1. Introduction

1.1 MANAGEMENT PLANNING

Nelson Lakes National Park has been created to preserve its valuable natural features in perpetuity. These features can be looked on as resources that are scarce and irreplaceable. As development proceeds elsewhere, they will become even scarcer and more valuable, which implies greater pressure on them. The purpose of this plan is to provide for the management of these resources so that their intrinsic values can be retained, while at the same time allowing for public access to them. Underlying all decisions must be the need to preserve the park as far as possible in its natural state.

The process for the review of a management plan is set out in section 47 of the National Parks Act 1980.

The Nelson/Marlborough Conservancy of the Department of Conservation administers Nelson Lakes National Park from Nelson. Staff from the Area Office at St Arnaud and a field centre at Murchison carry out day to day management activities.

1.2 LEGISLATIVE CONTEXT

This section gives an overview of the legislation and policy that the plan rests within. When the law is modified or new law is created, such as can result from Treaty settlements, this plan will be changed to accommodate the law.

1.2.1 The National Parks Act 1980

The National Parks Act 1980, section 4 states that:

- "(1) [t]he provisions of this Act shall have effect for the purpose of preserving in perpetuity as national parks, for their intrinsic worth and for the benefit, use, and enjoyment of the public, areas of New Zealand that contain scenery of such distinctive quality, ecological systems, or natural features so beautiful, unique, or scientifically important that their preservation is in the national interest."
- "(2) It is hereby further declared that ...
 - (a) They shall be preserved as far as possible in their natural state;
 - (b) Except where the Authority otherwise determines, the native plants and animals of the parks shall as far as possible be preserved and the introduced plants and animals shall as far as possible be exterminated;
 - (c) Sites and objects of archaeological and historical interest shall as far as possible be preserved;
 - (d) Their value as soil, water, and forest conservation areas shall be maintained:

(e) Subject to the provisions of this Act and to the imposition of such conditions and restrictions as may be necessary for the preservation of the native plants and animals or for the welfare in general of the parks, the public shall have freedom of entry and access to the parks, so they may receive in full measure the inspiration, enjoyment, recreation, and other benefits that may be derived from mountains, forests, sounds, seacoasts, lakes, rivers, and other natural features."

By-laws

Section 56 of the National Parks Act provides for the Minister of Conservation to make bylaws for controlling access and various activities in national parks. By-laws can not be inconsistent with the management plan for the national park.

1.2.2 The General Policy for National Parks 1983

Under section 44 of the National Parks Act the New Zealand Conservation Authority (NZCA) has adopted a statement of General Policy for National Parks 1983. These policies are a guide for the interpretation and exercise of discretions contained in the National Parks Act 1980 and are directed at achieving the broad objectives of that Act. From time to time the NZCA may approve additional statements of General Policy or may review and amend the General Policy.

This management plan must be in accordance with the General Policy for National Parks.

1.2.3 The Conservation Act 1987

The Conservation Act 1987 brought about the establishment of the Department of Conservation and provides for management planning and concession processes. Section 4 of the Conservation Act 1987 requires the Department to give effect to the Principles of the Treaty of Waitangi, to the extent that they do not conflict with the National Parks Act 1980. Part IIIB of the Conservation Act contains provisions relating to concessions on public conservation lands. These provisions are imported into the National Parks Act by s49 of the National Parks Act.

The Conservation Management Strategy (CMS)

Under section 17D of the Conservation Act 1987 the Nelson/Marlborough Conservancy has prepared a 10 year Conservation Management Strategy (CMS) which sets the direction for management of all land administered by the Department in the conservancy. The current CMS was approved in September 1996.

The purpose of a CMS is "to implement general policies and establish objectives for the integrated management of natural and historic resources, including any species, managed by the Department under the Wildlife Act 1953, the Marine Reserves Act 1971, the Reserves Act 1977, the Wild Animal Control Act 1977, the Marine Mammals Protection Act 1978, the National Parks Act 1980, the New Zealand Walkways Act 1990, or [the Conservation Act 1987], or any of them, and for recreation, tourism, and other conservation purposes" (Conservation Act 1987, section 17D(1)).

