



RUAHINE FOREST PARK

CONSERVATION MANAGEMENT PLAN

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(i)

FOREWORD

This conservation management plan sets out the objectives and policies for management of Ruahine Forest Park. It has been prepared by the Department in consultation and with the approval of the Rangitikei/Hawke's Bay Conservation Board.

This plan has been formulated after considerable public consultation. A draft plan was released in August 1991 and an invitation extended to all persons or organisations interested in the management of the Park to submit their comments by 28 October 1991. Prior to and following release of this document, meetings and discussions took place between a number of individuals, user groups and Iwi.

A total of 67 written submissions were received on the draft plan. Twenty three persons who had asked to be heard in support of their submission were met by representatives of the Board and the Department at meetings in Napier and Palmerston North in December 1991.

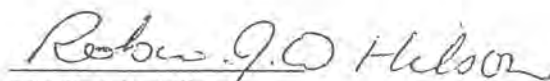
After giving due consideration to all submissions the Board requested the Department to make appropriate amendments to the draft plan. The amended plan was subsequently presented to the Board for approval at its meeting on 11 February 1992.

The objectives and policies in this plan represent the Board's aspirations for the Park. They reflect the commitment to protection and enhancement of the significant natural values of the area for their intrinsic values and for the benefit of future generations, and to facilitate appropriate recreational use and enjoyment of the Park.

The plan will be the basic day-to-day working document for Park managers and will also provide a statement of intent for the long-term direction in which management of the Park will proceed.

Therefore pursuant to Section 17 of the Conservation Act 1987 the Rangitikei/Hawke's Bay Conservation Board approves this plan.

Dated this eleventh day of February, 1992.



Mr Robin Hilson

Chairperson

Rangitikei/Hawke's Bay Conservation Board

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NOTE (1)

Several words have been used extensively in this management plan. To avoid unnecessary duplication the following words have been abbreviated where possible:

- i) Department means Department of Conservation
- ii) The Act means the Conservation Act 1987
- iii) The Park means Ruahine Forest Park
- iv) The Minister means Minister of Conservation
- v) The Board means the Rangitikei-Hawke's Bay Conservation Board

Definitions

- i) Wild Animal refers to the definition in the Wild Animal Control Act 1977.
It means:
 - a(i) Any deer of the family Cervidae:
 - (ii) Any chamois, thar, wallaby, or possum:
 - (iii) Any goat that is deemed under section 20 of this Act to be a wild animal:
 - (iv) Any pig that is living in a wild state and is not being herded or handled as a domestic animal or kept within an effective fence or enclosure for farming purposes:
 - (v) Any members of any species or class of land mammals that the Governor-General may from time to time, by Order in Council, declare to be wild animals for the purposes of this Act; and
 - b Includes the whole or any part of the carcass of any such animal:
 - c Does not include any animal kept in captivity pursuant to a permit or licence that is effective for the purposes of section 12 of this Act during the currency of the permit or licence and the observance of all conditions under which the permit or licence has been issued.
- ii) Introduced Animal means all animals other than indigenous animals, and includes wild animals (as defined above).
 - iii) Prospecting means an activity undertaken for the purpose of identifying land likely to contain exploitable mineral deposits or occurrences; and includes:
 - a) Geological, geochemical, and geophysical surveys; and
 - b) The taking of samples by handheld methods; and
 - c) Aerial surveys. (Crown Minerals Act 1991).

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- iv) Exploration means any activity undertaken for the purpose of identifying mineral deposits or occurrences and evaluating the feasibility of mining particular deposits or occurrences of one or more minerals; and includes any drilling, dredging or excavations (whether surface or sub-surface) that are reasonably necessary to determine the nature and size of a mineral deposit or occurrence (Crown Minerals Act 1991).
- v) Mining means to take, win, or extract, by whatever means, a mineral existing in its natural state in land, or a chemical substance from that mineral, for the purpose of obtaining the mineral or chemical substance; but does not include prospecting or exploration. (Crown Minerals Act 1991).
- vi) Access Arrangement means an arrangement between a person desiring access to land for the purpose of carrying out mineral-related activities and the owner and occupier of the land, permitting such access, either entered into by way of agreement or determined by an arbitrator in accordance with this Act (Crown Minerals Act 1991).
- vii) Sustainable Management means "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 wellbeing and for their health and safety, while-
- sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of further generations;
 - safeguarding the life-supporting capacity of air, water, soil and ecosystem; and
 - Avoiding, remedying, or mitigating any adverse effects of activities on the environment.

(Resource Management Act 1991, Part II, Section 5)

PART I

RUAHINE FOREST PARK DRAFT CONSERVATION MANAGEMENT PLAN

1. Introduction

1.1 Management Planning - The Basis for Management

Ruahine Forest Park (referred to as the Park from now on in this conservation management plan) had an operative management plan (1976-1986) that was prepared in accordance with the Forests Act 1949. Since April 1987, the Park has been administered by the Department of Conservation as a "Conservation Park" under Section 61 of the Act. The Park will continue to be managed as a Conservation Park according to the provisions of the Act, but for reasons of familiarity the term "Forest Park" will remain:

Section 19 of the Act stipulates how Conservation Parks will be managed:

"Every Conservation Park shall be so managed that its natural and historic resources are protected, and subject to this, to facilitate public recreation and enjoyment."

This plan has been prepared by the Department of Conservation - Hawke's Bay Conservancy and approved by the Rangitikei/Hawke's Bay Conservation Board.

This plan will last for a period of 10 years, but is able to be reviewed in part or in total, at any time if this is necessary, due to changing circumstances.

The policies and objectives of this plan have been formulated taking into account management of adjoining natural areas administered by the Department, in particular the Kaweka, Tararua and Kaimanawa Forest Parks.

With the passing of the Conservation Law Reform Act 1990 significant changes were made to procedures for management planning. In essence the Department is now required to prepare Conservation Management Strategies (CMS's) for all protected areas managed by it, by April 1995, and may prepare statements of General Policy and Conservation Management Plans (CMP's).

CMS's indicate how statements of General Policy will be implemented, and establish objectives for integrated management of resources. CMP's (such as this plan) establish more detailed objectives for management of particular areas, and are required to be consistent with CMS's. As a CMS has not been prepared for

Hawke's Bay Conservancy this plan could conceivably require amendment to achieve this consistency.

The preparation of both CMS's and CMP's must be carried out by the Department in consultation with conservation quangos (the NZ Conservation Authority (NZCA) and Conservation Boards). Final approval of CMS's rests with the NZCA, while CMP's are usually approved by the appropriate Conservation Board.

This conservation management plan is in effect a "contract" negotiated with the public, setting out how the park is to be managed. It is a "working" document with a number of functions:

- It establishes long-term objectives for management of the park during the term of the plan.
- It guides day to day management decisions.
- It provides appropriate policy support for the controls on use of the park outlined in the plan.

While this plan is prepared under the Conservation Act, park management is frequently affected by other legislation. These include the Civil Aviation Act 1990, (and Regulations 1953), the Wild Animal Control Act 1977, the Noxious Plants Act 1978, Forest and Rural Fires Act 1977, Historic Places Act 1980, Wildlife Act 1953, the Crown Minerals Act 1991, and the Resource Management Act 1991.

This plan has been prepared in consultation and with the approval of the Rangitikei-Hawke's Bay Conservation Board. The Board was appointed by the Minister of Conservation in October 1990 and it has a policy formulation role on the conservation estate as well as an advocacy role off the conservation estate. The Board consists of twelve members representing a wide and diverse range of interests. The Board's role does not cease now that this plan is approved. It will be involved in an ongoing monitoring role and also in any review or amendment of the final plan.

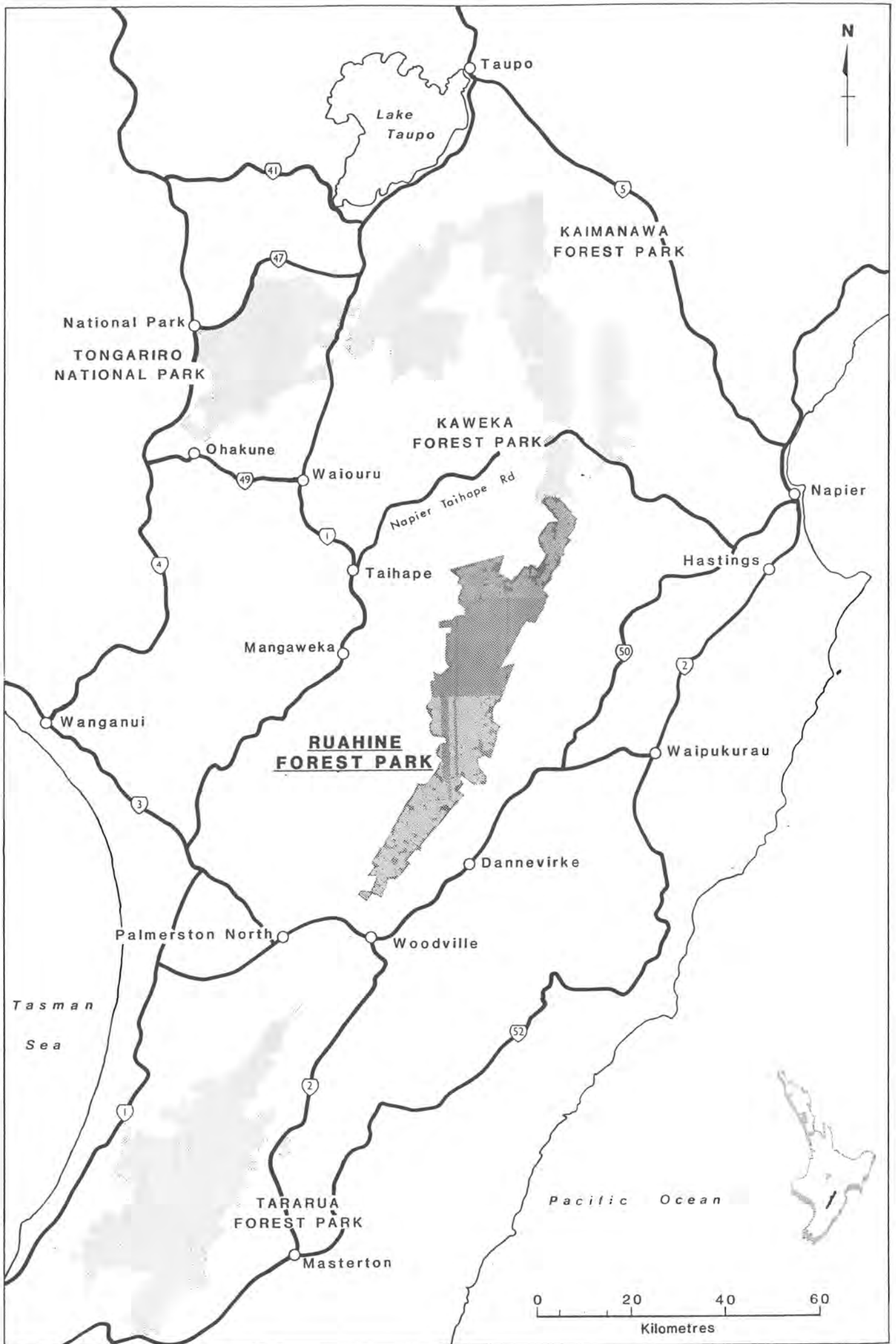
(For further details on statutory requirements for management planning and on the role of Conservation Boards refer to Appendix 11).

1.2 Tangata Whenua Involvement

Section 4 of the Conservation Act states "the Act shall be interpreted and administered as to give effect to the principles of the Treaty of Waitangi". This provision places tangata whenua in a special position as Treaty partners and places special obligations on the Department and the Board.

In recognition of this, the views of the appropriate tangata whenua prior to and during preparation of this plan were specifically sought, in consultation with the Maori representatives on the Rangitikei-Hawke's Bay Conservation Board. In management of the Park there will be ongoing consultation with the appropriate tangata whenua.

Part I
THE PARK



MAP 1: LOCALITY

2. THE PARK

The following sections give a brief summary of the physical resources of the Park that are pertinent to its management. They are not intended to be a complete guide to the resources. For more detail refer to the reference section.

2.1 Introduction

The Ruahine Forest Park, which was gazetted in 1976, covers an area of 94,000 hectares.

It includes the main Ruahine Range, plus four subsidiary ranges, the Ngamoko, Whanahuia, Hikurangi, and Mokai-Patea Ranges. The Park runs north from the Manawatu Gorge, approximately 100 km, to the Taruarau and Ngaruroro Rivers which form the boundary between the Ruahine and Kaweka Forest Parks.

2.2 Topography & Drainage

The Ruahine Ranges are part of the chain of axial mountain ranges running through the North Island. They are characteristically steep and rugged, with sharp-crested ridges and steep sided valleys typical of a deeply dissected landscape. Broad ridges are rare and are largely confined to the northern plateau areas.

The Range is comparatively narrow, the southern third being little more than 8 km across, widening to 24km in the north. Altitudes range from about 450 m along the foot of the range to 1110 m on the southern crest and 1375 on the northern plateau. The highest peak on the main range is Rangio-teatua (1,704 m). The highest peak in the Park is Mangaweka (1,733 m) which is on the Hikurangi Range.

There are a few foothills, and on the eastern side the divide forms a high continuous scarp above the Hawke's Bay plains. There are a number of high subsidiary ranges on the western side of the main range (see Map 2). Because of these ranges the western valleys tend to be longer than those on the eastern side, but are still steep.

On either side farmlands extend to the foot on the main slopes creating a distinct dividing line between the park and surrounding lands. To the north the induced shrublands of the Taruarau Gap separate the Ruahine and Kaweka Ranges.

Rivers in the Park are generally fast flowing, through steep-sided valleys. Some have broad beds due to aggradation and this is especially obvious in the rivers along the park's eastern flanks where large volumes of shingle and debris are carried downstream.

2.3 Climate

The Ruahine Ranges are characterised by a cool, cloudy climate with high annual rainfalls and very heavy rain at times from the south or southeast.

Average annual rainfall varies from 1150 mm near the north eastern foothills, to about 5000 mm on the crest of the range. At the highest altitudes there are at least 250 rain days per annum. Daily rainfalls up to 150 mm can be expected at any time of the year. Most of the rainfall comes from the westerly quarter. Periodic cyclonic storms, particularly from the south and southeast may produce daily rainfalls of over 300 mm.

The area is also renowned for strong winds especially in the southern Ruahine Ranges. Wharite Peak is one of the windiest places in New Zealand. Northwest winds predominate, but southerlies and southeasterlies can be strong on the eastern flanks.

Snow may occur at the highest levels at any time of the year and frequently lies above 1,400m from May until October. Heaviest falls often occur on the western side of the ranges and occasionally cause damage to forests.

2.4 Geology/Soils/Erosion

Geologically the Ruahine Range is very young and is being uplifted rapidly (approximately 4mm per year). It is considered to be 1 to 2 million years old. Its formation and emergence has been described by Kingma (1957) and Stevens (1974).

Its greywacke rocks are shattered and contain many faults. The two major and most active faults are the Mohaka and Ruahine faults. Both lie east of the divide except for the section between Maharahara and Otumore, where the Ruahine fault crosses the Pohangina Catchment. The consequence is very unstable terrain down which the rivers fall in very steep grades to the Hawke's Bay plains.

While most of the park consists of shattered and contorted greywacke, limestone, sandstone and siltstone are found in the northwest of the park, giving rise to distinctive landform and vegetation features.

Soils of the park are generally strongly leached shallow steepland soils from greywacke, and may contain volcanic ash and loess deposits. In the Ikawatea Basin soils are derived from coarse rhyolitic Taupo pumice, but the majority of the NW Ruahines soils are derived from andestic ash showers and/or sandstone and associated sedimentary rock. The remainder of the Ruahine soils are derived from greywacke rocks and ancient ash showers.

The physical structure of the ranges - steep, unstable landforms, the many faultlines and skeletal soils-combined with high rainfall, the frequency of cyclonic events and strong winds, results in a high rate of natural erosion.

In recent years there has been much concern expressed at the apparent increased erosion in the ranges and this was widely attributed to human activities, and particularly the impact of introduced animals. While fires, the clearance of native vegetation and browsing animals have almost certainly contributed to increased erosion in some areas, there is increasing recognition that erosion in the ranges is a natural process which has been occurring in cycles from at least AD 1200. (Grant 1983). The present trend towards increased erosion and sedimentation began about 1950, and is known as the Waipawa erosion period, on account of its recorded history in the upper Waipawa Basin. (Grant 1983). The erosion periods in the ranges appear to coincide with times of general climatic warming, and Grant (ibid) suggests that the current erosion period affecting the North Island results primarily from "...a sustained increase in the frequency of major rainstorms, possibly accompanied by an increase in maximum intensity."

The susceptibility of the ranges to erosion has many implications for management of the Park, particularly in the areas of soil and water conservation, revegetation and animal control. These issues will be discussed more fully in part II of this plan.

2.5 Human History

2.5.1 Maori History

People have been in and around the Ruahine Ranges for perhaps 1000 years. Maori explored them and visited them for hunting, fishing, plant collection and other purposes. Although most visits were probably short, seasonal expeditions, people may have lived in the ranges on a more permanent basis.

As yet no archaeological sites of early Maori origin have been recorded in the Park, although a number of sites have been recorded on its surrounds.

The tribes which are associated with the Ranges include Ngati Kahungunu, Ngai Tahu, Ngati Apa and Rangitane, plus the many Hapu included in these tribes.

The Ranges were occasionally used for refuge. According to tradition, in the 1600's, Whatui Apiti (a chief of Rangitane and Kahungunu descent) fled to the mountains west of Takapau after some trouble and built a Pa on a fine natural site where he stayed for a few months, (P Parsons pers. comm.). War parties (taua) crossed the Ruahine. When William Colenso was planning his first attempt in 1845 he was warned by the local chiefs that the routes were dangerous and many people had lost their lives

there. The only person he could find who had been across had done so first as a captive and later as a refugee. (Temple 1985).

Food was gathered from the Ruahine. Wilson (1939) records that "the beech forests of the mountains were the habitat of the native rat and every Maori Hapu had its special preserve, where no others might hunt the kiore, which was highly esteemed as a delicacy".

Two ancient tracks are recorded by Wilson. Once crossed the Ranges above the Manawatu Gorge at Ahua-o-Turanga and thence on to Rangitikei or south to Otaki. The other followed up the Waipawa and Makaroro River, across the Range at Te Atua-o-Mahuru and then over Mokai Patea¹ to the Rangitikei River. The first track was followed by Rochfort in 1852. The second track is now remembered for being the one by which William Colenso made the first European crossing of the Ruahine Ranges in 1845.

Maori names for features in the Parks - rivers, mountains and valleys - convey the close associations Maori had with the Ranges. The name of the Park itself, Ruahine, means "wise woman". According to Te Aue Davis (1990) the range was named after Turanga I Mua and Parehuia's daughter, Ruahine. (Turanga I Mua was the son of Turi, Captain of the Aotea canoe). Another prominent feature in the Park, Wharite Peak, relates to the word Wharetiti ("the resting place of mutton birds").

There are many stories and legends associated with the ranges which are still unrecorded. What is evident is that the area, as well as providing food and fibre, was, and remains of spiritual and cultural significance to Maori people.

The Department is liaising on an ongoing basis with local Maori, and when further information on Maori history of the Park is gathered it will be incorporated in any review of this plan.

2.5.2 Pakeha History

Some of the first Pakeha records of the area were made by Reverend William Colenso, an early explorer and botanist. Colenso has contributed significantly to our knowledge of the history of this area, and in particular its botanical history. Colenso made the first collection of NZ alpine plant species in the ranges in 1845 during one of his several epic journeys across the range in the company of Maori guides. Colenso's 1845 route was via the old Maori route Te Parapara, and the spur leading onto Te Atua Mahuru from the east is now widely known as Colenso Spur. Accounts of Colenso's journeys are given in his diaries and give a fascinating insight into early European exploration of the Central North Island and of the natural history of the

¹ The area between the Rangitikei and Moawhango Rivers, east of Taihape became known as Patea towards the end of the 15th Century after a man called Patea settled briefly in the area. Centuries later, with the arrival of Pakeha it became known as Inland Patea to avoid confusion with Patea on the Taranaki Coast.

area at that time. A memorial cairn, erected by the Hawke's Bay Branch of the Royal Society in 1975 in honour of Colenso, can be found at the foot of Colenso Spur in the Makaroro Catchment.

Removal of Forests

With European settlement the forests surrounding the ranges were steadily removed, initially from Manawatu and Southern Hawke's Bay and following the turn of the century, from Rangitikei and Inland Hawke's Bay. Remains of sawmills and milling settlements can still be seen on the fringes of the Park, for example on the banks of the Makaroro River. Significant areas of forest were burned also and some fires entered the Ruahine Ranges (e.g. around Howletts Hut and Pohangina saddle). During the first half of the century fires also occurred in the Tukituki and Manawatu headwaters.

Since 1950 fires have been rare in the ranges, although a small area of subalpine scrubland was burnt on Mt Hikurangi in 1960 and on the Whanahuia Range in 1962 and 1973.

Introduced Animals

Cattle and sheep have been present in some parts of the ranges since the 1880's. Early runholders stocked merino sheep on the Mokai Patea Range, Mangaohane Plateau and other northern areas of the ranges. The track connecting Mangaohane with Poporangi station via Potae was used as the main mustering route. Cattle grazing in the Park was a common practice well into the first half of this century. Grazing no longer occurs in the Park but stray sheep, goats and particularly cattle from adjoining farmlands do pose a localised problem at times. However old huts established to accommodate shepherds, and rabbiters, such as Shutes, Ruahine, Herrick, and No Mans huts, are a reminder of these early days of Pakeha involvement in the ranges.

Red deer and possums have probably had the most pronounced effect on the vegetation of the park over the last century. Red deer first appeared in the northwestern ranges between 1890 and 1900, probably from the Matapiro liberation of 1883. Several liberations were made on the western side of the ranges between 1908 and 1922, and by 1918 red deer were common in the northern areas of the Park. In 1925 they were recorded in the southern ranges.

Deer numbers peaked in the northern ranges in the early 1930's and in central and southern areas a few years later. Government control (foot shooting by deer cullers) was started in 1938 by the Internal Affairs Department. Operations were intensified in the 1960's under the NZ Forest Service. A network of huts and tracks were established at this time and now form the basis of recreational facilities used by present-day Park users.

The development of a commercial market for feral venison in the late 1960's attracted many hunters to the hills. Later the advent of commercial helicopter hunting resulted in a whole new industry being based in the ranges. As a result of the pressure from recreational and commercial hunters deer numbers dropped by about 90% and have been kept below the 1930's level ever since.

Possums were first liberated to create a fur industry. The first liberation was in the Pohangina Valley in the 1890's and by the 1920's several liberations had been made on both sides of the ranges. Breeding populations soon became established and by the 1950's they were present in high numbers throughout. The effects of possums on the forests of the area soon became apparent and possum trapping was encouraged in an attempt to reduce numbers. These animals still cause considerable damage to some parts of the Park.

Mineral Exploration

Mineral prospecting was undertaken in the ranges as early as the 1880's. Gold "fever" swept Hawke's Bay and several Napier businessmen financed a prospecting trip by Yuill and Christie to the headwaters of rivers in the ranges in March 1880. No strike was made however. Copper was discovered in the Coppermine Creek area of the southern Ruahine ranges in the late 1880's and small sporadic mining operations, mainly on an explorative basis continued until the 1930's when the rugged conditions and the apparent lack of a viable mineral vein discouraged further efforts. Today a few tramlines, a magazine shaft, and regenerating forest mark the areas where the mine was established.

Erosion/Soil and Water Conservation

Accelerated erosion in the ranges (as described in section 2.4) became a cause of concern from about the 1940's. This resulted in various bodies recommending and carrying out revegetation plantings in catchment headwaters, and a number of flood control schemes in rivers flowing off the ranges.

In 1975 the Ruahine Range Control Scheme Committee was established, with representatives from organisations such as the Department of Lands and Survey, NZ Forest Service, Ministry of Agriculture and Fisheries and the relevant Catchment Boards. The Committee's task was to review the erosion problem in the ranges and recommend a co-ordinated approach to research and management in the ranges and the rivers draining it. The findings and recommendations of this committee are outlined in Water and Soil Technical Publication No 13, 1978 (NWASCA and NZFS).

The "South-eastern Ruahine Management Scheme 1980-2000", was the result of these recommendations. The scheme proposed comprehensive catchment control aimed at controlling mountainland gravel movement and lowland stream erosion and flooding. A number of bodies have been involved in its implementation,

including DSIR, Regional Councils and the former New Zealand Forest Service.

