access to adjacent water courses or bodies of water, and allowing their recreational use by the public.	Not specified.

CLASS	PRIMARY PURPOSE	SECONDARY PURPOSES
GROUP D: The conservation of examples of New Zealander's historic and archaeological heritage		
Historic Reserve (Section 18 Reserves Act)	Protecting and preserving in perpetuity such places, objects and natural features or other things as are of historic, archaeological, cultural, emotional, and other special interest (3).	Managing and protecting any scenic, archaeological, geological, or other scientific features, or native flora or fauna, or wildlife; maintaining soil, water and forest natural, historic and recreational values.
Historic SPA (Section 2 & 18 Conservation Act)	Not specified.	Preserving and protecting 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.
GROUP E : The provision of a complementary range of recreational opportunities		
Wilderness 'Reserve' (Section 47 Reserves Act)	Keeping and maintaining the area in a state of nature (3).	As for the original class.
Wilderness SPA	Preserving native, natural resources (1).	Preserving and protecting 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.
Wildlife Management Reserve (Section 14A Wildlife Act)	Not specified. Implies for waterfowl hunting.	If a government purpose reserve, then refer to Group F.
Recreation Reserve (Section 17 Reserves Act)	Providing areas for recreation and sporting activities and the physical welfare and enjoyment of the public, and protecting the natural environment and beauty of the countryside, emphasising the retention of open spaces and outdoor recreational tracks in the countryside.	Managing and protecting any scenic, historic, archaeological, biological, geological, or other scientific features or native flora or fauna or wildlife; maintaining soil, water and forest natural, historic and recreational values.
'Racecourse' Reserve (Section 66 Reserves Act)	Holding of race meetings.	As for recreation reserve.
Recreation SPA (Section 2 & 18 Conservation Act)	Not specified.	As for wilderness SPA above.

CLASS	PRIMARY PURPOSE	SECONDARY PURPOSES
GROUP F: The provision of areas for other government and local purposes (i.e. purposes not listed in other tables)		
Government Purpose Reserve (Section 22 Reserves Act)	(In each case) the specified government purpose.	Managing and protecting any scenic, historic, archaeological, biological, cultural, scientific, or natural features or wildlife, maintaining soil, water and forest natural, historic and recreational values.
Local Purpose Reserve (Section 23)	(In each case) the specified local purpose.	Managing and protecting any scenic, historic, archaeological, biological, or natural features; maintaining soil, water and forest natural, historic and recreational values.
GROUP G: Protection of streams and stream margins		
Conservation Act (Part IVA) Marginal strip (formerly Section 58 Land Act)		Conservation purposes especially: water body maintenance and its water quality; public access; recreational use.
Local Government Act (Section 346)	Esplanade Reserves Section 23 Reserves Act	Public access only.
Reserves and Other Lands Disposal Act 1955	Sounds Foreshore	Public access; and, so long as is compatible with the primary objective, to protect natural, historic and recreational values.
Resource Management Act (Sections 77, 229-237)	Esplanade Reserves Section 23 Reserves Act	Protect conservation, especially natural functioning of water body; water quality; maintaining aquatic habitats; protecting natural values; mitigating natural hazards; and public access and recreational use if compatible with natural values.

Footnote:

(1) The New Zealand Forest Service draft ecological area general policy (1985) described the primary purpose as "one or more" of the following:
- (a) protecting representative portions of natural ecosystems;
- (b) protecting rare or unique features, including native plants and animals;
- (c) as areas available for study, aimed at understanding and explaining natural processes;
- (d) as benchmarks for assessing changes associated with various forms of development within the conservancy;
- (e) as genetic pools for native plants and animals.

(2) The same statement listed the following secondary purposes:
- (a) for education and to increase public awareness and appreciation of natural ecosystems and species; and
- (b) for recreation which is an integrated part of conservancy network or which provides opportunities not available elsewhere or which is best achieved in the ecological area.

Footnote (cont):

(3) The recreational objective is not implicit in the statutory primary purpose. The Wilderness Policy (1983) described wilderness areas as "wild lands designated for their protection and managed to perpetuate their natural condition ..." which were suitable for a "wilderness experience". It goes on to say: "Wilderness is, therefore, principally a recreational and cultural concept which is compatible with nature conservation ..." and "embodies remoteness and discovery, challenge, solitude, freedom and romance ..." while "fostering self-reliance and empathy with wild nature".

APPENDIX VI.

VISITOR STATISTICS

NUMBERS OF VISITORS TO SOME FACILITIES FOR YEAR ENDING 1/6/92

PLACE	PARK	VISITOR NUMBERS
Lookouts		
Ohau Point	Kaikoura Coast	60,000
Abel Tasman Memorial	Abel Tasman	30,000
Cobb Ridge	North-west Nelson	4,000
Cullens Point	Marlborough Sounds	4,000
Carparks		
Seal Colony	Abel Tasman	265,000
Marahau		45,000
Pupu Springs		35,000
Mt Robert	Nelson Lakes	15,000
Flora Saddle	North-west Nelson	5,000
Prices Clearing	North-west Nelson	2,000
Visitor Centres		
St Arnaud	Nelson Lakes	55,000
Motueka	North-west Nelson	10,000
Takaka	Abel Tasman	5,000
Picnic/Service areas		
Pelorus Bridge	Nelson Lakes	300,000
Kerr Bay	Abel Tasman	100,000
Abel Tasman beaches		50,000
Riwaka		25,000
Kawatiri Junction		15,000
Goose Bay		15,000
Hacket		10,000
Lee	Marlborough Sounds	10,000
Karaka Point		10,000
Whites Bay		30,000
Ratimera Bay	Marlborough Sounds	10,000
Ships Cove	Marlborough Sounds	20,000
Onamalutu	Mt Richmond	20,000
Lower Wairoa		5,000
Walks		
Pelorus Swing Bridge		30,000
Whites Bay Walks		30,000

NUMBERS OF VISITORS TO SOME FACILITIES FOR AT YEAR ENDING 1/6/92 (CONT)

PLACE	PARK	VISITOR NUMBERS
Walks (cont)		
Pupu Springs		27,000
Peninsula Walkway		25,000
Riwaka Reserve		15,500
Pelorus Bridge Walks (x 3)		14,000
Onamalutu Walk		14,000
Peninsula Walk	Nelson Lakes	10,000
Karaka Point	Marlborough Sounds	10,000
Tinline-Anchorage	Abel Tasman	10,000
Puponga-Farewell		8,000
Harwoods Hole	Abel Tasman	6,000
Mt Arthur	North-west Nelson	5,700
Marahau	Abel Tasman	5,000
Cullens Point	Marlborough Sounds	3,200
Ohau Point	Marlborough Sounds	3,700
Pupu Walkway		3,700
Wainui Falls	Abel Tasman	3,000
Sharlands		3,000
Motuara		3,000
Hacket	Mt Richmond	2,600
Ships Cove waterfall	Marlborough Sounds	2,500
Governors Bay	Marlborough Sounds	2,500
Hinau		2,400
Pine Valley	Mt Richmond	2,400
Cobb Valley	North-west Nelson	2,400
Cable Bay Walkway		2,000
Omihi		2,000
Pukatea Trail	Mt Richmond	2,000
Major Tracks		
Abel Tasman Coast	Abel Tasman	100,000
Travers Valley	Nelson Lakes	6,000
Queen Charlotte	Mt Richmond	5,000
Hacket-Whispering Falls	Marlborough Sounds	4,600
Heaphy	North-west Nelson	4,100
Lake Circuit	Nelson Lakes	4,000
Tablelands-Salisbury	North-west Nelson	2,500
Upper Cobb	North-west Nelson	2,500
Nydia Walkway	Marlborough Sounds	1,600
Travers-Sabine	Nelson Lakes	1,500
Wangapeka	North-west Nelson	1,500
Inland Track	Abel Tasman	1,200
Pelorus-Dun	Mt Richmond	1,000
Mt Fyffe		1,000
Karamea-Leslie	North-west Nelson	800
Mt Peel	North-west Nelson	800
D'Urville	Nelson Lakes	500
Kowhai-Hapuku		500
Goulter-Chalice	Mt Richmond	500
Mt Richmond	Mt Richmond	500
Forks-Rintoul	Mt Richmond	500
Wakamarina	Mt Richmond	300

OVERNIGHT STAYS IN SOME ACCOMMODATION FACILITIES FOR YEAR ENDING 1/6/92

NAME	LOCATION	BUNKS	BED NIGHTS	BED NIGHT OCCUPANCY %
Outdoor Education/ Recreation Lodges				
Rotoiti	Nelson Lakes	79	4,250	15
Totaranui	Abel Tasman	40	2,000	14
Mistletoe Bay	Marlborough Sounds	22	2,000	25
Nydia Bay	Marlborough Sounds	50	2,000	11
Huts				
Bark Bay	Abel Tasman	28	9,000	88
Anchorage	Abel Tasman	26	7,500	79
Awaroa	Abel Tasman	26	5,000	53
Whariwharangi	Abel Tasman	20	3,000	41
Salisbury	North-west Nelson	24	2,500	29
Perry Saddle	North-west Nelson	25	2,500	27
Torrent Bay	Abel Tasman	8	2,000	68
Angelus	Nelson Lakes	16	2,000	34
Lakehead	Nelson Lakes	16	1,700	29
Saxon	North-west Nelson	20	1,500	21
Brown	North-west Nelson	20	1,500	21
Fenella	North-west Nelson	20	1,500	20
Kings	North-west Nelson	20	1,250	17
Rocks	Mt Richmond	20	1,250	17
Trilobite	North-west Nelson	14	1,250	24
Upper Travers	Nelson Lakes	14	1,100	22
John Tait	Nelson Lakes	16	1,000	17
Sabine	Nelson Lakes	10	900	25
Karamea Bend	North-west Nelson	12	900	21
Taipo	North-west Nelson	16	900	15
Coldwater	Nelson Lakes	8	800	27
Mt Arthur	North-west Nelson	6	800	37
Flora	North-west Nelson	12	800	18
Lake Chalice	Mt Richmond	9	650	20
Forks	Nelson Lakes	8	650	22
Crow	North-west Nelson	6	600	27
Gouland Downs	North-west Nelson	12	500	12
Blue Lake	Nelson Lakes	16	520	9
Venus	North-west Nelson	10	450	12
D'Urville	Nelson Lakes	10	400	11
West Sabine	Nelson Lakes	8	400	14

CAMPSITES OF OVER 500 BED NIGHTS BASED ON A SEASON FROM NOVEMBER TO MARCH

NAME	LOCATION	SITES (NUMBER)	BED NIGHTS	% SITE OCCUPANCY
Campgrounds				
Totaranui	Abel Tasman	200	30,000	20.6
St Arnaud	Nelson Lakes	89	13,000	20.0
Peketa	Marlborough Sounds	234	11,600	6.8
Goose Bay		78	9,000	15.8
Pelorus Bridge	Marlborough Sounds	37	7,000	25.9
Momorangi		160	7,000	6.0
Camp areas				
Anchorage	Abel Tasman	25	10,000	54.8
Bark Bay	Abel Tasman	25	8,500	46.8
Whites Bay		20	2,000	13.7
Lake Rotoroa	Nelson Lakes	16	1,850	15.8
Tonga Beach	Abel Tasman	20	1,500	10.3
Whariwharangi	Abel Tasman	20	1,500	10.3
Te Puketa	Abel Tasman	8	1,500	25.7
Appletree Bay	Abel Tasman	6	1,500	34.2
Marfells Beach		30	1,000	4.6
Tinline	Abel Tasman	25	1,000	5.5
Awaroa	Abel Tasman	20	1,000	6.8
Torrent Bay	Abel Tasman	8	1,000	17.1
Mutton Cove	Abel Tasman	8	1,000	17.1
Tonga Quarry	Abel Tasman	8	1,000	17.1
Mosquito Bay	Abel Tasman	5	1,000	27.4
Onamalutu		56	1,000	2.5
Titirangi	Marlborough Sounds	20	500	3.4
Ratimera Bay	Marlborough Sounds	20	500	3.4
Cowshed Bay	Marlborough Sounds	15	500	4.6
Waiharakeke	Abel Tasman	10	500	6.8
French Pass	Marlborough Sounds	10	500	6.8
Anapai	Abel Tasman	5	500	13.7
Stilwell Bay	Abel Tasman	5	500	13.7
Watering Cove	Abel Tasman	4	500	17.1
Observation Point	Abel Tasman	4	500	17.1
Akerston Bay	Abel Tasman	3	500	22.8

GLOSSARY

(See also definitions and abbreviations p.13.)

access (public): On foot only unless otherwise qualified.

advocacy: The collective term for work done to promote conservation to the public and outside agencies by the Conservation Department, Conservation Boards and the New Zealand Conservation Authority. Advocacy includes taking part in land use planning processes and using a range of methods to inform and educate the public and visitors on conservation issues.

archaeological site: Any place in New Zealand, including shipwrecks, which was associated with human activity more than 100 years before present and which through investigation by archaeological techniques may provide scientific, cultural, or historical evidence as to the exploration, occupation, settlement, or development of New Zealand.

(Historic Places Act 1993)

antecedent (of rivers): Retained their course during uplift. For example, Manawatu, Buller Rivers.

aranui: Scenic corridor.

biota: Plants and animals.

biomass: Weight of living material.

biological community: A group of plants or animals, of distinctive character related to a particular set of environmental requirements. The term is used in a general, collective sense.

biodiversity/biological diversity: The variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part. This includes diversity within species, between species and of ecosystems.

(United Nations Convention on Biological Diversity 1992)

coastal environment: An environment in which the coast usually is a significant part or element. The extent of the coastal environment will vary from place to place depending how much it affects or is (directly) affected by coastal processes and the management issue concerned.

community (biotic): A recognisable group of plants and animal living together in one place.

concession or concession document: A lease, licence, permit or an easement gratned under Part IIIB of the Conservatoin Act 1987 and includes any activity authorised by the concession document.

Conservation Act 1987 Section 2(1)

conservation boards: There are 17 conservation boards, each comprising 10 appointed members. Their functions include overseeing the preparation of the conservation management strategies and national park management plans for their area, approval of conservation management plans (for example, for Forest Parks), advising the New Zealand Conservation Authority or Director-General of DOC on conservation matters and advising on new walkways in the region.

(Conservation Act 1987 Section 6M)

consultation: A genuine invitation to give advice and genuine consideration of that advice. To achieve consultation, sufficient information must be supplied and sufficient time allowed by the consulting party to the consulted to enable it to tender helpful advice. It involves an ongoing dialogue. (Adapted from McGechan decision in Air New Zealand v Wellington International Airport.)