Section 44(A) of the National Parks Act states that management plans cannot derogate from the provisions in a conservation management strategy.

This management plan is in accordance with policies contained within the approved Nelson/Marlborough Conservation Management Strategy 1996.

1.2.4 The Resource Management Act 1991

The purpose of this Act is

"to promote the sustainable management of natural and physical resources by managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well being and for their health and safety while –

- (a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
- (b) safeguarding the life supporting capacity of air, water, soil, and ecosystems; and
- (c) avoiding, remedying, or mitigating any adverse effects of activities on the environment." (Section 5, Resource Management Act 1991).

The Resource Management Act 1991 is administered by the Ministry for the Environment and implemented by local authorities through regional policy statements and plans, and district plans. The provisions of the regional policy statement, district plans and regional plans bind the activities of the Department and the Department must apply for resource consents for activities as required under those plans. However, section 4 of the Act allows for a limited exemption for the Department where a landuse activity is in accordance with a management plan or a CMS and where the activity does not have significant adverse effects outside the boundary of the park.

The relevant local authority for Nelson Lakes National Park is Tasman District Council.

Sections 74(2)(b)(i) and 66(2)(c)(i) of the Act state that territorial authorities and regional councils shall have regard to any management plans and strategies prepared under any other Act. The Tasman District Council must therefore have regard to the Nelson/Marlborough Conservation Management Strategy and this management plan when preparing its policies and plans and when considering resource consent applications.

1.2.5 Crown Minerals Act 1991

The Crown Minerals Act provides (with some exceptions) that the Minister of Conservation must not accept any application for, or enter into, an access arrangement relating to any Crownowned minerals in national parks that were in existence prior to 1991. This means that Nelson Lakes National Park is effectively closed to mining. The exceptions are: certain activities may be permitted relating to emergency or service shafts for underground mining activities; activities involving minimal vegetation removal or land impacts; minimum impact activities; gold fossicking in a designated gold fossicking area; demonstration of historic mining methods with a special permit.

1.2.6 Te Rünanga o Ngäi Tahu Act 1996

Te Rünanga o Ngäi Tahu Act 1996 established Te Rünanga o Ngäi Tahu as a 'body corporate' with the authority to act on behalf of all Ngäi Tahu Whänui. The Act enshrined in legislation the boundary of Ngäi Tahu as established by the Mäori Appellate Court in 1990 (see map 12).

1.2.7 Ngäi Tahu Claims Settlement Act 1998

The Ngäi Tahu Claims Settlement Act 1998 contains a number of provisions that are relevant to this plan.

1.2.8 Other Strategies and Plans

In February 2000 the Government adopted the New Zealand Biodiversity Strategy, which sets out the government's direction for maintaining natural biodiversity, and this management plan is consistent with the Biodiversity Strategy. The Department produces its own plans, strategies and reviews on both local and national issues. These include the national Visitor Strategy, Historic Strategy and Kaupapa Atawhai Strategy, recovery plans for threatened native species, and local animal/plant pest control plans.

These documents and strategies are subordinate to this management plan and cannot derogate from its provisions.

1.2.9 Other Bodies with Administrative Responsibilities

Tasman District Council - responsible for regional and district planning as provided for in the Resource Management Act 1991, civil defence, some aspects of public health and for the standard of buildings under the Building Act.

The New Zealand Police - responsible for law and order and search and rescue.

The Health Department - responsible for public health.

The New Zealand Fire Service - responsible for determining standards of fire prevention, safety and control.

The Ministry of Transport (Civil Aviation Authority) - responsible for aviation safety and regulation.

The Nelson/Marlborough Fish and Game Council - responsible for the issue of sports fish and game bird licenses, for the setting of related restrictions and for the management, maintenance and enhancement of sports fisheries.

1.3 STRUCTURE OF THE PLAN

The introduction:

- provides background information, sets the context for the plan and introduces the four management areas;
- summarises the key issues for the park as a whole and for the four management areas; and
- provides a vision for the park.