The effects of erosion control trials and planting operations are still very evident in the Park today in catchments such as the Tukituki, Manawatu and Waipawa where stands of exotic trees contrast with the surrounding vegetation. The success of exotic plantings has been mixed and the spread of some exotic plants used in these trials has had a detrimental impact of the natural values of the Park in some areas. The conflict between the early objective of erosion control by revegetation with exotic species, and the Department's primary objective of management (protection of natural values) needs to be re-appraised to give effect to the current legislation (the Conservation Act 1987). These issues will be addressed by policies later in the plan.

Formal Protection of the Ranges

Formal designation of part of the eastern Ruahine ranges, including some 24,000 ha in the Tukituki and Waipawa headwaters, occurred in 1881, when these areas were gazetted State Forest. A further 30,000 ha was gazetted between 1900 and 1905 and in 1922 another 21,000 ha in the Maropea and Kawhatau catchments were added. Further additions have brought the total area to approximately 94,000 ha.

The combined forests were gazetted as a single state forest in 1976 under the administration of the NZ Forest Service. Since the NZ Forest Service was disestablished in 1987, the Department of Conservation has managed the Park.

2.5.3 Historic Places of the Park (see appendix 10)

a) Archaeological Sites

To date one archaeological site has been recorded in the Park.

i) Copper Mine

Grid reference NZMS 260 T23 546036. Copper exploration and sporadic mining operations took place in this catchment from the late 1880's to the 1930's. A few tramlines, a magazine shaft and regenerating bush bear testimony to these activities. (See section 2.5.2).

b) Traditional Sites

To date no traditional sites have been recorded in the Park.

c) Historic Buildings

To date no historic buildings have been classified in the Park.

Several huts in the Park warrant formal protection in that they represent a significant era in the history of the Ranges. They include Shutes Hut (an early musterers hut constructed of stone) and several four and six bunk huts constructed in the early deer culling days. The Department, in liaison with the NZ Historic Places Trust will investigate the historic values of these huts and if appropriate will take steps to protect these values.

d) Historic Areas

To date no historic areas have been declared in the Park.

Other historic places are likely to be present in the Park. If further sites are recorded they will be added to the above record system.

2.6 Vegetation

The vegetation of the Ruahine Ranges has been described by Elder (1965) and Nicholls (1970). (See appendix 3a).

A variety of vegetation types is found in the Park, influenced by altitude, rainfall, snowfall, exposure to wind and temperature. The ranges are marked by the extent and the variety of past and present changes to the vegetation cover caused by natural events and human activities. Introduced animals have modified the vegetation structure, in places dramatically, and fire and logging have also modified localised areas of the Park.

Vegetation ranges from alpine grasslands and herbfields, down through subalpine shrublands, to beech or kamahi dominated forests, and to podocarp-broadleaved forest types at lower altitudes. In the far north areas of fire induced manuka and kanuka forest are found, and tussock grasslands extend into the Park from the Mangaohane Plateau. The basic pattern consists of forest rising to 950m - 1370m, above which it is replaced by subalpine shrubland, sometimes extending to 1430m. Alpine grasslands and herbfields may range from 1100m to the summit crests.

In the southern third of the ranges a podocarp-broadleaved forest occupies the lower slopes. Prior to the 1950's kamahi was the dominant tree in this area at mid altitudes (up to approximately 1000m). It was commonly associated with miro on the lower slopes and Hall's totara on the upper slopes. During the last 4 decades there has been a quite spectacular die-off of kamahi in certain areas, especially in the 700-900m altitudinal zone, and vegetation now tends to be a mixture of small trees and shrubs such as horopito, rangiora and mahoe with ferns, toetoe, and bush lawyer. This die-off has been attributed to a number of causes; browsing animals, insects, storm damage, earthquakes and climatic change. While most studies indicate that no single factor by itself is responsible for this situation, it is clear that browsing animals, in particular possums, have been a major factor in initiating such forest deterioration and in the continuing

inability of these forests to maintain their diversity as regeneration proceeds (the absence or continuing decline of palatable plants such as mistletoe, pseudopanax and broadleaf and the increasing dominance of non palatable species). This issue is discussed fully in section 4.2.

At about 1000 metres the forest type changes and merges into a dense mat of montane shrubland, consisting primarily of tupare, or leatherwood (Olearia colensoi). This forms the largest continuous leatherwood zone in New Zealand (approximately 25 km long and up to 2 km wide) and is of considerable botanical interest (see section 5.1.1 and Appendix 3C).

A distinct change in the forest type occurs around the Pohangina River. North of this area beech, which is virtually absent from the southern third of the range, becomes dominant. Mountain beech is the dominant forest species at higher altitudes, while red beech predominates at lower altitudes. Both black and silver beech are present in the Park, but to a much lesser degree, and only in localised areas. The upper forest may comprise kaikawaka, mountain beech, pink pine and Hall's totara.

Traces of lowland podocarp forest remain on the flanks of the ranges, and in a few areas within the ranges, such as around Lake Colenso and near Makirikiri. Predominant podocarps include rimu, kahikatea, miro, matai and totara. Alpine grasslands are dominated by snowgrass or red tussock, and the leatherwood zone, a distinctive feature of the southern area, becomes sparse further north. It is replaced by several species of Dracophyllum, Brachyglottis, Olearia, Pseudopanax and Leptospermum.

Alpine bogs occur along the open tops, with the largest and most specialised of these communities occurring on the northern plateaux. Features common to them all, although most developed in the north, are the shallow tarns with raised sphagnum rims, the association with red tussock, and the formation of peat. The Ruahine peat bogs have been a valuable source of botanical history (N T Moar 1956, 1961, 1967).

Botanically the Ruahine Ranges form a link between the vegetation on ash deposits of the Central North Island and that on the Tararua Range. The mosaic of mountain beech and red tussock areas of the northern plateaux has affinities with the similar patterns of the southern part of the Kaimanawa Range. The southern end of the range, with its extensive leatherwood zone, and kamahi replacing beech forest, closely matches the shrublands and forests of the northern Tararua Range (Elder 1965).

The Ruahine Range has become the type locality of an exceptional number of high country plants, thanks to Colenso's early explorations in the northern areas of the ranges.

Several rare plants occur in the Park or just outside its boundaries to the north, particularly in the Reporoa Bog, No Man's Bog and Makirikiri Tarn areas. These wetland areas carry

a large and specialised flora. (See appendix 3b). Bogs further south along the ranges, such as on the Mokai Patea Range show some relationship to these northern bogs but are not as specialised.

A number of areas immediately adjacent to the Park have significant ecological values, and the Department strongly supports their protection. (See sections 5.1.1 and 5.1.3). These areas include the important wetland areas on the Mangaohane Plateau (Makirikiri Tarns and Reporoa Bog), No Man's Bog and the forests of Mt Aorangi.

2.7 Fauna

As part of a network of protected areas in the North Island the Park provides habitats for a variety of wildlife.

Wildlife surveys of the ranges have been carried out recently by Challies (1962), Oaks et al 1982-83 and Cleland/Walker et al (1983/84). The former two studies concentrated on birds, while the later dealt predominantly with mammal distribution. Systematic surveys of fish, amphibians, reptiles and invertebrates have not been undertaken to date, although a 1988 Aorangi Wildlife Survey (Brady et al 1988) has relevance to the Park. The latest bird survey in 1983/84 recorded over 40 species of birds in the Park (see appendix 2b).

Rare or threatened ² species include blue duck, N Z falcon, North Island kaka, Powelliphanta snails, long-tailed cuckoo and North Island robin. Uncommon species recorded in the Park include whiteheads, yellow-crowned parakeets and Wainuia snails.

There have been reports of kiwi in the northern third of the ranges. Sightings have been recorded in the Ikawatea, Mangatera, Makaroro and Kawhatau Catchments and on the Mokai Patea and Ohutu Ridge in the last 20 years. (J McLennan pers comm). McLennan (1991) reports that "...the southern limit of brown kiwi on the eastern side of the North Island is the northern tip of the Ruahine Range, where a handful of birds live in catchments draining to both the east and the west."

The present southern limit of blue duck in the North Island is in the southern Ruahine ranges, (Pohangina River) as they have disappeared from the Manawatu Gorge and Tararua Ranges in the last 20 years. A blue duck survey in the northern part of the Park in November 1990 revealed populations in the Ikawatea, Apias, Whakaurekou, Mangatera, Maropea and Waikamaka Rivers. Over 30 birds were recorded, with the highest numbers in the Apias/Ikawatea catchment.

In December 1991, 18 blue duck were caught and banded in the Apias and Ikawatea catchments. It is intended to monitor this population to learn more about its dynamics. Surveys of other

² As referred to in "The Conservation Status of New Zealand Wildlife." (B D Bell 1986).

catchments are planned to provide a more complete picture of the status of this species within the Park.

There have been reports of native bats in the ranges. Bats have been sighted near Lake Colenso (1979) and in the Makaroro catchment (1978). As the long-tailed bat is present in many scenic reserves around southern Hawke's Bay it is probable that they extend up into the ranges (DOC 1991). Until further surveys are done the abundance and distribution of bats in the ranges will not be fully known. Common species of skinks and geckos have the Ruahine Ecological District included in their recorded range of distribution, but to date no detailed surveys have been carried out throughout the Park. The native fish, Galaxius spp, and eel are present in most major river systems. Torrent fish have been identified in some rivers on the eastern side of the ranges.

The Park certainly abounds with native invertebrates. However as no surveys of them have been done, their extent, diversity, identify and significance are as yet unclear.

As indicated in Section 2.5.2 wild animals³ have been a component of the Park environment for many years. Red deer, goats and possums have had a marked effect on the Park. The serious canopy defoliation, in the former rata-kamahai forests in the southern third of the ranges and the slow recovery of these forests has been attributed primarily to possums, in combination with deer and goats and possibly climatic factors.

Red deer are found throughout the Park, while sika deer are found in small numbers in the north of the Park.

Goats are present in localised areas, in low numbers. High numbers of goats were found in the southern Ruahine Range in the 1950's and 1960's but substantial progress has been made in recent years to reduce numbers and eliminate them from some areas. The re-introduction of goats from surrounding lands is a continuing problem however.

Pigs are found in low numbers in localised areas, and in particular the Ikawatea Catchment, Ohutu Ridge and in small pockets in the southern range.

Other introduced animals present in the Park include mice, rats, stoats, weasels, ferrets, feral cats, rabbits, hares, hedgehogs, stray dogs, sheep and cattle.

Both brown and rainbow trout are found in some rivers in the Park.

³ As referred to in the Wild Animal Control Act 1977 (see definitions on page vi of the Plan).

2.8 Recreation

The Ruahine Ranges form a prominent backdrop to Hawke's Bay to the east, and Rangitikei/Manawatu to the west. They provide numerous outdoor recreation opportunities for people from the large urban areas of Napier/Hastings and Palmerston North and other provincial towns and cities in the central North Island.

Recreational use of the area has traditionally been hunting and tramping and these activities still predominate in the interior of the Park. However an increasing number of people are visiting the fringes of the Park and utilising the area for picnicking, day walking, swimming, camping, nature studies etc. Educational use of the Park is also increasing, with outdoor education centres situated at Wakarara, Pohangina (Totara Reserve YMCA), Oroua (Sixtus Lodge), and more recently in the Kawhatau valley.

Tramping opportunities range from day walks on well graded tracks to multi-day trips through tracked and untracked country. A complex network of huts and tracks developed for animal control purposes in the 1960's and 1970's is used by trampers and hunters today. Tramping/climbing clubs from throughout the regions surrounding the Park utilise it regularly.

There are some rafting and canoeing opportunities on rivers in the Park, although the best stretches of water are found outside park boundaries, particularly on the Rangitikei River.

Some river angling occurs in the Park. It is usually carried out in conjunction with other activities such as tramping and hunting. The most popular rivers include the Whakaurekou, Kawhatau, Waikamaka, Maropea and Pohangina. The Park streams and catchments are important spawning areas for trout.

In the 1930's attempts were made to develop snow skiing on the Whanahuia Range, where the Rangiwahia Ski Club erected a hut. However with the development of skiing on Mt Ruapehu and unreliability of snowfalls, interest was diverted away from the Whanahuia Range. Today the ranges are sometimes used for cross-country skiing, especially in the Rangiwahia area, and a heliskiing concession has been granted in the Park.

2.9 Regional and District Planning

The Park lies within parts of the Hawke's Bay and Manawatu-Wanganui Regions as shown on Map 3.

Included in the Hawke's Bay Region are the Central Hawke's Bay and Hastings Districts. The Tararua, Manawatu and Rangitikei Districts are included in the Manawatu-Wanganui Region.

The Resource Management Act, which came into effect on 1 October 1991, replaced or amended many statutes affecting resource use in New Zealand. The purpose of the Act is to promote sustainable

management⁴ of natural and physical resources. All planning and decisions made under this legislation must take this purpose into account.

Under the Resource Management Act each Regional Council is required to prepare a Regional Policy Statement (RPS) which will provide the basis for integrated resource management for the region. Regional Plans are optional (except for regional coastal plans) and focus on specific resources, or issues requiring more detailed policies. They cannot be inconsistent with the RPS.

Territorial authorities are required to prepare District Plans under the Resource Management Act.

Regional policy statements and plans and district plans must have regard to management plans and strategies prepared under other Acts. Therefore the Department will liaise with local authorities during preparation of their policy statements and plans to ensure that the objectives and policies detailed in this plan are considered and adequately provided for. It will also liaise with them on an ongoing basis on all aspects of resource management.

The Manawatu-Wanganui Regional Council has notified its intent to produce a draft RPS by June 1992. As indicated in map 3, a significant part of the Park is included in this region. The Department has already contributed to preparation of this document by providing information and suggesting policies on Park management issues such as control of introduced plants and animals, fire control and protection of cultural values adjacent to the Park. The Department will continue to be involved in preparation of the RPS.

The Hawke's Bay Regional Council has notified its intent to produce a draft RPS by October 1992. The Department will also contribute in a similar way to this document.

Input into district plans is also important, as land uses adjacent to the Park can greatly affect Park values. Recently the Department has advocated for strict controls on goat farming adjacent to the Park, because of the continuing problem of escapee goats entering the Park. Liaison and co-operation between the Department and all local government authorities in the area is essential to achieve the objectives of Park management outlined in this plan.

⁴ Refer to definitions on page vii of this plan.

2.10 The National and Regional Significance of the Park

2.10.1 Ecological Significance

The Park is within three Ecological Districts⁵. Land south of approximately Pohangina (northern limit of former rata-kamahi forest) is in the North Manawatu Gorge Ecological District. Land north of this is in the Ruahine Ecological District, except for a small area in the far north which is in the Moawhango Ecological District. The North Manawatu Gorge and Ruahine Ecological Districts are outstanding in the North Island in that they retain a cover of native vegetation over much of their areas, (G Walls pers comm). Moawhango Ecological District is an area of major biogeographic significance, and contains several plants only found here in the North Island (G Rogers pers comm). [Appendix 1 gives descriptions of these areas]

As indicated in sections 2.6 and 5.1.1 the Park and adjacent areas have important ecological values. A diversity of ecotypes is found ranging from lowland forest to subalpine bogs and grasslands. Of particular note is the southern leatherwood area and the northern plateau areas, the latter of which is an area of major biogeographic significance (Rogers, 1986). (See sections 2.6, 5.1.1 and Appendices 1, 3b and 3c).

The tussocklands of the central portion of the ranges are also of botanical importance. These areas are the most extensive of any tussock vegetation dominated by Chionochloa pallens (mid-ribbed snow tussock) in the North Island. Other large North Island mountain tussocklands are dominated either by red tussock (C. rubra) or, in the case of the Tararua Range, by a mixture of C. flavescens (broadleaved snow tussock) and C. pallens (Atkinson, 1977).

In light of the significance of these areas the Department is to investigate and where appropriate declare special areas within the Park as ecological areas. It will also advocate the protection of important natural areas adjacent to the Park, in particular the forests of Mt Aorangi and the wetland areas of Reporoa Bog, Makirikiri Tarns and No Man's Bog.

As indicated in section 2.7 a number of rare, endangered or threatened species are found in the Park. Powelliphanta and Wainuia snails are present in the area and there have been reports of bats. A recent survey of blue ducks in the northern part of the Park suggests that this area contains a nationally important population of these birds.

The Apias catchment (above the waterfall near Ikawatea Forks Hut) has ecological and scientific importance in that there are no introduced fish present. As approximately half the blue duck population in the Ikawatea/Apias Catchment is found in this area it may be a valuable area in which to study the relationships

⁵ N Z Biological Resources Centre

between blue duck and trout and the effects (if any) of trout on blue duck productivity. Because of its ecological significance the liberation of trout will not be permitted. (See also policies 5.1.1. and 5.1.8 and 5.1.13).

There could also be populations of other plants and animals of similar importance in the Park, but as yet unknown.

2.10.2 Recreational Significance

The Ruahine Ranges are an important recreational resource in the North Island, for tramping, hunting, and to a lesser extent fishing. They are of particular significance to the Central Hawke's Bay, Manawatu and Rangitikei areas (which support a population of approximately 180,000 people) and the fringes of the Park are increasingly attracting day visitors for such activities as picnicking, swimming and walking.

Hutbook records indicate that an increasing number of people from areas outside the Hawke's Bay, Rangitikei, Manawatu areas are using the Park, especially for tramping.

2.10.3 Soil and Water Conservation

The Park plays a very significant role in protecting soil and water values. Due to the steep terrain and fragile geology the ranges have high rates of natural erosion.

The Department's objective, in co-operation with local authorities is to manage the Park, as far as possible, in a manner consistent with the needs of soil and water conservation. This will be done by minimising the risk of fire and by controlling wild animals, rather than by river control works or plantings of exotic vegetation within the Park. (See also section 4.1).

Part II
MANAGEMENT PLANNING

PART II

3. MANAGEMENT OBJECTIVES

The management objectives for the Park are derived from S19(1) (a) and (b) of the Act and reflect the requirement to firstly protect the natural values of the area, and secondly to facilitate appropriate recreational use and enjoyment.

The objectives fall into three categories.

- i) Protection
 - to protect the natural and historic resources of Ruahine Forest Park
 - to ensure that the natural character and landscapes of the Park are retained and where appropriate restored and/or enhanced.
 - to manage the Park in a manner consistent with the needs of soil and water conservation.
- ii) Recreation
 - to provide for a range of recreational opportunities that are compatible with the primary objective, ie protection of natural and historic features.
 - to provide recreational opportunities which complement or enhance the opportunities available elsewhere in the Hawke's Bay and Manawatu-Wanganui Regions, and in adjoining natural areas, as far as they are consistent with protection objectives for Ruahine Forest Park.
- iii) Management
 - to achieve protection of the natural and historic resources of the Park in the most cost efficient and environmentally sensitive manner.
 - to liaise and co-operate with the appropriate Iwi authorities, local bodies and interest groups on park management issues where appropriate.

4. MAJOR PARK MANAGEMENT ISSUES

This discussion of major issues does not endeavour to cover all aspects of concern to Park management. It aims to outline the history of and the Department's stance on issues which may impact on many other areas of management, may require substantial resources, or may be complex and/or contentious.

4.1 Erosion/Soil and Water Conservation

As outlined in section 2.4 the Ruahine Ranges are inherently unstable and prone to erosion. The ranges are being subject to rapid geological uplift, are of very recent origin and are composed of shattered and faulted rocks.

There is a high underlying natural (geological) erosion rate in the Ruahine Ranges which is largely determined by the rate of uplift, strength of the rocks, or lack of it, and the prevailing rainfall regime. The vegetation and soil condition has little effect on this underlying geologically determined erosion rate.

However, vegetation and soils do affect the water regime of streams and rivers and are valuable in their own right. It can be argued that loss of the soil mantle will not greatly influence the geological erosion rate, but the soils themselves cannot be replaced and therefore need to be conserved.

Erosion rates in the Ruahine Ranges appear to have increased in recent decades Grant (1983), and because of the concern for downstream values⁶ a number of authorities have been involved in planting trials and revegetation operations in the ranges.

Although introduced animals (in particular deer, goats and possums) have been widely blamed for the deterioration of the forest cover, and hence the increased erosion, it is clear that this is too simplistic, and that a number of inter-related factors, (both natural and human-induced) have contributed to the high rates of erosion in the ranges. (There is considerable literature available on these issues, some of which is referred to in the reference section at the end of this plan).

Revegetation trials and operations began in the late 1960's with handplanting of Populus, Salix, and Pinus species. In the 1970's, following the recommendations of the Ruahine Range Control Scheme Committee, further revegetation work took place.

This included aerial sowing of non-woody species (mainly legumes, lotus and clover) and grasses (Yorkshire fog, brown top, cocksfoot) mainly on landslips. They were intended to form a temporary cover to aid in the succession to native species.

⁶ Dannevirke and Woodville water supplies come from the rivers in the ranges. Aggradation of rivers indirectly affects agriculture on lands surrounding the Park, by increasing the risk of flooding.

Further plantings, and aerial sowing of Pinus species (P contorta, P radiata, P mugo, P sylvestris), alders and willows also took place. Considerable resources went into these operations with mixed success. Not only were the revegetation trials less successful than in the Kaweka Ranges in terms of survival of plantings, but subsequent studies have indicated that they have had little influence on erosion and sediment transport rates in many areas. A NZFS report (Thomas, 1985), which investigated the benefits of mountainland plantings in the Tukituki Catchment, recommended against conducting further extensive revegetation work because of the high costs involved for marginal downstream benefit in terms of erosion control. The report recommended that protection work should continue by means of controlling introduced animals, fencing park boundaries to exclude stock, and by strict fire control.

Revegetation by exotic species has had an impact on the natural and scenic values of the Park. In the southern ranges, the spread of P contorta and P mugo (which were the most successful of the species in terms of survival rate) has been contained to a large extent by the surrounding forest and leatherwood.

However the potential threat to tussock grasslands in the central ranges is of more concern. These grasslands have high botanical, scenic and landscape values, and as they are well within the altitudinal limit of P contorta their disappearance or even partial replacement by adventive pines would be a significant loss.

One of the main management objectives for the Park is protection of soil and water conservation values. However, there is sufficient evidence available to show that the ranges have naturally high rates of erosion, and while revegetation and other works may alleviate this in specific areas, it is unrealistic to expect to control it over wide areas in the long-term. The Department will continue to manage the Park to protect soil and water values, principally by controlling introduced animals and by strict fire control. Animal control consists of a combination of recreational and commercial hunting, and departmental control where necessary, combined with fencing of Park boundaries to prevent re-introduction of animals.

The Department will also actively remove exotic species (in particular Pinus contorta) which are threatening natural Park values and are not themselves performing a specific control function. Removal of pines will firstly concentrate in the tussock grasslands in northern and central areas of the ranges. Removal of pines from landslips in the southern areas will concentrate on areas where these pines are providing a seed source for spread into adjacent areas.

For flood control reasons a number of rivers in and adjacent to the Park have been modified. Within the Park the modifications have been restricted to the planting of willows and other introduced species especially in the Tamaki and Kumeti catchments.

The Department does not favour an extension of these plantings but may consider it in particular areas if there are compelling reasons to do so to protect downstream values.

The Department will liaise and co-ordinate with Regional Councils on all aspects of erosion control and soil and water conservation, especially where downstream values are affected.

4.2 Wild Animal Management/Helicopter Access

4.2.1 Wild Animal Management

Wild animals, in particular possums, goats and deer, have had a significant impact on vegetation in the Park. While numbers are well below their peak levels (1940's, 1950's and 1960's) continuing animal control is essential.

Possums, which have already contributed to a major canopy collapse in the Park, have the potential to once again become a very serious problem, should control efforts lapse. At present there are few possum hunters operating in the Park, and this is of concern to the Department. While it is recognised that this form of control has not been effective in reducing possum numbers in the long-term, it has reduced numbers in some (mainly fringe) areas.

The eradication of possums from the Park is not currently a realistic option, and considerable resources will be required simply to prevent an increase in possum numbers. In determining where to direct resources the Department (nationally) will target areas with the highest conservation values and/or where resources can be used most effectively.

Goats are present in localised areas, (in low numbers), mainly on the fringes of the Park. Many of these animals are farm escapees, and fencing of boundaries where necessary and continuing liaison with adjoining landowners is essential. Recreational and commercial hunting of goats is minimal, and it is likely that the Department will continue to take full responsibility for their control.

Pigs are also only found in low numbers in specific areas of the Park, in particular the Ikawatea Catchment, Ohutu Ridge, and in small pockets in the southern range. They are not considered to be a problem as recreational hunters are controlling them successfully.

Red deer are present throughout the Park. Although numbers have been reduced by some 90% from the peak in the 1930's, there are indications in some areas that deer are increasing again.

Sika deer are found in low numbers in the north of the Park. They tend to be a more competitive species than red deer, but there is little evidence at present to indicate that they are spreading south in the Park.