(CP403/91, 6 January 1992)

district plan: Prepared and changed by the territorial authority according to the requirements of the Resource Management Act 1991 for the purpose of sustainable management of natural and physical resources. District plans indicate what uses are permitted for land within the district.

(Resource Management Act 1991)

ecology: The study of organisms in relation to one another and to their surroundings.

(NZ Pocket Oxford Dictionary)

ecological district: One of the major levels used for the ecological classification of land. New Zealand has been divided into 268 ecological districts according to geological, topographical, climatic and biological features and processes, which interrelate to produce characteristic landscapes and ranges of biological communities.

(The New Zealand Protected Natural Areas Programme, DSIR)

ecological region: A single, very distinctive ecological district or more commonly, a group of adjacent ecological districts which have diverse but closely related ecological components and relationships.

(The New Zealand Protected Natural Areas Programme, DSIR)

ecosystem: A biological system comprising a community of living organisms and their environment involved together in the process of living. There is a continuous flow of energy and matter through the system. The concept implies process and interaction. They range in size from small freshwater ponds to Earth itself.

endangered: A plant or animals in danger of extinction and whose survival is unlikely if the causal factors continue.

(Red Data Book of New Zealand 1981)

endemic: Refers to species of plants and animals which are unique to an area or animals which may migrate but breed only in the area.

(Red Data Book of New Zealand 1981)

environmental gradient: Variation in temperature, rainfall etc between two points.

esplanade reserve: A local purpose reserve usually 20 metres wide, vested in the territorial authority or in the Crown with the purposes of protecting conservation values, enabling public access to or along the sea, a river or lake and recreational use where this is compatible with conservation values. Usually created as a result of subdivision of private land. Refer marginal strip.

(Resource Management Act 1991, Reserves Act 1977)

estuary: A broad tidal area associated with a river where there is a mixing of saline and freshwater.

(Draft New Zealand Coastal Policy 1992)

exploration (in relation to mining): Sampling to determine the feasibility of mining.

fauna: Animal life of a place or time.

(Collins Concise Dictionary)

fishery: One or more stocks or species of freshwater fish or aquatic life that can be treated as a unit for the purposes of conservation or management.

(Conservation Act 1987)

foreshore: Shore between high- and low-water marks at mean spring tides.(Conservation Act 1987)

flora: Plant life of a given place or time.

(Collins Concise Dictionary)

freshwater fish: Species of finfish (classes Agnatha and Osteichthyes) and shellfish (classes Mollusca and Crustacea) that must spend all or part of their life histories in freshwater.

functional planning: Strategic assessment for a single function of the department over a wide geographic area. For example, wild animal control plans for a conservancy, or conservancy recreation strategies.

(Management Planning Guidelines, DOC)

General Policy: A guide for decisions based on general approaches. General policy is used to mean a statement, directive or guide adopted by the Minister of Conservation, or the New Zealand Conservation Authority following a statutory process under the Conservation Act, National Parks Act, Reserves Act, Wildlife Act, Marine Reserves Act, Wild Animals Control Act, Marine Mammals Protection Act and the New Zealand Walkways Act. Conservation management strategies must implement statements of General Policy.

(Management Planning Guidelines, DOC)

Great Walks: Popular tramping tracks promoted in a particular way.

habitat: The environment in which a particular species or group of species live. It includes the physical and biotic characteristics that are relevant to the species concerned. For example, the habitat of the blue duck consists of swift water with an abundance of freshwater insects.

hapu: Sub-tribe

(Waitangi Tribunal Report (Wai 27) 1991)

historic place: Any land, building or structure that forms part of the historical and cultural heritage of New Zealand and is within the territorial limits of New Zealand. Includes anything fixed to this land.

(Historic Places Act 1993)

historic resource: An historic place within the meaning of the Historic Places Act 1993. Includes any interest in an historic place.

(Conservation Act 1987)

integrate: Bring together.

integrated management: The management of activities, existing or potential, in a manner which ensures that each is in harmony with the other and that priorities are clear.

invertebrates: Animals without backbones - including snails, insects, worms, etc.

interpretation: Conveying information about the origin, meaning or values of national or cultural heritage via live, interactive or static media. It occurs in the vicinity of the subject and is designed to stimulate visitor interest, increase understanding and promote support for conservation.

iwi: Tribe, people

(Waitangi Tribunal Report (Wai 27) 1991)

kaitiakitanga: The exercise of guardianship. In relation to a resource this includes the ethic of stewardship based on the nature of the resource itself.

(Resource Management Act 1991)

kaimoana: Sea foods.

kaimanu: Birds (usually sea birds) traditionally taken by the tangata whenua.

karakia: Prayer.

kaupapa: An abstract word with many meanings. Within the department it is generally used in the sense of vision, philosophy, cause, idea or theme.

land status: Legal protection given to land by the Act under which it is reserved.

lease: See Conservation Act 1987 Section 2(1).

mana: Authority, control, influence, prestige, power.

(Waitangi Tribunal Report (Wai 27) 1991)

mana whenua: Customary authority exercised by an iwi or hapu in an identified area.

(Resource Management Act 1991)

management planning: The process of setting and confirming objectives for the management of natural and historic resources,and recreation, tourism and other conservation purposes, and specifying the actions and resources necessary to achieve those objectives.

(Management Planning Guidelines, DOC)

marginal strip: Land reserved from disposition by the Crown under the Land Act 1948 and the Conservation Act 1987 along the foreshore, waterways greater than 3 metres wide (when they are not used by the Electricity Corporation of New Zealand for generating electricity) and lakes. Marginal strips are 20 metres wide unless a reduction of width has been approved by the Minister. For more information refer to the Act.

(Conservation Act 1987)

mauri: Life principle, special character.

(The Revised Dictionary of Maori, PM Ryan)

mining: Extraction of mineral, but may include prospecting and exploration.

natural character: The qualities of an area that taken together give it a particular, recognisable character. These qualities may be ecological, physical, spiritual or aesthetic in nature.

natural resources: Include plants and animals and their habitats, landscape and landforms, geological features, and systems of interacting living organisms, and their environment.

(Conservation Act 1987)

nature conservation: The preservation and protection of the natural resources of New Zealand having regard to their intrinsic values and having special regard to indigenous flora and fauna, natural ecosystems and landscape.

(Conservation Act 1987)

New Zealand Conservation Authority, (NZCA): A national body of 12 appointed members established under Section 6A of the Conservation Act 1987. Amongst other functions, its has the statutory responsibility for approving General Policy, conservation management strategies, plans and national park management plans.

(Conservation Act 1987)

NGO: Non-government organisations. Any organised interest group.

niche (ecological): The place or station of an organism in its biotic environment

objectives: Statements of intended results. These can be broad or narrow in scope and should be accompanied by implementation provisions.

(Management Planning Guidelines, DOC)

peneplain: An ancient eroded land surface, usually almost flat, exposed by the erosion of overlying secondary layers.

permit: See Conservation Act 1987 Section 2(1).

Protected Natural Areas (PNA) Programme: A programme which aims to establish a network of reserves and other protected natural areas which is representative of the full range of New Zealand's natural diversity. Ecological districts are surveyed and areas identified which best represent the diversity of their natural features. These are termed recommended areas for protection or RAPs.

photopoints: A systematic method of marking and recording photograph locations to ensure photos can be exactly retaken.

predate (predation): Preying upon, searching out to kill.

prospecting: Initial survey with hand held methods.

rahui: A restriction on access, prohibition

(Waitangi Tribunal Report (Wai 27) 1991)

rare: Species with small world populations that are not at present endangered or vulnerable but are at risk.

(Setting priorities for the conservation of New Zealand's threatened plants and animals, Department of Conservation.)

refugia: Places where species which were formerly more widespread survive following severe habitat modification.

Recreation Opportunity Spectrum (ROS): The ROS is a system for classifying outdoor experiences. It identifies opportunities along a continuum from urban to wilderness. It has eight main categories and provides both an inventory and planning process.

regional plans: The purpose of these is to assist regional councils and unitary authorities to carry out their functions. They are designed to address specific resource management issues for which regional councils and unitary authorities are responsible. Councils must decide what regional plans they will prepare. Plans may cover matters such as water management, soil conservation, natural hazard mitigation and air pollution. (Refer regional policy statement.)

(Resource Management Act 1991)

regional policy statements: These set out the objectives for managing resources and are prepared by regional councils and unitary authorities in accordance with the Resource Management Act 1991. They provide the overall framework for achieving sustainable management in the region and are binding on regional and district plans.

(Resource Management Act 1991, Regional Policy Statements and Plans, Ministry for the Environment.)

relict (populations): Surviving in an area isolated from the main (former) distribution area, owing to the intervention of environmental events.

review: In relation to conservation management strategies and management plans means to reconsider objectives and policies and following a process of public comment to approve a new strategy or plan, having regard to increased knowledge or changed circumstances.

(Conservation Act 1987)

ROMS: A recording and management system used in site planning for recreation.

rohe: Boundary, tribal region.

(Waitangi Tribunal Report (Wai 27) 1991)

runanga: Assembly, council.

(Waitangi Tribunal Report (Wai 27) 1991)

specially protected areas: Conservation parks, wilderness areas, ecological areas, sanctuary areas, watercourse areas as detailed in Part IV of the Conservation Act 1987.

(Conservation Act 1987)

species recovery plan: A plan of action intended to halt the decline of a threatened species. and increase its population.

speleothems: Cave formations, usually stalactites and stalagmites.

sports fish: Introduced fish sought by freshwater anglers, mostly trout or salmon.

stewardship area: A conservation area that is not a marginal strip, watercourse, conservation park, ecological area, sanctuary area or wilderness area, or land in which an interest is held under the Conservation Act 1987 for one or more of these purposes.

(Conservation Act 1987)

sustainability, ecological: The use of the components of an ecosystem in ways that allow for the perpetuation of the character and natural processes of that ecosystem.

sustainable management: Managing the use, development, and protection of natural and physical resources in a way or at a rate, which enables people and communities to provide for their social, economic and cultural well-being and for their health and safety while (a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations, (b) safe-guarding the life-supporting capacity of air, water, soil, and ecosystems, and (c) avoiding, remedying, or mitigating any adverse effects of activities on the environment. This definition is specific to the Resource Management Act 1991.

(Resource Management Act 1991)

strategic: Planned approach to a problem or issue.

strategic planning: An approach that analyses issues and develops policy or a course of action based on this analysis.

taking: In relation to plants this includes breaking, cutting, destroying, digging up, gathering, plucking, pulling up and removing of the plant. In relation to fish it means fishing.

(Conservation Act 1987)

taniwha: Monster that resides in deep water.

tangata whenua: People of a given place.

(Waitangi Tribunal Report (Wai 27) 1991)

tangata whenua: In relation to a particular area, means the iwi, or hapu that holds mana whenua over that area.

tapu: Forbidden, not to be defiled.

taxa: Species, subspecies or varieties.

territorial: Relating to an area or territory.

territorial limit: Limit of New Zealand's legal jurisdiction, 12 miles from the coast.

threatened (species): A term used to mean vulnerable or more loosely used to include rare, vulnerable and endangered species.

tikanga Maori: Maori customary values and practices.

(Resource Management Act 1991)

traditional site: A place or site that is important by reason of its historical significance or spiritual or emotional association with Maori.

(Historic Places Act 1980)

troglobites: Animals which can only survive underground, in caves etc.

ultramafic: Rock types very high in base metals, magnesium, iron.

utu: Revenge, payment for.

vector: Carrier of disease or infection.

vulnerable: A plant or animal believed likely to move into the endangered category in the near future if the causal factors continue.

(Red Data Book of New Zealand 1981)

wahi tapu: Sacred place.

(Waitangi Tribunal Report, Wai 27 1991)

waiata: Song, chant.

wairua: Life principle.

walkway: An area of land that has been declared a walkway or an area of land over which a walkway has been established under the New Zealand Walkways Act.

(New Zealand Walkways Act 1990)

water conservation order: Made to recognise and sustain those characteristics of a water body which afford outstanding amenity or intrinsic values. They are made by the Minister for the Environment on the recommendation of a special tribunal and/or the Planning Tribunal.

(Resource Management Act 1991)

wetland: Permanent or intermittently wet areas, shallow water and land-water margins. They include swamps, bogs, estuaries, braided rivers, and lake margins.

whakapapa: Chant recounting genealogical lineage.

wild animal: Deer, chamois, thar, wallaby and opossum; goats and pigs that are living in a wild state. Except for deer kept in captivity for farming, does not include animals kept in captivity or rats, mice, rabbits, stoats, ferrets or weasels. Refer to the Act for the legal definition.