The functional sections:

- have three main components each the objective (describes the conservation outcome desired); issues (where points arising in achieving the outcome are discussed); and implementation (where the key action points necessary to achieving the objective are summarised);
- provide the main links with General Policy, the Nelson/Marlborough Conservation Management Strategy and other significant Departmental policy documents such as the national Visitor Strategy;
- provide general strategies for the management actions within the park broken down by the main themes of Departmental activity; and provide general criteria for carrying out those actions; and
- present discussion of issues for the whole park or for a specific management area where appropriate.

Each functional section also contains references to the relevant chapters of the Nelson/Marlborough Conservation Management Strategy. Topics that are adequately covered by the CMS are not repeated in full in this management plan.

The park handbook "The Story of Nelson Lakes National Park" (1984) has a wealth of information about the park, which will assist those who wish to find out more about it.

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 $^{^1}$ Potton, Craig. 1984: *The Story of Nelson Lakes National Park*, Department of Conservation. Nelson/Marlborough Conservancy.

1.4 OVERVIEW OF PARK VALUES

1.4.1 Natural Values

The natural features, ecological values, scenery, archaeological and historic features and those qualities that contribute to its intrinsic worth and the inspiration and enjoyment of the public all play important roles in determining management directions and objectives for Nelson Lakes National Park.

The park lies at the northern end of the Southern Alps (Kä Tiritiri o Te Moana) and is largely bounded to the west by the Alpine Fault. It can be considered to be the northernmost extension of the typical Southern Alps (Kä Tiritiri o Te Moana) landscapes and ecosystems. A large part of the park is typical glaciated mesozoic greywacke, which grades to the west to become more chloritic along the Alpine Fault. Some schist is present along the fault where it bounds the park in the Glenroy valley. Significant exposures of the fault occur in the Speargrass valley and at St Arnaud.

The main mountain ramparts, at 1800-2300 metres, create an alpine environment. Mt Ella and Mt Hopeless have the northernmost permanent snowfields in the South Island This results in landscapes and ecosystems often indistinguishable from those further south but distinct from those elsewhere in the Nelson/Marlborough Conservancy.

The park encompasses the easternmost headwaters of the Buller River system, with Lake Rotoiti as its source. Glacier-carved lakes Rotoroa and Rotoiti, the park's largest, are important flood moderators in the Buller River system. They are also two of the largest lakes outside Fiordland with an almost totally unmodified catchment. Their waters are exceptionally clear and oligotrophic. This is because nutrient input and sediment loads are low due to the greywacke rocks that predominate and the absence of glaciers. The intact forests and alpine ecosystems serve to minimise soil movement. The upper catchments of the Buller, including the lakes and their tributaries, were protected by the Buller National Water Conservation Order in 1996.

Biodiversity (all the indigenous plant and animal species and their communities and ecosystems) within the park is high and the scientific importance of the almost untouched population of eels in the lakes is of national significance. The flora of the park contains few known local endemic species but it is at an interface between the diverse and wetter Kahurangi National Park and the drier eastern endemic-rich South Marlborough flora. The park's flora is notable for its lack of rare species. Of the four known threatened species, the status of three species of beech mistletoe is that of gradual decline, and *Pittosporum patulum* is nationally endangered.

A good knowledge exists of the park's vertebrate fauna. Among the bird species, parakeet (käkäriki) and käkä have some of the best population densities in the conservancy. The rare blue duck (whio) and rock wren are also found in scattered areas of suitable habitat.

Less is known about the park's invertebrate fauna, but the alpine areas are rich in invertebrate species. Two undescribed species of *Powelliphanta* (püpü whenua) are present as localised populations on the margins of the alpine zone.