Currently deer control is predominantly through recreation hunting and commercial aerial operations. If these methods are inadequate other management tools, (departmental operations) will be used.

Recreational hunters take the largest harvest of deer in the Park. However these harvests are usually not concentrated in any particular area, and are rarely aimed at achieving a specific conservation goal. Nevertheless, the size of these harvests ensures a benefit to conservation, and recreational hunting will be encouraged in the Park. While providing information and facilities to aid recreational hunting the Department will also encourage hunters to target certain areas in the Park.

Commercial aerial hunting in the last 15-20 years has obviated the need for large-scale deer control operations by the Department. Recently, aerial hunting in the Park has been carried out during the winter months, with some 500 animals being taken annually. This form of hunting is an important control tool in that helicopters can access areas which are difficult to hunt by foot. Because of the significant impact aerial hunting has had on deer numbers nationwide any reduction in this hunting effort now could result in a rapid increase in deer numbers. Challies (1991) predicts that in the event that all commercial hunting operations were to cease, deer numbers would probably double within three years, and double again every three to four years thereafter until vegetation condition limited further population growth. While this report is referring to the national situation, a similar trend would be expected in Ruahine Forest Park. This is a real concern as the venison industry is currently in a very unstable state. Given this situation the Department's role in controlling deer may become more important in the future.

Long-term monitoring of plant communities, animal densities and the relationship between them, is essential in order to determine the intensity of control needed to achieve conservation objectives. The Department is currently investigating estate monitoring techniques which will be both effective and feasible given available resources. Previous techniques of animal/vegetation monitoring, while providing a valuable database against which current vegetation conditions can be assessed were often time consuming and expensive when applied to the Park as a whole. The Department must consider the options of new techniques and/or selectively applying traditional techniques.

Until effective nationwide techniques are established, defining a "desired level of control" of wild animals is difficult. In general terms this refers to what animal numbers an area can support and still satisfy the major management objectives of the area (protection of natural values). There are no firm quantitative methods available for determining these carrying capacities. It requires ongoing monitoring and comparisons between areas with and without browsing animals to see what could theoretically be achieved with no browsing. The few enclosure plots in the Park can act as baselines by indicating the species

that recover in the absence of browsing animals. It must then be determined what level of change in the vegetation is acceptable given that removal of all wild animals from the Park is an unrealistic option at present. This will be determined both by the conservation values and objectives for the particular area, and the available resources.

At present monitoring is being carried out in the Park using a combination of traditional techniques (exclosure plots, permanent quadrat plots, and monitoring of selected indicator plants) and also utilising information provided by hunters. This co-operation with recreational hunters is essential. Kill returns, and returns of deer jaws and rumen samples greatly assist in establishing a database which can be used to identify relationships between animal populations and the condition of vegetation in the Park.

4.2.2 Helicopter Access

For a number of years helicopters have not been permitted in several catchments of the Park⁷, except for management purposes. These areas were established in consultation with recreational hunting groups, and provide areas of the Park where ground hunters do not have to compete with commercial aerial hunting.

When these areas were established it was made clear that should wild animal numbers build up to unacceptable levels that the Department would allow helicopters throughout them, or introduce other forms of control. This still applies. If these areas are to be retained there is an onus on recreational hunters to control deer. There are indications that deer numbers are building up in some areas, such as the Pourangaki Catchment, and therefore it may be necessary to either allow helicopters into the area temporarily, consider more appropriate helicopter free areas, or allow helicopters throughout the Park.

At all times the Department's decision on helicopter access will be based on the main management objective, which is protection of natural Park values. Recreational hunting will be provided for and encouraged, subject to this overriding objective.

4.3 Recreational Use

Recreational use of the Park is likely to increase both in terms of numbers and in the range of activities which people wish to pursue. Management must ensure that while catering for and encouraging appropriate recreational use, natural and historic Park resources are protected.

⁷ Oroua and Pourangaki Catchments, Triplex/Waipawa Area, Tamaki to Wharite Peak - southeastern ranges, Takapari to Maharahara - southwestern ranges.

Park management therefore seeks to balance the protection of the natural and historic resources with the demands and aspirations of the users, with protection remaining the primary consideration.

It is inevitable that there are many differing expectations as to what activities are appropriate in the Park, or what facilities should be provided, and as demands for use of parks grows, conflicts and dissatisfactions may occur. However at all times the Department is bound by the provisions of the Conservation Act, and in this instance to section 19, which stipulates that protection is the primary objective for management.

As far as possible a range and variety of recreational opportunities, which are compatible with protection of the resource, will be provided for in the park. However in some instances where activities are compatible with Park values and it is envisaged they be catered for in the Park, such usage throughout the Park may be undesirable. For example in the Ikawatea Catchment, which will be managed to protect its remote character, no new huts, tracks and signs will be developed unless they are required for management purposes. While this may limit to some extent the use of this area to experienced outdoor recreationists, in other areas of the Park provisions will be made for those who require or prefer well developed huts, tracks and sign systems.

When assessing the appropriateness of activities or developments within the Park it is also necessary to consider opportunities available elsewhere in the region. It is not the intention of management to make provision for the full spectrum of recreational activities within the Park, especially where some activities would be more appropriately accommodated in other areas. Such activities as trail bike riding and 4 wheel drive use off formed roads would fit into this category. In general, however, activities which are compatible with protection of the Park's natural and historic values will be catered for.

While the approach to public use outlined above provides a specific management direction it is not possible to formulate a simple definitive statement setting out where the balance between protection and use lies. Each case will be considered on its individual merits.

5. MANAGEMENT POLICIES

5.1 RESOURCE PROTECTION

- 5.1.1 Zoning
- 5.1.2 Park Boundaries
- 5.1.3 Advocacy
- 5.1.4 Soil and Water Conservation
- 5.1.5 Indigenous Plants
- 5.1.6 Introduced Plants
- 5.1.7 Revegetation
- 5.1.8 Indigenous Animals
- 5.1.9 Introduced Animals
- 5.1.10 Archaeological, Historic & Cultural Sites
- 5.1.11 Landscape Management
- 5.1.12 Fire Control
- 5.1.13 Research
- 5.1.14 Grazing Licences
- 5.1.15 Prospecting, Exploration and Mining
- 5.1.16 Hydro-electric Power Generation
- 5.1.17 Telecommunication systems and Public Utilities
- 5.1.18 Roding and Vehicle Access
- 5.1.19 Chainsaws

5.1 RESOURCE PROTECTION

5.1.1 Zoning

- (i) There are three areas of the Park that have been identified as having significant ecological values:
 - a) The southern leatherwood area
 - b) Lake Colenso area
 - c) Ruahine Corner/Waiokotore/Ikawatea areas
- ii) Although these areas have not been fully investigated they will be managed so as to protect their important ecological and/or scientific values.
- iii) The Department will investigate further the need to set aside these, and other areas in the Park as Ecological Areas, under Section 18 of the Act.

Explanation

Section 18 of the Act provides for the Minister to confer additional protection to areas with significant ecological values - Sanctuary or Ecological Areas. Under the Act Sanctuary Areas offer the highest level of protection, whereas Ecological Areas are managed to protect the values for which they are held. Ecological areas may be created to protect ecologically representative areas, or rare species, or ecosystems, or to manage for particular rare species.

Sanctuary Areas

No sanctuary areas have been gazetted in the Park.

Ecological Areas

At present no ecological areas have been gazetted in the Park. However, as indicated in sections 2.6 and 2.10.1, areas of outstanding botanical value exist both in and immediately adjacent to the Park.

Further investigations will be carried out in these areas with a view to formally declaring appropriate areas as ecological areas under section 18 of the Act. This would give them a high level of protection designed to ensure the preservation of important ecosystems for their intrinsic and scientific values.

Three ecological proposals are discussed below (further studies may reveal the need to formally declare other areas as ecological areas).

i) Southern Leatherwood Area

The southern Ruahine leatherwood area is the dominant feature of the North Manawatu Gorge Ecological District.

As discussed in sections 2.6 and 2.10.1 leatherwood (Olearia colensoi) forms a dense vegetation pattern above the bushline from Wharite Peak to the middle reaches of the Pohangina catchment. It is the longest continuous leatherwood area in New Zealand, being some 25 km long and up to 2 km wide.

The area's botanical and scientific importance has been recognised for many years and recently it was identified as a potential ecological area (NZFS, 1986). The (former) Ruahine Forest Park Advisory Committee resolved at a meeting on 23.6.87 that the Department "... assess the leatherwood zone of the southern Ruahine Range for scientific and other values with a view to giving it an appropriate protection designation." (A more detailed description of the area is included as Appendix 3C).

ii) Lake Colenso and Environs

Lake Colenso and its surrounds have important scientific values as well as high scenic and landscape values.

The shallow lake, which is about 4 ha in area, is of geological interest, and is bound by impressive limestone escarpments. It has a simple and fragile ecology and is probably less influenced by exotic organisms than any other lake in the North Island. While some introduced weeds are present, overall the number of introduced animals and plants seems small. (Skipworth 1979).

Protection of the natural values of the lake from introduced plants and animals is a high priority. Boating is not allowed on the lake because of the danger of introducing aquatic plant species. The introduction of fish into the lake or its watershed will not be permitted.

The area surrounding the lake has one of the largest bird lists in the Park (over 20 species). The area provides one of the few sizeable remnants of lowland podocarp forests within the ranges and forms an "island" of podocarps in a large tract of red beech forests.

There have been several proposals for ecological/scientific designation of the area. The (former) Ruahine Forest Park Advisory Committee recommended in 1987 that the Department assess the suitability of Lake Colenso and environs (an area of some 130 ha, including the lake and the basin in which it lies) for designation as an ecological area or some other appropriate reserve status. Earlier Mr J L Nicholls considered there was a need for "... a large comprehensive ecological reserve in the ecologically distinct northern third of the Ruahine Forest Park, and the particular Lake Colenso area might very likely be included in this reserve." (Nicholls 1979). While recommending that the lake and surrounds be made an ecological area, he considered it could be part of a larger reserve for scientific purposes in the northern third of the ranges extending beyond the Lake Colenso basin (See 5.1.1 (iii)).

iii) Ruahine Corner/Potae/Waiokotore

The northwestern corner of the Park and adjacent areas have important ecological, scientific and landscape values. As indicated above the area within the Park has been recommended as a potential ecological reserve.

The area is the only part of the Park included in the Moawhango Ecological Area. It protects important kaikawaka/pink pine associations and has a distinctive limestone landscape.

Apart from the privately owned Aorangi-Awarua lands the Ruahine Corner area contains the major remnant of the once extensive fire induced tussock and shrublands of the Mangaohane Plateau. (Most of the red tussocklands of the Mangaohane Plateau have been converted to pasture).

The Waiokotore catchment, both within and outside the Park, is scientifically highly significant as it preserves vegetation successions dating from Polynesian burning times. (Rogers 1987). Most Polynesian fire succession patterns have largely vanished as a result of periodic European burning of tussocklands. Only in the west Waiokotore Stream are the succession patterns preserved. Rogers (pers comm) regards this area as one of the few, if not the only sites where polynesian fire induced succession patterns are preserved in New Zealand. This ancient forest is dominated by kaikawaka (Libocedrus bidwillii) with associated Hall's Totara (Podocarpus cunninghamii) and pink pine (Halocarpus biformis). The rare plant Pittosporum turneii is also found in this area and at Ruahine Corner. Druce (1974) recommended creation of a sanctuary in the west Waiokotore Stream to protect a portion of this population.

This area will be considered as a potential Ecological Area in conjunction with the Lake Colenso area, and also in relation to the important natural areas on private lands just outside Park boundaries. Complementary management, and/or protection of these adjacent areas is advocated by the Department. (See Policy 5.1.3).

5.1.2 Park Boundaries

- i) The Department will identify areas adjacent to the Park, which because of their natural values, recreational values, and/or landscape/ecological unity with the Park, may warrant complementary management or inclusion in the Park.
- ii) The Department, in consultation with landowners, will seek the complementary management or acquisition of areas identified above.
- iii) Every effort will be made to consolidate boundaries for reasons of improved management of the Park, such as fire prevention or introduced plant and animal control.
- iv) Boundary adjustments will take into account the need for continuing and improved access. (see also 5.1.3. (iii)).

Explanation

Ruahine Forest Park adjoins land in both public and private ownership. As it is a long and narrow Park it shares a common boundary with many landowners, mainly farmers. Co-operation and liaison between the Department and these owners is essential to protect the natural values of the Park and provide for access to the Park.

There are several areas of Department of Conservation land adjoining or near the Park which may be better managed as part of the Park. They include the Wakarara Range, Sentry Box Scenic Reserve, State Forest land near Kawhatau Base, the recently acquired land in the south east (Mackays Block), Wharite road and approximately 2400 ha of Conservation land in the Ikawatea catchment (formerly part of the Crown land area administered as State Forest). (See map 2 and appendix 8).

The Department will proceed with the requirements to achieve the inclusion of the above Crown lands in the Park if appropriate.

There may also be opportunities for additions of other areas into the Park. These would be the subject of negotiation and agreement between all parties concerned, and could only be added, or otherwise protected, if this was the wish of the owner(s).

While the Department may seek to protect the natural values of adjacent lands by acquiring them for inclusion in the Park, or by lease or covenant, its main objective is to achieve wherever possible, compatible land management to protect the natural values of the Park and its surrounds (see policy 5.1.3 Advocacy).

Another possible means of protecting important natural areas adjacent to the Park is by exchanges of land. Before disposal of any Park land the Act requires that the public are notified of this intent. Any person has the right to make submissions or objections to the proposal. (See also policy 5.1.14, Grazing Licences).

5.1.3 Advocacy

- i) The Department will liaise with and seek the co-operation of landowners, local authorities, state owned enterprises and government agencies to encourage land uses adjacent to the Park that are compatible with the conservation of the areas natural values, and to minimise the impact of activities that may be detrimental to, or detract from Park values.
- ii) The Department will oppose through planning processes, adjacent uses that have an undesirable impact on Park values, or threaten important natural and/or historic values adjacent to the Park, if consultation and liaison does not achieve this protection.
- iii) The Department will make every endeavour to maintain, and where necessary enhance, access to the Park for recreational users. This will be done in liaison with adjoining landowners.
- iv) The Department will liaise and co-operate with adjoining landowners to ensure that boundaries are fenced where necessary, to prevent stock entering into the Park (see policy 5.1.14).

Explanation

Some land practices adjacent to the Park may detract from park values, or hinder access for park users. The Department will, through liaison with landowners and local authorities, and through statutory processes, continue to advocate management practices on adjacent lands that are as far as possible compatible with park management.

The main areas of concern in areas surrounding the Park include clearing of indigenous forests, fire prevention and spread of introduced plants and animals from adjacent farmland.

As indicated in sections 2.6, 2.10.1 and 5.1.1 there are areas alongside the Park, particularly in the northern plateau areas, which have outstanding natural and landscape values that are threatened by stock grazing, introduced animals and weeds, or by logging proposals.

The red tussock grasslands at the southern end of the Mangaohane Plateau represent one of the few remaining largely unmodified red tussock areas in Moawhango Ecological District, but this area is threatened by grazing. Of particular significance in this area are the Reporoa Bogs and Makirikiri Tarns, which contain many rare and interesting plants, and the forests of Mt Aorangi. The Department will continue to act as an advocate for protection of these significant natural areas adjoining the Park, primarily through liaison with owners.

There are also a number of other natural areas adjacent to the Park which are unrepresented or inadequately represented in the Park, or are unprotected from stock grazing. These include the tussock grasslands of the Mokai Patea Range, (which contains some of the highest points in the Ruahine Ranges and suffer seasonal cattle grazing to high altitudes) and lowland forests flanking the ranges. In a Protected Natural Areas Programme Survey of the Ruahine and North Manawatu Gorge Ecological Districts (DOC 1990) a recommendation is that "... boundaries of the Ruahine Forest Park do not adequately protect the total spectrum of natural features which make up the natural character of the Ruahine landscape". These include:

- i) In the northern regions a unique range of natural components remain unprotected. Wetlands are particularly in need of protection.
- ii) Lower altitude landscapes and forests are inadequately protected.

Adequate road and foot access to the Park is important to facilitate public use and enjoyment of the area. Existing foot access to the Park boundary is inadequate in some areas, and in some cases is resulting in diminished recreational hunting pressure and an apparent build up in deer numbers. The Department will continue to liaise with adjoining landowners in an endeavour to provide security of existing access, and improved access to some areas.

The Park has a long boundary and is surrounded by farmlands over most of its length. Stock trespass (mainly goats and cattle) has been a problem in the past, and is still a problem in some areas. Continued liaison with landowners is essential, and the Department will endeavour to have boundaries fenced where necessary and feasible to protect park values. (see policy 5.1.14 Grazing Licences).

5.1.4 Soil and Water Conservation

This policy section should be read in conjunction with Section 4 (Major Park Management Issues) and policies 5.1.5 Indigenous Plants, 5.1.6 Introduced Plants and 5.1.7 Revegetation.

- i) The Park will be managed so that as far as possible the quality and quantity of waters are maintained in a natural state. Animal control and fire prevention will remain the principal means of protecting these values.
- ii) Proposals for hydro-electric power development within or adjoining the Park will be considered on their merits. Proposals which would compromise park values will be declined.
- iii) Proposals to abstract water from Park streams or rivers will be considered on their merits. Proposals which would compromise Park values will be declined.
- iv) The Department supports the completion of a National Water Conservation Order (NWCO) for the Rangitikei River (see appendix 4). It will investigate, and if appropriate, seek an NWCO for the Ngaruroro River. (see policy 5.1.16 Hydro-electric Power Generation).
- v) The Department will continue to liaise and co-operate with local authorities, government departments and landowners in matters of catchment protection, to ensure as far as possible that soil and water values are protected in and adjoining the Park. This will be achieved primarily through wild animal control and fire prevention, and will be subject to protection of other natural Park values. (See policy vi, below).
- vi) Any revegetation for protection of soil and water conservation values will as far as possible be with indigenous plants. If exotic species have to be used for protection of soil and water values they will be of species which are visually compatible with existing indigenous vegetation, will allow subsequent invasion by indigenous species, and will not themselves be invasive. They would only be used after careful research. (see policies 5.1.5 Indigenous Plants and 5.1.7 Revegetation).
- vii) The Department may allow maintenance of existing willow plantings in the Tamaki and Kumeti Catchments. Extensions of the Tamaki and Kumeti plantings, or new plantings of introduced plants in other catchments within the Park is not generally favoured. However the Department will consider proposals on their merits. In exceptional cases, where there is a compelling need for river control works, plantings within the Park may be considered, subject to a detailed assessment of their effects on the environment. Proposals which would compromise Park values would be declined.

Explanation

The rivers of the Park have high scenic and natural values. Proposals to dam or abstract water which would interfere with the natural quantity and quality of park waters, park land, or recreational use of the Park will be declined. This in effect means that the vast majority of proposals to dam rivers or abstract waters would be declined. However it is recognised that there may be circumstances in which very minor abstractions, (for example, of up to five percent of the natural flow), or run-of-the-river schemes may be acceptable. They could include schemes to supply power for a local project where alternative sources are more environmentally damaging, or schemes where the construction of a power supply line would create greater environmental damage than the installation of a small hydro scheme. Such applications would be considered on their merits and only approved if it is clear that Park values would not be compromised. (See policy 5.1.16 Hydro-electric Power Generation). This also applies for water abstractions for irrigation, farm supplies etc.

In 1986 a draft National Water Conservation Order (NWCO) was recommended by a Special Tribunal for the Upper and Middle reaches of the Rangitikei River. This Order was opposed by appeals to the Planning Tribunal and a new consent order has now been prepared (1990). (See appendix 4). This draft NWCO includes rivers flowing through the Park - the Whakaurekau and its tributaries, the Kawhatau River and two of its tributaries, the Pourangaki and Mangaokeke Streams. These Park rivers have high natural and scenic values. The Order as it stands gives substantial protection to the upper and middle reaches of the River in that it preserves the waters in their natural state (as at present), imposes a ban on damming for any purpose, and limits the taking of water to five percent of the natural flow. The Order has yet to be agreed upon by all parties involved in this issue.

The Ngaruroro River, which flows along the northern boundary of the Park, has significant natural and recreational values. Considerable information is already available on the values and uses of this river. The Department will co-operate with other agencies in collecting further information, and if appropriate will seek a NWCO on this river to protect its natural and recreational values.

As indicated in Section 2.10.3 the Park plays a significant role in protecting soil and water values, both within the Park and downstream. The Department will manage the Park to protect soil and water values as far as possible, but will not attempt widespread revegetation of eroding sites (particularly with exotic species) as has been done in the past. Such methods would be unrealistic given the available resources, and even with unlimited resources may have little impact on erosion in the long-term. Any revegetation that is considered necessary to protect important values will as far as possible be with indigenous species (see policy 5.1.7 Revegetation).

The Department will protect soil and water values principally by controlling introduced animals and by strict fire control.

Animal control consists of a combination of recreational hunting, commercial and departmental control, combined with fencing of Park boundaries to prevent re-introduction of animals.

For flood control reasons a number of rivers in and adjacent to the Park, particularly in the Southeast, have been modified. Works have included the construction of weirs, the creation of shingle reserves and planting of willows and other introduced species. Within the Park the modifications have been restricted to willow plantings, particularly in the Tamaki and Kumeti Catchments. The Department may allow maintenance of these plantings. Extensions of them or new plantings in other catchments within the Park are not generally favoured but may be considered, subject to a detailed assessment of their possible effects on the environment. The Department would require evidence that the works are necessary to protect important downstream values, and cannot be located outside the Park. Before approving any new plantings in or alongside Park streams and rivers, the Department would also have to be assured that Park values would not be compromised.

The Department will continue to liaise and co-operate with local authorities involved with flood protection. Consistent with protection of natural Park values it will manage the Park to protect soil and water conservation values. It will also assist regional authorities in their flood control works by fencing Park boundaries as far as possible to stop stock trespass and by establishing trials of indigenous plants which could be used to replace willows for flood control purposes.

The Tamaki and Mangapapa rivers provide the water supply for Dannevirke and Woodville respectively. Other rivers in the Park are also used for downstream uses (irrigation, farm water supplies etc). In liaison with local authorities the Department will endeavour to maintain the quality and quantity of these water supplies but will oppose any applications to take or use water which would detract from natural Park values.

5.1.5 Indigenous Plants

- i) The Park will be managed to ensure the protection of indigenous vegetation as far as possible in its natural state.
- ii) As far as possible any threatened or significant indigenous plants found in the Park will be protected, by special measures if required. (see policy 5.1.1.1).
- iii) The Department will continue to monitor indigenous plant communities in order to determine how best to protect the ecological values of the Park.
- iv) As far as possible introduced plants that are threatening indigenous plant communities will be controlled or eradicated.
- v) As far as possible any plantings or seeding for revegetation/ landscaping/erosion control will be with appropriate indigenous species (see policies 5.1.4 Soil and Water Conservation, 5.1.7 Revegetation and 5.1.11 Landscape Management).
- vi) The removal of indigenous plants from the Park will be prohibited except where specifically authorised for traditional Maori or scientific purposes.

Applications for removal of plant materials for scientific purposes will be assessed against the following criteria:

1. the taking of such plant material shall not have a detrimental impact on plant or other species classed as rare, endangered or locally uncommon.
2. plants may not be taken from ecological areas.
3. there are no alternative sources outside the Park.
4. removal of plant species would be supervised.
5. there is no purpose or intention of deriving commercial gain or reward from the plants

The removal of plant material from the Park for traditional Maori purposes will be authorised according to the policy outlined in Section 5.2.12.

- vii) Collection of seeds from within the Park may be permitted, at the discretion of the Regional Conservator, for scientific and/or educational purposes, or if the collection will be of future benefit to protected areas management.
- viii) The development of tracks, huts and other public facilities will be carried out in such a way as to minimise damage to

vegetation in the Park.

Explanation

Protection of indigenous vegetation in the Park is required by Section 19 of the Act.

As discussed in sections 2.6 and 2.10.1 there are a number of areas in the Park with significant botanical values, and a number of rare or threatened species. Some of these areas, in particular the wetland areas of Reporoa Bogs and Makirikiri Tarns are just outside Park boundaries and threatened by stock grazing, fire, or invasion by introduced plants. Primarily through liaison with landowners, the Department will advocate the protection the natural values of these areas (see policy 5.1.3 Advocacy).