(Wild Animal Control Act 1977)

COMMON NAMES USED IN THE TEXT

COMMON NAME	LATIN NAME
Australasian bittern	*Botaurus stellaris poiciloptilus*
Banana passionfruit	*Passiflora mollissima*
Banded dotterel	*Charadrius bicinctus*
Banded kokopu	*Galaxias fasciatus*
Banded rail	*Rallus philippensis assimilis*
Barberry	*Berberis glaucophylla*
Bat	*Chalinolobus tuberculatus* or *Mystacina tuberculata*
Beech	*Nothofagus* spp.
Bees	*Apis mellifera*
Black Swan	*Cygnus atratus*
Black-eyed gecko	*Hoplodactylus kahutarae*
Black-fronted tern	*Sterna albostriata*
Blackberry	*Rubus fruticosus* agg.
Blackbird	*Turdus merula*
Blue duck	*Hymenolaimus malacorhynchos*
Blue-gilled bully	*Gobiomorphus hubbsi*
Bluff weta	*Deinacrida* sp.
Boneseed	*Chrysanthemoides monilifera*
Boxthorn	*Lycium ferocissimum*
Brachiopod	*Neothyris lenticularis* (mainly)
Bracken	*Pteridium esculentum*
Briar	*Rosa rubiginosa*
Brome	*Bromus* spp.
Brook char	*Salvelinus fontinalis*
Broom	*Cytisus scoparius*
Brothers Island tuatara	*Spenodon guntheri*
Brown mudfish	*Neochanna apoda*
Brown trout	*Salmo trutta*
Browntop	*Agrostis capillaris*
Buddleia	*Buddleja davidii*

COMMON NAME	LATIN NAME
Canada goose	*Branta canadensis*
Canadian pondweed	*Elodea canadensis*
Carp	*Carassius auratus*
Caspian tern	*Hydroprogne caspia*
Cat	*Felis catus*
Catfish	*Ictalurus nebulosus*
Cattle	*Bos taurus*
Chaffinch	*Fringilla coelebs*
Chalk cress	*Cheesemania* "Chalk Range"
Chamois	*Rupicapra rupicapra*
Char	*Salvelinus fontinalis*
Chilean needle grass	*Stipa neesiana*
Chinese privet	*Ligustrum sinense*
Climbing asparagus	*Asparagus scandens*
Climbing broom	*Carmichaelia kirkii*
Climbing dock	*Rumex sagittatus*
Coastal peppercress	*Lepidium banksii*
Coastal tree broom	*Chordospartium muritai*
Cockle	*Austrovenus stutchburyi*
Cocksfoot	*Dactylis glomeratus*
Common wasp	*Vespula vulgaris*
Cook Strait click beetle	*Amychus granulatus*
Cook Strait giant weta	*Deinacrida rugosa*
Cook Strait tuatara	*Spenodon punctatus* "Cook Strait"
Cook's scurvey grass	*Lepidium oleraceum*
Corsican pine	*Pinus nigra*
Cotoneaster	*Cotoneaster* spp.
Crack willow	*Salix* spp.
Deciduous tree daisy	*Olearia hectorii*
Dog	*Canis familiaris*
Douglas fir	*Pseudotsuga menziesii*
Dusky dolphin	*Lagenorhynchus obscurus*
Duvaucel's gecko	*Hoplodactylus duvauceli*
Eel	*Anguilla dieffenbachii* or *A. australis*

COMMON NAME	LATIN NAME
Eelgrass	*Zostera novozelandica*
Elder	*Sambucus nigra*
Elephant fish	*Callorhynchus milii*
European larch	*Larix decidua*
Fallow deer	*Dama dama*
Feral pigs	*Sus scrofa*
Fernbird	*Bowdleria punctata punctata*
Ferret	*Mustela putorius*
Flax weevil	*Anagotus fairburni*
Flesh-footed shearwater	*Puffinus carneipes*
Fluttering shearwater	*Puffinus gavia*
Freshwater mussels	*Hyridella menziesii*
German ivy	*Senecio mikanioides*
German wasp	*Vespula germanica*
Giant kokopu	*Galaxias argenteus*
Goat	*Capra hirca*
Gorse	*Ulex europaeus*
Grass carp	*Ctenopharyngodon idella*
Great spotted kiwi	*Apteryx haastii*
Grey saltbush	*Atriplex cinerea*
Grey willow	*Salix cinerea*
Hamilton's frog	*Leiopelma hamiltoni*
Hare	*Lepus europaeus*
Hawkweeds	*Hieracium* spp.
Hawthorn	*Crataegus monogyna*
Hector's dolphin	*Cephalorynchus hectori*
Himalayan honeysuckle	*Leycesteria formosa*
Horse	*Equus caballus*
Horsetail	*Equisetum arvense*
Huia	*Heteralocha acutirostris*
Hutton's shearwater	*Puffinus huttoni*
Inanga	*Galaxias maculatus*
Ivy	*Hedera helix*
Japanese honeysuckle	*Lonicera japonica*
Jointed rush	*Leptocarpus similis*

COMMON NAME	LATIN NAME
Kaikoura giant weta	*Deinacrida parva*
Kaka	*Nestor meridionalis meridionalis*
Kakapo	*Strigops habroptilus*
Kakariki	*Cyanoramphus auriceps*, or *C. novaezelandiae*
Kea	*Nestor notabilis*
Kiekie	*Freycinetia baueriana* ssp. *banksii*
King shag	*Leucocarbo carnulatus carnulatus*
Kiore	*Rattus rattus exulans*
Koaro	*Galaxias brevipinnis*
Koi carp	*Cyprinus carpio*
Koura	*Paranephrops planifrons*
Kutai (freshwater mussels)	*Hydridella menziesii*
Lagarosiphon	*Lagarosiphon major*
Lamprey	*Geotria australis*
Land snails	*Powelliphanta* spp.
Limestone forget-me-not	*Myosotis colensoi*
Limestone wheatgrass	*Australopyrum calcis*
Little spotted kiwi	*Apteryx owenii*
Lodgepole pine	*Pinus contorta*
Long-tailed bat	*Chalinolobus tuberculatus*
Long-toed skink	*Leiolopisma* "long toes"
Lotus	*Lotus* spp.
Mallard	*Anas platyrhynchos*
Maritime pine	*Pinus pinaster*
Marlborough rock daisy	*Pachystegia* spp.
Marram	*Ammophila arenaria*
Maud Is frog	*Leiopelma* sp.
Mistletoe species	*Peraxilla* spp.
Mouse	*Mus musculus*
Mutton bird	*Puffinus* spp.
Mutton bird groundsel	*Senecio sterquilinus*
Nassella tussock	*Stipa trichotoma*
Nelson cave spider	*Spelungula cavernicola*
New Zealand Fur seal	*Arctocephalus forsteri*

COMMON NAME	LATIN NAME
New Zealand falcon	*Falco novaeseelandiae*
New Zealand pigeon (wood)	*Hemiphaga novaeseelandiae*
Northern rata	*Metrosideros robusta*
NW Nelson giant weta	*Deinacrida tibiospina*
Old man's beard	*Clematis vitalba*
Orange-fronted parakeet	*Cyanoramphus malherbi*
Oxygen weed	*Egeria densa*
Pacific oyster	*Crassostrea gigas*
Pampas	*Cortaderia selloana,* or *C. jubata*
Perennial ryegrass	*Lolium perene*
Periwinkle	*Vinca major*
Petrel	*Pterodroma* spp.
Pig	*Sus scrofa*
Pilot whale	*Globicephala melas*
Pingao	*Desmoschoenus spiralis*
Possum	*Trichosurus vulpecula*
Prickly hakea	*Hakea sericea*
Prion (fairy)	*Pachyptila turtur*
Purple harebell	*Wahlenbergia stricta*
Pygmy button	*Leptinella nana*
Rabbit	*Oryctolagus cuniculus*
Radiata pine	*Pinus radiata*
Rainbow trout	*Oncorhynchus mykiss*
Rat	*Rattus* spp.
Rata	*Metrosideros umbellata* or *M. robusta*
Red crowned parakeet	*Cyanoramphus novaezelandiae*
Red deer	*Cervus elaphus*
Red Hills geranium	*Geranium* "Red Hills"
Red mistletoe	*Peraxilla tetraptera,* or *P. colensoi*
Reef heron	*Egretta sacra sacra*
Rock lobster	*Jasus edwardsii*
Rock wren	*Xenicus gilviventris*
Rowan	*Sorbus aucuparia*
Rudd	*Scardinius erythropthalmus*

COMMON NAME	LATIN NAME
Salmon	*Oncorhynchus tshawytscha*
Sand spike rush	*Eleocharis neozelandica*
Sand spurge	*Euphorbia glauca*
Scallop	*Pecten novaezelandiae*
Scree skink	*Leiolopisma* "Waimatense"
Seal	*Arctocephalus forsteri*
Selaginella	*Selaginella kraussiana*
Sheep	*Ovis aries*
Short-jawed kokopu	*Galaxias postvectis*
Shovel mint	*Scutellaria novae-zelandiae*
Shrub pohuehue	*Muehlenbeckia astonii*
Silver wattle	*Racosperma dealbatum*
Skinks	*Leiolopisma* spp.
Smelt	*Retropinna* spp.
Smilax	*Asparagus asparagoides*
Sooty shearwater	*Puffinus griseus*
South African ice plant	*Carpobrotus edulis*
South Island kokako	*Callaea cinerea cinerea*
Southern rata	*Metrosideros umbellata*
Southern short-tailed bat	*Mystacina tuberculata*
Spanish heath	*Erica lusitanica*
Speargrass weevil	*Lyperobius huttoni*
Speckled skink	*Leiolopisma infrapunctatum*
Sphagnum	*Sphagnum* spp.
Spinifex	*Spinifex hirtum*
Stephens Island weevil	*Anagotus* "Stephenensis"
Stewart Island shag	*Leucocarbo chalconotus*
Stinking iris	*Iris foetidissima*
Stoat	*Mustela ermina*
Striped gecko	*Hoplodactylus stephensi*
Surf clam	*Mactra* spp.
Swamp flax	*Phormium tenax*
Swamp maire	*Syzygium maire*
Sycamore	*Acer pseudoplatanus*

COMMON NAME	LATIN NAME
Tadpole shrimp	*Lepidurus apus viridis*
Takahe	*Porphyrio mantelli*
Tall fescue	*Festuca arundinacea*
Tall oatgrass	*Arrhenatherum elatius*
Titi (mutton birds)	*Puffinus* spp.
Titirangi	*Hebe speciosa*
Tree lupin	*Lupinus arboreus*
Trout	*Salmo trutta* or *Oncorhnchus mykiss*
Tuatara	*Sphenodon punctatus* or *S. guntheri*
Tuna (eels)	*Anguilla dieffenbachii* or *A. australis*
Twiggy daisy	*Olearia polita*
Variable oystercatcher	*Haematopus unicolor*
Viper's bugloss	*Echium vulgare*
Wandering jew	*Tradescantia fluminensis*
Water-cress	*Rorippa nasturtium-aquaticum*
Weasel	*Mustela nivalis*
Weeping tree broom	*Chordospartium stevensonii*
Western weka	*Gallirallus australis australis*
White edged nightshade	*Solanum marginatum*
White heron	*Egretta alba modesta*
Whitebait	*Galaxias* spp.
Wild ginger	*Hedychium gardnerianum*
Willow-leaved hakea	*Hakea salicifolia*
Wood rose	*Dactylanthus taylorii*
Woolly nightshade	*Solanum nigrum*
Yellow jasmine	*Jasminum humile*
Yellow-crowned parakeet	*Cyanoramphus auriceps*
Yellowhead	*Mohoua ochrocephala*

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APPENDIX I.

LAND UNITS AND THEIR STATUS

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
1	26823.8	SFP	NW Nelson	M26	620520	NWN
2	165211.2	SFP	Mt Richmond	O28	500730	MRFP
3	300.0	SF	Wangapeka	M28	030515	
4	15674.0	SF	Big Bush	N29	930430	MCP
5	159.7	SF	Slippery Creek	M28	877865	
6	114.6	SF	Lake Matiri	M29	545505	
7	8769.4	SF	Howard	M29	880320	MCP?
8	20581.5	SF	Rotoroa	M29	720250	MCP?
9	17369.2	SF	Matakitaki	L29	590220	MCP?
11	779.1	SF	Golden Downs	N28	895820	
12	26410.7	SF	Rainbow	N29	050250	WCP
13	47935.6	SF	Leatham	N29	200270	WCP
14	19.6	SF	Motueka	N26	055243	
15	338608.0	NP	Kahurangi	M26	700080	
16	22774.2	NP	Abel Tasman	N26	080380	ATNP
17	101871.4	NP	Nelson Lakes	M30	860150	NLNP
19	199618	SF	Mataktaki	M30	620180	
21	11423.4	NAT	Farewell Spit	M24	960770	
22	999.6	FP	Puponga Farm Park	M24	855775	
23	160.0	UCL	Milnthorpe	M25	854513	REC
25	47.7	SCE	Kaihoka lakes	M24	762723	
28	10.3	SCE	Washbourn	M25	851485	
30	62.0	SCE	Paynes Ford	N26	942353	
31	448.5	SF	Pretty Bridge	N28	025755	
32	25.8	SCE	Pupu Springs	N26	908402	
33	431.5	SCE	Takaka Hill	N26	975207	
37	1737.4	SCE	Glenhope	M29	800510	MCP
39	410.6	SCE	Owen River	M29	640470	
40	1338.2	SCE	Warbeck	M30	530095	MCP
41	170.8	SCE	Whangamoa	O27	468982	MRFP
42	12.5	SCE	Shenandoah	L29	465215	MSP
50	0.2	QUA		M25	735516	disp
51	0.2	QUA		M25	748529	disp
52	2.3	QUA		M25	731508	disp
53	0.4	QUA	Quarry site	M25	752504	disp
54	0.4	QUA		M25	771513	disp
55	52.9	REC	Aorere Caves	M25	784488	
58	2.6	UCL		M25	788546	disp
63	5.9	UCL		M25	790480	
67	4.0	UCL	Aorere Island	M25	792596	disp
69	0.3	REC	Onekaka Inlet	M25	854509	
79	8.3	ESP	Rangihaeata Spit	N25	914445	
80	90.3	SCE	Dry River	N26	990363	
83	11.3	SCE	Hanson Winter	N26	006416	
89	0.1	UTI	Old library site	N25	988404	disp
91	14.9	SCE	Rameka	N26	971349	
92	12.5	SCE	Grove	N26	985397	
95	6.1	CEM		M25	831517	ves
96	0.5	CEM		M25	831589	ves
103	8.0	UCL		N26	944206	disp
104	824.3	UCL		N26	915155	
110	1528.9	UCL		M26	895195	
114	84.3	UCL	Abel Tasman addition	N25	040429	Sce
116	0.8	QUA		N26	979191	
117	0.7	CEM		N26	105378	ATNP

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
118	0.1	UTI		M25	838550	ves
119	0.1	UCL	Abel Tasman addition	N26	938398	Loc
121	2.1	UTI		M25	834690	ves
122	0.1	UCL		M25	834587	
127	44.6	UCL	Abel Tasman addition	N25	040405	ATNP
128	25.5	UCL		N26	919128	
132	0.1	UCL	Abel Tasman HQ	N26	936386	Loc
133	1.5	UCL		N26	963264	ATNP
135	0.2	UCL	Rangihaeata town	N26	924441	disp
136	0.1	UCL	Takaka Office	N26	936383	Loc
142	0.2	UCL		N29	972337	
143	19090.0	UCL	Rainbow	N30	000040	WCP
144	16.3	UCL		N29	968340	
145	0.4	ESP	Pupu Springs	N25	904400	
146	0.3	UCL		M29	645460	
147	2.6	UCL		M30	703182	
148	404.6	UCL		M30	745145	
149	248.2	UCL		M30	710138	
150	4.2	STO		N26	991198	
151	48.6	UCL		M30	685103	
153	72.4	SCE		M25	697441	
154	0.7	UCL		N26	954316	
155	3.6	UCL		M25	683427	
156	4.3	SCE	Aorere River	M25	820586	
158	10.5	SCE	Collingwood	M25	820586	
159	11.2	HIS	Parapara Peninsula	M25	836544	
160	128.5	UCL		M25	775785	
162	2.2	UCL	Pupu Pipeline	M25	795619	
163	33.6	SCE	Boudary Bay	N26	133296	
164	2112.5	WIL	Westhaven/Whanganui Inlet	M25	760700	
165	51.0	SCE	Bar Point	M25	718090	
167	19.7	UCL	Cat Creek	O28	503667	
169	566.0	UCL	Tinline	O27	510915	
170	61.5	UCL	Tinline	O27	542903	
171	11.4	ESP		O27	185050	
172	72.9	SCE	Whangapeka	M28	740050	
173	2.2	SCE		N29	008351	
203	35.2	SCE	WF Moss	N26	045175	
204	0.2	CEM	Waimea Cemetery	N26	080209	ves
206	0.4	REC	Kaiteriteri	N26	108187	ves
208	0.1	LOC		N26	114186	
209	1.9	SCE	Otuwhero Inlet	N26	090216	
210	9.5	SCE	Fry	N26	039119	
212	2.3	UCL		N26	104234	
213	2.8	UCL		N26	108137	disp
214	2.0	UCL		N26	080115	
219	11.0	UCL		M28	838784	MSP
220	2.1	UCL		M28	832782	MSP
221	3.6	UCL		M28	872758	MSP
232	0.5	GRA		M28	643531	disp
233	0.4	GRA		M28	805739	disp
234	0.4	GRA		M28	808735	disp
235	0.4	GRA		M28	808724	disp
236	0.4	GRA		M28	810704	disp
237	0.4	GRA		M28	813704	disp
238	0.2	GRA		M28	847616	disp
239	0.2	GRA		M28	845608	disp
240	0.2	GRA		M28	840598	disp