The large area of unmodified vegetation and wide range of soil and soil vegetation sequences give the area international significance for its soils. The alpine and subalpine communities are probably the most significant in the park. The alpine flora is especially diverse because of the wide range of habitats. They include many tarns

and wetland sites, scree, rockland, tussockland and fellfield. The tussock grasslands and shrublands support a diverse insect fauna as well as prominent birds such as the kea. The upland mountain beech forests contain important sphagnum moss communities. The red, silver and mountain beech forests form part of the large continuous tract in southern Nelson which is a significant habitat for the threatened käkä and yellow-crowned parakeet (käkäriki). Although the park contains little true lowland forest, the beech forests contain the important honeydew ecosystem. This once supported a rich bird and insect fauna that has been severely degraded by wasps.

Plant communities within the lakes exist to a depth of 18m, demonstrating the extreme clarity of the waters. The ecosystems are relatively unmodified and many pristine communities remain, including extensive freshwater mussel beds and eel populations. The only known introductions are brown and rainbow trout and Canadian pondweed (*Elodea canadensis*). The shores of Lake Rotoroa contain significant wetlands, including flaxlands and sedgelands near the outlet, periodically flooded kahikatea forest on the shorelines and the anastomosing spring-fed wetlands and matai forest on the D'Urville River delta.

The Rotoiti Nature Recovery Project is located in the park and is a "mainland island" honeydew beech forest community restoration project. The project area is approximately 825 hectares and is located in the Travers Valley Management Area.

1.4.2 Historic and Cultural Heritage

Mäori value the spiritual qualities of this area's lakes and grand mountains and treasure its plants and animals. The low saddle between the Buller River, the Wairau and the rivers of the Waimea Plains was well known to them. Major routes traversed the area between Nelson, Marlborough, the West Coast and Canterbury (via the upper Wairau). Early Mäori used the lakes for replenishing supplies and as part of their routes. Midden sites are known in the St Arnaud area. There is no evidence of permanent occupation but sites of huts and cultivation, especially the fern garden at Rotoroa, were well known to Mäori guides such as Kehu. They led the early European explorers such as Cotterell, Brunner, Heaphy, von Haast and Travers through their domain.

Grazing of the area began in 1843 although the first run at Lake Rotoiti was not established until 1848. The first track was formed by 1848, the first dray road in 1863. Most of the mountain ranges were part of grazing runs and grazing occurred in some areas until 1956 when the park was formed. Although grazing in all the main valleys and the alpine grasslands has modified the vegetation in parts of the park, there are no known historic sites from that period. Fire has also had a significant effect on the landscape and habitats of the park, particularly around Lake Rotoiti and Mt Robert.

Since Cotterell in 1842, the area has always attracted visitors. Camping at Rotoiti was popular in the early part of the 20th century and by 1925 cottages had begun to appear near Lake Rotoiti The first reserves were established surrounding the two main lakes in 1900 and progressively added to over the next 50 years. The first proposal for a national park was made in 1906 but the vision was not realised until 1956.

Mining is widespread outside the park but only three small former alluvial mining sites are known within the park

1.4.3 Recreational Setting

Nelson Lakes National Park is one of perhaps only three or four national parks in New Zealand in which recreational use has remained low-key. There is no major feature to attract large numbers of visitors and pressure has not been applied to develop services to the same extent as has occurred elsewhere. The very positive benefit of this is that Nelson Lakes National Park offers visitors peace and tranquility with little disturbance from aircraft and vehicles - values that have been eroded in many other national parks.

The main recreational attractions of the park are solitude, lack of development and naturalness, experienced through relatively low impact activities such as camping, picnicking, walking, tramping, snow sports, mountaineering, boating, and fishing. The feeling of remoteness increases as visitors travel up the valleys and into successive main valleys from the Travers in the north-west to the Glenroy in the south-west.

Because of the high mountains and ease of access, the park and adjacent valleys provide the only major area for snow-based activities in Nelson and Marlborough. The aggregation of high peaks makes the park the conservancy's most important place for mountaineering. Much of the tramping is based on two to five-day trips within the park, often short loops or return walks. Few tracks link with track systems outside the park. The significant exceptions are the Travers/Sabine circuit, which loops through adjacent Howard Forest, and the Waiau Pass route which links with the St James Walkway. The park contains the Mt Robert Skifield. Rainbow Skifield, the only other skifield in the conservancy, lies in the Six Mile Stream, adjoining the park boundary.