Grazing and browsing animals continue to have a significant effect on ecological values in the Park. In order to make wise use of resources and direct introduced animal and plant control measures effectively, monitoring of plant communities, animal numbers and population dynamics is essential. Extensive animal and plant surveys have been carried out in the ranges in the past, and a number of enclosure plots and photo points continue to be maintained. These past surveys provide a valuable database. Current resources limit vegetation surveys for the foreseeable future and monitoring will likely concentrate on such methods as enclosure plots, photo points, hunter diaries, rumen sampling and jawbone sampling (the latter three to gain information on hunting kills, on deer populations and their vegetation preferences). The Department is investigating other methods of estate monitoring that are effective and realistic given the available resources. (see policy 5.1.9 Introduced Animals, for more detail).

Introduced plants can also pose a threat to indigenous ecosystems in the Park. These threats are discussed in policy 5.1.6.

In order to protect indigenous vegetation, park users will be encouraged to carry portable stoves for cooking purposes as an alternative to fires, (see policy 5.1.12) and chainsaws will not be permitted in the Park (see policy 5.1.19).

5.1.6 Introduced Plants

- i) The Department will continue to monitor and control, as far as possible, introduced plant species that may pose a threat to indigenous plant communities in the Park.
- ii) The Department may allow maintenance of existing willow plantings in the Tamaki and Kumeti Catchments. Extensions of the Tamaki and Kumeti plantings, or new plantings of introduced plants in other catchments within the Park is not generally favoured. However the Department will consider proposals on their merits. In exceptional cases, where there is a compelling need for river control works, plantings within the Park may be considered, subject to a detailed assessment of their effects on the environment. Proposals which would compromise Park values would be declined. (See also policy 5.1.4)
- iii) There will be continued liaison with the Hawke's Bay and Manawatu-Wanganui Regional Councils, other relevant authorities and government departments, and adjoining landowners regarding the control and/or eradication of noxious plants, both inside and outside the Park, which pose a threat to indigenous plant communities in the Park.
- iv) The Department is making it a priority to keep tussock grassland areas free of exotic pines, and where pines are present now, to remove them.

Explanation

The spread of introduced plants into and throughout the Park, and their control is an ongoing management issue. Introduced plants threaten the natural values (vegetation and wildlife habitats, and landscapes) of the Park.

Many weeds occur throughout the Park, some of which are unavoidable and are not a serious threat to natural values. However some have the potential to spread and seriously modify the natural environment. Some of these plants, notably Pinus species (P contorta, P mugo, P radiata, P sylvestrus) were originally introduced to the Park for erosion control. While their potential to spread from slips in the southern part of the ranges is somewhat limited because of the surrounding forests, their potential to spread into and throughout subalpine shrublands and tussock grasslands with their high ecological and scenic values is much greater. Every effort will be made to prevent spread into these areas, and where pines are found in these areas they will be removed. Potential seed sources will be eradicated also. Of particular concern in this respect are parts of the central ranges (P contorta is present in tussock grasslands around Kashmir Road/Longview Hut areas), the Big Hill area where it is spreading from the Kaweka Ranges, and in northern plateau areas where it is spreading towards the Park from private lands on Mangaohane plateau. Removal of exotic pines in other areas will also be pursued if park values are threatened and their removal will not contribute to erosion.

As discussed in policy 5.1.7 it may be necessary in some instances to maintain an introduced vegetation cover temporarily until a viable means of control/eradication is available which does not compromise other park values.

Other weeds present in the Park include broom, gorse and buddleia (especially in riverbeds) lupin and blackberry. A number of others, introduced to prevent erosion are also present in many southern areas, and include Alnus species, Populus species and Salix species.

While there may be a statutory requirement to control designated noxious plants on Departmental land, the priority for their control needs to be according to a number of criteria, including:

- i) the conservation values at risk
- ii) the magnitude of the threat
- iii) the nature of the problem plant(s)
- iv) problems for neighbours
- v) practicality/cost effectiveness of control

While, ideally plants such as buddleia, broom, willows and poplars should be eradicated from the Park, given available resources and management priorities, a more realistic objective is their control or prevention of their spread into areas currently free of them. Control will also be concentrated in areas where these species may be impacting on important natural values or impeding natural regeneration of indigenous species.

A number of plant species have the potential to spread from adjoining lands and seriously impact on park values. These include Hieracium pilosella (hawkweed), heather (Calluna vulgaris) and in particular Clematis vitalba (Old Man's Beard).

Clematis vitalba is a serious problem in areas adjoining the western side of the Park (in the Rangitikei) and is present in the Pourangaki, Kawhatau and Pohangina catchments. Any plants found within the Park will be destroyed and every effort made to seek their eradication in areas adjacent to the Park. This will require close co-operation and liaison with landowners and local authorities.

Hieracium pilosella is now present in the Park and poses a threat to tussock grassland communities. It is widespread on the Mangaohane Plateau and is threatening the significant botanical values of the Reporoa Bog and Makirikiri Tarn areas. While there are no feasible techniques available at present to control or eradicate this plant, control of browsing animals and fire control to prevent degradation of tussock grasslands may reduce the chances of its establishment.

Heather is not present in the Park but because of its spread throughout the tussocklands of Tongariro National Park and Kaimanawa Forest Park, has the potential to invade the Park from the North. At present there are no suitable methods available to control large scale infestations of heather, although some research has been done on possible biological control. Biological control of heather would be considered by the Department, should a safe and suitable method become available.

5.1.7 Revegetation

(see also policy 5.1.4 Soil and Water Conservation)

- i) Where resources allow, following fires, major slips, or removal of problem plants, or for specific management purposes, revegetation of areas may be undertaken in order to assist with soil conservation and habitat enhancement.
- ii) Revegetation will be with indigenous plant species wherever possible. If exotic species have to be used for a specific purpose (eg. soil and water conservation purposes) they will be of species which are visually compatible with existing indigenous vegetation, will allow subsequent succession by indigenous species, and will not themselves be invasive.
- iii) Amenity plantings with indigenous species may be carried out at roadend sites, picnic areas or camping areas to provide privacy and shelter, or after development of new facilities.
- iv) Indigenous plants used for amenity plantings will be collected or seed sourced as close to the planting area as possible.

Explanation

Because of the perceived need to control erosion in the ranges extensive revegetation of slips and headwaters in the Park has been attempted (see sections 2.5 and 5.1.4). In the past revegetation has concentrated on introduced species such as Pinus species, lupin and Lotus pedunculatus. In accordance with the Conservation Act the emphasis will now be on the use of indigenous species for any revegetation considered necessary or desirable. Also, the priority given in the past to widespread revegetation for erosion control purposes will not continue, unless important values are threatened both inside and outside the Park. Revegetation of specific sites for specific purposes may be carried out, but the Department will not attempt widespread revegetation of actively eroding areas.

A southern Ruahine landslip revegetation assessment (NZ Forest Service 1987) found that given the inherent geological instability, steep slopes and cyclic nature of the erosion process, it is impractical to control the highly active headwater gullies and slips. Riparian slips can be successfully treated. However if left to naturally regenerate, a cover of toetoe and other indigenous plants will colonise the low to mid altitude sites in the equivalent period for which it takes exotic species to establish.

The above study mentions that removal of forest cover since human settlement has increased bank erosion and lowered the storage capacity of valley throats and alluvial fans at the foot of the ranges. The study suggests that revegetation efforts might be more usefully concentrated in these areas.

If revegetation is considered necessary or desirable, indigenous plants will be used as far as possible. Any use of exotic species within the Park will be according to the following conditions:

- i) that they are the best practical means of fulfilling, in the short to medium term, urgent water catchment and indigenous flora and fauna habitat rehabilitation;
- ii) that the species selected are known not to put natural values at risk, and that they will decline over time.
- iii) that no control measures will be needed for the exotic species once established.

5.1.8 Indigenous Animals⁸

- i) Indigenous animals within the Park will be protected by all appropriate means including where necessary active management.
- ii) Priority for conservation management will be given to any endangered, threatened or rare species⁹ found in the Park.
- iii) The disturbance, removal, taking or killing of indigenous animals (excluding fish) will not be allowed except for authorised scientific and management purposes under strict guidelines.
- iv) The disturbance, removal, taking or killing of indigenous fish will not be allowed except for authorised scientific and management purposes, or for authorised traditional Maori uses (under strict guidelines, including principles of kaitiakitanga). There will be no disturbance, removal, taking or killing of indigenous fish in ecological areas or other specially protected areas, (see policies 5.1.1 and 5.2.13).
- v) Control of introduced animals will be carried out in such a way that does not conflict with the protection of indigenous animals (see policy 5.2.11 Dogs).
- vi) Ongoing studies on indigenous animals, their habitats and the effects of introduced plant and animal species on these habitats, will be carried out, and a record system maintained.
- vii) The re-introduction of indigenous animals that were once present in the Park will be allowed should the option arise.

Explanation

Section 2.7 and appendix 4 give a description of indigenous animals in the Park.

The disturbance, removal, taking or killing of indigenous animals (excluding fish) will not be permitted except for authorised scientific or management purposes.

⁸ "Animal" means any member of the animal kingdom other than a human being. (Conservation Act 1987). However in various legislation fish are treated differently to land animals. Note therefore the differences in policies (iii) and (iv) above.

⁹ As referred to in "The Conservation Status of NZ Wildlife" (B D Bell 1986) see appendix 2.

Permission may be granted to take indigenous fish for traditional Maori purposes, as long as the species is not threatened and/or the demands are not excessive. The taking of indigenous fish will not be permitted from ecological areas or other specifically protected areas, or for the purposes of commercial gain. The appropriate Iwi Authority and/or tangata whenua will be involved in any applications to remove indigenous fish from the Park. (See policy 5.2.13 Traditional Maori Uses of Park Resources).

Protection, maintenance and where necessary enhancement of existing natural habitats of indigenous animals is a high priority for park management. The greatest priority will be given to any endangered, threatened or rare species found in the Park. Methods of enhancing the natural habitats include fire prevention and control, introduced plant control, wild animal control, and control of domestic stock grazing by fencing. These issues are considered later in the plan.

As indicated in section 2.7 a number of rare, threatened and uncommon species are present in the Park. Protection of the blue duck population and habitat in the Ikawatea Catchment (DOC conservation land, to be included in the Park) is of particular importance because of its national significance. The Department proposes to declare this area dog-free (see policy 5.2.11) and will use other appropriate management techniques to protect and enhance the habitat of this species in the Ikawatea Catchment, or any other areas of the Park where it is found. Further studies are required in the Park to determine where/if blue duck, and other endangered species are present, and also to determine if they require special management consideration.

There is inadequate information available at present on bats, reptiles, amphibians, invertebrates and freshwater fish in the Park. As resources allow surveys of these animals will be carried out. (See policy 5.1.13).

Records will be kept of any rare or endangered species and the location of populations of such species, so that these areas are avoided in the provision of public facilities and services. Field staff routinely keep records of wildlife sightings and the Department will encourage park users to report sightings of significant wildlife, ie by filling in wildlife sighting cards kept in park huts.

Regulations will be formulated to enforce policy (iv) above. (See also policy 5.3.3 Park Regulations).

5.1.9 Introduced Animals

- i) Protection of the Park's indigenous plants and animals, and catchment protection will continue to be the priority for management. Wild animal management will reflect this emphasis.
- ii) Goats are present in low numbers, in localised areas of the Park. Management efforts will concentrate on controlling, and if possible eradicating them in these areas. It will also concentrate on preventing their spread into goat-free areas, and on liaising with adjoining landowners to ensure that boundaries are fenced, where necessary, to prevent re-introduction of goats into the Park. Efforts will be made to have a goat-free buffer zone around the Park.
- iii) Commercial possum control will be encouraged in the Park. The Department may need to take primary responsibility for possum control in areas of outstanding conservation value, as resources permit.
- iv) Pigs are found in very low numbers in several areas on the fringes of the Park. As long as recreational hunters keep pig numbers to this low level the Department will encourage them to take sole responsibility for their control.
- v) Current deer control is predominantly through recreational and commercial operations (aerial shooting). The Department supports the continued use of both these methods of animal control. Other methods of control, (departmental operations) will be used if recreational hunting or commercial operations do not achieve an acceptable level of control.
- vi) The Department may maintain "helicopter-free" areas ¹⁰ in the Park as long as recreational hunting is achieving an acceptable level of control in these areas.
- vii) The Department will encourage recreational hunting in the Park by providing adequate access, up-to-date information, and adequate hut facilities where necessary.
- viii) The Department will liaise with recreational hunting organisations in order to improve results achieved by recreational hunters. Recreational hunters will be encouraged to provide information on their hunting success (ie. deer jaws and kill returns) so that adequate data is available to assess the effectiveness of recreational hunting. (see appendix 7). The Department also requires this information from commercial/aerial operators.

¹⁰ This does not preclude use of helicopters for management reasons, including animal control.

- ix) The Department will continue research on wild animal demographics and the effects of introduced animals on the indigenous flora and fauna, and soil and water values of the Park, so that existing control efforts can be assessed and changes made if required.
- (x) The Department will liaise, on an ongoing basis, with local and regional authorities, other government departments, conservation organisations, recreation hunting groups, commercial operators, and occupiers of adjoining land on all aspects of wild animal control.

Explanation

As indicated in sections 2.7 and 4.2 a range of introduced animals are found in the Park, and all are impacting on the natural values of the Park to a greater or lesser extent.

Wild animals in the Park are controlled by three main methods:

- i) Recreational hunting
- ii) Commercial operations
- iii) Departmental operations

Recreational and commercial hunting will continue to be used as the first means of control, but Departmental operations may supplement this if they are not achieving an acceptable level of control. At all times the main objective for park management, (protection of natural and historic resources) will determine which form(s) of animal control is/are required.

The method and intensity of control will clearly differ according to the management objectives for a particular area of the Park and the animal in question. Deer, for example, are a favoured recreational hunting species and therefore recreational hunters may, in some areas, be able to achieve an acceptable level of control. By contrast goats are not generally sought after by recreational hunters or commercial operators, and therefore the Department will need to take prime responsibility for their control.

Eradication of possums and deer in the Park is not feasible given current technology and resources. Although goats are present in low numbers their eradication will also be very difficult. Pigs could feasibly be eradicated in the Park, but goat, possum and deer control are higher priorities.

Pigs are only found in very low numbers, in specific areas of the Park - Ikawatea, Ohutu Ridge, and small pockets in the south of the Park. They are not considered to be a problem at present as recreational hunters are controlling them successfully. Unless this situation changes, recreational hunting will continue to be the primary means of control for pigs in the Park.

Goats are present in low numbers in parts of the Park. Despite their low numbers they have the potential to pose a serious threat to Park values, and their control is a high management priority. The Department's aim is to eradicate goats in the Park. In the short-term it will concentrate on preventing their spread into areas currently free of them. This will involve close liaison with adjoining landowners to ensure that boundaries are fenced, where necessary, to prevent re-introduction of goats into the Park. The Department will also work towards having a goat-free buffer zone around the Park. This will be done both by input into Regional Policy Statements and Regional and District Plans, and by liaison and co-operation with landowners.

Possoms have had a significant impact on vegetation in the Park, particularly in the south where they have contributed to serious canopy defoliation. While numbers have declined from their peak in the 1950's there is concern that numbers may be building up in some areas. Possum control has traditionally been carried out by commercial operators, but at present, due to low fur prices, there are few possum hunters working in the Park. The Department will actively encourage commercial trapping and poisoning in the park. It may consider assisting with transport in combination with other operations or allowing aerial access into helicopter-free areas if this is necessary. It will also provide ongoing information to possum hunters to assist them in their operations. It is recognised however that in many cases this form of control is ineffective in significantly reducing animal numbers in the long-term. If commercial operations are not achieving sufficient control in areas with high conservation values (eg, ecological areas, or important wildlife habitats) the Department may need to carry out control of possums. In the past the priority for possum control in the Park was in areas with high soil and water conservation values, to protect downstream uses. Control was therefore concentrated in the southern ranges. This emphasis has changed, and the priority will now be in areas with high ecological values which may be threatened by possums. Such areas could include the three proposed Ecological Areas discussed earlier in this plan. (See policy 5.1.1 Zoning) or smaller areas containing threatened plants or animals.

The Department will closely monitor commercial operations to ensure that conditions of permits are met. This is essential to protect park users and indigenous animals. Ground animals, in particular kiwi, are very vulnerable to incorrectly laid traps or poison.

Hares are present throughout the Park and can have a detrimental impact on tussock grassland areas in particular. At present their actual impact is uncertain but they have been implicated in the spread of weeds such as Hieracium. The Department will monitor their impact on the vegetation by developing and maintaining exclosure plots which exclude hares.

While commercial operations take less deer they can nevertheless be a very effective means of reducing deer numbers. At present the venison industry is unstable, resulting in intermittent

hunting pressure. If this continues the Department may need to undertake hunting operations to reduce deer.

Recreational hunting is a popular use of the Park, and it can also be an effective animal control tool. Currently most deer are removed from the Park by recreational hunters (as discussed in section 4.2). The Department will continue to encourage recreational hunting and will work closely with hunting groups in order to improve the effectiveness of recreational hunting.

If recreational hunting is to remain a major control method for deer the Department requires the co-operation of hunters. It needs to know that recreational hunting is succeeding and that animal numbers are not building up generally in the Park, or in specific areas. To achieve this hunters will be encouraged to supply the Department with information from their hunting diaries and to return animal jaws and rumen samples for analysis of population demographics and diet preferences (see appendix 7).

For several year helicopters have not been allowed in some areas of the Park (except for management purposes). These areas were established in consultation with hunting groups, and provide areas of the Park where ground hunters do not have to compete with commercial aerial recovery.

In providing for such areas it was made clear that should wild animal numbers build up to unacceptable levels that the Department would allow helicopters throughout them, or introduce other forms of control. This still applies. If these areas are to be retained there is an onus on recreational hunters to control deer. In some parts of the Park the poor state of the vegetation indicates that wild animal populations are above the level required to protect the natural values of the Park. For example in the Pourangaki Catchment, which is currently helicopter-free area, deer numbers are increasing. Because of this increase and because foot access to this area is inadequate, it may be necessary to allow helicopters to operate throughout it.

Continued research and monitoring of animal populations and the effect of animals on indigenous vegetation is essential. In the past, extensive animal/vegetation surveys were carried out in association with use of photo points and exclosure points. The Department will continue to monitor animal numbers and the condition of vegetation in the most cost effective way, as resources allow. In the near future this will rely heavily on the use of photo points, quadrat plots, exclosure plots and returns from recreational hunters. If/when more resources, or new techniques become available this will be re-evaluated and the best method of monitoring adopted. (see section 4.2 and policies 5.1.13 Research and 5.1.5 Indigenous Plants).

5.1.10 Archaeological, Historic and Cultural Sites

(See appendix 10)

- i) All sites of archaeological, historic and cultural interest in the Park will be appropriately identified, protected and enhanced where necessary or feasible.
- ii) The Department will co-ordinate and co-operate in further investigation, protection and interpretation of historic, archaeological and cultural sites in liaison with the appropriate Iwi authorities, and the NZ Historic Places Trust.
- iii) An inventory/assessment of archaeological, historic and cultural resources in the Park will be completed in consultation with the appropriate Iwi authorities and the NZ Historic Places Trust, as part of a Conservancy wide exercise.
- iv) Sites of significance to Maori people will not be identified, publicised or interpreted without the consent of the appropriate Iwi authorities.
- v) Archaeological, historic and cultural sites will be protected when developing new facilities for park users.

Explanation

All historic, archaeological and cultural sites are protected under both the Historic Places Act 1980 and the Conservation Act 1987. Both known and suspected sites are included in this protection.

Section 2.5 of this plan gives a brief outline of the history of the Park, and identifies sites of historic interest. As indicated in this section, further historic resources, as yet unrecorded, may be present in the Park.

An historic resources inventory for the Park has been prepared. It identifies the historic values to be managed, and also areas where further assessment is required. A list of known historic resources in the Park (summarised from this inventory) is included as appendix 10b. There are several huts in the Park which have historical significance in that they represent an era in the history of the ranges. They include Shutes Hut, and several six and four bunk huts constructed in the early deer culling days of the 1960's. In liaison with the Historic Places Trust, the Department will investigate this issue and assess the historic significance of these huts.

When managing the Park to protect historic resources the Department will assess the need or appropriateness of formally identifying, publicising or interpreting sites.

The Historic Places Trust, the local NZ Archaeological Association filekeeper and appropriate Iwi authorities will be consulted before any archaeological sites are considered for management. (See also policy 5.3.2 Iwi Liaison).

5.1.11 Landscape Management

- i) The natural landscape and character of the Park will be retained as far as possible, and if necessary/practicable restored.
- ii) Any developments in the Park will be designed and sited to ensure the greatest possible integration with the Park landscape, and the least disturbance to the natural environment.
- iii) High priority will be given to the control of Pinus contorta, and other adventive pines, in areas where they have the potential to spread into the subalpine and open grassland areas of the ranges.

Explanation

The Ruahine Ranges are a distinctive landscape feature of the Hawke's Bay, Rangitikei and Manawatu areas. Particularly on their eastern flanks the ranges rise abruptly from the plains and dominate the landscape of Central Hawke's Bay. The northern plateau areas and the associated limestone landforms form a distinctive part of the Park contrasting with the steep and sharp-crested ranges of the southern areas.

Protection, and where necessary and practicable enhancement of the intrinsic values and landscape character of the Park will remain a key management objective. In this respect protection of tussock grasslands from the threat of introduced plants (in particular Pinus contorta and other adventive pines) is very important. The spread of these plants onto the open tops of the ranges would seriously diminish not only the botanical values of these areas but also their landscape and scenic values.

The retention of the natural landscape character of the Park will be a factor influencing the design and siting of any new facilities in the Park.

5.1.12 Fire Control

- i) The Department will respond to and extinguish all uncontrolled fires within and/or threatening the Park.
- ii) The Department will maintain and update as necessary the Hawke's Bay Conservancy Fire Plan that includes the Park.
- iii) The Department will ensure that staff are trained in fire control procedures, including monitoring of fire risk, and that fire fighting equipment is available at locations in and adjacent to the Park.
- iv) The Department will promote public awareness of fire prevention, and liaise and co-operate with other fire control agencies in the prevention and control of fires.
- v) The Department will promote the use of portable stoves throughout the Park, as an alternative to open fires, for both fire control and wood conservation reasons.

Explanation

Protection of the Park's natural and historic resources is the priority for park management. Control of fires is of paramount importance in this respect and is especially relevant on the Hawke's Bay side of the ranges, which is a rainshadow area renowned for its high fire risk. In the past fire has had a significant effect on the conservation values of parts of the ranges.

The Department is responsible for fire control in the Park, and within one kilometre of its boundaries in accordance with the Forest and Rural Fires Act 1977. The Department produces fire plans, which detail the fire fighting equipment available and procedures to be followed in the event of a fire in or adjoining the Park. These plans are revised annually.

The Department has an important advocacy role for fire safety amongst park users and adjoining landowners. In the past fires on adjoining land have threatened park land and every endeavour will be made to liaise and co-operate with landowners to minimise this risk.

The Department will continue to promote the use of portable stoves in the Park, as they assist in fire prevention and help conserve indigenous vegetation.

The Hawke's Bay Conservancy Fire Plan details actions to be taken in the event of a fire. It will be maintained and updated annually.

5.1.13 Research

Research and information gathering will be pursued in the following areas where resources permit.

- i) Native Vegetation
 - survey and documentation of vegetation patterns and processes of the Park.
 - compilation of information on rare and threatened plants (distributions, status and threats).
 - monitoring and maintenance of existing enclosure plots.
 - monitoring of condition in the main vegetation types and at vulnerable sites.
 - further investigations of proposed ecological areas in the southern leatherwood area, Lake Colenso and Ruahine Corner Areas (see policy 5.1.1).
- ii) Native Fauna
 - further blue duck surveys of catchments in the Park. Study of Apias/Ikawatea blue duck populations as to the relationships between trout and blue duck. (See section 2.10.1).
 - Kiwi - survey of kiwi presence in Northern Ruahine Ranges.
 - The distribution and abundance of nationally rare, or threatened species recorded in the Park, ie blue duck, kiwi, kaka, bats, falcon, whitehead, robin, native snails, native fish, skinks and lizards.
 - Surveys of animals for which there is currently very little information: bats, reptiles, amphibians, freshwater fish and invertebrates.
- iii) User Groups - changes, trends and demands.
- iv) Problem Plants - in particular the most efficient means of controlling exotic pines and Clematis vitalba.
- v) Revegetation - the use of native species for water and soil conservation in cases where introduced vegetation has previously been used for this purpose.
- vi) Introduced Animals - continued monitoring and information gathering on population, demography and ecological impact of goats, possums and deer.
 - monitoring of wasp spread and densities in and adjacent to the Park.
- vii) Advocacy - research on natural and recreation values of the major rivers in and adjacent to the Park.
 - research into identification and protection options for unprotected riparian areas adjacent to the above rivers.
- viii) Archaeological/historical/cultural site identification, assessment and management.

ix) Other projects which may be defined from time to time.