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
241	0.3	GRA		M28	818519	disp
242	0.2	GRA		M28	818527	disp
243	0.3	GRA		M28	819535	disp
244	0.2	GRA		M28	820542	disp
245	0.3	GRA		M28	823632	disp
246	0.3	GRA		M28	838519	disp
247	0.4	GRA		M28	830518	disp
248	0.2	GRA		M28	89034	disp
249	0.5	GRA		M28	883632	disp
250	0.2	GRA		M28	854621	disp
251	0.2	GRA		M28	857624	disp
252	0.2	GRA		M28	892666	disp
253	0.1	GRA		M28	883708	disp
254	0.2	GRA		M28	882717	disp
256	0.3	GRA		M28	903572	disp
257	0.3	GRA		M28	867627	disp
259	226.7	SCE	Kaka	M28	844568	MCP
261	7.3	UCL		M29	655487	MSP
262	91.5	UCL		M29	674486	MCP
263	8.0	UCL		M29	651480	MCP
264	264.0	UCL		M29	704486	MCP
265	117.4	UCL		M29	545480	MCP
267	2.8	UCL		M29	603407	
268	138.3	UCL		M29	625395	MCP
269	464.6	UCL		M29	632415	MCP
270	216.9	UCL		M29	612380	MCP
271	177.7	UCL		M29	625375	MCP
272	135.6	UCL		M29	632388	
273	2.0	UCL		M29	529365	
274	31.4	UCL		M29	543346	MSP
276	0.8	UCL	House	M29	538335	Loc
277	0.6	UCL		M29	539335	Loc
278	0.6	UCL		M29	538335	Loc
279	267.5	UCL		M29	615358	MCP
280	80.9	UCL		M29	660365	MCP
281	8.1	UCL		M29	756365	MSP
282	12.1	UCL		M29	733348	MCP
283	175.2	UCL		M29	710340	MCP
284	191.0	UCL		M29	735340	MCP
285	404.6	UCL		M29	710325	MCP
286	380.8	UCL		M29	730315	MCP
289	30.0	UCL		M29	555436	Sce
290	1.7	REC	Braeburn	M29	664309	ves
291	0.8	GRA		M29	579349	MSP
292	0.4	GRA		M29	640313	disp
293	0.4	GRA		M29	678345	disp
294	0.4	GRA		M29	664316	disp
295	0.4	GRA		M29	673338	disp
296	0.4	GRA		M29	686345	disp
297	0.8	GRA		M29	547291	disp
298	0.4	GRA		M29	599292	disp
299	0.9	GRA		M29	603275	disp
300	0.6	GRA		M29	607263	disp
301	0.4	GRA		M29	665295	disp
302	0.4	GRA		M29	675292	disp
303	0.4	GRA		M29	663264	disp
304	0.4	GRA		M29	667228	disp
305	0.1	GRA		M29	683458	disp

UNIT	AREA	CLAS	NAME	MAP	GRDREF	GROUP
306	0.9	GRA		M29	691475	MCP
307	0.4	GRA		M29	613438	disp
308	2.0	GRA		M29	550425	NLNP
309	2.9	STO		M29	759348	NLNP
310	2.4	STO		M29	536467	MSP
311	1.0	STO		M29	612437	MSP
312	0.2	GRA		M29	590384	disp
313	43.5	SCE	Longford	M29	554354	
314	3.5	UTI		M29	575350	MSP
316	1.3	CEM		M29	55245	ves
317	40.1	SCE	Matakitaki Bridge	M29	529335	MCP
321	6.0	UCL		M29	538302	MSP
322	2.1	UCL		M29	538315	MSP
323	24.0	UCL		M29	531356	MCP
324	0.1	UTI		M29	539335	
333	16.2	UCL		M30	531195	MCP
335	8.1	UCL		M30	546126	MCP
337	81.7	UCL		M30	714133	MCP
338	97.5	UCL		M30	708098	MCP
339	122.6	UCL		M30	553074	MCP
340	139.2	UCL		M30	516067	MCP
341	73.0	UCL		M30	537062	MCP
342	106.1	UCL		M30	505058	MCP
343	144.4	UCL		M30	555025	MCP
344	364.0	UCL		M30	580944	MCP
345	245.6	UCL		M30	553008	MCP
346	198.3	UCL		M30	540993	MCP
347	196.3	UCL		M30	548987	MCP
348	155.0	UCL		M30	535980	MCP
349	308.0	UCL		M30	572992	MCP
350	150.9	UCL		M30	560988	MCP
351	127.5	UCL		M30	580990	MCP
352	178.1	UCL		M30	570975	MCP
353	242.8	UCL		M30	573956	MCP
354	215.3	UCL		M30	574925	MCP
355	182.9	UCL		M30	570910	MCP
356	182.1	UCL		M30	570895	MCP
357	144.5	UCL		M31	570863	MCP
358	98.3	UCL		M31	57063	MCP
359	347.2	UCL		L30	474186	MCP
360	265.7	UCL		L30	445138	MCP
361	223.0	UCL		L30	462136	MCP
362	308.0	UCL		L30	472116	MCP
363	404.6	UCL		L30	480100	MCP
364	248.9	UCL		L29	490210	MCP
365	62.7	UCL		L29	482315	MCP
366	103.1	UCL		L29	470328	MCP
367	160.0	UCL		L29	465357	MCP
368	103.7	UCL		L29	465355	MCP
371	16.7	UCL		L29	495372	MCP
372	0.2	GRA		L29	472221	MSP
374	1.3	GRA		L29	481304	disp
375	0.4	GRA		L29	483302	disp
376	698.0	SCE	Sphinx	L29	485335	MCP
377	0.4	GRA		L29	480361	disp
378	0.2	GRA		L29	495372	disp
380	0.1	UTI		M30	594100	ves
381	12.1	UTI	Ferry	L29	498376	MCP

UNIT	AREA	CLAS	NAME	MAP	GRDREF	GROUP
383	3.3	CEM		N29	001468	ves
384	0.4	GRA		N29	004454	disp
385	0.4	GRA		N29	007436	disp
386	0.4	GRA		N28	939508	disp
387	0.4	GRA		N29	934490	disp
388	0.5	GRA		N29	938479	disp
389	0.4	GRA		N29	016409	MRFP
390	0.8	GRA		N29	013418	MRFP
391	0.5	GRA		N29	014396	MRFP
392	0.8	GRA		N29	024377	NLNP
393	0.8	GRA		N29	031371	disp
394	0.6	GRA		N29	009428	MRFP
396	37.5	SCE	Top House	N29	015385	MRFP
399	97.7	UCL		N29	993348	MCP
400	7.7	SCE	Rainey River	N28	922522	
401	0.4	GRA		N28	922536	disp
402	0.4	GRA		N28	927547	
403	6.1	STO		N28	929545	
405	0.1	GRA		N28	909591	
409	0.4	GRA		N28	025685	disp
410	0.4	GRA		N28	032679	disp
411	0.2	GRA		N28	033698	disp
412	0.2	GRA		N28	042699	
413	0.4	GRA		N28	044698	disp
414	0.6	GRA		N28	026696	
415	215.7	SCE	Spooners Range	N28	030705	
417	9.6	REC	Wairoa Gorge	N28	168696	ves
420	0.3	GRA		N28	234729	disp
421	0.8	REC	Lee Valley	N28	222774	ves
425	0.6	GRA		N28	236720	disp
426	83.4	SCE	Aniseed Valley	N28	295793	MRFP
427	39.7	REC	Aniseed Valley	N27	296815	ves
429	22.6	SCE	Little Ben (Wairoa)	N28	179720	
430	14.0	UCL	Motupiko River	N28	918580	MSP
431	0.2	UCL	Wakefield town	N28	135780	disp
432	361.4	UCL		N28	123686	MRFP
434	5.5	UCL	Motueka River	N27	953964	MSP
436	2.0	UCL	Motueka River	N27	013030	
437	1.7	UCL	Motueka River	N27	012031	MSP
438	3.6	UCL	Motueka River	N27	012033	MSP
440	1.9	REC	Thorpe	N27	990921	ves
443	5.3	GRA		N27	132896	disp
445	2.4	QUA		N27	098833	disp
446	2.4	QUA		N27	100827	disp
447	28.3	SCE	Eves Valley	N27	143860	
455	1.0	STO		N27	160948	ves
457	2.6	UCL	Brightwater	N27	171807	MSP
460	0.4	GRA		N27	199874	disp
461	5.6	SCE	Snowdens Bush	N27	186820	
464	0.5	GRA		N27	206818	disp
469	0.3	UTI		N27	200813	ves
482	21.8	UTI		N26	120080	
483	43.3	SCE	Motueka Sandspit	N26	130105	MSP
543	0.1	CEM	Poynters	O27	325935	ves
600	452.4	SCE	Six Mile	N29	064385	MRFP
800	0.3	UTI		O27	308875	ves
802	0.1	UTI		N26	108223	ves
817	2.2	REC	Cable Bay	O27	458035	

UNIT	AREA	CLAS	NAME	MAP	GRDREF	GROUP
819	0.8	SCE	Cable Bay	O27	458035	
824	0.8	WILL	Neimans Creek Wildlife	N27	224887	
825	2.9	UCL		L30	435198	MSP
826	145.7	UCL		M29	815434	P
827	30.0	UCL		M29	845320	
828	272.4	UCL		M29	630326	MCP
829	21.2	UCL		M29	555313	Loc
832	0.1	UTI	House Murchison	M29	539335	Loc
833	0.9	UCL		M29	539335	oz
834	340.0	UCL		M30	745120	MCP
835	600.0	UCL		M30	694030	MCP
836	625.0	UCL		M30	613030	MCP
837	111.4	UCL		M30	585920	
838	3.0	UCL		M30	550112	MCP
839	16.0	UCL		M31	575865	NLNP
841	3.2	GRA		L29	460209	MSP
842	0.5	UCL		N27	034050	ves
843	3.6	UCL		N27	096014	ves
844	1.0	UCL	Motueka Office	N26	090091	
845	19.8	UCL		N28	930542	
846	467.0	UCL		N29	022410	FP
847	109.5	UCL		N29	020365	
848	40.0	UCL		O26	573145	
849	38.0	UCL		M29	710452	MCP
850	3.1	UCL		M28	817528	disp
851	4.0	UCL		M30	554114	MCP
852	24.2	UCL	Kaiteriteri	N26	065213	Sce
853	12.2	UCL	Kaiteriteri	N26	092214	Sce
854	11.8	UCL		N29	968337	
856	82.3	UCL		M29	640445	MCP
858	182.1	UCL	Kaiteriteri	N26	110175	Sce
859	1.5	UTI		L29	474225	vest
863	0.1	HIS	Belgrove Windmill	N28	068731	
864	0.1	UCL	House	O27		
865	31.5	UCL		L29	496355	MCP
866	5.0	UCL		L29	495372	MCP
867	4.8	UCL		L29	466378	
868	80.1	UCL	Burnbrae	L30	495068	
869	1016.2	UCL	Red Hills	N29	080400	
870	5.5	UCL		N29	980335	
871	89.0	UCL	Boulder Bank	O27	350971	
872	2.0	NAT	No Man's Island	N27	184937	
873	45.9	WIL	Whakapuaka	O27	377992	
874	1.2	SCE	Ruamanuka	N26	125120	
876	69.3	UCL		M29	655332	
877	1.3	ESP		N27	208901	
878	212.5	UCL		N29	955450	
879	6.9	SCE		M29	549436	
880	0.2	UCL		N26	940380	
881	0.6	ESP		N27	143860	
882	225.2	UCL		L29	470201	
883	306.1	UCL		M29	610325	
885	302.9	UCL		N28	293745	
886	258.4	SCE		M29	770420	
887	20.8	SCE		L29	480275	
888	0.2	LOC		N27	173934	
889	0.2	UCL		N29	249346	
900	8.9	SCE	Motuanauru	O26	637182	MSP

LAND UNITS AND THEIR STATUS (CONT)