Lake Rotoiti is a significant attraction for boating and swimming because of its proximity to settlement. Lake Rotoroa is valued for its undeveloped character and the major activity there is lake fishing.

The Travers, D'Urville and Sabine rivers are nationally significant wilderness fisheries valued for their unusually large brown trout. The park provides opportunities for recreational hunting, which can contribute to deer and chamois control. Access by boat or off-road vehicles (over leasehold land) allows remote areas to be readily reached. The upper valleys, particularly around Blue Lake, are the focus of chamois hunters.

1.4.4 Management Areas

Management needs vary widely across the park and are largely reflected in the ease of access, as shown on the Recreational Opportunity Spectrum map (map 10). The most intensively used area lies close to the park visitor centre, which is served by SH 63. Its focus is the village of St Arnaud. Elsewhere, the major valley systems divide the park naturally into the catchment of Lake Rotoiti, the catchment of Lake Rotoroa and the headwaters of the Mätakitaki River comprising the Glenroy and upper Mätakitaki River catchments (map 2).

St Arnaud Management Area

The St Arnaud Management Area (map 3) has a wider range of recreational opportunities than other parts of the park. There is a strong emphasis on activities based on day walks, but other opportunities include mountaineering, snow sports, camping and water recreation (including swimming, canoeing, powerboating, yachting and fishing).

St Arnaud has always been an important stopping place. Pre-European Mäori used the shores of the lake at the mouth of Black Valley Stream and Kerr Bay. For them it was, and still is, a meeting point for the routes between north and south, east and west. With its position on an important tourist route, St Arnaud is naturally the main focus for the park today. It is well served by roads and tracks. Much of the pressure for increased use and recreation management arises in this area.

The presence of St Arnaud village next to, and in places within, the park creates many special opportunities to foster a conservation interest and to develop an awareness of the sensitivities of urban interaction with a largely natural environment. The visitor centre and Rotoiti Lodge (an outdoor education centre) and the two serviced campgrounds, along with the skifield and other structures, make this the most developed part of the park. The majority of visitors and visitor management issues are concentrated in this area.

The village has developed largely within natural mountain beech forest and tall manuka-kanuka forest and shrublands. Away from the village, the St Arnaud area contains some of the most modified ecosystems within the park. Nevertheless, wetlands outside the park but close to the village, although modified, are crucial filters for the tributaries of Black Valley Stream, which is the only part of the lake catchment that does not originate within the park.

In contrast to much of the park, the St Arnaud area contains several features associated with the Alpine Fault. These include evidence of displacement along the Alpine Fault itself and Black Hill, a prominent glacial feature and igneous outcrop. Because of easy access these features, along with the terminal moraine at the lake outlet and other glacial features of the landscape, are valued as a teaching resource.

The main threats to the values of the St Arnaud area arise, directly and indirectly, from human activity. Increased visitor numbers impinge on the natural peace and quiet, which is the main reason many people visit the area. Increased use of the area creates demands for more visitor opportunities and more and better facilities, and these can erode the basic recreational experiences current visitors gain from the area.

The main urban issues are water run-off from developed areas that could threaten the water quality of the lake, fire, garden escapes, especially Douglas fir, Russell lupin and rowan, and the impacts of domestic pets on fauna.

Boats, particularly powerboats from outside the conservancy, create the constant risk of waterweed introduction into Lake Rotoiti and impact on natural peace and quiet.

Travers Valley Management Area

The Travers Valley Management Area (map 4), comprising the southern part of Lake Rotoiti and the Travers valley, is an important interface between the high-use area at St Arnaud and the remote areas to the south. Mäori used the valleys in their hunt for mähinga kai such as forest birds and other small animals on the mountain slopes. They also hunted for water birds, in the now destroyed wetlands, and kütai (fresh water mussels).