Explanation

A valuable database already exists in such areas as vegetation changes, revegetation and hydrology, but ongoing research and studies are essential for effective management of the Park.

Further surveys are needed to determine where/if rare, endangered or threatened animals exist in the Park, so that specific measures can be taken if needed, to safeguard their habitats.

Information is needed in a variety of other areas including that on users of park resources, their needs and aspirations, changing patterns of use and their impact on park facilities and conservation values.

It is recognised that implementation of these projects will be largely dependent on available resources. While all are important, groupings from the most important and urgent to the least urgent have been identified (below), with priority for resources going to those identified as most urgent.

NB: The list is not definitive and should only be used as an indication of where priorities lie with present knowledge.

Priority Research Order:

1. Pivotal (Most important and most urgent)
 - Native vegetation
 - Introduced Animals
 - Introduced Plants
 - Native fauna
2. Less Urgent, but still Important
 - Advocacy
 - User Groups
 - Archaeological/Historical/Cultural
3. Of lesser Urgency
 - Revegetation
 - Others

5.1.14 Grazing Licences

- i) Grazing is generally incompatible with protection of park values and will only be permitted if it is performing a conservation objective.
- ii) Existing grazing licences will be periodically reviewed. If there is a conflict with natural and/or historic park values they will be discontinued when the licence comes up for review.
- iii) New licences will only be granted if grazing is performing a conservation objective.
- iv) The Department will liaise and co-operate with adjoining landowners to ensure that boundaries are fenced, where necessary, to prevent stock entering the Park.

Explanation

There are currently two grazing licences on the fringes of the Park, at Moorcocks Stream and Takapari airstrip (see appendix 5). In both cases the area involved is small, and grazing is performing a specific conservation objective. In the future the two areas could be considered for exchanges or for revegetation projects. (See also policy 5.1.2, Park Boundaries).

The continuation of these licences and approval of any new licences will be subject to their compatibility with protection of natural and historic resources, and recreational use.

Grazing is not usually in keeping with protection of park values. However in some areas grazing may be acceptable for specific management purposes, such as maintenance of open space for airstrips, camping or picnic areas, control of undesirable plants, or reduction of fire hazards which could result from rank, dry grass. Such areas would be small, generally on the periphery of the Park and would be fenced.

The Department does not foresee the granting of any further grazing licences in the Park in the near future.

The straying of domestic stock into the Park has been a problem in some areas. The Department will continue to liaise with adjoining landowners to prevent this as far as possible. The priority for fencing will be areas identified as most vulnerable to stock trespass in terms of ecological, water and soil and recreation values.

5.1.15 Prospecting, Exploration and Mining¹⁰

- i) Mining is generally incompatible with protection of Park values. Any application for an access arrangement¹¹ will be assessed on its merits, but if it could have a detrimental effect on Park values or public use it would be opposed.
- ii) Applications will be required to provide detailed environmental impact information to enable the Department to determine the possible impacts of their proposed prospecting or mining activity.
- iv) If an access arrangement is agreed to in the Park, strict controls to protect the natural environment and public use of the Park will be sought.

Explanation

Mining is generally incompatible with protection of park values, and applications which could threaten natural or historic resources, or restrict public use will be opposed.

In terms of the Crown Minerals Act the Minister of Conservation will have an absolute veto on access by miners to the Park.

In considering a request for access to the Park the Minister must have regard to:

1. The objectives of any Act under which the land is administered.
2. Any purpose for which the land is held.
3. Any policy statement or management plan of the Crown in relation to the land.
4. The safeguards against any potential adverse effects of the work.
5. Such other matters as the Minister considers relevant.

The access arrangement is agreed to, and enforced, under the Crown Minerals Act 1991 provisions. There are no public input provisions.

As indicated in section 2.5.2 copper mining was carried out, mainly on explorative basis in the Coppermine Creek Area (Southern Ruahine Range), from the late 1880's until the 1930's. Apart from this, and limited gold prospecting in the late 1800's there has been no other mining activity in the Ranges, although exploration licences have been granted over much of the area.

¹⁰ As defined in the Crown Minerals Act 1991 (see pages vi and vii).

¹¹ As defined in the Crown Minerals Act 1991 (see page vii).

5.1.16 Hydro-electric Power Generation

Proposals for hydro-electric power development within or adjoining the Park will be considered on their merits. Proposals which could compromise park values will be declined.

Explanation

The rivers in and adjoining the Park have high scenic and natural values. Proposals to dam or abstract water which would interfere with the natural quantity and quality of park waters, park land, or recreational use of the Park will be opposed.

This in effect means that the vast majority of hydro-electric proposals would be opposed. However it is recognised that there may be circumstances in which very minor abstractions (for example, of up to five percent of the natural flow), or run-of-the-river schemes may be acceptable. They could include schemes to supply power for a local project where alternative sources are more environmentally damaging, or schemes where the construction of a power supply line would create greater environmental damage than the installation of a small hydro scheme. Such applications would be considered on their merits and only approved if it was clear that Park values would not be compromised.

Hydro investigations have been carried out on rivers flowing through the Park, or along its boundaries - the Pohangina, Ngaruroro and Rangitikei Rivers.

The Ngaruroro and Rangitikei Rivers in particular have significant wild, scenic and recreational values, and any proposed for hydro-electric developments on them would be closely scrutinised by the Department, and opposed if these values would be downgraded.

In 1986 a draft National Water Conservation Order (NWCO) was recommended by a Special Tribunal on the upper and middle reaches of the Rangitikei River. This Order was opposed by appeals to the Planning Tribunal and a new consent Order has now been prepared. (see appendix 4). This draft NWCO has yet to be agreed upon by all parties involved in this issue. As it stands it includes some tributaries of the Rangitikei which flow through the Park - the Whakaurekau River plus all its tributaries, the Kawhatau River, and two of its tributaries, the Pourangaki River and Mangakokeke Stream. The Order gives substantial protection to the upper and middle reaches of the River in that it preserves the waters as far as possible in their natural state, imposes a ban on damming for any purpose, and limits the taking of water to 5% of the natural flow. (see also policy 5.1.4, Soil and Water Conservation).

5.1.17 Telecommunication Systems and Public Utilities

- i) The siting and routing of telecommunication systems, transmission lines or public utilities in the Park which could compromise Park values will be opposed.
- ii) The presentation of an adequate environmental impact report, and proof that no suitable alternative sites for utilities exist outside the Park, are required before proposals for any utilities within the Park are considered.
- iii) The siting of any facilities within the Park would be subject to sections 14, 15 and 17 of the Act.
- iv) The Department will seek to ensure that, wherever possible facilities are co-located.
- v) Any approved facility or site within the Park will be subject to a resource rental set by the Department.
- vi) Proposals to site utilities adjacent to the Park will be investigated, and if adverse effects on the Park are likely, the utilities will be opposed through statutory planning processes.

Explanation

The siting and routing of telecommunication systems, transmission lines, and public utilities in the Park is generally incompatible with management objectives for the Park. The construction of roads is often associated with these developments, and as indicated in policy 5.1.18 would be opposed by the Department unless considered necessary for park management purposes.

Several public utilities are situated in the Park. The most prominent of these is at Wharite Peak where the Broadcasting Corporation of New Zealand (BCL) and XS Corporation Ltd have television and radio repeaters. BCL and the Department are currently negotiating a new lease with appropriate terms and conditions, for continued occupancy of Wharite Peak. The Regional Councils also have a number of rainfall and early flood warning systems located in the Ranges.

All applications for further utilities will be subject to the Departments national guidelines for their location on the conservation estate. They would only be approved if no suitable alternative sites exist outside the Park.

Many survey installations and telecommunication systems are now privately owned, and in some areas of the country the Department is receiving numerous applications for such installations on a particular site. The Department will make every effort to ensure that such facilities are co-located wherever possible. It will not approve multiple facilities on a particular site unless there are compelling reasons to do so.

5.1.18 Roading and Vehicle Access

(See also policy 5.2.10)

- i) No additional roads will be constructed in the Park, unless they are necessary for park management purposes.
- ii) The Department will liaise and co-operate with adjoining landowners and local authorities, in an endeavour to maintain and enhance vehicular access to and around Park boundaries (see policy 5.1.3).
- iii) Vehicles are allowed on the five formed roads in the Park, (Takapari, No Mans, Wharite, Kashmir, Holmes Ridge roads) and may be allowed in 3 riverbeds on the eastern side of the ranges, (Kumeti, Tamaki and Makaroro) at the discretion of the Regional Conservator. If conservation values are threatened by vehicle use in the Park, their use may be further restricted, or vehicles may be excluded completely from the Park. This would be at the discretion of the Regional Conservator. (See policy 5.2.10 Off-road Vehicles).
- iv) The Department will maintain the Takapari, Kashmir, Holmes Ridge and No Man's roads in the Park to four-wheel drive standards, as long as Park values are not compromised, and sufficient resources are available to maintain them.
- v) The Department will retain the right to lock gates at the entrances to Takapari, No Man's, Kashmir and Holmes Ridge road to prevent deterioration of the roads, or for other management purposes.
- vi) There will be no maintenance of vehicle routes in riverbeds. If riverbeds become unsuitable for vehicle use, no alteration of riverbeds will be allowed to facilitate this use.

Explanation

Adequate road access to the Park is important to facilitate public use and enjoyment of the area.

While road access is not ideal to some areas of the Park, overall it is generally adequate. The Department will liaise and co-operate with adjoining landowners and local authorities to maintain good access to the Park and where appropriate/necessary enhance public access. In some cases access is by informal agreement. Where this is the case, the Department will liaise with landowners to endeavour to gain formal access agreements.

Access agreements have been negotiated through private exotic forests at Gwavas. They give free public access to the Park except in times of high fire risk or logging operations. The designated vehicle access roads are marked on maps 2, 3 and 4 of this plan.

Five formed roads run through the Park. The Wharite Road, which provides access to the southern end of the Park is maintained by owners of the Wharitie Peak transmitter. (See map 2). It is generally suitable for 2-Wheel drive vehicle use. The Kashmir, No Man's, Takapari and Holmes Ridge roads are maintained by the Department. (See map 2). They were formed for revegetation purposes and are only suitable for 4-Wheel drive vehicles. They provide a valuable means of access to the Park and assist in management, particularly animal control. In recent years they have required little or no maintenance. The Department will continue to maintain these roads to 4 wheel drive standards as resources allow, but a rapid deterioration in their condition (for example, after a cyclonic event) could mean that the Department is no longer able to maintain them.

The Department will retain the right to lock gates at the entrances to the Kashmir, No Man's, Takapari and Holmes Ridge roads to prevent their deterioration, or for other management purposes. This is most likely to occur during the winter months or after heavy rain. Signs will be placed on gates indicating that they may be closed from time to time.

Additional roading within the Park is not considered necessary or desirable in terms of providing for public use and enjoyment and protecting Park values.

As indicated in policy (iii) above, vehicles may be allowed in the Tamaki, Kumeti and Makaroro riverbeds. There has been 4-Wheel drive use of these riverbeds for many years and there is no evidence of adverse impacts on natural Park values. However, if conservation values are threatened by this use, at the discretion of the Regional Conservator, use of vehicles may be further restricted or they may be excluded completely.

There will be no maintenance of vehicle routes in riverbeds. If riverbeds become unsuitable for use no alteration of riverbeds will be allowed to facilitate this use.

5.2 PUBLIC USE

- 5.2.1 Public Access
- 5.2.2 Recreational Zoning
- 5.2.3 Huts
- 5.2.4 Camping
- 5.2.5 Rubbish
- 5.2.6 Tramping/Tracks
- 5.2.7 Recreational Hunting
- 5.2.8 Picnicking/Day Use
- 5.2.9 Aircraft
- 5.2.10 Off-road Vehicles
- 5.2.11 Dogs
- 5.2.12 Horses
- 5.2.13 Traditional Maori Uses of Park Resources
- 5.2.14 Recreational Concessions
- 5.2.15 Organised Club or Public Events
- 5.2.16 Interpretation and Education
- 5.2.17 Signs
- 5.2.18 Visitor Safety
- 5.2.19 Facilities for the Disabled
- 5.2.20 Monuments/Memorials

5.1 19 Chainsaws

Chainsaws are not allowed in the Park, except for management purposes.

Explanation

Cutting of live vegetation by Park users is a problem in some areas. These activities are associated with firewood collection and campsite clearance, with some users flying chainsaws into landing sites as part of their equipment.

The Department requires the support of commercial aerial operators to ensure this policy is enforced. This policy of not allowing chainsaws in the Park is included as a condition of licences issued to aerial operators, and will be strictly enforced.

5.2.1 Public Access

- i) The public will have free and unrestricted access to the Park, consistent with protection of natural resources, and with public safety. (See (ii)).
- ii) Areas of the Park may be closed to public entry for conservation purposes and/or public safety.

Explanation

Forest Parks are managed to protect their natural and historic resources and to facilitate public recreation and enjoyment. Public use however is subject to protection of the natural environment, and so there are provisions to impose conditions or restrictions on public use to protect natural values if necessary.

Section 13(1)(c) of the Act provides for closure of an area for reasons of public safety. Closure for conservation reasons must be provided for in any conservation management strategy or plan relating to the area (Section 13(1)(a) of the Act).

Closures of all, or part of the Park would be a very rare occurrence. However, for conservation purposes, such as habitat rehabilitation of a heavily used camping area or hut site, protection of a rare plant or animal, or revegetation of an eroding area which is threatening Park facilities, particular areas may need to be temporarily closed. All reasonable steps will be taken to make the public aware of any closure of an area, and the reasons for it.

5.2.2 Recreational Zoning

i) Three recreational zonings will be identified in the Park (see map 5).

a) Remote Experience

An area with wilderness qualities, but which does not meet the strict criteria of wilderness (as defined in the Wilderness Policy 1985 - see appendix 13).

The area will be managed to protect its remote values, with no new facilities, unless required for management purposes.

The Ikawatea Catchment will be managed to protect its remote qualities (see map 5).

b) Amenity

Small areas, mainly on the periphery of the Park and at roadends, where facilities for picnicking, camping, etc may be provided.

c) Natural Environment

The majority of the Park will be zoned as Natural Environment. It will be retained in its natural state, but recreational facilities may be provided for public enjoyment and safety.

Explanation

Identification of different zones does not imply that some areas are less protected than others. What it means is that developments to facilitate public use and enjoyment may be appropriate in some areas but not in others. It also provides for developments in high use areas which not only provide for public use, but protect the natural environment from any adverse effects of this use.

The zoning system proposed in the Park gives the public an indication of management priorities in particular areas and is also a management tool. The zones are flexible, and in the light of new knowledge or changed circumstances, may need revising.

Remote Experience

The Ikawatea Catchment is conservation land which the Department proposes to include in the Park (see policy 5.1.2 and appendix 8).

This area has high natural values and has remained largely undeveloped except for the Ikawatea hut and a track which leads into it from the No Man's Area. As indicated in section 2.10.1 the area has significant ecological values. Blue duck are present throughout the catchment and in the adjoining Apias Stream (privately owned).

The Department proposes to manage the Ikawatea catchment to protect its remote character, and no new facilities (huts and tracks) will be developed unless required for management purposes, particularly wild animal control. Management of the area to protect its remote qualities, is compatible with protection of blue duck and their habitats.

Helicopter use will be kept to a minimum in the area, but they may be used for management purposes, including animal control. Recreational hunters may also fly into the helicopter landing site at the Ikawatea Hut.

This area is bounded by privately owned lands. The Department will liaise closely with adjoining landowners to achieve compatible management wherever possible.

Amenity

These include areas and sites to be maintained as at present, or developed further to facilitate recreational use and enjoyment of the Park.

These areas are typically situated at roadends and receive high use by campers, day trippers, and those leaving for longer trips in the interior of the Park. Picnic tables, toilets facilities, fire places, water supply and interpretation facilities may be provided in these areas to protect park values and to facilitate public use and enjoyment.

Areas where it may be appropriate to provide the above facilities or enhance existing facilities include:

Western Ruahine Range

- Limestone road/Sixtus Lodge area
- Oroua roadend
- Kawhatau Base
- Rangiwahia roadend
- Pohangina Field Base

Eastern Ruahine Range

- Coppermine roadend
- Kumeti roadend
- Tamaki west roadend
- Triplex Area
- Makaroro River area

Further areas may be identified during preparation of the Conservancy Recreation Strategy, prepared as part of the Conservancy Conservation Management Strategy exercise (see section 1.1).

Natural Environment

The majority of the Park will be managed as a Natural Environment Area. It will be managed primarily to protect natural values, but huts, tracks, bridges, helicopter landing sites and other facilities may be provided to allow safe use and enjoyment of the Park.

5.2.3 Huts

- i) The hut system in the Park will be maintained and upgraded as appropriate, if supported by public use or required for Park management purposes.
- ii) Removal or relocation of huts will be considered where their level of use is insufficient to justify their continued existence.
- iii) A charge will be made for overnight use of park huts consistent with the national hut charging policy.
- iv) No new facilities will be developed in the proposed remote experience area, unless required for park management purposes. (See policy 5.1.1).
- v) Investigations will be continued into the use of alternative fuels for heating of and cooking in park huts and encouragement given to park users to carry portable stoves, in order to conserve firewood.
- vi) Rubbish holes at huts will be filled in and rubbish bins removed in line with the "pack it in and pack it out" rubbish policy in the Park (see policy 5.2.5).
- vii) Park huts and bunks are available to all users on a "first-come, first served" basis, unless otherwise determined by the Department. (See also policy 5.2.14).
- viii) The Department may place restrictions on the maximum number of consecutive nights that a park hut is used without permission from the Regional Conservator.

Explanation

The Department is ultimately responsible for all huts and bivouacs in the Park, including those erected by private groups.

The Park has one of the highest concentrations of huts of any Forest or National Park in the country (nearly 60 huts or bivouacs). This is a reflection of the early effort put into animal control and revegetation. The cost of maintaining all these huts is high. The majority of huts were built in the 1950's and 1960's for animal control purposes and are of the basic 4 or 6 bunk/open fire design. In high use areas such as Rangiwahia and Sunrise these basic huts have been upgraded or replaced by larger huts, and open fires have been replaced by wood burning stoves. (A list of huts included in the hut pass system is included as appendix 12).

In line with Departmental policy a charge is made for an overnight stay at most park huts. The revenue gained from hut fees is used to maintain huts, shelters and bivouacs throughout the Park. If the level of use of a particular hut is insufficient to justify its continued existence relocation or removal of it may be considered. There are a number of huts in the Park which appear to have outlived their useful purpose because of siting, level of use, or vandalism. This applies particularly to huts near roadends such as Kaumatua, Sentry Box, Coppermine Creek and Broom huts. However huts will not be removed solely on grounds that insufficient revenue is being collected from hut fees to maintain them. Interested parties, and the public in general will be consulted before any decision is made on removal of a hut, and any decision would reflect not only the level of use of the hut, but also its values for such things as public safety, animal control, or other management purposes.

Park huts are available for all users. Conflicts can occur if groups of individuals use huts for long periods of time, thereby restricting the use of the hut for other people. In order to prevent this situation occurring the Department may place restrictions on the maximum number of consecutive nights that a hut may be used without permission from the Regional Conservator.

The track and hut system in the Park is well developed, a legacy of the deer culling days, and it is not proposed to erect any new huts in the Park. The Ikawatea catchment (Conservation land to be incorporated in the Park) by contrast remains largely undeveloped and will be retained as such unless facilities are required for management purposes.

Problems exist with rubbish around huts. The "pack it in, pack it out" rubbish policy will place the responsibility for rubbish removal on park users. The Department will actively promote this policy, and information will be supplied in huts, at roadends, on hunting permits etc.

At present all huts have open fires or wood burning stoves. The supply of fuel for hut heating and cooking is causing concern because of the expense of supplying fuel and because of the continued removal of live vegetation around some huts. There is a need to establish alternative means of cooking in and heating of huts.

Recently, efficient wood/coal burning stoves have been installed in a number of park huts. The use of gas for cooking and heating will be trialled at high use huts such as Rangiwahia and Sunrise.

The Department will also promote the use of portable stoves for park users in order to limit the amount of wood and/or coal used by park users.

There are three privately owned huts in the Park. Heritage Lodge is owned by the NZ Deerstalkers Association and Waikamaka and Howletts Huts are owned by the Heretaunga Tramping Club.

Heritage Lodge is part of the hut fees system, while the others are not. All the huts are able to be used by Park visitors.

As indicated in sections 2.5.3 and 5.1.10 several huts in the Park have historical significance in that they represent important aspects of the history of the ranges. The department will investigate the significance of Shutes Hut, and also an example of an original deer culling hut, in conjunction with the Historic Places Trust. (see policy 5.1.10 Archaeological, Historic and Cultural Sites).

5.2.4 Camping

- i) Informal camping is permitted in the Park, except where specifically prohibited to prevent disturbance or degradation of natural or historic resources.
- ii) Formal campsites, with simple facilities will be provided at designated roadend sites.
- iii) Use of portable stoves will be encouraged as an alternative to open fires.
- iv) The "Environmental Care Code ¹²" applies to all users. As a condition of licences, concessionaires must ensure that they and their clients follow this code when camping in the Park.

Explanation

While informal camping is permissible throughout the Park there may be occasions when, to protect significant natural or historic features, an area is closed to camping. For example, an area where revegetation trials/plantings are being established, a habitat of a rare or endangered wildlife species, or a popular area where overcrowding and damage is occurring. (See policy 5.2.1 Public Access).

Basic camping facilities which are maintained by the Department at roadend sites or adjacent to the Park, are located at Pohangina Reserve, Pohangina Base, Kawhatau Base, Kumeti, and Tamaki roadends. These areas will be maintained and upgraded as necessary. New facilities/new camping areas may be established in appropriate areas if there is a demand for them, as identified in the proposed Conservancy Recreation Strategy.

¹² See appendix 9.

5.2.5 Rubbish

- i) A "pack it in and pack it out" rubbish policy throughout the Park will be implemented.
- ii) Consistent with (i), existing rubbish holes will be filled in and rubbish bins will be removed both within the Park and at roadend campsites and picnic areas, except in exceptional situations.
- iii) The Department will actively promote the "pack it in and pack it out" policy and the reasons and advantages for such a policy.
- iv) As a condition of licences all concessionaires operating within the Park will be required to issue their clients with rubbish bags, and ensure all rubbish is removed from the Park. (see policy 5.2.14).

Explanation

As usage of the Park increases the issue of rubbish disposal assumes greater importance.

It is now a widely accepted practice in natural areas for recreational users to carry out their own rubbish. This is necessary to ensure the problem of rubbish disposal is kept to a manageable level and to maintain the environment as far as possible in its natural state. To achieve this existing rubbish holes will be filled in and rubbish bins removed except in exceptional circumstances.

The Department will actively promote this policy, with the co-operation of aerial operators, other concessionaires, and all park users. Information on the reasons for the "pack it in - pack it out" policy and on the responsibilities of Park users for rubbish disposal will be widely available at roadends, in brochures etc.

5.2.6 Tramping/Tracks

- i) The Department will facilitate tramping and walking within the Park by providing a range of opportunities from short walks near roadends to long tramps in the interior of the Park.
- ii) No new tracks will be developed in the Ikawatea Catchment, unless improved access is required for wild animal control or other management purposes. (See policy 5.1.1).
- iii) The development of foot access tracks to "route" standard may need to be investigated to facilitate recreational hunting in areas of high deer and other wild animal concentrations, where access is at present difficult.
- iv) The Department will investigate, and provide for if appropriate, further opportunities for short walks in areas of high public use near roadends.
- v) Liaison with adjoining landowners will continue, in order to facilitate public access to the Park over private land.
- vi) Track use will be monitored by use of track counters and hut log book information.

Explanation

Tramping and walking are major and popular uses of the Park.

The majority of the present day tracks were originally established for animal control purposes and have been developed since then to cater for other uses. Because of the intensity of animal control in the 1950's and 1960's, and later revegetation operations, an extensive network of tracks, or lightly marked routes were developed. Some of these tracks have been re-opened or improved but others have not been maintained. It is envisaged that several tracks which are in poor condition now, are seldom used, and/or are not important access points may not be maintained to the standard of other tracks in the Park. Such tracks could include the Parks Peak - Barlow Hut track and the ridge track from Aranga Hut to Upper Makaroro Hut.

It is not proposed to increase the track network in interior areas of the Park, unless it is required for wild animal control or other management purposes. The existing track system gives good access to most areas of the Park without compromising the natural and remote character of the area.

Any decision to discontinue maintenance of tracks or to provide further walking/tramping opportunities will reflect the current level of use, the need for a track for recreational use, access, animal or weed control, and the management objectives of the area. Interested parties and the general public will be consulted on these issues during preparation of the Conservancy Recreation Strategy. This strategy will consider the recreational demands and opportunities in the Park and throughout the Hawke's Bay Conservancy.