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
901	651.8	SCE	Okiwi & Moncrieff	O26	638115	MSP
902	2.8	REC	Whangarae Bay	O26	624128	MSP
903	19.4	SCE	Otuhaereroa (Goat) Island	O26	654183	MSP
904	0.8	SCE	Motukirikiri	O26	650168	MSP
908	88.3	UCL		O26	595162	MRFP
909	207.9	UCL		O26	674137	MSP
910	146.5	UCL		O26	700200	
911	814.2	SCE	Garne and Saville Bays	P26	750210	MSP
912	66.0	SCE	Odlins	P26	764184	MSP
913	23.4	REC	Round Hill	P26	724163	MSP
914	2.5	REC	Red Point	P26	758165	MSP
916	0.5	REC	Elaine Bay	P26	746165	MSP
917	754.2	SCE	Deep Bay	P26	840230	MSP
918	102.8	SCE	Bulwer	P26	904295	MSP
919	0.6	REC	Bulwer	P26	900290	MSP
920	13.9	SCE	French Pass	P26	806308	MSP
921	0.1	REC	French Pass	P26	809308	MSP
924	2.0	SCE	Hamilton (Karaka) Island	P26	833266	MSP
926	4072.5	SCE	D'Urville Island	P25	840420	MSP
927	60.7	REC	Whakatere-Papanui Island	P25	940500	MSP
929	0.1	UCL		P26	844268	MSP
930	0.1	UCL		P26	900290	MSP
931	0.1	UCL		P26	904278	MSP
932	1738.5	SCE	Pelorus Bridge	O27	560880	MRFP
933	77.4	REC	Pelorus Bridge	O27	585900	
937	1.3	REC	Hakahaka Bay	P27	035897	MSP
938	3.0	REC	Carluke	O27	600988	
939	0.8	CEM		O27	587993	ves
942	17.0	REC	Ronga	O27	605995	
943	4.8	SCE	Carluke	O27	595988	
944	4.4	SCE	Te Kopi	P26	310931	
950	4702.7	SFP	Victoria Forest Park	M29	505297	MCP
1000	358.3	SCE	Kumutoto	P27	985995	MSP
1001	95.5	SCE	Golden Point	P27	008974	MSP
1002	0.9	SCE	Schoolhouse Bay	P27	021018	MSP
1003	401.3	SCE	Ruakaka	P27	032990	MSP
1004	5.8	REC	Ratimera Bay	P27	034997	MSP
1005	509.5	SCE	Bay of many Coves	P27	075035	MSP
1006	3.8	UTI	Blackwood Bay	P27	025995	ves
1007	523.0	SCE	Ngarua	Q27	115978	MSP
1008	970.9	SCE	Arapawa Island	Q27	245010	MSP
1009	288.7	SCE	Kahikatea	P27	037934	MSP
1010	17.4	SCE	Allports Island	P27	985960	MSP
1011	0.9	HIS	Karaka Point	P27	993945	MSP
1012	31.6	SCE	Dieffenbach Point	P27	058962	MSP
1013	332.5	SCE	Ruaomoko Point	P27	088964	MSP
1014	222.0	SCE	Katoa Point	P27	085963	MSP
1015	0.9	SCE	Moioio	Q27	119952	MSP
1016	0.4	REC	Tawa Bay	Q27	109932	MSP
1017	4641.3	SCE	Roberston Range	P27	990870	MSP
1018	1.2	HIS	Horahora-Kakahu Island	P27	049856	
1019	61.9	REC	Tipi Bay	Q27	183970	MSP
1020	2.4	SCE	Pattern Passage	Q27	156021	MSP
1022	2.2	STO	Port Underwood	P27	032910	MSP
1023	2.0	UTI	Lighthouse	Q27	195997	ves
1024	0.1	ESP	Waikakaramea Bay	Q27	150997	MSP
1025	0.4	REC		P27	978928	MSP
1026	4501.5	SCE	Mt Stokes	P26	045139	MSP

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
1028	1.2	STO	Endeavour Inlet	P27	072055	MSP
1029	13.8	SCE	Waitaria Bay	P27	973049	MSP
1030	1557.2	SCE	Tahuakai	P26	040125	MSP
1031	549.9	SCE	Big Bay	P27	060110	MSP
1033	30.8	REC	Camp Bay	P27	062078	MSP
1034	3.1	REC	Okoha	P26	033163	MSP
1035	61.5	REC		P26	028228	MSP
1036	882.5	FP	Titirangi	P26	060195	MSP
1037	471.0	SCE	Grants Lookout	P26	080145	MSP
1038	224.5	SCE	Puzzle Peak	P26	082205	MSP
1039	1.3	UTI	Endeavour Landing	P26	086116	ves
1040	229.1	SCE	Toenga	P27	086054	MSP
1041	65.2	SCE	Edgecombe Point	P27	010045	MSP
1042	1093.2	HIS	Ship Cove	Q26	130120	MSP
1043	693.5	SCE	Tawa Bay	Q27	105097	MSP
1044	139.4	SCE	Resolution Bay	Q27	125010	MSP
1045	69.2	SCE	Pari Kawau	Q26	111138	MSP
1046	405.0	SCE	Howdens Bush	Q26	108120	MSP
1047	166.5	SCE	Endeavour Inlet	P26	098130	MSP
1048	166.7	SCE	Cape Lambert	Q26	125224	MSP
1049	376.7	SCE	Blumine Island	Q27	140030	MSP
1050	20.0	SCE	Cooper Point	Q27	209083	MSP
1052	96.3	SCE	Pickersgill Island	Q27	176044	MSP
1053	578.7	SCE	Cannibal Cove	Q26	155145	
1054	58.7	SCE	Motuara Island	Q26	170120	MSP
1055	116.7	SCE	Long Island	Q27	177097	MSP
1056	3.8	SCE	Spenser Bay	Q27	105020	
1057	27.6	SCE	Malcolms Bay	Q27	150965	MSP
1058	2.5	REC	Opua Bay	Q27	115926	MSP
1059	8.0	NAT	Brothers Island	Q27	302092	MSP
1060	0.4	REC	Hakahaka Bay	P27	032892	MSP
1061	0.1	ESP		P27	032892	MSP
1062	1.3	REC	Karaka Point	P27	993942	MSP
1063	3.9	REC	Whatamango Bay	P27	000927	MSP
1064	0.1	UTI	Kaipapa Bay	P27	004977	ves
1065	91.2	SCE	Goodwin Bay	P27	050017	MSP
1066	1.6	REC	Ruakaka	P27	052992	MSP
1067	0.5	REC	Bay of many Coves	P27	068024	MSP
1068	247.1	SCE	Momorangi Bay	P27	885926	MSP
1069	393.1	SCE	Mt Cawte	P27	800920	MSP
1070	358.5	SCE	Mt Oliver	P27	843922	MSP
1071	710.6	SCE	Iwituaroa	P27	908944	MSP
1072	62.4	SCE	Whenuanui	P27	918929	MSP
1073	228.5	SCE	Wedge Point	P27	930026	MSP
1074	325.5	SCE	Lochmara Bay	P27	930983	MSP
1075	0.8	SCE	Mabel Island	P27	950928	MSP
1076	271.5	SCE	Kaiuma Bay	P27	785962	MSP
1077	2753.3	SCE	Paradise Bay	P27	814025	MSP
1078	1.1	SCE	Ohingaroa	P27	848958	MSP
1079	18.9	REC	Pipi Bay	P27	812033	MSP
1080	129.9	SCE	Putanui Point	P27	835978	MSP
1081	1619.9	SCE	Kenepuru Sound	P27	880050	MSP
1082	74.0	SCE	Ferndale	P27	919018	MSP
1083	1.2	SCE	Te Mahia	P27	915990	MSP
1084	68.0	SCE	Weka Point	P27	935013	MSP
1085	459.7	SCE	Rocks	P27	955980	MSP
1086	129.8	SCE	Torea	P27	966994	MSP
1087	4.8	REC	Governor's Bay	P27	913929	MSP

LAND UNITS AND THEIR STATUS (CONT)

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
1088	6.6	REC	Momorangi	P27	885927	MSP
1089	5.1	SCE	Waterfall Bay	P27	913972	MSP
1090	111.4	REC	Mistletoe Bay	P27	917980	MSP
1091	2.3	SCE	Ngakuta Pt	P27	909929	MSP
1093	562.0	SCE	Ngakuta Bay	P27	893915	MSP
1094	5.6	REC	Ngakuta Bay	P27	903925	MSP
1095	0.4	REC	Lochmara West Bay	P27	932980	MSP
1096	133.2	SCE	Picton	P27	960890	MSP
1098	0.4	UTI	Onahau Bay	P27	909977	ves
1099	5.5	SCE	Pukatea Bay	P27	953003	MSP
1100	5.0	SCE	Onahau Bay	P27	919967	MSP
1101	0.3	REC	Lochmara Bay	P27	934981	MSP
1102	321.4	SCE	Mahakipawa Hill	P27	762912	MSP
1103	0.2	REC	Wahitanihi	P27	812965	MSP
1104	3.2	SCE	Broughton Bay	P27	902991	MSP
1105	73.3	SCE	Aorangi	P27	923988	MSP
1106	22.1	REC	Portage Bay	P27	965998	MSP
1107	27.3	SCE	Kaipupu Point	P27	944920	MSP
1108	425.8	SCE	Wakaretu	P27	750950	MSP
1109	1645.4	SCE	Chance Penguin & Fail	P26	814119	MSP
1110	3.9	SCE	Goulter Bay	P27	946028	MSP
1111	0.8	SCE	Clark Island	P27	958034	MSP
1112	232.9	SCE	Bobs Knob	P27	930055	MSP
1113	85.9	SCE	Elie Bay	P27	950090	MSP
1114	2.0	STO		P27	969097	MSP
1115	1.7	SCE	Four Fathom Bay	P27	846060	MSP
1116	17.5	HIS	Crail Bay	P27	913072	MSP
1117	68.4	REC	Four Fathoms Bay	P27	870058	MSP
1118	169.2	SCE	Yncyca Bay	P27	865093	MSP
1119	1408.3	SCE	Nydia Bay	P27	740060	MSP
1120	6171.9	SCE	Tennyson Inlet	P26	745116	MSP
1121	155.8	SCE	Jacobs Bay	P26	835100	MSP
1122	0.2	REC	Betty Archer	P26	744129	MSP
1123	54.4	SCE	Cullens Pt	P27	755930	MSP
1124	4.4	REC	Robin Hood Bay	P27	998829	MSP
1125	62.7	REC	Henry Brown	P26	755155	MSP
1126	271.5	SCE	Deep Bay	P26	750140	MSP
1127	64.7	SCE	Tuna Bay	P26	725119	MSP
1128	121.8	SCE	Stafford Point	P26	855135	MSP
1129	364.1	SCE	Kenny Island	P26	910185	MSP
1130	0.9	SCE	Bird Island	P26	970233	MSP
1131	2.3	SCE	Clova Bay	P26	977102	MSP
1132	15.8	SCE	Otomiro	P26	838134	MSP
1133	138.6	REC	Nydia Bay	P27	770035	MSP
1134	309.3	SCI	Tom Shand	P26	850200	MSP
1135	32.1	SCE	Tarakaipa Island	P26	770151	MSP
1136	23.6	SCE	Tawhitinui Island	P26	773171	MSP
1137	325.8	NAT	Haystack etc	P26	010340	MSP
1138	32.4	NAT	Titi foreshore	P26	060278	MSP
1143	1.2	UCL		P26	033162	
1144	1.2	UCL		P26	083168	
1145	2.4	UCL		P26	097157	
1146	0.1	UCL		P26	892128	
1147	0.1	UCL		P26	892128	
1148	295.0	REC	Waimaru	P26	960154	MSP
1150	0.1	REC	Te Rawa	P26	862143	MSP
1151	231.6	SCE	Brooklyn Bay	P27	730955	MSP
1152	1.8	ESP	Moenui	P27	766918	MSP

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
1153	219.8	SCE	Blackwood Bay	P27	020050	MSP
1154	3.3	SCE	Okiwa Bay	P27	862930	MSP
1155	1.1	LOC		P27	911015	
1157	0.3	UTI	Picton	P27	942900	ves
1158	0.2	REC		P27	941898	ves
1168	0.2	PRI	Staff House	P27	743908	Loc
1170	4.0	QUA		P27	739918	
1171	0.5	REC	Endeavour Inlet	P26	095111	MSP
1172	0.0	SAN	Duffers Reef	P26	062355	MSP
1173	149.7	SAN	Stephens Island	P25	945590	MSP
1176	0.1	LOC		P27	942900	disp
1177	3.5	ESP		P27	960019	MSP
1179	0.2	SAN	White Rocks	Q26	244137	MSP
1180	158.2	REC	Wharehunga Bay	Q27	185018	MSP
1181	72.8	UTI	East Head	Q27	200985	MSP
1182	32.4	LOC	Onakau watering place	Q27	257082	MSP
1183	253.5	UCL		Q27	16640	MSP
1184	3.9	UCL	Motungara Island	Q27	215095	MSP
1185	4.7	UCL	Ruakawa Rock	Q27	245996	MSP
1186	4.5	UCL	Tory Channel Rocks	Q27	204984	MSP
1187	0.9	UCL	Amerikiwhati Island	Q27	138001	MSP
1188	0.2	UCL	Anatohia Bay Rocks	Q27	211071	MSP
1189	1.6	UCL	Kokomohua Island	Q26	199119	MSP
1190	0.6	UCL	Twins	Q26	214103	MSP
1191	3.0	UCL	Combe rocks	P27	069834	MSP
1192	37.7	UCL		P27	015875	MSP
1193	1.8	UCL		P27	938889	ves
1194	154.2	UCL		P26	995165	MSP
1195	4.9	UCL		P26	082104	
1196	0.7	UCL		P26	979108	
1197	0.7	UCL		O27	631835	MSP
1198	6.5	UCL		P27	720942	MSP
1199	3.2	UCL		P26	982179	
1200	1.8	UCL		P26	094125	
1202	15.6	UCL		P27	904965	MSP
1203	0.7	UCL		O27	62132	MSP
1205	2.0	UCL	Rai River bed	O27	591974	MSP
1206	1.4	UCL		O27	584942	
1207	4.8	UCL		O27	654864	
1208	1.3	UCL		O27	596972	
1209	3.5	UCL		O27	597810	MSP
1210	9.9	UCL		P26	089130	
1211	1154.9	FOR		P27	995000	
1212	0.1	UCL	Workshop Picton	P27	940902	
1213	829.3	SCE		P26	725145	MSP
1218	0.4	UCL		O27	631835	
1219	128.7	SCE		P26	080158	
1220	0.1	UCL		P27	944904	
1222	22.8	SCE		P27	032042	
1223	4.6	SCE	Tunoamai Point	P27	017990	
1224	1.4	LOC	Youth Hostel	O27	743915	
1225	12.0	UCL		O27	606825	
1226	0.4	UCL		O27	627833	
1227	0.0	SAN	Duffers Reef	P26	980277	
1228	186.9	UCL		P27	825818	
1229	7.7	ESP	Kenepuru	P27	042035	
1230	354.0	SCE		P27	795930	
1231	1.5	UCL	Two Island Point	P26	780279	

LAND UNITS AND THEIR STATUS (CONT)