The Rotoiti Nature Recovery Project (RNRP) area is managed as a "mainland island' and is therefore managed more intensively than the rest of the park. It is a focus for pest control, species re-introduction and conservation. It is also a public showcase for what can be achieved with intensive ecosystem management. The RNRP has its own strategic management plan that details management activities for the area over the next 10 years. That strategic plan and all activities in the RNRP must be consistent with this management plan. The RNRP area is closed to recreational hunting but offers several walking tracks for visitors.

The Travers Valley Management Area connects various recreational environments. The most important links are the Travers Saddle, which connects with the Sabine valley, and the Hukere Track (to Lake Angelus), which connects with alpine routes. The narrow corridor created by the southern half of the lake isolates the lake head from the two bays to the north and, as such, is an important buffer isolating the lake head from the area around the village.

Rotoroa Management Area

The ecosystems of the Rotoroa Management Area (map 5) are almost entirely unmodified by settlement. The only exceptions are small areas used for facilities and a small administrative area at the lake outlet. The management area contains the only podocarp-dominated forest stands in the park. These stands form the park's only significant habitat for kereru and are important for a wide range of other wildlife.

The main threats to the biota of Rotoroa Management Area are pests such as wasps and stoats, which are currently intractable. Landcare Research has a base at the foot of Mt Misery and research into the forest ecosystems has continued there for over 25 years. The Rotoroa catchment area is used as a reference site for the RNRP mainland island programme.

The long narrow lake has only a small community at the outlet and the Rotoroa Management Area has a strong remote-wilderness character. The lake acts as an important buffer for the remainder of the area by restricting access to it.

The remote-wilderness character is reinforced by strict limitations on powerboat activities. Powerboats are mainly confined to fishing, public access to the lake head and a water taxi. Waterskiing is prohibited. The limited accommodation available at Rotoroa village means that visitor numbers have remained low. The recent sealing of the road could mean greatly increased visitor numbers in the future.

Mätakitaki/Glenroy Management Area

The Mätakitaki/Glenroy Management Area (map 6) has a strongly remote character. Access to this area requires either a long walk or the use of off-road vehicles through areas leased for grazing (outside the park). Consequently, numbers of visitors are low. The largest contributor to use of this area is the Mätakitaki Lodge (Nelson College outdoor education centre) in the Mätakitaki valley. In order to maintain the remote environment, access should not be improved.

The main valley floors of the upper Mätakitaki and Glenroy valleys are outside the park and held under grazing licences. A small enclave of private land also exists in the upper Glenroy valley. The forested areas within the park have not been reduced by farming activities but some alpine areas were grazed until relatively recently. Previous farming activity has resulted in the establishment of wild goats over much of the area. Goat numbers are falling rapidly due to intensive control activity and, as a result, it is expected that they will be removed within the next decade.

1.5 PARK VISION

The vision for Nelson Lakes National Park is of a low-key family place where native plants and animals flourish, introduced plants and animals are absent and intrinsic values including natural quiet can be savoured without the intrusion of the noise and bustle of urban life. The purpose of this plan is to advance towards this long-term vision over the next decade.

Nelson Lakes National Park will be a place where:

- honeydew beech forests have been restored and birdlife is once more prolific;
- lake water clarity is retained and plant pests are absent;
- native alpine shrublands and grasslands flourish unbrowsed by pests;
- the functions and processes of natural ecosystems are restored;
- geological features, landforms and natural physical processes are undisturbed;
- the values preserved in the park are supported by appropriate management of adjacent areas;
- spiritual, cultural and historic values are recognised and protected;
- landscapes remain untarnished by unnecessary buildings and structures;
- remote and wilderness qualities are preserved;
- a restricted range of low-key commercial activities enables visitors to enjoy the natural features of the park without detracting from park values;
- recreation continues to be based on the quiet enjoyment of the park's natural values; and
- visitors can gain an understanding of the park's natural processes and special natural and cultural history.