It is proposed to investigate the need for further opportunities for short walks for less experienced outdoor recreationists in areas of high public use near roadends, or to upgrade existing tracks in these areas. Short walks have been developed in the Rangiwahia, Triplex, Coppermine, Coal Creek, Makaroro and Kawhatau areas, but they generally lack interpretative information, and are not always suitable for disabled persons.

Access to the Park in several areas is through private land. Continuing liaison and co-operation between the Department and adjoining landowners is essential to maintain and/or enhance public access. In any areas where access is by informal agreement, a formal agreement will be pursued through negotiation with owners to protect continued public access. Access across private land will be clearly marked on future maps and publications produced by the Department to avoid any potential misunderstanding with landowners or park users.

5.2.7 Recreational Hunting¹³

(see also section 4.2 and policy 5.1.9 Introduced Animals)

- i) Recreational hunting will be provided for and encouraged in the Park.
- ii) Recreational hunting pressure and success will be monitored to determine its effectiveness as a means of wild animal control.
- iii) Recreational hunters will be encouraged to provide the Department with information (ie deer jaws and kill returns) on their hunting success so that adequate data is available to assess the effectiveness of recreational hunting (see appendix 7).
- iv) The Department may maintain helicopter free areas in the Park as long as recreational hunting is achieving an acceptable level of animal control in these areas.
- v) Adequate access and facilities for recreational hunters will be maintained and where necessary and practicable enhanced, to achieve effective control of introduced animals.
- vi) Recreational gamebird hunting (of both indigenous and introduced species) will not be permitted in the Park.

Explanation

Recreational hunting of wild animals is a major recreational use of the Park, and can also be an important means of controlling deer and pigs. Recreational hunting will be facilitated and encouraged as long as it is compatible with protection of the Park's natural resources and does not endanger other park users.

As discussed in policy 5.1.9 the Department requires ongoing information from recreational hunters in order to assess the effectiveness of this method of animal control.

Co-operation between the Department and hunters is important, both to benefit hunters and to enable the Department to make best use of this control tool to protect conservation values.

¹³ This policy refers mainly to deer and pigs which are favoured recreational hunting species. For policies on goats and possums refer to Sections 4.2 and 5.1.9 of this plan.

As discussed in policies 5.1.9 and 5.2.9 helicopters have not been allowed in several catchments of the Park (except for management purposes) for a number of years. The Department may maintain these areas as long as recreational hunting is achieving sufficient animal control. If animal numbers build up it will allow helicopters into the area for both transportation of hunters and aerial shooting.

Recreational gamebird hunting will not be permitted in the Park. Populations of both indigenous and introduced gamebirds are sparse and localised, and the risks to native animals from gamebird shooting are high. Regulations will be formulated to prohibit shotguns in the Park, as a means of enforcing this policy.

(For policies on commercial hunting refer to sections 4.2 and 5.1.9).

5.2.8 Picnicking/Day Use

(see also policies 5.2.4 and 5.2.5)

- i) Facilities and access for picnickers, and day users of the Park in general, will be provided at appropriate locations, and existing facilities upgraded as appropriate.
- ii) Facilities at roadend sites will as far as practicable be suitable for use by disabled persons. (see policy 5.2.19).

Explanation

In the past facilities have tended to be designed to meet the needs of trampers and hunters, the main user groups in the Park. A greater range of recreational uses now occur in the Park. Day walks, camping and picnicking on the fringes of the Park, where there is a good road access and facilities, are popular uses of the Park, and will be provided for with appropriate facilities.

Basic facilities - toilets, picnic tables, and water are provided at a number of roadends such as Kumeti, Tamaki, Coppermine, Renfrew, and at Kawhatau and Pohangina bases. There is potential to develop facilities at other roadends and enhance existing ones, particularly with interpretive facilities and tree planting. These could include popular roadends such as Renfrew Road (Rangiwahia access point), Table Flat Road (Oroua, Sixtus Lodge Area), Rangitane Road (Kawhatau Base Area), Coppermine Road, Kumeti Road and North Block Road (Triplex/Sunrise Hut access point). Other sites may be identified during preparation of the Conservancy Recreation Strategy, prepared as part of the Conservation Management Strategy exercise (see section 1.1).

Picnicking, and associated activities are also popular uses of a number of reserves and natural areas adjacent to the Park. Some of these are administered by the Department and may be added to the Park (for example, Pohangina Reserve).

There are difficulties in providing adequate facilities at some roadends because they are on private land on the Park fringes. The Department will continue to liaise with adjoining landowners on all aspect of Park management, including the issues of access and roadend facilities.

5.2.9 Aircraft

- i) The Department will not maintain the Ruahine Corner airstrip to enable access to the Park by fixed wing aircraft. The Department may consider retaining it on a user pays basis if there is a proven demand.
- ii) Helicopters will be restricted to landing on approved sites (see map 4) except when in use for departmental operations (for example, animal control, hut/track maintenance) or for search and rescue purposes.
- iii) The Department may maintain helicopter-free areas in the Park as long as recreational hunting is achieving an acceptable level of control in these areas.
- iv) All helicopters landing within the Park will require a permit to land from the Department and will be required to comply with its provisions, to protect park values and park users.
- v) All commercial helicopter operators must be authorised concessionaires and will be required to comply with all provisions of their concession to protect park values and park users (see policy 5.2.14).

Explanation

The term "aircraft" in this policy section refers to fixed wing planes, helicopters, microlights and balloons, but excludes non-motorised hang gliders and parapentes.

However, the above policies refer almost exclusively to helicopters. Currently there is fixed wing access to one area of the Park (Ruahine Corner). This unlicensed airstrip is maintained by the Department, but as there is little/no demand for fixed wing access it is not proposed to maintain it in the future. However the Department may consider retaining it on a user pays basis if there is a proven demand. Any person using this airstrip will be responsible for his/her safety and for assessing its suitability for use.

The control of aircraft over the Park is the responsibility of the Civil Aviation Division, Ministry of Transport by virtue of the Civil Aviation Act 1990. In general terms the regulations state that aircraft shall not operate at less than 500 feet (152 metres) above any ground within a radius of 2000 feet (610 metres) around the aircraft unless they are landing, taking off, forced lower due to stress of weather, or in an emergency.

Helicopters provide a means of access for management and recreational purposes, with minimum physical impact compared to roading and some other means of access. They can play an important role in animal control in that hunters can access areas which would otherwise be virtually inaccessible.

However their use may conflict with other park users seeking quiet enjoyment of the park. Therefore any policy dealing with helicopter access must seek to balance the needs and aspirations of a variety of park users, and the management priorities of the area.

Helicopters have not been allowed in several areas of the Park (except for management purposes) for a number of years. As indicated in section 4.2, in these areas recreational hunting is the main means of deer control.

As there are no helicopters allowed in these areas recreational hunters are solely responsible for animal (deer) control. Should animal numbers build up to an unacceptable level the Department may allow helicopters throughout the area for both transport of hunters and aerial recovery. There are indications, from the state of the vegetation and deer returns that deer numbers are building up in some of these areas, for example the Pourangaki Catchment. As foot access is unsatisfactory in this area, it may become necessary to allow helicopters to operate in it to achieve adequate deer control.

While areas currently not open to helicopters may be opened up for this use, conversely other areas, with good access and low deer numbers may be suitable helicopter-free areas in the future.

At all times, the guiding principle will be the protection of natural values. Recreational hunting groups, conservation groups etc will be consulted prior to any decision on helicopter access. If recreational hunters wish to maintain areas of the Park helicopter-free they must demonstrate that they can control animal numbers. Co-operation between the Department and hunters is essential in this respect. These issues are discussed more fully in sections 4.2 and 5.1.9.

Helicopters may only land at designated landing sites. The number of sites needed for effective control of wild animals, and to facilitate public access may vary from time to time. Therefore some designated sites may be closed/relocated, or alternatively extra sites may be designated as circumstances change in the future.

Commercial helicopter operators must be authorised and comply with all provisions of their licence, including removal of rubbish. In the past there have been problems with rubbish in remote areas of the Park associated with helicopter access and this will be closely monitored in the future. The number of concessionaires may also need to be limited if this is necessary to maintain park values and provide a quality experience for park users (see policy 5.2.14 Recreational Concessions).

5.2.10 Off-road Vehicles

(see also policy 5.1.18)

- NB:** This section refers both to motorised vehicles and mountain bikes.
- i) Motorised vehicles are allowed on the 5 formed roads in the Park. The formed roads are Takapari, No Mans, Wharite, Holmes Ridge and Kashmir. (see Map 2). They are also allowed in the Tamaki, Kumeti and Makaroro riverbeds, as long as conservation values are not compromised.
 - ii) Mountain bikes may be ridden on formed roads in the Park (see (i) above) and in the Tamaki, Kumeti and Makaroro riverbeds. They may also be allowed in other localised areas of the Park, at the discretion of the Regional Conservator.
 - iii) If conservation values are threatened by vehicle use in the Park their use may be further restricted, or vehicles may be excluded completely from the Park. This will be at the discretion of the Regional Conservator.

Explanation

Motorised vehicles are allowed on the 5 formed roads in the Park, and in the Tamaki, Kumeti and Makaroro riverbeds on the eastern side of the ranges. Because of the damage they can do to tracks, vegetation and soils they will not be permitted out of these areas.

The use of trail bikes and four-wheel trikes is of particular concern in sensitive areas of the Park; for example the Ruahine Corner area. These vehicles are using the old track across the Mangaohane Plateau to gain access to the Park, and have damaged tussock grasslands and significant wetland areas. Signs, indicating that vehicles are not permitted in the Park will be erected at Ruahine Corner Hut, and the situation will be closely monitored. Another area of concern is in the vicinity of the No Man's tarns, which are sensitive alpine bog areas located off the No Man's Road. The Department will closely monitor vehicle use of this road to ensure that vehicles do not leave it and threaten the natural values of the area. Should this occur vehicle use of this road will be stopped.

Mountain bikes are a relatively new style of bicycle capable of traversing quite rough terrain. While there is little use in the area at present park management must consider the growth potential of this sport and the impacts that increased usage could bring. In general bicycles have less impact on natural values than motorised vehicles. However experience in other areas has shown that bicycles can also cause considerable damage to tracks designed for walkers, and can conflict with other users.

Because of the inherent instability of much of the Ruahine Range and the importance of maintaining an intact vegetation cover, there are few areas in the Park where bicycle use would be acceptable off formed roads or out of riverbeds. However the Department will investigate whether some tracks in the Park are suitable for this use. Trials will be held and the impact of use on park values and other users monitored. If an area is considered suitable for mountain bikes and becomes available for their use this will be well publicised to ensure that other Park users are aware that they may encounter bikes in the area. The use of mountain bikes in the Park, and throughout the Conservancy, will also be considered during preparation of the Hawke's Bay Conservation Management Strategy. (See section 1.1).

Opportunities for motor vehicle and mountain bike use exist in other areas adjoining the Park, including private exotic forests where permission may be granted for such activities.

Regulations will be formulated to enforce this policy (see policy 5.3.3 Park Regulations).

5.2.11 Dogs

- i) Dogs will be excluded from any areas of the park where their presence may endanger native wildlife, in particular blue duck or kiwi.
- ii) Dogs may be excluded from other areas of the Park where their presence is incompatible with other users; (for example, high use areas and roadends).
- iii) The Department will give priority to surveys of abundance and distribution of blue duck and kiwi in the Park, so that measures can be taken to implement dog-free areas if necessary. (see i above).
- iv) A limit of one dog per park visitor is permitted, unless specific permission is granted for such activities as pighunting.
- v) There is no restriction on the entry of seeing-eye dogs, or specially trained dogs for search and rescue purposes.
- vi) A permit is required for the entry of hunting dogs into the Park.
- vii) Dogs will not be permitted inside or under huts, except for seeing-eye dogs.
- viii) Dog-free areas will be appropriately signposted and notified on permits, maps etc.

Explanation

Forest Parks have traditionally been among the few places where dogs can be freely taken, and are often used for hunting. However dogs can conflict with other users and may endanger native wildlife. In the Park there is concern at the impact dogs may have on blue duck in particular. As indicated in section 2.7 there is a significant blue duck population in the Ikawatea Catchment (Conservation land, to be incorporated in the Park) and it is proposed to exclude dogs from this area. Further blue duck surveys will be carried out in the Park as a matter of priority, as sightings of blue duck have been made in a number of catchments. Where populations of these birds are located, consideration will be given to the need to exclude dogs from these areas.

There have been few records of kiwi in the Park in recent years. However if studies reveal the presence of kiwi in an area consideration will also be given to the need to exclude dogs from it.

Dogs may also be excluded, or required to be kept on a leash, in high use areas such as roadend picnic areas.

There are no restrictions on the entry of seeing-eye dogs, or specially trained dogs for research purposes or search and rescue.

Unless specifically excluded for the above reasons, visitors can bring one dog with them into the Park. Specific permission may be granted for more than one dog for activities such as pig hunting. The law requires that a permit is necessary for the entry of hunting dogs into the Park (section 38(4)(e) of the Act) but is not required for other dogs.

Several access routes to the Park cross private land. Park users with dogs must obtain permission from the appropriate landowner(s) before crossing these private lands.

Regulations will be formulated to enforce this policy. (See policy 5.3.3 Park Regulations).

5.2.12 Horses

- i) Horses and other pack animals, are allowed on formed roads in the Park. The formed roads are Takapari, No Mans, Wharite, Holmes Ridge and Kashmir Roads (see map 2).
- ii) If conservation values are threatened by horse use in the Park their use may be further restricted, or horses may be excluded completely from the Park. This will be at the discretion of the Regional Conservator.

Explanation

There is little horse use in the Park at present but the Department receives occasional requests to take them into the area.

Horses are permitted on the Takapari, No Man's, Wharite, Holmes Ridge and Kashmir Roads.

Horse use away from formed roads would pose a threat to the natural values of the Park, due to the potential for spread of noxious plants and other introduced species, their eating and tramping of native vegetation and the damage they can do to foot tracks. The high rates of erosion in the Ruahine Ranges increases these threats.

Regulations will be formulated to enforce this policy (see policy 5.3.3 Park Regulations).

5.2.13 Traditional Maori Uses of Park Resources

(See also policies 5.1.5 Indigenous Plants and 5.1.8 Indigenous Animals)

- i) The removal of indigenous plants may be permitted for traditional Maori uses, provided:
 - (a) The taking of such plant material shall not have a detrimental impact on plant or other species classed as rare, endangered or locally uncommon.
 - (b) Plants may not be taken from ecological areas, or any other specially protected areas.
 - (c) There are no alternative sources outside the Park, particularly in more modified areas.
 - (d) There is no purpose or intention of deriving commercial gain or reward from the plants.
 - (e) Demands are not considered excessive - conservation values are not put at risk.
 - (f) Removal of plant species must be supervised and authorised by Departmental staff.
- ii) The disturbance, removal, or taking of indigenous animals (excluding fish)¹⁴ from the Park is not permitted except for authorised scientific or management purposes.
- iii) The taking of indigenous fish may be permitted for traditional Maori purposes only, as long as the species is not threatened and/or the demands are not excessive. The taking of indigenous fish will not be permitted from ecological areas or any other specially protected areas. (see also policies 5.1.8).
- iv) The Department will involve the appropriate Iwi Authority and/or the tangata whenua in any applications to remove plants or indigenous fish from the Park.

¹⁴ "Animal" means any member of the animal kingdom other than a human being. (Conservation Act 1987). However in various legislation fish are treated differently to land animals. Note therefore the differences in policies (ii) and (iii) above.

Explanation

The disturbance, killing or removal of indigenous animals (except for freshwater fish) is an offence under sections 38 and 39 of the Act. Permission will not be given to hunt or remove indigenous animals from the Park for traditional Maori purposes, except for freshwater fish, which may be taken (under strict guidelines) for recreational and cultural purposes only, as long as the species is not threatened and/or the demands are not excessive. The taking of indigenous fish will not be permitted from ecological areas or other specially protected areas, or for the purposes of commercial gain.

The removal of indigenous plants may be permitted, under strict guidelines, for traditional Maori uses. (The guidelines are outlined above). Before any approval is given for removal of plants the Department must be assured that the taking of such material will not have a detrimental impact on any rare, endangered, or locally uncommon species.

The appropriate Iwi Authority will be involved in all stages of an application to remove plants or freshwater fish from the Park.

Regulations will be formulated to enforce policy (iii) above. (See also policy 5.3.3 Park Regulations).

5.2.14 Recreational Concessions ¹⁵

- i) Applications for concessions within the Park will be considered on the following basis:
- that there is a proven need for such a service
 - that the service is compatible with conservation values and management objectives
 - that the service provides for safe use and enjoyment of the Park
 - That the concession does not adversely affect other recreational users
 - that the applicant has the means and expertise to carry out the service to be offered according to the conditions of the licence.
- ii) The Department may limit the number of concessions granted in the Park to protect park values or the quality and/or safety of the visitor experience.
- iii) If a limit is placed on the number of concessions (see above) the Department will choose the concessionaire whom it considers will give the best service to the public at the most reasonable rates, with an operation that is consistent with protection of conservation values.
- iv) All concessionaires require a licence, lease, or permit which details conditions of use and sets appropriate fees for use of the Park's resources (see policy 5.3.6 Cost Recovery).
- v) Concessions will be cancelled if the terms and conditions are not followed.
- vi) Concession trials may be permitted, under strict conditions, in order to assess the acceptability of activities which may not be provided for in this management plan, but for which the Department requires more information to assess its acceptability or viability before final commitment to it.
- vii) Concessionaires must take primary responsibility for the safety of their clients. (See policy 5.2.18 Visitor Safety).

¹⁵ The Department has produced (December 1990) a revised draft policy on "Concessions for Recreation/Tourism Business Operations in Protected Areas". The policies in this plan are consistent with this. When the final departmental policy is released it will form the basis for concession management on Conservation land. This policy will define the roles of Conservation Boards and the Department in relation to the granting of concessions.

- viii) Concessionaires and their clients may use park huts and bunks on a "first-come, first-served basis" with other park users, (unless otherwise determined by the Department), but will not be given exclusive use of any park hut.

Explanation

A concession is a lease, easement, licence or a permit granted to enable the carrying on of a trade or business on lands managed by the Department.

Concessionaires can extend the range of activities and services available to the public and facilitate greater use and enjoyment of the natural environment. In general the Department will provide for activities that allow visitors to recreate independently, and concession activities will be complementary to these.

The Department will consider all applications for concessions in the Park in light of the conditions outlined in policy (i) (above). Concessions must be compatible with protection of park values, and provide for safe and enjoyable use of the Park. They must be compatible with the provisions of the Conservation Act, especially Sections 14, 17 and 19.

Currently, there are 10 concessionaires operating in the Park offering aerial transportation (mainly for hunters), guided hunting, camping and tramping trips and heli-skiing. (See appendix 6). In general the Department will allow free competition to regulate the number of concessions in an area. However the Department will limit the number of concessions in the Park, or in a particular area of the Park if it is in the public interest to do so. (For example, if increased competition might lower standards of service below an acceptable level, risk public safety, or if more concessions would put too much ecological or social strain on an area).

As a condition of a licence aerial operators must ensure that rubbish generated by their clients is flown out, clients have hut tickets, campsites and huts are left in a tidy state and chainsaws are not carried into the Park. Concessions will be cancelled if the terms and conditions are not followed.

Trials of proposed concessions may be permitted so that the Department can fully assess the acceptability or viability of an operation, where it does not have sufficient information at the time to make this judgement. A trial will test the acceptability of a service (using public comment or opinion surveys, for instance) in terms of its impact on conservation values and public use and enjoyment of the Park. A permit is required for a trial and permanent structures may not be erected.

Concessionaires and their clients may use park huts and other facilities fairly with the general public on a "first-come, first-served basis." They will not be given preferential or exclusive use of any park huts or facilities. (see policy 5.2.3 Huts). For this reason concessionaires are required to provide their own shelter (ie, tents) for their clients as they cannot rely on the use of huts.

In the future there may need to be some restriction on use of facilities by concessionaires and their clients in popular locations during peak periods although this situation has not been reached as yet in the Park. The Department retains the right to direct concessionaires away from using Park facilities if/where there is a particular problem or conflict with other users.

Concessionaires must take primary responsibility for the safety of their clients. The Department will assess concessionaires expertise in this respect, and the provisions he/she has made for public safety, when assessing applications for concessions.

5.2.15 Organised Club or Public Events

Organised club or public events may be restricted where they could threaten park values or the enjoyment of other park users.

Explanation

This policy is intended to cover organised events which are not licensed commercial activities, but are advertised as being open to the general public. It could also include public events organised by clubs.

Public or club events could include triathalons, cross country runs, competitive sport, summer programmes or similar events. They will be permitted at the discretion of the Regional Conservator, and only if park values are not threatened.

When such events occur the Department will ensure that any costs associated with it are recovered. In the case of approved commercial ventures a resource rental will be charged as with all concessions (see policy 5.2.14 Recreational concessions).

Large scale commercially sponsored competitive events may be permitted to take place in the Park, but only where they can be shown to be consistent with the protection of natural values and will not be detrimental to the enjoyment of other park users.

5.2.16 Interpretation and Education

- i) The Department will endeavour to foster public understanding and appreciation of the Park and the environment in general, through the provision of interpretive programmes, and interpretive displays in and adjacent to the Park.
- ii) A sign system will be developed in the Park which provides for safe and enjoyable use of the Park and its facilities (see policy 5.2.17 Signs).
- iii) Handbooks, pamphlets and other written material will be provided to enhance peoples enjoyment of the Park, and to promote a greater appreciation and understanding of the natural processes in the Park.
- iv) The Department will encourage use of the Park for educational purposes that are compatible with park values.

Explanation

An adequate sign system is a basic necessity in the Park to provide for public enjoyment and safety. In addition appropriate interpretive and educational material can greatly enhance the visitors appreciation and enjoyment of the Park.

The Department is currently updating pamphlets on the Parks facilities and resources, and will be publishing more information. The current Park map also requires updating. The Department will proceed with this as resources allow.

Displays/information boards will be developed at strategic points in and adjacent to the Park, particularly at roadends.

Visitor nature programmes are also an important means of interpreting the natural features of the Park, and creating an awareness of conservation values.

Any interpretation of Maori cultural aspects of the Park will only be done in consultation with, and with the approval of the appropriate Iwi authorities.

The Park is an ideal environment in which to study physical processes and natural ecosystems. There are established outdoor education facilities adjacent to the Park at Sixtus Lodge, Totara Reserve and more recently at the old Kawhatau School, and school and community groups utilise the area regularly. The Department supports this use of the Park, and will work in conjunction with educational authorities to ensure that use is compatible with the protection of park values. (see also policy 5.2.17 Signs).

5.2.17 Signs

- i) A sign system will be developed in the Park which provides for safe and enjoyable use of the Park and it's facilities (see policy 5.2.18 Visitor Safety).
- ii) Information signs will be erected at all major park access points to assist park users.
- iii) The Department will liaise with the Automobile Association and advocate that it erects directional signs on all important access roads to the Park.

Explanation

Signs play a key role in visitor guidance and orientation. They are important for appreciation of the Park and public safety.

Roadend information is particularly important. Information on departmental policies on dog use, rubbish disposal, hut fees and tracks will be provided at all major Park access points.

With the development of a Conservancy Recreation Strategy, and also Sign Manual Standards, an appropriate system for the entire park will be established. All existing signs will gradually be replaced by signs which are standard throughout the Park.

The guiding principle of the Parks sign system will be minimal use of signs for the maximum effect and function.

5.2.18 Visitor Safety

- i) All reasonable precautions will be taken for the safety of park users, but each person is ultimately responsible for his/her own safety.
- ii) Safe and responsible attitudes to use of the Park will be promoted through education and interpretive means.
- iii) The Department will assist and co-operate with search and rescue authorities and other authorities having responsibilities for public safety and health.
- iv) Concessionaires will be responsible for the safety of their clients.
- v) Well-sited toilet facilities and water supplies will be provided at all huts, important roadend sites, and at other appropriate sites as necessary.

Explanation

There is an element of risk in all outdoor recreational activities and it would be virtually impossible to remove that risk entirely. Each person must be responsible for his or her own safety but park management can contribute to safety through information and education programmes, by provision of well maintained and well sited facilities (tracks, bridges etc) and by ensuring staff are trained in first aid and relevant outdoor skills.

Giardia, is now present in water supplies throughout New Zealand and may be in the Park. The Department will provide information to the public on how to prevent giardia and how to stop it's spread and will site and design toilet facilities to protect waterways. (See also appendix 9).

5.2.19 Facilities for the Disabled

- i) Access and facilities for disabled persons will be provided, where required and practicable when developing new facilities.
- ii) Suitable tracks may be provided or adapted for disabled persons in areas where the terrain permits.