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
1233	1.6	LOC	Waitaria Bay School site	P27	175049	
1234	0.1	LOC		P27	001917	
1236	3.5	REC	Picton Botanic	P27	942392	
1238	470.2	LOC	Picton Water Conservation	P27	069861	
2000	35.8	REC	Marfells Beach	Q29	113412	
2002	1.4	SCI	Chancet Rocks	P29	095294	
2005	4.3	REC	Blind River	P29	068470	
2006	4.6	SCI	Muritai	P28	064508	
2009	38.8	WILL	Tuamarina wildlife	P28	900774	
2010	0.9	REC	Grovetown	P28	924697	ves
2013	830.3	REC	Whites Bay	P28	970800	
2019	222.9	SCE	Mount Freeth	P27	910890	MSP
2020	3.4	ESP	Rarangi	P28	970770	ves
2021	12.5	REC	Rarangi	P28	969770	ves
2024	0.4	LOC	Kaituna Hall	P28		
2031	134.8	HIS	Tukutukuiwi	O31	438645	
2032	441.2	SCE	Goose Bay	O32	540598	GB
2033	6.7	REC	Goose Bay	O32	536658	GB
2034	31.8	REC	Oaro	O32	505543	GB
2035	0.0	NAT	Rileys Lookout	O31	559605	RI
2036	1.7	REC	Hundalee	O32	388555	
2037	6.9	REC	Conway River	O32	483440	
2038	0.4	WILL	Otumatu Rocks	O32	535589	GB
2040	4.2	SCE	Limestone Creek Sce	O32	463488	
2041	73.0	WILL	Lake Rotorua WL	O31	584665	
2042	12.1	SCE	Fyffe Palmer	O31	525750	KK
2043	26.3	REC	Peketa	O31	616653	
2045	63.5	SCE	Hapuku	O31	685770	
2050	80.0	WILL	Kaikoura Wildlife	O31	693648	KKPt
2052	14.1	RIV		O31	625730	ves
2054	65.5	UCL		O31	562721	KK
2055	2155.0	SF	Waimangarara Ecol. Area	O31	600750	SKK
2056	14.5	LOC	Lighthouse Reserve	O31	671638	KKPt
2057	16.5	SCE	Mangamuanu	P31	749812	
2058	14.8	SCE	Puhipuhi	P31	704818	
2059	26.3	SCE	Karetu	P31	730805	
2060	1241.6	SCE	Jordan Stream	O31	690870	KK
2061	0.7	SF	Ludstone Rd Workshop	O31	656672	Loc
2062	152.7	SCI	Blue Duck	P31	745858	
2063	3412.4	SCE	Mt Manukau	O31	660850	
2064	2.7	SCE	Rakautara	P31	762820	
2065	1011.7	NAT	Mt Uwerau	O31	600835	SKK
2066	0.1	HIS	Nga Niho Pa	O31	662656	
2068	4.3	SCE		O31	676657	KKPt
2069	0.3	LOC	Signal Station	O31	676657	KKPt
2070	17.8	SCI		O31	570660	
2071	24.4	SCE		O31	680642	KKPt
2072	0.1	LOC	Settlers Grave	P30	838938	ves
2074	46.5	SCE	Paparoa Point	P31	794856	
2075	13.0	SCE	Okiwi Bay	P31	804867	
2076	3.0	SCE	Half Moon Bay	P31	768832	
2077	15.7	SCE	Waipapa Pt	P31	821885	
2078	1.7	CEM	Kekerengu Cemetery	P30	838914	ves
2079	2836.9	SCE	Isolated Hill	P30	915215	
2081	3.5	STO	Rag Saddle	P30	838176	disp
2082	6522.1	UCL		P30	730000	SKK
2083	2428.0	UCL		P30	730180	
2084	569.1	UCL	Tawaho Fans	P30	855995	
2085	774.0	UCL		O30	683918	KK
2086	2909.0	UCL		O31	380715	

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
2087	9084.3	UCL		O31	570780	SKK
2088	16.0	ESP		P30	868924	
2089	4.0	UCL		P31	702799	MSP
2096	2963.3	SCE	Black Birch	P29	790430	WCP
2098	0.1	LOC	Esplanade	P28	880633	ves
2106	1.3	ESP	Onamalutu	P28	715705	MSP
2109	1.4	CEM	Fabians Valley	O28	593658	ves
2110	26.4	SCE	Onamalutu	O28	688717	
2113	7.4	WILL	Top Valley Wildlife	O28	476601	ves
2116	1705.6	SCE	Te Arowhenua	O29	410390	WCP
2118	2225.8	SCE	Tapuaenuku	O30	630110	IKK
2121	7.3	STO	Manuka Island	N29	205457	disp
2122	0.4	REC	Bankhouse	P28	712640	ves
2123	18700.6	UCL	Glazebrook	O29	360320	IKK
2124	11804.5	UCL	Ferny Gair	O29	710400	WCP
2125	428.1	UCL		O29	675305	CP
2126	3176.8	UCL		O30	410990	KK
2127	5.5	UCL		O31	673780	
2128	0.5	UCL		O31	694772	
2129	2.0	UCL		O31	575622	RI
2130	2309.8	UCL	Wairau Lagoon	P28	000630	
2131	234.9	UCL		P28	960710	ves
2132	10.0	UCL	Awatere River	P29	895467	ves
2133	14.0	UCL	Ben More Stream	P30	930165	
2134	35.8	UCL	Clarence River	P30	780000	Sce
2135	4.6	UCL	Hapuku foreshore	O31	700749	NKK
2136	4.0	UCL	Access Black Birch	P29	798393	WCP
2137	28.9	UCL		P29	023215	
2138	55.8	UCL		P29	020341	
2139	15.6	UCL		P29	090425	
2140	45.0	UCL		P28	059596	ves
2141	6.5	UCL		P28	061571	ves
2142	34.6	UCL		P28	983669	ves
2143	12.5	UCL		P28	785702	disp
2144	29.7	UCL		P28	855733	disp
2145	13.6	UCL		P28	945689	disp
2146	0.4	UCL	Goose Bay house	O32	534586	oz
2147	0.4	UCL	Section Kaikoura	O31	683656	Loc
2148	47.0	UCL		O31	565658	
2149	1.7	UCL	S58 L Rotorua	O31	578655	
2151	4.0	UCL		O31	662672	KKt
2152	16.5	UCL		O31	685644	
2153	7.5	UCL		O31	642745	Kkt
2154	0.1	UCL		O31	663668	
2155	4.8	UCL		O31	670654	KKPt
2156	2.6	UCL		O28	376528	disp
2157	5.5	UCL	Avon	O28	664532	MSP
2158	2.4	UCL	Pine Valley	O28	561638	MSP
2160	30.7	UCL	Blue Slip	P30	965147	Sce
2161	1.4	UCL		P30	938110	Rec
2162	0.3	UCL		P28	899649	disp
2163	0.5	UCL		P28	906686	
2164	0.2	UCL		O28	695740	MRFP
2166	7.3	UCL		O28	599648	MSP
2167	9.3	UCL		O31	668715	NKK
2168	1.5	UCL		O31	689739	NKK
2169	1.4	UCL		O32	518552	GB
2170	0.1	UCL		O32	528564	GB

LAND UNITS AND THEIR STATUS (CONT)

UNIT	AREA	CLASS	NAME	MAP	GRD REF	GROUP
2171	17.3	UCL	Station Creek	P28	065515	
2172	0.5	UCL		P29	030222	Sce
2173	3.6	UCL		P30	013024	
2174	12.5	UCL		P28	974784	ves
2175	3.2	UCL		O32	498473	Sce
2176	2.0	REC	Kowhai Pt	N29	194439	
2178	0.5	UCL		O28	555642	disp
2179	30.8	REC	Leased from Railways	O31	562614	RI
2180	0.1	UCL		O31	663668	KKt
2181	0.3	UCL	Lyell Creek	O31	663668	KKt
2182	10.6	UCL	Conway Mouth	O32	483039	
2183	22.1	UCL		O31	625732	NKK
2184	0.2	UCL		O31	658679	KKt
2185	0.1	UCL	Conway R	O32	444454	Rec
2187	0.4	UCL		P28	784666	
2188	3.2	SCE		O31	647688	
2191	4.0	UCL	Teme	O29	818387	
2192	1.4	UCL		O31	658678	
2193	73.8	SCE		O31	582630	
2194	4.0	STO		P30	884160	
2195	3.1	STO		P30	838175	
2196	0.0	NAT	Pinnacle Rock	O31	581619	
2197	24.0	UCL		P29	923477	
2198	85.4	SCE	Sweets Stream	O29	494490	
2199	1.2	UCL		O31	661682	
2200	568	UCL	Blarich	P29	745435	
2202	6.8	SCE	Pingao	P30	874012	
2203	519.2	UCL		O29	463394	
2204	0.3	Oaro		O32	574544	
2205	14.5			P27	850415	
2206	1241.0	SCE		P30	780900	
2207	0.4	UCL		P30	830905	
2208	680.7	SCE		O31	550610	
2209	1737.0	SCE		P30	835125	
2210	108.0	UCL		P30	848986	

KEY

Unit	Land unit number as in the land register
Area	in Ha
Class	Classification
CEM	Local purpose, cemetery
ESP	Local purpose, esplanade reserve
FOR	Local purpose, Sounds Foreshore (500 km)
FP	Recreation reserve, Farm Park
GRA	Government purpose, quarry reserve
HIS	Historic reserve
LOC	Local purpose, other categories
MAO	Local Purpose, Maori
NP	National Park
QUA	Government purpose, quarry reserve
REC	Recreation reserve
SAN	Wildlife and Conservation Act sanctuary
SCE	Scenic reserve
SCI	Scientific reserve
SF	Conservation areas (former State Forest)
STO	Government purpose, Stock Reserve
UCL	Conservation areas (former crown land)

Key (cont):

UTI	Government purpose, Utility reserve
Map	Map number
Grd ref	Grid reference
Name	Where available, generally only for parks, recreation and scenic reserves
Group	Land unit groups or other status
	Blank, no change likely
ATNP	Potential Abel Tasman NP
disp	Potential disposal
GB	Goose Bay unit
IKK	Potential Inland Kaikoura unit (or merge with Seawards)
KKpt	Kaikoura peninsula unit
KKt	Kaikoura Town unit
Loc	Used for houses etc - Local purpose reserve
MCP	Potential Murchison Conservation Park
MRFP	Mt Richmond Forest Park unit
MSP	Potential Marlborough Sounds Park
NKK	Potential north Kaikoura coastal unit
NLNP	Nelson Lakes National Park
NWN	North-west Nelson unit
Sce	Potential Scenic Reserve
SFP	Forest Park (Conservation Park)
SKK	Potential Seaward in Inland Kaikoura unit
WCP	Potential upper Wairau unit
Rec	Potential recreation reserve
RI	Riley's Lookout
ves	Potentially vest in local authority or transfer control

APPENDIX II.

DATABASES OF SURVEY INFORMATION

(i) Sites of Special Wildlife Interest (SSWI)

Between 1977 and 1985, the Fauna Survey Unit of the Wildlife Services surveyed the whole of New Zealand on a region by region basis to identify all "sites of special wildlife interest". All natural or semi-natural areas important as habitat for one or more species of protected wildlife were evaluated and each site ranked, according to a set of standard criteria, into five groups on the basis of their value to wildlife, i.e., outstanding, high, moderate-high, moderate and potential.

This information was published for the Nelson and North Buller regions but, while the conservancy holds all the field sheets for the Marlborough region, those have never been distilled into a published form. The raw data are still used by staff, but as they require interpretation and have dated, are not normally available to the public.

(ii) Wetlands of Ecological and Representative Importance (WERI)

This is a computer-stored inventory of all permanently or temporarily wet, shallow water and land-water margin areas, either fresh, brackish or saline. Co-ordination of the compilation of all existing information on wetlands held by Government agencies, public groups and individuals, was initiated by the Commission for the Environment in 1984. The Biological Resource Centre completed the data entry onto computer in 1986. None of the data has been updated since then.

The printout for each individual site provides information on a wide range of parameters, as well as giving a significance rating based on the values and quality of each wetland. The six significance categories are: international, national, regional, local, nothing special, and insufficient information.

(iii) Protected Natural Area Programme (PNAP)

This programme, which was initiated in 1983/84, is aimed at identifying what natural areas remain and evaluating which are the best or most representative examples. Identification is done on the basis of field assessment on an Ecological District basis, each district possessing characteristics of climate, geology, landform, soils and biological features which, in combination, form a recognisable ecological pattern different from adjacent districts.

The objective is to identify and preserve representative examples of all classes of natural ecosystems and landscapes in each ecological district. Because of this, it has tended to concentrate primarily on landform and botanical features, species or communities, although generally information on birds, lizards and invertebrates has also been collected. The best examples are listed as

Recommended Areas for Protection (RAP) in a ranked priority order for legal protection and conservation need.

The conservancy contains 31 complete and 10 part ecological districts, in 13 of which field assessments have been completed, but only four have so far been published.

(iv) Coastal Resource Inventory (CRI)

This programme gathers information on intertidal and adjacent land areas, and to a lesser extent, subtidal areas, and was initiated in 1987. Details on the natural, historic and recreational values, existing threats and human modification were collected for 121 stretches of coastline that were felt to form discrete, recognisable units.

The information has been analysed and summarised in a report published in 1990, which outlines the distinctive and significant features of each discrete length of coastline.

Each of these stretches have been grouped into five categories based primarily on the presence of species of conservation importance, for example, international, national, regional, local and unknown.

These groupings into sites of similar site importance are not a ranking system, but merely an indication that a feature of known conservation importance is present.

(v) Freshwater fisheries database

This is a computer-based inventory administered by the Freshwater Division of NIWAR (National Institute of Water and Atmospheric Research). They have been progressively compiling information on the presence, location, abundance and some habitat parameters of freshwater fish since the 1970s. Information is derived from Fish and Game Councils, Ministry of Fisheries, the Department of Conservation and a few private individuals. The database is still being added to and updated. Detailed or general information can readily be obtained and the conservancy office holds a limited copy which is updated on a three monthly basis.

(vi) Geopreservation database

This database is maintained by the Geological Society of New Zealand and Joint Earth Science Society Working Group. It covers sites of physical, geological and mineral significance.

(vii) Other surveys

Besides these broad conservancy-wide inventories, many types of detailed site-specific or species-specific studies are carried out. These include quantitative studies of areas such as Whanganui Inlet and Long Island-Kokomohua for marine reserve purposes, and Waimea Inlet and Pelorus Sound to identify tidal and subtidal natural, historic and recreational values. As well, numerous assessments include the distribution, density and status of threatened, vulnerable or rare plant and animal species such as blue duck. A general index of departmental databases is maintained.

APPENDIX III.

TE TIRITI O WAITANGI

Ko Wikitoria te kuini o Ingarani, i tana mahara atawai ki nga Rangatira me nga Hapu o Nu Tirani i tana hiahia hoki kia tohungia ki a ratou o ratou rangatiratanga, me to ratou wenua, a ki mau tonu hoi te Rongo ki a ratou me te Atanoho hoki kua wakaaro ia he mea tika kia tukua mai tetahi Rangatira hei kai wakarite ki nga Tangata maori o Nu Tirani - kia wakaaetia e nga Rangatira maori te Kawanatanga o te Kuini ki nga wahikatoa o te Wenua nei me nga Motu - na te mea hoki he tokomaha ke nga tangata o tona Iwi Kua noho ki tenei wenua, a e haere mai nei.