1.6 PRIMARY OBJECTIVES

For Nelson Lakes National Park

- To preserve in their natural state in perpetuity native plants and animals in their natural ecological systems and the scenic and historic features of the park and, as far as possible, to eradicate introduced plants and animals.
- To retain the essential character of the park as a remote, undeveloped, natural area
 of great beauty, natural quiet and of value for recreation, appreciation and study.
- To give effect to the principles of the Treaty of Waitangi.
- To provide the public with opportunities to gain benefit, enjoyment, and inspiration
 from the park and to enjoy recreation to an extent compatible with the other
 objectives above.

For each specified management area

- To the extent that it is compatible with the preservation of natural and historic resources, to provide the main focus for visitors within the park in the St Arnaud Management Area.
- To preserve and enhance the viability of the natural ecosystems and to foster appropriate recreational use in the Travers Valley Management Area through providing suitable facilities and allowing compatible commercial activities.
- To preserve and enhance the viability of the natural ecosystems, and their
 enjoyment by fostering low-key, non-intrusive recreational use in the Rotoroa
 Management Area and only allowing for limited commercial use, including on and
 around the lake.
- To preserve the natural and remote qualities of the Mätakitaki/Glenroy Management Area by providing few facilities and ensuring that any concessions are low impact and do not detract from the qualities of the area.

The overall thrust of management in the park is low-key because the area is well buffered by surrounding areas managed under the Conservation Act 1987. The natural values are relatively less threatened and the recreational use lower than elsewhere in the conservancy. Nevertheless, the fragility of both the natural values and recreational benefits must be fully recognised and protected. Sometimes this can be achieved with minimal intervention.

All ecosystem elements are fragile, especially in alpine environments. Already the biodiversity of the park has been reduced, with species such as kökako and möhua/yellowhead known to be locally extinct through the loss of beech habitat and the spread of introduced pests, particularly stoats, rats and wasps.

The numbers of many other birds, including käkä, bellbirds (korimako) and parakeets (käkäriki), have also been greatly reduced and ecosystems such as the honeydew beech forests are known to be under threat. Possums, goats, chamois and deer have modified the flora. Wasps, stoats, hares, cats and other introduced predators are drastically impacting on the bird and insect faunas in ways that are poorly understood and which are only just being comprehended. Changes in water quality may seriously affect the lake ecosystems. Management must therefore be cautious about any changes that may further upset these fragile ecosystems, while working towards restoring the lost components.

The most pervasive plant invaders are herbaceous plants, particularly in the open valley-floor and alpine communities. Other significant threats include Canadian pond weed, wilding trees, willow and rowan. Plant pests such as old man's beard and broom are absent from the park, but constant vigilance is required to prevent their establishment.

Although the overriding objective of the park is preservation in perpetuity (as set out in the National Parks Act 1980), a key issue is how to manage the nature and extent of public use. In this park the high snow-topped mountains, the water and the open space that go with large lakes provide a basis for a feeling of peace and tranquility that is easily disrupted by some types of activity. Experiences derived from activities such as walking and sailing add to this tranquility but motorised transport and large crowds detract from it.

Use of the park has developed around the tradition of a lakeside holiday, especially at St Arnaud. Because of its roots as a traditional "Kiwi" holiday place, Nelson Lakes National Park has grown to be very much a family park. This atmosphere is especially evident at St Arnaud village where people arrive at holiday baches and a large camper community traditionally establishes itself for the Christmas-New Year holiday period. The two managed campgrounds within the park are predominantly patronised by family groups in the holiday season.

The low-key family atmosphere is also evident at the Mt Robert Skifield in winter where a long-established club caters for only small-scale ski activities. The club is especially close-knit because of limited access to the field and limited on-field accommodation.

Elsewhere in the park, use is much lower. Lake Rotoroa has more remote surroundings but also has a small holiday community. The Mätakitaki valley is a little used area, frequented mainly by school parties from Mätakitaki Lodge (the Nelson College outdoor education centre) and hunters. The Glenroy valley is used even less and visited only by the occasional hunter or trampers, often in family groups.

The park has a clear gradient of use, decreasing from north-east to south-west, which needs to be maintained or reinforced to retain the range of recreational experiences.