Explanation

Under section 25 of the Disabled Persons Community Welfare Act 1975, the Department is required to make provision for access for disabled persons in any new building to which the public have access unless exemptions are obtained. In some instances this may be impracticable, (eg new huts in the interior of the park) but in general the Department will endeavour to provide facilities which are accessible to disabled persons at roadends sites.

At present most roadend facilities in the Park are not designed to enable access for the disabled. This in part reflects the rugged nature of the terrain and the traditional uses of the Park. However, with the evolving nature of recreation it is appropriate that when developing new facilities at roadends provision is made for their use by disabled persons, wherever possible. This would apply in amenity areas and other popular roadend sites.

Provision of such facilities will be considered as part of the Conservancy Recreation Strategy. This strategy will identify where/if facilities for disabled persons would be most appropriate, according to demand and the nature of the terrain.

5.2.20 Monuments/Memorials

- i) The erection of memorials or plaques will not be encouraged. It will only be permitted in exceptional circumstances, or to commemorate people or events of great historic significance to the Park.
- ii) Existing memorials of plaques may be maintained in their present location unless destroyed by natural events.

Explanation

The erection of memorials to commemorate individuals will not be encouraged. However, there may be special cases where the historic association between an area and an individual or event is of such significance that commemoration may be appropriate. In such cases a suitable plaque or inscription on a Park facility, or in a particular location may be an acceptable method of commemoration. It could also apply to historic park huts, where a plaque describing the history of it is placed in, or outside to enhance the visitor's experience.

There are several existing memorials in the Park - Lessongs, Masters, Colenso and Masters Shelter. These monuments may be maintained and protected unless destroyed by natural events.

5.3 MANAGEMENT

- 5.3.1 Management Planning
- 5.3.2 Iwi Liaison
- 5.3.3 Park Regulations
- 5.3.4 Honorary Warranted Officers
- 5.3.5 Defence and Police Training
- 5.3.6 Cost Recovery

5.3.1 Management Planning

- i) The Department will continue to collect resource information and other planning data relevant to management of the Park, (see policy 5.1.13 Research).
- ii) The Department will consider management policies in terms of new information on a continuous basis, and amend the plan as necessary.
- iii) This plan will be kept under continuous review during its operative period, (ten years) and may be altered should circumstances require it (in accordance with Sections 17H and I of the Act).
- iv) This conservation management plan will be altered if necessary, to achieve consistency with the Hawke's Bay Conservation Management Strategy once prepared.

Explanation

In terms of the Act management plans must be reviewed no later than ten years from their date of approval. Plans can also be amended, as necessary, in the light of increased knowledge or changed circumstances.

The Department will, through its research and ongoing estate monitoring, continue to obtain information on all aspects of the Park (natural systems and public use). In light of this information it may be desirable/necessary to amend some policies in this plan before the statutory ten year period.

The public are encouraged to submit comments or suggestions which may assist or improve park management at any time.

5.3.2 Iwi Liaison

The Department will co-operate and consult with the appropriate Iwi authorities on all issues of park management of concern to the appropriate tangata whenua.

Explanation

Throughout the management planning process, and on an ongoing basis the Department will liaise with the appropriate Iwi authority(s) and informally with the appropriate tangata whenua on all aspects of park management of concern to the Maori people. Special areas of concern may include historic site protection, interpretation, traditional Maori uses of Park resources, and access through and compatible management of lands adjacent to the Park.

(See also policies 5.1.3 Advocacy, 5.1.5 Indigenous Plants, 5.1.10 Archaeological, Historical and Cultural Sites and 5.2.13 Traditional Maori Uses of Park Resources).

5.3.3 Park Regulations

Regulations will be formulated under the Conservation Act (Section 48(1)) to enforce certain policies in this management plan, as required.

Explanation

Regulations cover such aspects as fire control, hut use, rubbish disposal, taking of indigenous fish, and use of horses, dogs and vehicles in the Park.

General regulations will be displayed at prominent locations in the Park such as roadends or picnic areas.

Regulations will be reviewed as required to take into account changing circumstances.

5.3.4 Honorary Warranted Officers

- i) **The Honorary Warranted Officer system (formerly referred to as Honorary Rangers) will be continued and encouraged.**
- ii) **Training and information will be provided to Honorary Warranted Officers as resources allow.**

Explanation

Under the Act (Section 59(2)) Honorary Warranted Officers may be appointed for the Park. They will have wider responsibilities and greater authority than those appointed for the Park under the Forests Act.

Honorary Warranted Officers assume the same responsibilities and have the same powers as warranted officers, employed by the Department. (The powers of warranted officers are listed in section 40 of the Act).

5.3.5 Defence and Police Training

- i) Use of the Park for Search and Rescue training, as authorised by the Police, will be permitted consistent with the protection of park values.
- ii) Use of the Park for defence and rescue training will be regulated by issue of permits, with strict conditions to ensure protection of park values.

Explanation

Parts of Ruahine Forest Park may be available for defence training and Search and Rescue exercises providing the activities do not detract from recreational use or compromise park values.

Such exercises will not be permitted in any sensitive areas of the Park (eg ecological areas) or any other areas identified as having particular conservation values which may be affected by such exercises.

5.3.6 Cost Recovery

- i) The cost recovery policies of the Department will be applied for use of park services and facilities, for concession management, and sale of publications where this is appropriate and applicable.
- ii) The principle of freedom of entry and access to the Park will be maintained.

Explanation

Cost recovery is required by Government policy and will be applied to all commercial activities in the Park, and may be applied to facilities provided in the Park.

Charges will be reviewed and amended periodically to ensure they are equitable and realistic in light of changing conditions and in line with Government policy. In most cases charges will be made for the recovery of costs for providing the facility or service. However in the case of commercial operators there will be a rent/concession fee added to this basic charge.

(See also policies 5.2.3 Huts & 5.2.14 Recreational Concessions).

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REFERENCES

1. Atkinson, IAE 1977 Comments on Management Plan for Ruahine State Forest Park. Botany Division, DSIR, Lower Hutt. 27.7.77.
2. Bell, Brian D 1986 The Conservation Status of New Zealand Wildlife. NZ Wildlife Service, Wellington.
3. Brougham, G G, McLennan, N R, Satherley, L 1986 South East Ruahine Scheme Review 1981-86, and proposed Works 1987-91. Manawatu Catchment Board Report No 7.
4. Chaillies, C N 1962 Notes on Birds of the Ruahine Ranges. Notornis 13.
5. Chaillies, C N 1991 Status and Future Management of the Wild Animal Recovery Industry. New Zealand Forestry Vol 36, Number 1, May 1991.
6. Cleland M J, Walker A 1986 Ruahine Bird Survey 1983-84. NZ Forest Service, Palmerston North.
7. Cochrane, Chris 1990 Ellis Hut. Gwavas State Forest. Conservation Report.
8. Colenso, W 1884 In Memoriam. An account of visits to and crossings over the Ruahine Mountain Range, Hawke's Bay, NZ and the natural history of that region. Performed in 1845-1847.
9. Cunningham A, Stribling P W 1978 The Ruahine Range Water and Soil Technical Publication No. 13. NWASCO & NZ Forest Service.

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|---------------------------------|------|--|
| 10. Cunningham A | 1977 | <u>"Field Notes from the Ruahine Range"</u> . Unpublished Ruahine Range Control Scheme Report. |
| 11. Davis, Te Aue
(Compiler) | 1990 | <u>Place Names of the Ancestors. A Maori Oral History.</u> NZ Geographical Board. |
| 12. Druce, A P | 1973 | <u>Vascular plants of Limestone Plateau, New Ruahine Range.</u> Unpublished Report, Botany Division DSIR, Lower Hutt. |
| 13. Druce, A P | 1973 | Higher Plants (Lycopods, ferns, Gymnosperms, Flowering Plants) of Limestone Plateau, NW Ruahine Range, 3300-4415 feet/1000 - 1345m. Unpublished Report, Botany Division, DSIR, Lower Hutt. |
| 14. Druce, A P | 1974 | <u>Interim Report on Proposed Addition of Part of NW Ruahine Range to Ruahine Forest Park.</u> Unpublished Report, Botany Division, DSIR, Lower Hutt. |
| 15. Department of Conservation | 1987 | <u>Aorangi-Awarua Resouce Report.</u> Department of Conservation, Wanganui (unpublished). |
| 16. Department of Conservation | 1987 | <u>Ecological Regions and Districts of New Zealand.</u> Sheet 2 (Editor, W Mary McEwen). |
| 17. Department of Conservation | 1990 | <u>Protected Natural Areas Survey of the Ruahine Lowlands.</u> Reconnaissance survey involving land excluded from the Ruahine State Forest Park in the North Manawatu and Ruahine Ecological |

- Districts. Compiled by M Fromont, DOC Hawkes Bay.
18. Department of Conservation 1991 Ruahine Forest Park. Hawke's Bay Conservancy Historic Resources Inventory. Unpublished report prepared by E Pishief.
 19. Elder N L 1965 Vegetation of the Ruahine Range. NZFS Technical Paper No.45.
 20. Given, David R (compiler) 1990 Threatened & Local Plant Lists - New Zealand Botanical Region. Vascular Plants. September 1990 edition. DSIR Land Resources, Christ church.
 21. Grant, Patrick J 1983 Recently Increased Erosion Sediment Transport Rates in the Upper Waipawa River Basin, Ruahine Range. New Zealand Soil Conservation Centre, Aokautere.
 22. Grant, Patrick J 1991 Disturbance in the Forests of the Ruahine Range since 1770. Journal of the Royal Society of New Zealand. Volume 21, Number 4, December 1991, pp 385-404.
 23. Hawke's Bay Catchment Board & Regional Water Board 1985 Upper Tutituki Catchment Control Scheme Investigation and Proposed Scheme.
 24. Johnson Peter, Brooke Pat 1989 Wetland Plants of New Zealand. Botany Division, DSIR, Wellington.
 25. McLennan John 1991 Kiwi Recovery Plan Technical Draft. DSIR Land Resources Contract Report for Department of Conservation.

Part III
APPENDICES

Appendix 1

ECOLOGICAL DISTRICTS INCLUDED IN RUAHINE FOREST PARK ¹

1. MOAWHANGO ECOLOGICAL DISTRICT

Criteria: geology, topography, climate and vegetation.

TOPOGRAPHY/GEOLOGY

Montane Tertiary sandstone and limestone plateaux dipping SE and rimmed by steep sandstone/limestone escarpments, separated into blocks by deeply incised, wide river valleys, draining southward; Triassic greywacke steeplands in N; plateaux mantled by Holocene andesitic ash with Taupo pumice restricted to N; high altitude peat basins in E on Ngamatea and Mangaohane Plateaux.

CLIMATE

Sub-continental climate, exaggerated by rain shadow of Ruapehu and surrounding ranges; rainfall 900 - 2400mm pa; seasonal temperature extremes; subhumid winds predominantly from W and E.

SOILS

Mainly steepland soils from greywacke and Tertiary sandstone and limestone with variable cover of volcanic ash (Taupo and older brown showers), thickening northwards; sandy and gravelly soils from thick reworked pumiceous deposits in valleys and depressions; and deep, friable, well drained volcanic ash soils from older brown andesitic ashes with variable cover of rhyolitic Taupo ash, on rolling and hilly slopes.

VEGETATION/FLORA

Original kaikawaka/mountain beech and red beech forest mosaic now reduced by fire to relict enclaves within extensive Dracophyllum shrub-red tussocklands; kaikawaka in two distinct areas; Hihitahi and NW Ruahines; wetlands e.g. Makirikiri tarns, Reporoa bog, Ngamatea swamp, Upper Moawhango R. basins - all contain floristically rich herbaceous plant communities and special distinct biogeographic elements, e.g. Myosotis pygmaea var. glauca, Ranunculus sp. (R. recens agg.), Epilobium gracilipes, Tetrachondra hamiltonii, Luzula "albocomans", Gnaphalium ensifer. Woody vegetation invading tussocklands on higher plateaux is Dracophyllum filifolium, toatoa and kaikawaka; manuka-kanuka shrublands on steeper valley slopes at lower altitudes; silver and hard tussockland predominates in colder valleys and degraded terraces; flax, broadleaf and cabbage trees on steep bluffs.

BIRDS

Include NZ Falcon, Blue Duck (in the NW); no parakeet or kaka probably as result of lack of large continuous areas of forest.

SNAILS

Include local colonies of Powelliphanta hochstetteri "marchanti" and Rhytida (Wainuia) urnula.

MODIFICATIONS

Widespread Polynesian deforestation succeeded by repeated European burning of tussocklands; recent extensive conversion of tussock to pasture (sheep and cattle).

¹ Source - "Ecological Regions and Districts of NZ". (3rd Edition).

2. RUAHINE ECOLOGICAL DISTRICT

Criteria: climate, vegetation, geology and soils.

TOPOGRAPHY

Steep rapidly rising mountain land: in the N a complex of fault blocks with rivers in deep gorges; southwards the main Ruahine and Wakarara Ranges arch in a SSW direction, reaching 1733 and 1013m a.s.l. respectively. Four subsidiary ranges (Mokai Patea, Hikurangi, Whanahuia and Ngamoko) run off obliquely from the central region, NW and SW from the main axis; valleys v-shaped, steep sided; drained by rivers flowing W and E.

GEOLOGY

Underlain by Triassic-Jurassic greywacke, argillite and bedded alternating greywacke and argillite (0.01-1m thick beds); two prominent faults - Ruahine and Mohaka; Ruahine Range being uplifted about 4mm per year.

CLIMATE

Cool, humid climate, high rainfall (1100 to over 4000mm pa), heavy rainfalls at times from S and SE; above 1100m snowfall contributes up to 10% of total precipitation, snow may lie from May-October; very high winds, predominantly from the NW.

SOILS

Mainly strongly leached shallow steepland soils from greywacke but in the N variable cover of layered volcanic ash and soils somewhat deeper; small areas of deeper, more fertile hill soils from Tertiary sedimentary rocks; strongly leached volcanic ash soils from loess with fine-textured andesitic ash; and shallow stony soils in terrace and rolling land.

VEGETATION

Range crests carry snowgrass (*Chionochloa pallens*) and red tussock; above forest a subalpine scrub dominated by *Olearia*, *Senecio* or *Dracophyllum* species. Three important forest areas: in the N mountain beech is dominant, or alternatives with red tussock; in the central area mountain beech with occasional kaikawaka is dominant above 1097m a.s.l., red beech below; in the western area kaikawaka is common above 1097m, red beech below; some black beech occurs on lower slopes, with podocarps and minor hardwoods (*Weinmannia*, *Nestegis*, *Elaeocarpus*). The Wakarara Range is dominated by fire induced scrub; sparse areas of beech forest.

FLORA

Unusual occurrence of a few silver beech trees on W of range (Mokai Patea). Rare plants include *Euphrasia disperma*, *Geum leiospermum*, *Senecio glaucophyllus* subspecies *discoideus*. Endemic species: *Myosotis eximia*, *Hebe colensoi* var *colensoi*, *H. colensoi* var *hillii*.

BIRDS

Include Blue Duck, NZ Falcon, Yellow-crowned Parakeet, kaka (not widespread). The present southern limit of Blue Duck in North Island is reached in northern RUAHINE. They have disappeared from southern RUAHINE, MANAWATU GORGE and TARARUA in the last 20 years.

SNAILS

Include populations of Powelliphanta marchanti.

MODIFICATIONS

Fire induced Leptospermum scrub towards the N; introduced mammals include red deer, possums, rats, mice, hares, localised feral cattle, sheep; farms and exotic forests on both flanks and in Pohokura basins in the N; some pine, willow and tree lupin introduced to combat erosion.

3. NORTH MANAWATU GORGE ECOLOGICAL DISTRICT

Criteria: climate, topography, vegetation.

TOPOGRAPHY/GEOLOGY

Hills and ranges, mainly Triassic-Jurassic greywacke, argillite, bedded alternating greywacke and argillite, (0.01-1m thick beds) and breccia. From Manawatu Gorge the southern Ruahine Range rises sharply to Wharite Peak (1000m), thence rising more slowly as far as Takapari (1233m); streams drain into Manawatu River.

CLIMATE

Prolonged westerly gales and low persistent clouds typical; rainfall 1400-2500mm pa, evenly spread throughout year; snowfalls in winter remain only a few days.

SOILS

Dominantly shallow and stony steep-land soils from greywacke with small area of hill and steep-land soils from Tertiary siltstone, sandstone and limestone on foothills N of Manawatu Gorge: soils on easier slopes deeper, formed from silty Pleistocene drift material or loess; at lower altitudes moderately leached with good drainage but at higher altitudes and rainfall more strongly leached with impeded drainage and peaty topsoils. Steep-land soils from greywacke mainly strongly and very strongly leached; serious soil erosion is occurring under deteriorating forest cover, this contributes large volumes of gravelly materials to neighbouring lowlands. Hill and steep-land soils from Tertiary rocks less leached and more fertile, have been cleared of forest for farming; localised areas of soil slipping occur.

VEGETATION

Northern boundary at Pohangina River-Cattle Creek confluence approximates the northern limit of former rata-kamahi forest, now hardwood forest and scrub; montane and subalpine forests dominated by kaikawaka and pink pine with no beech; small areas of black beech occur in lower forests; very dense leatherwood (Olearia colensoi) occurs above treeline.

BIRDS

Include NZ Falcon.

SNAILS

Include Powelliphanta and Wainuia species.

MODIFICATIONS

Forests cleared for grazing in Manawatu Gorge area; scattered pockets of podocarp/hardwood forest restricted to damp gullies.

ANIMAL SPECIES RECORDED IN RUAHINE FOREST PARK ¹

COMMON NAME	SCIENTIFIC NAME	DISTRIBUTION CLASS #
Bat (long-tailed)	<i>Chalinolobus tuberculatus</i>	E
Bellbird	<i>Anthornis melanura</i>	E
Blackbird	<i>Turdus merula</i>	I
Brown Quail	<i>Synoicus ypsilophorus</i>	I
Chaffinch	<i>Fringilla coelebs gangteri</i>	I
Cuckoo (long-tailed)	<i>Eudynamys taitensis</i>	E
Cuckoo (shining)	<i>Chrysococcyx lucidus lucidus</i>	Es
Duck (Blue)	<i>Hymenolaimus melacorhynchus</i>	F
Duck (Grey)	<i>Anas superciliosa</i>	N
Duck (Mallard)	<i>Anas platyrhynchos</i>	I
Duck (Paradise Shelduck)	<i>Tadorna variegata</i>	E
Falcon (New Zealand)	<i>Falco novaezealandiae</i>	E
Fantail (North Island)	<i>Rhipidura fuliginosa placabilis</i>	E
Frog	<i>Litoria spp</i>	I
Gecko	<i>Naultinus spp</i>	E
Goldfinch	<i>Carduelis carduelis</i>	I
Greenfinch	<i>Carduelis chloris</i>	I
Grey warbler	<i>Gerygone igata</i>	E
Gull (Black-backed)	<i>Larus dominicanus</i>	N
Harrier hawk (Australasian)	<i>Circus approximans</i>	N
Hedgesparrow	<i>Prunella modularis</i>	I
Heron (White-faced)	<i>Ardea novaezealandiae</i>	N
Kaka (North Island)	<i>Nestor meridionalis septentrionalis</i>	E
Kingfisher (New Zealand)	<i>Halcyon sancta vagans</i>	E
Kiwi (North Island Brown)	<i>Apteryx australis mantelli</i>	I
Magpie (White-backed)	<i>Gymnorhina tibicen hypoleuca</i>	I
Magpie (Black-backed)	<i>Gymnorhina tibicen tibicen</i>	I
Myna	<i>Acridotheres tristis</i>	I
Morepork	<i>Ninox novaezealandiae</i>	F
Parakeet (yellow-crowned)	<i>Cyanoramphus auriceps</i>	E
Pheasant	<i>Phasianus colchicus</i>	I
Pied Stilt	<i>Himantopus himantopus leucocephalus</i>	I
Pigeon (New Zealand)	<i>Hemiphaga novaezealandiae novaezealandiae</i>	I
Pipit (New Zealand)	<i>Anthus novaezealandiae</i>	E
Pukeko	<i>Porphyrio porphyrio</i>	N
Red poll	<i>Carduelis flamma</i>	I
Rifflaman (North Island)	<i>Acanthisitta chloris granti</i>	E
Robin (North Island)	<i>Petroica australis longipes</i>	E
Rook	<i>Corvus frugilegus frugilegus</i>	I
Shag (Black)	<i>Phalacrocorax carbo novaezealandiae</i>	N
Silvereye	<i>Zosterops lateralis</i>	N
Skink	<i>Leiopisma spp</i>	E
Skylark	<i>Alauda arvensis</i>	I
Snail	<i>Powelliphanta spp,</i> <i>Wainuia spp</i>	E E
Sparrow (House)	<i>Passer domesticus</i>	I
Spurwinged plover	<i>Vanellus miles novaezealandiae</i>	N
Starling	<i>Sturnus vulgaris</i>	I
Swallow (welcome)	<i>Hirundo tahitica nauxana</i>	N
Thrush (song)	<i>Turdus philomelos</i>	I
Tomtit (North Island)	<i>Petroica macrocephala titoi</i>	E
Tui	<i>Prothemadera novaezealandiae</i>	E
Whitehead	<i>Mohoua albicilla</i>	E
Yellowhammer	<i>Emberiza citrinella</i>	I

ANIMAL SPECIES RECORDED IN RUAHINE FOREST PARK ¹

COMMON NAME	SCIENTIFIC NAME	DISTRIBUTION CLASS *
Deer (Red)	<i>Cervus elaphus scoticus</i>	I
Deer (Sika)	<i>Cervus nippon</i>	I
Ferret	<i>Mustela putorius</i>	I
Goat	<i>Capra hircus</i>	I
Hedgehog	<i>Erinaceus europaeus</i>	I
Hare	<i>Lepus europaeus occidentalis</i>	I
Mouse	<i>Mus musculus</i>	I
Pig	<i>Sus scrofa</i>	I
Possum	<i>Trichosurus vulpecula</i>	I
Rabbit	<i>Oryctolagus cuniculus cuniculus</i>	I
Rat (ship)	<i>Rattus rattus</i>	I
Rat (brown)	<i>Rattus norvegicus</i>	I
Stoat	<i>Mustela erminea</i>	I
Weasel	<i>Mustela nivalis</i>	I
Eel (longfinned)	<i>Anguilla dieffenbachii</i>	N
Eel (shortfinned)	<i>Anguilla australis</i>	N
Common Smelt	<i>Retropinna retropinna</i>	N
Koaro	<i>Galaxias brevipinnis</i>	N
Inanga	<i>Galaxias maculatus</i>	N
Common bully	<i>Gobiomorphus cotidianus</i>	N
Torrent fish	<i>Cheimarrichthys fosteri</i>	N
Black flounder	<i>Rhombosolea retiaria</i>	N
Brown trout	<i>Salmo trutta</i>	I
Rainbow trout	<i>Oncorhynchus mykiss</i>	I
Dwarf galaxias	<i>Galaxias divergens</i>	N
Cran's bully	<i>Gobiomorphus basalis</i>	N
Upland bully	<i>Gobiomorphus breviceps</i>	N
Goldfish	<i>Carassius auratus</i>	I
Koura (freshwater crayfish)	<i>Paranephrops planifrons</i>	E

*** Distribution Classification (Bell, Brian, D)**

E = Endemic Species (A species which is confined to New Zealand and is not found elsewhere. It includes species which breed only in New Zealand but disperse or migrate to other countries in the non breeding season or as sub adults).

Es = Endemic Species (A subspecies or geographical race which is confined to New Zealand. other subspecies of the species occur in other parts of the World).

N = Indigenous Species (A species which occurs naturally in other countries as well as New Zealand).

I = Introduced Species (A species which has been transported to New Zealand and helped establish, by man).

Reference is the OSNZ - "The Atlas of Bird Distribution in New Zealand" in the case of birds.

ENDANGERED, THREATENED ¹ AND RARE WILDLIFE SPECIES RECORDED IN THE PARK ²

(Bell, B D 1986)

	SPECIES	CONSERVATION STATUS	DISTRIBUTION CLASS	COMMENT
1.	North Island Brown Kiwi (<u><i>Apteryx australis mantelli</i></u>)	Threatened	Endemic	Threatened by land clearance. Also vulnerable to accidental kills by pig hunting and possum trapping.
2.	Blue Duck (<u><i>Hymenolairnus malacorhynchus</i></u>)	Threatened	Endemic	Declining population being affected by river manipulation particularly for hydro development.
3.	New Zealand Falcon (<u><i>Falco novaeseelandiae</i></u>)	Threatened	Endemic	Population still being eroded by illegal shooting.
4.	North Island Kaka (<u><i>Nestor meridionalis septentrionalis</i></u>)	Threatened	Endemic	Limited distribution. Threatened locally by loss of habitat (felling of indigenous forest).
5.	Long-tailed Cuckoo (<u><i>Eudynamys taitensis</i></u>)	Rare	Endemic	
6.	North Island Robin (<u><i>Petroica australis longipes</i></u>)	Threatened (regionally)	Endemic	Limited distribution. Threatened locally by timber milling etc.
7.	<u><i>Powelliphanta marchanti</i></u>	Rare	Endemic	
8.	Yellow-Crowned Parakeet	Threatened (regionally)	Endemic	

"Threatened" equates with the term "vulnerable" in the IUCN Classification (definitions PTO).