Na ko te Kuini e hiahia ana kia wakarite te Kawanatanga kia kaua ai nga kino e puta mai ki te tangata Maori ke te Pakeha o noho ture kore ana.

Na, kua pai te Kuini kia tukua ahau a Wiremu Hopihona he Kapitana i te Roiara Nawi hei Kawana mo nga wahi katoa o Nu Tirani e tukua aianei, amua atu ki te Kuini e mea atu ana ia ki nga Rangatiratanga o te wakaminenga o nga hapu o Nu Tirani me era Rangatira atu enei ture ka korerotia nei.

Ko te tuatahi

Ko nga Rangatira o te Wakaminenga me nga Rangatira katoa hoki ki hai i uru ki taua wakaminenga ka tuku rawa atu ki te Kuini o Ingarani ake tonu atu - te Kawanatanga katoa o o ratou wenua.

Ko te tuarua

Ko te kuini o Ingarani ka wakarite ka wakaae ki nga Rangatira ki nga hapu ki nga tangata katoa o Nu Tirani te tino rangatiratanga o o ratou wenua o ratou kainga me o ratou taonga katoa. Otiia ko nga Rangatira o te Wakaminenga me nga Rangatira katoa atu ka tuku ki te Kuini te hokonga o era wahi wenua e pai ai te tangata nona te wenua - ki te ritenga o te utu e wakaritea ai e ratou ko te kia hoko e meatia nei e te Kuini hei kai hoko mona.

Ko te tuatoru

Hei wakaritenga mai hoki tenei mo te wakaaetanga ki te Kawanatanga o te Kuini ka tiakina e te Kuini o Ingarani nga tangata maori katoa o Nu Tirani ka tukua ki a ratou nga tikanga katoa rite tahi ki ana mea ki nga tangata o Ingarani.

TRANSLATION OF MAORI TEXT BY PROFESSOR SIR HUGH KAWHARU

Victoria, the Queen of England, in her concern to protect the Chiefs and Subtribes of New Zealand and her desire to preserve their chieftainship and their lands to them and to maintain peace and good order considers it necessary to appoint an administrator one who will negotiate with the people of New Zealand to the end that their chiefs will agree to the Queen's government being

established over all parts of this land and (adjoining) islands and also because there are many of her subjects already living on this land and others yet to come. So the Queen desires to establish a government so that no evil will come to Maori and European living in a state of lawlessness.

So the Queen has appointed me, William Hobson a Captain in the Royal Navy to be Governor for all parts of New Zealand (both those) shortly to be received by the Queen and (those) to be received hereafter and presents to the chiefs of the Confederation chiefs of the subtribes and other chiefs these laws set out here.

The first

The Chiefs of the Confederation of all Chiefs who have not joined that Confederation give absolutely to the Queen of England forever the complete government over their land.

The second

The Queen of England agrees to protect the Chiefs, the Subtribes and all the people of New Zealand in the unqualified exercise of their chieftainship over their lands, villages and all their treasures. But on the other hand the Chiefs of the Confederation and all the Chiefs will sell land to the Queen at a price agreed to by the person owning it and by the person buying it (the latter being) appointed by the Queen as her purchase agent.

The third

For this agreed arrangement therefore concerning the Government of the Queen of England will protect all the ordinary people of New Zealand (i.e. the Maori) and will give them the same rights and duties of citizenship as the people of England.

THE TREATY OF WAITANGI (ENGLISH TEXT)

Her Majesty Victoria Queen of the United Kingdom of Great Britain and Ireland regarding with Her Royal Favour the Native Chiefs and Tribes of New Zealand and anxious to protect their just Rights and Property and to secure to them the enjoyment of Peace and Good Order has deemed it necessary in consequence of the great many of Her Majesty's Subjects who have already settled in New Zealand and the rapid extension of Emigration both from Europe and Australia which is still in progress to constitute and appoint a functionary properly authorised to treat with the Aborigines of New Zealand for the recognition of Her Majesty's Sovereign authority over the whole or any part of those islands - Her Majesty therefore being desirous to establish a settled form of Civil Government with a view to avert the evil consequences which must result from the absence of the necessary Laws and Institutions alike to the native population and to Her Subjects has been graciously pleased to empower and authorise me William Hobson a Captain in Her Majesty's Royal Navy Consul and Lieutenant Governor of such parts o New Zealand as may be or hereafter shall be ceded to Her Majesty to invite the confederated and independent Chiefs of New Zealand to concur in the following Articles and Conditions.

Article the first

The Chiefs of the Confederation of the united Tribes of New Zealand and the separate and independent Chiefs who have not become members of the Confederation cede to Her Majesty the Queen of England absolutely and without reservation all the rights and powers of Sovereignty which the said Confederation or Individual Chiefs respectively exercise or possess, or may be supposed to exercise or to possess over their respective Territories as the sole sovereigns thereof.

Article the second

Her Majesty the Queen of England confirms and guarantees to the Chiefs and Tribes of New Zealand and to the respective families and individuals thereof the full exclusive and undisturbed possession of their Lands Estates Forest Fisheries and other properties which they may collectively or individually possess so long as it is their wish and desire to retain the same in their possession; but the Chiefs of the United Tribes and the Individual Chiefs yield to Her Majesty the exclusive right of Pre-emption over such lands as the proprietors thereof may be disposed to alienate at such prices as may be agreed upon between the respective Proprietors and persons appointed by Her Majesty to treat them in that behalf.

Article the third

In consideration thereof Her Majesty the Queen of England extends to the Natives of New Zealand Her royal protection and imparts to them all the Rights and Privileges of British Subjects.

PRINCIPLES FOR CROWN ACTION ON THE TREATY OF WAITANGI

Principle 1:

THE PRINCIPLE OF GOVERNMENT

THE KAWANATANGA PRINCIPLE

The government has the right to govern and to make laws.

Principle 2:

THE PRINCIPLE OF SELF-MANAGEMENT

THE RANGATIRATANGA PRINCIPLE

The iwi have the right to organise as iwi, and, under law, to control their resources as their own.

Principle 3:

THE PRINCIPLE OF EQUITY

All New Zealanders are equal before the law.

Principle 4:

THE PRINCIPLE OF REASONABLE COOPERATION

Both the Government and the iwi are obliged to accord each other reasonable cooperation on major issues of common concern.

Principle 5:

THE PRINCIPLE OF REDRESS

The Government is responsible for providing effective processes for the resolution of grievances in the expectation that reconciliation can occur.

These five principles are further detailed in "Principles for Crown action on the Treaty of Waitangi", Department of Justice (1989) - ISBN 0-477-07229-1.

QUOTATIONS FROM THE WAITANGI TRIBUNAL AND THE COURT OF APPEAL WHICH ILLUMINATE WHAT THE TREATY PRINCIPLES ARE PRESENTLY UNDERSTOOD TO BE.

THE ESSENTIAL BARGAIN

The Waitangi Tribunal

"[Kawanatangi] means the authority to make laws for the good order and security of the country but subject to an undertaking to protect particular Maori interests" (Manakau Report p. 90).

Court of Appeal

"... the basic terms of the bargain were that the Queen was to govern and the Maoris were to be her subjects; in return their chieftainships and possessions were to be protected, but sales of land to the Crown could be negotiated." These aims partly conflicted. The Treaty has to be seen as an embryo rather than a fully integrated set of ideas. (*New Zealand Maori Council v Attorney-General* [1987] 1 NZLR 641 at 663 per Cooke P, the *Lands* case).

THE TREATY RELATIONSHIP

The Waitangi Tribunal

The Treaty signifies a partnership between the Crown and the Maori People and the compact between them rests on the premise that each partner will act reasonably and in the utmost good faith towards each other (Orakei, p.150).

"The Treaty ... was not intended to merely fossilise a status quo, but to provide a direction for further growth and development .... the foundation for a developing social contract..." (Motunui, p.52).

" ... neither partner in our view can demand their own benefits if there is not also an adherence to reasonable state objectives of common benefit. It ought not to be forgotten that there were pledges on both sides." (Muriwhenua Fishing Report, p. 195).

Court of Appeal

Signing of the Treaty "... called for their protection by the Crown of both Maori interests and British interests and rested on the premise that each party would act reasonably and in good faith towards each other within their respective spheres." (*Lands* at pp 680-681 per Richardson J).

"... those principles [of the Treaty] require the Pakeha and Maori Treaty partners to act towards each other reasonably and with the utmost good faith. That duty is not a light one. It is infinitely more than a formality. If a breach of the duty is demonstrated at any time, the duty of the Court will be to insist that it be honoured." (*Lands* at p. 667 per Cooke P).

The Treaty does not authorise

"... unreasonable restrictions on the right of a duly elected Government to follow its own chosen policy ... and ... although ... clearly entitled to decide on such policy, as a reasonable Treaty partner it should take the Maori race into its confidence regarding the manner of implementation of the policy." (*Lands* at p.665 per Cooke P).

RANGATIRATANGA

Waitangi Tribunal

" ... a great deal needs to be done to give formal recognition to properly structured tribal bodies, ... to provide for consultation between local and tribal authorities in proper cases, and to furnish resources for tribal councils to be adequately informed and effectively involved." (Mangonui p. 55).

Court of Appeal

"The Maori chiefs looked to the Crown for protection from other foreign powers, for law and order. They reposed their trust for these things in the Crown believing they retained their own rangatiratanga and taonga. The Crown assured them of the utmost good faith in the manner in which their existing rights would be guaranteed and in particular guaranteed down to each individual Maori full exclusive and undisturbed possession of their lands which is the basic and most important principle of the Treaty in the context of the case before this court." (*Lands* at p. 715 per Bisson J).

ACTIVE PROTECTION

Waitangi Tribunal

"The Treaty of Waitangi obliges the Crown not only to recognise the Maori interest specific in the Treaty but actively to protect them." .... "It follows the omission to provide that protection is as much a breach of the Treaty as a positive act that removes those rights." (Manukau p. 95).

" ... the Treaty both assures Maori survival and envisaged their advance; but to achieve that in Treaty terms, the Crown had not merely to protect those natural resources Maori might wish to retain but to assure the retention of a sufficient share from which they could survive and profit, and the facility to fully exploit them." (Muriwhenua Fishing Report, p. 194)

Court of Appeal

"... the duty of the Crown is not merely passive but extends to active protection of Maori People in the use of their lands and waters to the fullest extent practicable." (*Lands* at p. 664 per Cooke P).

DUTY TO BE INFORMED

Court of Appeal

"... the responsibility of one treaty partner to act in good faith fairly and reasonably towards the other puts the onus on a partner, here the crown, when acting within its sphere to make an informed decision ... to be able to say it has had a proper regard to the impact of the principles of the Treaty" (*Lands* at p. p.683 per Richardson J).

APPENDIX IV.

ACTS AND REGULATIONS REFERRED TO IN THIS DOCUMENT

Agricultural Pests Destruction Act 1967 (repealed by Biosecurities Act 1993)

* Animals Protection Act 1960

Animals Protection (Codes of Ethical Conduct) Regulations 1987

Antiquities Act 1975

Biosecurity Act 1993

Building Act 1991

Civil Aviation Act 1992

* Conservation Act 1987

* Conservation Law Reform Act 1990

Crown Minerals Act 1991

Dog Control and Hydatids Act 1982

Fencing Act 1978

Fire Service Act 1975

Forests 1949

* Fisheries Act 1983

* Forest Park Regulations 1979

* Forest and Rural Fires Act 1977

* Freshwater Fisheries Regulations 1983

* Freshwater Fish Farming Regulations 1983

Historic Places Act 1993

Land Act 1948

Land Transfer Act 1952

Litter Act 1979

Maori Affairs Act 1953 (replaced by the Maori Land Act 1993)

Maori Land Act 1993

Marine Farming Act 1971

* Marine Mammals Protection Act 1978

Marine Pollution Act 1974

* Marine Reserves Act 1971

Marine Transport Act 1994

Military Manoeuveres Act 1915

Mining Act 1971 (superseded by Crown Minerals Act 1991)

* National Parks Act 1980

* Native Plants Protection Act 1934

* New Zealand Walkways Act 1990

* Noxious Plants Act 1978 (repealed by the Biosecurities Act 1993)

Noxious Animals in Captivity Regulations 1969

Official Information Act 1982

Queen Elizabeth II National Trust Act 1977

* Reserves Act 1977

* Reserves and Other Lands Disposal Act 1982

* Resource Management Act 1991

Trade in Endangered Species Act 1989

Transport Act 1962

* Water Recreation Regulations 1979

* Whitebait Fishing Regulations 1994 (annual)

* Wild Animal Control Act 1977

* Wildlife Act 1953

Wildlife Regulations 1955

* Denotes acts for which the department has administrative responsibilities

APPENDIX V.

CLASSIFICATION OF AREAS ADMINISTERED BY THE DEPARTMENT

This table lists the existing categories of protective status, showing the purposes emphasised in each class of area (the classes are grouped to illustrate how the statutory purposes relate to broad management objectives).

CLASSIFICATION OF AREAS

CLASS	PRIMARY PURPOSE	SECONDARY PURPOSES
GROUP A: The maintenance, as far as possible in a natural state, of ecosystems representing the full ecological diversity of New Zealand for protection of scientific values		
Scientific Reserve (Section 21 Reserves Act)	Protecting and preserving in perpetuity for scientific study, research, education, and the benefit of the country, ecological associations, plant or animal communities, types of soil, geomorphological phenomena, and like matters of special interest.	Protecting any scenic, historic, archaeological or natural features; maintaining soil, water, and forest natural, historic and recreational values.
Ecological Specially Protected Area (SPA) (Section 2, 18, 21 Conservation Act)	Protection of the scientific value for which it is held (1).	Preserving and protecting 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 for future generations (2).
GROUP B: The protection of rare or endangered species and their habitats		
Nature Reserve (Section 20 Reserves Act)	Protecting and preserving in perpetuity native flora or fauna, or natural features that are of such rarity, scientific interest or importance, or so unique that it is in the public interest to do so.	Managing and protecting any scenic, historic, archaeological, biological, geological or other scientific features; maintaining soil, water and forest natural, historic and recreational values.
Wildlife Sanctuary (Section 9 & 10 Wildlife Act)	The absolute protection of all wildlife in the sanctuary.	If also a government purpose reserve, then refer to Group F.
Sanctuary SPA (Section 2 & 22 Conservation Act)	Preserving in their natural state the native plants and animals in it, and for scientific and other similar purposes.	Preserving and protecting 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 for future generations.

CLASSIFICATION OF AREAS (CONT)

CLASS	PRIMARY PURPOSE	SECONDARY PURPOSES
GROUP C: The conservation of outstanding landscapes or natural features of aesthetic value and maintenance of samples of New Zealand's natural heritage, representative of the full ecological diversity of New Zealand		
Scenic Reserve (Section 19(1)(a) Reserves Act)	Protecting and preserving in perpetuity for their intrinsic worth and for the benefit, enjoyment and use of the public, suitable areas possessing such qualities of scenic interest, beauty, or natural features or landscape that it is in the public interest to do so.	Managing and protecting any historic, archaeological, geological, biological, or other scientific features; maintaining soil, water, and forest natural, historic and recreational values.
Scenic Reserve (Section 19(1)(b) Reserves Act)	Providing, in appropriate circumstances, suitable areas which, by development and the introduction of native or introduced plants, will become of such scenic interest or beauty that their development, protection, and preservation are desirable in the public interest.	Managing and protecting any historic, archaeological, geological, biological, or other scientific features; maintaining soil, water, and forest natural, historic and recreational values.
Wildlife Refuge (Section 14 Wildlife Act)	Not specified.	If a government purpose reserve, then refer to Group F.
Esplanade Reserve (Section 229 Resource Management Act & Section 23 Reserves Act)	Contributing to the protection of natural, historic and recreational values and enabling public access to or along the sea, a river or a lake.	Enabling public recreational use of the reserves and adjacent sea, river or lake; managing and protecting scenic, historic, archaeological, biological or natural features; maintaining soil, water and conservation forest values.
Conservation Park (Section 19 Conservation Act)	Protecting natural and historic resources.	Facilitating public recreation and enjoyment.
Conservation Area (Section 2 & 25 Conservation Act)	Managing and protecting natural and historic resources.	Maintaining the intrinsic values of the resources, providing for their appreciation and recreational enjoyment by the public, and safeguarding the options of future generations.
Watercourse Area (Section 23 Conservation Act)	Protecting the wild, scenic and other natural or recreational characteristics of the area and the adjacent protected river, lake or stream.	As for original purpose(s).
Marginal Strip (Section 24 Conservation Act)	Maintaining adjacent watercourses or bodies of water and water quality and aquatic life, and protecting natural values and controlling harmful species of aquatic life, and enabling public access to adjacent water courses or bodies of water, and allowing their recreational use by the public.	Not specified.

CLASSIFICATION OF AREAS (CONT)

CLASS	PRIMARY PURPOSE	SECONDARY PURPOSES
GROUP D: The conservation of examples of New Zealander's historic and archaeological heritage		
Historic Reserve (Section 18 Reserves Act)	Protecting and preserving in perpetuity such places, objects and natural features or other things as are of historic, archaeological, cultural, emotional, and other special interest (3).	Managing and protecting any scenic, archaeological, geological, or other scientific features, or native flora or fauna, or wildlife; maintaining soil, water and forest natural, historic and recreational values.
Historic SPA (Section 2 & 18 Conservation Act)	Not specified.	Preserving and protecting 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.
GROUP E : The provision of a complementary range of recreational opportunities		
Wilderness 'Reserve' (Section 47 Reserves Act)	Keeping and maintaining the area in a state of nature (3).	As for the original class.
Wilderness SPA	Preserving native, natural resources (1).	Preserving and protecting 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.
Wildlife Management Reserve (Section 14A Wildlife Act)	Not specified. Implies for waterfowl hunting.	If a government purpose reserve, then refer to Group F.
Recreation Reserve (Section 17 Reserves Act)	Providing areas for recreation and sporting activities and the physical welfare and enjoyment of the public, and protecting the natural environment and beauty of the countryside, emphasising the retention of open spaces and outdoor recreational tracks in the countryside.	Managing and protecting any scenic, historic, archaeological, biological, geological, or other scientific features or native flora or fauna or wildlife; maintaining soil, water and forest natural, historic and recreational values.
'Racecourse' Reserve (Section 66 Reserves Act)	Holding of race meetings.	As for recreation reserve.
Recreation SPA (Section 2 & 18 Conservation Act)	Not specified.	As for wilderness SPA above.

CLASSIFICATION OF AREAS (CONT)

CLASS	PRIMARY PURPOSE	SECONDARY PURPOSES
GROUP F: The provision of areas for other government and local purposes (i.e. purposes not listed in other tables)		
Government Purpose Reserve (Section 22 Reserves Act)	(In each case) the specified government purpose.	Managing and protecting any scenic, historic, archaeological, biological, cultural, scientific, or natural features or wildlife, maintaining soil, water and forest natural, historic and recreational values.
Local Purpose Reserve (Section 23)	(In each case) the specified local purpose.	Managing and protecting any scenic, historic, archaeological, biological, or natural features; maintaining soil, water and forest natural, historic and recreational values.
GROUP G: Protection of streams and stream margins		
Conservation Act (Part IVA) Marginal strip (formerly Section 58 Land Act)		Conservation purposes especially: water body maintenance and its water quality; public access; recreational use.
Local Government Act (Section 346)	Esplanade Reserves Section 23 Reserves Act	Public access only.
Reserves and Other Lands Disposal Act 1955	Sounds Foreshore	Public access; and, so long as is compatible with the primary objective, to protect natural, historic and recreational values.
Resource Management Act (Sections 77, 229-237)	Esplanade Reserves Section 23 Reserves Act	Protect conservation, especially natural functioning of water body; water quality; maintaining aquatic habitats; protecting natural values; mitigating natural hazards; and public access and recreational use if compatible with natural values.

Footnote:

(1) The New Zealand Forest Service draft ecological area general policy (1985) described the primary purpose as "one or more" of the following:
- (a) protecting representative portions of natural ecosystems;
- (b) protecting rare or unique features, including native plants and animals;
- (c) as areas available for study, aimed at understanding and explaining natural processes;
- (d) as benchmarks for assessing changes associated with various forms of development within the conservancy;
- (e) as genetic pools for native plants and animals.

(2) The same statement listed the following secondary purposes:
- (a) for education and to increase public awareness and appreciation of natural ecosystems and species; and
- (b) for recreation which is an integrated part of conservancy network or which provides opportunities not available elsewhere or which is best achieved in the ecological area.

Footnote (cont):

(3) The recreational objective is not implicit in the statutory primary purpose. The Wilderness Policy (1983) described wilderness areas as "wild lands designated for their protection and managed to perpetuate their natural condition ..." which were suitable for a "wilderness experience". It goes on to say: "Wilderness is, therefore, principally a recreational and cultural concept which is compatible with nature conservation ..." and "embodies remoteness and discovery, challenge, solitude, freedom and romance ..." while "fostering self-reliance and empathy with wild nature".

APPENDIX VI.

VISITOR STATISTICS

NUMBERS OF VISITORS TO SOME FACILITIES FOR YEAR ENDING 1/6/92

PLACE	PARK	VISITOR NUMBERS
Lookouts		
Ohau Point	Kaikoura Coast	60,000
Abel Tasman Memorial	Abel Tasman	30,000
Cobb Ridge	North-west Nelson	4,000
Cullens Point	Marlborough Sounds	4,000
Carparks		
Seal Colony		265,000
Marahau	Abel Tasman	45,000
Pupu Springs		35,000
Mt Robert	Nelson Lakes	15,000
Flora Saddle	North-west Nelson	5,000
Prices Clearing	North-west Nelson	2,000
Visitor Centres		
St Arnaud	Nelson Lakes	55,000
Motueka	North-west Nelson	10,000
Takaka	Abel Tasman	5,000
Picnic/Service areas		
Pelorus Bridge		300,000
Kerr Bay	Nelson Lakes	100,000
Abel Tasman beaches	Abel Tasman	50,000
Riwaka		25,000
Kawatiri Junction		15,000
Goose Bay		15,000
Hacket		10,000
Lee		10,000
Karaka Point	Marlborough Sounds	10,000
Whites Bay		30,000
Ratimera Bay	Marlborough Sounds	10,000
Ships Cove	Marlborough Sounds	20,000
Onamalutu	Mt Richmond	20,000
Lower Wairoa		5,000
Walks		
Pelorus Swing Bridge		30,000
Whites Bay Walks		30,000

PLACE	PARK	VISITOR NUMBERS
Walks (cont)		
Pupu Springs		27,000
Peninsula Walkway		25,000
Riwaka Reserve		15,500
Pelorus Bridge Walks (x 3)		14,000
Onamalutu Walk		14,000
Peninsula Walk	Nelson Lakes	10,000
Karaka Point	Marlborough Sounds	10,000
Tinline-Anchorage	Abel Tasman	10,000
Puponga-Farewell		8,000
Harwoods Hole	Abel Tasman	6,000
Mt Arthur	North-west Nelson	5,700
Marahau	Abel Tasman	5,000
Cullens Point	Marlborough Sounds	3,200
Ohau Point	Marlborough Sounds	3,700
Pupu Walkway		3,700
Wainui Falls	Abel Tasman	3,000
Sharlands		3,000
Motuara		3,000
Hacket	Mt Richmond	2,600
Ships Cove waterfall	Marlborough Sounds	2,500
Governors Bay	Marlborough Sounds	2,500
Hinau		2,400
Pine Valley	Mt Richmond	2,400
Cobb Valley	North-west Nelson	2,400
Cable Bay Walkway		2,000
Omihi		2,000
Pukatea Trail	Mt Richmond	2,000
Major Tracks		
Abel Tasman Coast	Abel Tasman	100,000
Travers Valley	Nelson Lakes	6,000
Queen Charlotte	Mt Richmond	5,000
Hacket-Whispering Falls	Marlborough Sounds	4,600
Heaphy	North-west Nelson	4,100
Lake Circuit	Nelson Lakes	4,000
Tablelands-Salisbury	North-west Nelson	2,500
Upper Cobb	North-west Nelson	2,500
Nydia Walkway	Marlborough Sounds	1,600
Travers-Sabine	Nelson Lakes	1,500
Wangapeka	North-west Nelson	1,500
Inland Track	Abel Tasman	1,200
Pelorus-Dun	Mt Richmond	1,000
Mt Fyffe		1,000
Karamea-Leslie	North-west Nelson	800
Mt Peel	North-west Nelson	800
D'Urville	Nelson Lakes	500
Kowhai-Hapuku		500
Goulter-Chalice	Mt Richmond	500
Mt Richmond	Mt Richmond	500
Forks-Rintoul	Mt Richmond	500
Wakamarina	Mt Richmond	300

OVERNIGHT STAYS IN SOME ACCOMMODATION FACILITIES FOR YEAR ENDING 1/6/92

NAME	LOCATION	BUNKS	BED NIGHTS	BED NIGHT OCCUPANCY %
Outdoor Education/ Recreation Lodges				
Rotoiti	Nelson Lakes	79	4,250	15
Totaranui	Abel Tasman	40	2,000	14
Mistletoe Bay	Marlborough Sounds	22	2,000	25
Nydia Bay	Marlborough Sounds	50	2,000	11
Huts				
Bark Bay	Abel Tasman	28	9,000	88
Anchorage	Abel Tasman	26	7,500	79
Awaroa	Abel Tasman	26	5,000	53
Whariwharangi	Abel Tasman	20	3,000	41
Salisbury	North-west Nelson	24	2,500	29
Perry Saddle	North-west Nelson	25	2,500	27
Torrent Bay	Abel Tasman	8	2,000	68
Angelus	Nelson Lakes	16	2,000	34
Lakehead	Nelson Lakes	16	1,700	29
Saxon	North-west Nelson	20	1,500	21
Brown	North-west Nelson	20	1,500	21
Fenella	North-west Nelson	20	1,500	20
Kings	North-west Nelson	20	1,250	17
Rocks	Mt Richmond	20	1,250	17
Trilobite	North-west Nelson	14	1,250	24
Upper Travers	Nelson Lakes	14	1,100	22
John Tait	Nelson Lakes	16	1,000	17
Sabine	Nelson Lakes	10	900	25
Karamea Bend	North-west Nelson	12	900	21
Taipo	North-west Nelson	16	900	15
Coldwater	Nelson Lakes	8	800	27
Mt Arthur	North-west Nelson	6	800	37
Flora	North-west Nelson	12	800	18
Lake Chalice	Mt Richmond	9	650	20
Forks	Nelson Lakes	8	650	22
Crow	North-west Nelson	6	600	27
Gouland Downs	North-west Nelson	12	500	12
Blue Lake	Nelson Lakes	16	520	9
Venus	North-west Nelson	10	450	12
D'Urville	Nelson Lakes	10	400	11
West Sabine	Nelson Lakes	8	400	14

CAMPSITES OF OVER 500 BED NIGHTS BASED ON A SEASON FROM NOVEMBER TO MARCH

NAME	LOCATION	SITES (NUMBER)	BED NIGHTS	% SITE OCCUPANCY
Campgrounds				
Totaranui	Abel Tasman	200	30,000	20.6
St Arnaud	Nelson Lakes	89	13,000	20.0
Peketa	Marlborough Sounds	234	11,600	6.8
Goose Bay		78	9,000	15.8
Pelorus Bridge	Marlborough Sounds	37	7,000	25.9
Momorangi		160	7,000	6.0
Camp areas				
Anchorage	Abel Tasman	25	10,000	54.8
Bark Bay	Abel Tasman	25	8,500	46.8
Whites Bay		20	2,000	13.7
Lake Rotoroa	Nelson Lakes	16	1,850	15.8
Tonga Beach	Abel Tasman	20	1,500	10.3
Whariwharangi	Abel Tasman	20	1,500	10.3
Te Puketa	Abel Tasman	8	1,500	25.7
Appletree Bay	Abel Tasman	6	1,500	34.2
Marfells Beach		30	1,000	4.6
Tinline	Abel Tasman	25	1,000	5.5
Awaroa	Abel Tasman	20	1,000	6.8
Torrent Bay	Abel Tasman	8	1,000	17.1
Mutton Cove	Abel Tasman	8	1,000	17.1
Tonga Quarry	Abel Tasman	8	1,000	17.1
Mosquito Bay	Abel Tasman	5	1,000	27.4
Onamalutu		56	1,000	2.5
Titirangi	Marlborough Sounds	20	500	3.4
Ratimera Bay	Marlborough Sounds	20	500	3.4
Cowshed Bay	Marlborough Sounds	15	500	4.6
Waiharakeke	Abel Tasman	10	500	6.8
French Pass	Marlborough Sounds	10	500	6.8
Anapai	Abel Tasman	5	500	13.7
Stilwell Bay	Abel Tasman	5	500	13.7
Watering Cove	Abel Tasman	4	500	17.1
Observation Point	Abel Tasman	4	500	17.1
Akerston Bay	Abel Tasman	3	500	22.8