¹ "Threatened" equates with the term "vulnerable" in the IUCN Classification (definitions PTO).

² Freshwater fish are not included.

NEW ZEALAND FOREST SERVICE
EXPLANATORY NOTES TO
RUAHINE FOREST CLASS MAP
FOREST SERVICE MAPPING SERIES 6

SHEET No. 13

J. L. Nicholls, Forest Research Institute
1970

INTRODUCTION

The accompanying map is one of a series showing the broad classes of indigenous forest in New Zealand. Each map covers a more or less distinct ecological region.

This illustration of the forest pattern is based on sampling and reconnaissance during the New Zealand Forest Service volumetric survey (Thomson, 1946; Masters *et al.*, 1957) and ecological survey (New Zealand Forest Service, 1957).

Each forest class is a group of forest types with one or more important features in common. Detailed accounts of the forest types are planned; the following text, therefore, is simply a short elaboration of the legend on the face of the map.

FOREST CLASSES AND TYPES

Softwoods

The class includes all types in which softwoods are abundant and hardwoods are sparse or confined to the understorey. In this region such forest is rare, and only two areas are large enough to map. Matai and kahikatea are the dominant species near Mangaweka, and totara and kahikatea alongside the lower Pohangina River.

Rimu-Matai-Hardwoods

This class is distinguished by a consistent occurrence of one or more of the softwoods matai, totara, and kahikatea. In this region it is confined to the lower north-western and south-western flanks of the Ruahine Range and the few sizable forest remnants of the lowlands.

Rimu, matai, and kahikatea occur throughout; miro and totara occur locally. The only hardwoods in the north-west are hinau, rewarewa, and maire; in the Pohangina valley kamahi is generally abundant, and rata, tawa, and pukatea are present at the lowest altitudes.

Rimu-General Hardwoods

Characteristically rimu is the prevalent softwood and occurs occasionally to frequently. It is usually emergent above a general canopy of hardwoods. In some types rata is also a common emergent tree, but in this region most rata have died during the last 15 years, with many of the formerly abundant kamahi.

Below 2,500 ft on the south end of the Ruahine Range rimu, miro, Hall's totara, hinau, rewarewa, and maire are scattered to locally frequent, with large standing dead rata, among shrub hardwoods, tree ferns, and groves of

skeletal kamahi. Small tawa occur near the forest edge. Above 2,500 ft there is a different type, without rata and rewarewa and with more Hall's totara and local patches of living kamahi.

Highland and Steepland Softwoods-Hardwoods

Forest of this class occurs above the altitudinal limit of rimu or on exceptionally steep ground below it. In the absence of beeches over nearly all the southern third of the Ruahine Range the class extends immediately above rimu-hardwood forest to the tree line. Further north it often occurs as a belt between beech forest with kaikawaka and the open mountain tops, and the lower limits are well above the upper limit of rimu.

On the south-east flank of the range very steep faces 2,000-3,000 ft a.s.l. are covered by broadleaf and other shrub hardwoods, with scattered often dead or dying Hall's totara, occasional miro, and large areas of standing dead kamahi. Between 2,800 and 3,200 ft on the south-west flank, which generally rises less sharply, an otherwise similar association contains occasional kaikawaka.

Between 3,000 ft and the tree line at 3,500 ft a.s.l. on the broad southern crest of the Ruahine Range, short kaikawaka are common in a dense low forest of pink pine and broadleaf. The same association with the addition of mountain toatoa is general wherever this class of forest occurs north of the Pohangina River. Stands of abundant but stunted kaikawaka occur locally on easy terrain to the east of Aorangi Trig, in the north-west.

Rimu-Beeches

In this class rimu is occasional to locally frequent among abundant beeches. Several types are recognised in the Ruahine region, according to the distribution of the beech species.

The two common types are either red beech or irregular mixtures of red and mountain beech with rimu and occasional miro and Hall's totara. Rimu-red beech forest has been logged or burnt at a few points along the eastern forest margin, but regeneration of both species is generally common and well advanced. Hardwoods are rare except to the south of the Waipawa and Oroua rivers, where kamahi is often abundant in the understorey.

An exceptional type occurs on river terraces and sidings along the western forest edge, and very locally in the east. Red beech, and rarely black beech, are irregularly scattered in rimu-matai-hardwoods forest. To the north-east of Mangaohane Trig at the northern end of the Ruahine Range are unique stands of mixed softwoods (partly logged) with black beech only.

Black beech forest with occasional rimu, miro, and Hall's totara occurs on ridges between Aorangi Trig and the Rangitikei River. The same association appears again in the Pohangina valley on the outskirts of the range but in that area occasional rata, tawa, hinau, rewarewa, and kamahi are also present.

Highland Softwoods-Beeches

Forest of this class occurs above the altitudinal limit of rimu. In this region its lower limits are often well above this, and it forms an uppermost belt of forest above pure beech associations on many parts of the Ruahine Range.

Mountain beech forest with occasional to locally frequent kaikawaka and local understoreys of mountain toatoa, pink pine, and broadleaf is general across the central part of the range, from the headwaters of the Waikamaka, Kawhatau, and Waipawa rivers as far south as the vicinity of the Otumore Trig. The forest north of Mangaohane Trig is also this type, and pockets occur elsewhere. Red and mountain beech with kaikawaka is a less widespread

association, occurring mainly north of Aorangi Trig, north-west of Tupari Trig, and in the headwaters of the Oroua River. Red beech only, with kaikawaka, is the main type south-east of Aorangi Trig and in the upper Pohangina valley. Hall's totara is occasionally present in all the above types. In the kaikawaka-red beech forest of the Pohangina valley kamahi is frequently abundant in the understorey.

General Hardwoods

The only sizable areas of this class in this region occur on broken country less than 3,000 ft a.s.l., about the middle reaches of the Ngaruroro River. They are almost entirely secondary forest developed since the destruction of former rimu-beech forest by fire in Polynesian or early European times. Kanuka predominates throughout; pole red beech and softwoods occur very locally. Minor areas near the Napier-Taihape road on quite easy terrain are largely shrub hardwood stands, where former rimu-matai-hardwoods forest has been logged or burnt.

Beeches

This class includes all types in which one or more of the beeches is dominant. In this region the hardwood kamahi is prominent as an understorey species south of the Waipawa River on the east and the Oroua River on the west. The softwoods miro and Hall's totara do occur, but so locally that stands containing them have not been mapped as highland softwoods-beech forest.

There are six types of almost pure beech forest in the Ruahine region. A red beech type and a red beech-mountain beech type cover most of the middle slopes of the range between 2,800 and 3,800 ft a.s.l. The pure red beech forest is confined to easy terrain in the north-west but is almost the only type of beech forest on the west side of the range between the Kawhatau and Oroua rivers and then eastward in the upper Pohangina valley and in the headwaters of the Makaretu and Manawatu rivers. The red and mountain beech association usually occurs on more rugged country. It is widespread below 3,800 ft on the northern third of the range. Further south it is rare on the west side of the range beyond the Kawhatau River; it persists unbroken, however, above rimu-red beech-mountain beech forest on the east side to the head of the Tukituki River, near Otumore Trig. A few pockets occur in the general red beech forest at the head of the Makaretu River. Pure mountain beech forest covers most of the range above 3,800 ft to the tree line at 4,500 ft north of Maroepa Trig.

The other three types are confined to a small part of the Waikamaka valley, a few miles south-east of Mokaipatea Trig, where silver beech is present. Near the river are stands of red and silver beech; at the upper forest edge on the Mokaipatea ridge is a belt of silver and mountain beech; in between are mixed stands of all three species.

REFERENCES

- Masters, S. E., Holloway, J. T., and McKelvey, P. J., 1957: *The National Forest Survey of New Zealand, 1955*. Vol. 1: "The Indigenous Forest Resources of New Zealand". Wellington, Government Printer.
- New Zealand Forest Service, 1957: *Annual Report of the Forest Research Institute for the Year Ending 31 March 1957*.
- Thomson, A. P., 1946: Design for a forest survey. *New Zealand Journal of Forestry* 5 (3): 191-9.

RARE PLANTS RECORDED IN AND ADJACENT TO THE PARK

The vegetation of the Ruahine Range has been generally described in section 2.6 of this plan. There are some major values present in the botany of the ranges (particularly in the far north west - both in and adjacent to the Park). Significant values include a species found nowhere else, several species found only here in the North Island and some unique patterns of vegetation types.

Rogers (1987) explains the anomalous distributions of many of the species listed below as an expression of the geological history of the lower North Island since the Miocene, and regards these species as a fragment of an early Miocene flora. The Miocene period began about 25 million years ago and ceased about 13 million years ago.

1. Aceana unnamed ("NW Ruahines")

A species of bidibidi found only in the NW Ruahine Ranges. Local endemic in Reporoa Bog, Makirikiri tarns and elsewhere in northwestern Ruahine Range (Druce, 1983).

Classified as "rare" (Given 1990).

2. Tetrachondra hamiltonii (Creeping, native herb)

Disjunct distribution - confined to Mangaohane Plateau as its sole location in North Island, but also found in parts of the South Island.

Is present in damp, herbaceous communities in non forest areas of the plateau.

Listed as a species of restricted distribution by Given (1990). These are plants that require monitoring and may include plants occurring in habitats which are under threat, and species found in sensitive habitats which are prone to damage.

3. Cardamine unnamed ("Reporoa Bog Slender var")

Disjunct distribution - confined to NW Ruahine Range in North Island and has been reported in NW Nelson.

4. Euphrasia disperma (native eyebright)

Disjunct distribution. Confined to Mangaohane Plateau in northern part of Ruahine Ranges, and from west Nelson to south Westland.

5. Myosotis tenericaulis (slender herb)

Disjunct distribution. Restricted to NW Ruahine Range in North Island. South Island distribution is more widespread, but as an alpine is restricted to Central Otago (Mark and Adams 1973).

Habitat - in alpine zone is confined to bogs and is easily overlooked unless flowering.

6. Ourisia modesta

Endemic to NW Ruahine Range. Disjunct distribution. Only North Island location is in NW Ruahine Range, but it is more common in the South Island.

Rogers (1987) reports that it is restricted to one damp stream bank in a forest clearing at Ruahine Corner.

7. Ranunculus ternatifolius (slender herb)

Endemic. Disjunct distribution. Only located in North Island in Ruahine Range, and in South Island in NW Nelson, Canterbury and Southland.

Present in streambanks, tarns and bogs.

8. Geum leiospermum

Found in Mt Taranaki and Ruahine Ranges in North Island. More widespread in mountain regions in South Island.

Habitat - in North Island occurs in bogs. Much wider range in South Island from tussock grasslands, herbfields and fellfields.

9. Senecio glaucophyllus subspecies discoideus

Only North Island locality in NW Ruahine Range.

10. Hebe colensoi var colensoi

11. Hebe colensoi var hillii

12. Pittosporum turneri

Listed as rare and endangered species by Given (1981).

Rogers (1987) documents 11 small populations in the Waiokotore Stream basin and 4 groups at Ruahine Corner.

Druce (1974) recommends creation of a sanctuary in the west Waiokotore Stream to protect a portion of this population.

(b) outstanding recreational, fisheries, and wildlife habitat features.

(2) It is hereby declared that the Middle River includes:

(a) outstanding scenic characteristics; and

(b) outstanding recreational and fisheries features.

4. Retention of Natural Rivers in Natural State

Because of the outstanding characteristics and features specified in clause 3(1) of this Order the Upper River shall be preserved as far as possible in its natural state.

5. Rate of Flow of Natural Water

Because of the outstanding characteristics and features specified in clause 3(2) of this Order, the rate of flow of natural water to be retained at any point in the Middle River shall be not less than 95% of the River Flow at that point, subject to the provisions of clause 8.

6. Right to Dam not be Granted

Subject to the provisions of clause 8, a right to dam the Upper River or the Middle River shall not be granted under Sections 21 or 23 of the Act.

7. Water Rights

Subject to the provisions of clause 8:

(1) A water right under Sections 21, 23 or 24 of the Act may not be granted by the Minister or by the Regional Water Board (as appropriate) and a general authorisation under Section 22 of the Act may not be made by the Regional Water Board in respect of the Upper River or the Middle River if the combined effect of the grant or authorisation and of existing rights would be that the provisions of this Order cannot remain without change or variation.

(2) Notwithstanding anything in this Order, it shall be lawful for water rights to be granted, and general authorisations to be made, in respect of the Upper River or the Middle River for the purposes of research into, and enhancement of, fisheries and wildlife habitats.

(3) Nothing in this Order shall be construed as limiting the effect of the second proviso to Section 21(1) of the Act relating to the use of water for domestic needs, for the needs of animals, and for or in connection with fire fighting purposes.

(4) In granting any rights under Sections 21, 23 or 24 of the Act or making a general authorisation under Section 22 of the Act, in respect of the Upper River or the Middle River, the Minister or the

Regional Water Board shall ensure that:

- (a) the natural water temperature of the Upper River or the Middle River shall not be changed by more than 3 degrees Celsius;
- (b) the acidity or alkalinity of the water as measured by the pH shall be within the range of 6.0 to 9.0; and within the range the natural pH of the water shall not be changed by more than 1.0 unit;
- (c) the water shall not be tainted so as to be unpalatable or unsuitable for consumption by humans or farm animals;
- (d) the water shall not emit an objectional odour;
- (e) there shall be no adverse effect on the aquatic community attributable to pollutants;
- (f) aquatic organisms shall not be rendered unsuitable for human consumption by accumulation of excessive concentrations of pollutants;
- (g) the natural colour and clarity of the waters shall not be changed to a conspicuous extent;
- (h) there shall be no visible oil or grease films or conspicuous floating or suspended waste materials;
- (i) the concentration of dissolved oxygen shall be not less than 80 percent of saturation concentration;
- (j) there shall be no undesirable biological growths attributable to pollutants.

(5) Nothing in this Order shall prevent the renewal of any water right or general authorisation which is current on the commencement of this Order.

8. The construction of a dam structure downstream from the Middle River which impounds water in the Middle River as far upstream as the confluence with the Hautapu River is not limited by this Order.

THE SOUTHERN RUAHINE LEATHERWOOD (*Olearia colensoi*) AREA

The southern Ruahine leatherwood zone is the dominant feature of the North Manawatu Gorge Ecological District and is the largest continuous leatherwood area in New Zealand. The intrinsic ecological value of the area has been recognised by its designation as a potential Ecological Area. Many people, however, regard the leatherwood zone as a nuisance due to its impediments to free travel. In this sense it suffers from the lack of understanding that other habitats such as swamps and wetlands have in the past. The southern Ruahine leatherwood zone is, however, unique and is worthy of designation as an Ecological Area.

There are two major factors associated with broad sub-alpine scrub zones in New Zealand, these are:

- the absence of the two tree line forming *Nothofagus* species (*N. menziesii* and *N. solandri* var *cliffortioides*)
- a high precipitation/cloud cover

The southern Ruahine meets both these requirements. Meteorological data I have collected confirm existing records that the southern Ruahine is one of the cloudiest and windiest areas of high rainfall in New Zealand. The high cloud cover is one of the most significant factors in allowing the leatherwood zone to proliferate. High cloud cover effectively increases the total precipitation, maintains high humidity conditions and decreases average light intensity levels, factors in competitive favour of *Olearia colensoi*. The southern Ruahine is unique in the extent of the sub-alpine zone over which these conditions predominate. The narrowness of the range and relatively low height of the peaks here contributes to the breadth of the zone as the subalpine region from both sides of the range effectively meet at the top to form one continuous area.

The southern Ruahine then has a unique combination of characteristics that are conducive to the establishment of a broad sub-alpine scrub zone. The other unique aspect of this scrub is its virtual total dominance by one species, *Olearia colensoi*. While *Olearia colensoi* is the main component of similar sub-alpine scrub associations in the west of the South Island it does not achieve the same level of dominance in those areas and is absent from the sub-alpine scrub associations of the volcanic mountains of the North Island (Mounts Taranaki, Tongariro and Ruapehu). On Mount Taranaki *Brachyglottis elaeagnifolia* is the dominant species. *Brachyglottis elaeagnifolia* also occurs in the southern Ruahine but only reaches any frequency at lower altitudes and on disturbed sites such as track/road sides. The road to Wharite peak is an example, where *Brachyglottis elaeagnifolia* dominates the road berm from 700 - 900 metres.

Olearia colensoi possesses a set of attributes that enables it to thrive in subalpine conditions characterised by high precipitation and cloud cover. It has a characteristic shrub form. Leaf turn over is high resulting in leaf litter production higher than some lowland forest systems. Plants have shallow fibrous rooting systems, much of which arises adventitiously beneath epiphytic bryophyte mats. Much of the fibrous root systems is effectively above the soil level and contributes to the plant's ability to cope with soils prone to water logging. Under most conditions the plant is able to obtain sufficient water uptake from the bryophyte mats and directly beneath the litter layer. In times of severe water deficit, however, these shallow fibrous root systems are unable to cope as the bryophyte mats and litter layer desiccate. The

strategies then that enable the plant to cope with high precipitation water logging conditions do render the plant drought prone. This vulnerability tends to be reflected in the xeromorphic features of the leaves which have a thick abaxial tomentum ostensibly allowing the plant to better cope when water deficit periods do occur.

Leatherwood in the southern Ruahine has increased its lower altitudinal range, over the last 50 years, consequent to the decline in areas of *Libocedrus bidwillii* and *Halocarpus biformis*. The lowering of treelines in the southern Ruahine can still be seen today with *Libocedrus* and *Halocarpus* giving way to leatherwood shrubland. Spread of *Olearia colensoi* down slope is more a consequence of localised increase in abundance due to the reduced competition at lower altitudes, where individual *Olearia colensoi* were already present in the subcanopy, rather than an invasive phenomena. On the summit of the plateau, in the southern Ruahine, leatherwood has been the stable vegetation cover for many generations. Seedling analysis from plots on the plateau indicate that these sites of leatherwood are in a state of continuing renewal.

Longterm stability in the leatherwood at lower altitude is dependent on the consequent regeneration if any of *Libocedrus* and *Halocarpus*. If the predicted trend of global warming occurs the consequences in the Ruahine are likely to be increased cloud cover and rainfall due to increase in moisture laden westerlies from off the Tasman. If cloud incidence and rainfall are to increase above present levels then it is likely that leatherwood will maintain itself and increase even further at its current lower altitudinal limit. In the Wharite area between 880-950m leatherwood and pepperwood are the predominant species with their associated ground flora. Long-term floristic composition in this area is harder to predict but it appears that leatherwood will increase in this area particularly in the windier, cloudier sites. Floristic composition over the next 50 years will be affected by fluctuations in animal numbers in the Ruahine Range. While increasing animal numbers are unlikely to alter the leatherwood dominance on the range its health and the floristic composition of associated species will change with deer and possum increase. More palatable species such as *Pseudopanax* will not be able to maintain populations with higher animal numbers. Control of introduced animals is an important priority in the area.

In conclusion:

Olearia colensoi is well adapted to climatic conditions of extreme cold, wind and high precipitation. The physical characteristics of the southern Ruahine have produced a large area of subalpine attributes even though these altitudes would normally support forest at these latitudes. An extensive leatherwood belt has formed and has been present for many generations. Forest decline this century has allowed a down slope range expansion of *Olearia colensoi* to occur. Currently there are no impediments to *Olearia colensoi* regeneration and no indications that *Olearia colensoi* will not continue as the dominant vegetation cover in the foreseeable future. *Olearia colensoi* is not an uncommon plant in the wetter New Zealand mountains, it has a wide geographical distribution and is not under threat of major decline in populations. In the southern Ruahine *Olearia colensoi* is extremely abundant. This abundance and dominance over a relatively large area for a plant that is habitat specific and limited (wetter/cloudier sub-alpine altitudes) is an ecologically significant feature unrepresented elsewhere and is worthy of recognition by designation of the area as an Ecological Zone.

**THE NATIONAL WATER CONSERVATION
(RANGITIKEI RIVER) ORDER 1990 (DRAFT)**

1. Title and Commencement

- (1) This Order may be cited as the National Water Conservation (Rangitikei River) Order 1990.
- (2) This Order shall come into force on the 14th day after the date of its notification in the Gazette.

2. Interpretation

"Act" means the Water and Soil Conservation Act 1967.

"Middle River" means:

- (a) the Rangitikei River itself from its confluence with the Makahikatoa Stream (approximate map reference NZMS 1N123/519432) to the Mangarere Bridge (approximate map reference NZMS 1 N139/266996), and
- (b) the Whakaurekau River plus all its Tributaries and the Kawhatau River plus its following Tributaries: The Pourangaki River, the Mangakokeke Stream.

"River Flow" means for any given point on the Middle River and Upper River:

- (a) the mean daily flow occurring at that point; plus
- (b) the sum of abstractions from the Upper and Middle River and its Tributaries upstream of that given point expressed as a daily mean, but not including any abstraction from the Moawhango River at the Moawhango Dam (approximate map reference NZMS 1 N122/238504) for hydro electric power generation purposes.

"Upper River" means:

- (a) the Rangitikei River itself from its source (approximate map reference NZMS 1N113/506891) to its confluence with the Makahikatoa Stream (approximate map reference NZMS 1N123/519432).
- (b) all rivers and streams contributing water to the Rangitikei River upstream of that confluence.

3. Outstanding Characteristics and Features

- (1) It is hereby declared that the Upper River includes:
 - (a) outstanding wild and scenic characteristics; and

(b) outstanding recreational, fisheries, and wildlife habitat features.

(2) It is hereby declared that the Middle River includes:

- (a) outstanding scenic characteristics; and
- (b) outstanding recreational and fisheries features.

4. Retention of Natural Rivers in Natural State

Because of the outstanding characteristics and features specified in clause 3(1) of this Order the Upper River shall be preserved as far as possible in its natural state.

5. Rate of Flow of Natural Water

Because of the outstanding characteristics and features specified in clause 3(2) of this Order, the rate of flow of natural water to be retained at any point in the Middle River shall be not less than 95% of the River Flow at that point, subject to the provisions of clause 8.

6. Right to Dam not be Granted

Subject to the provisions of clause 8, a right to dam the Upper River or the Middle River shall not be granted under Sections 21 or 23 of the Act.

7. Water Rights

Subject to the provisions of clause 8:

- (1) A water right under Sections 21, 23 or 24 of the Act may not be granted by the Minister or by the Regional Water Board (as appropriate) and a general authorisation under Section 22 of the Act may not be made by the Regional Water Board in respect of the Upper River or the Middle River if the combined effect of the grant or authorisation and of existing rights would be that the provisions of this Order cannot remain without change or variation.
- (2) Notwithstanding anything in this Order, it shall be lawful for water rights to be granted, and general authorisations to be made, in respect of the Upper River or the Middle River for the purposes of research into, and enhancement of, fisheries and wildlife habitats.
- (3) Nothing in this Order shall be construed as limiting the effect of the second proviso to Section 21(1) of the Act relating to the use of water for domestic needs, for the needs of animals, and for or in connection with fire fighting purposes.
- (4) In granting any rights under Sections 21, 23 or 24 of the Act or making a general authorisation under Section 22 of the Act, in respect of the Upper River or the Middle River, the Minister or the

Regional Water Board shall ensure that:

- (a) the natural water temperature of the Upper River or the Middle River shall not be changed by more than 3 degrees Celsius;
 - (b) the acidity or alkalinity of the water as measured by the pH shall be within the range of 6.0 to 9.0; and within the range the natural pH of the water shall not be changed by more than 1.0 unit;
 - (c) the water shall not be tainted so as to be unpalatable or unsuitable for consumption by humans or farm animals;
 - (d) the water shall not emit an objectional odour;
 - (e) there shall be no adverse effect on the aquatic community attributable to pollutants;
 - (f) aquatic organisms shall not be rendered unsuitable for human consumption by accumulation of excessive concentrations of pollutants;
 - (g) the natural colour and clarity of the waters shall not be changed to a conspicuous extent;
 - (h) there shall be no visible oil or grease films or conspicuous floating or suspended waste materials;
 - (i) the concentration of dissolved oxygen shall be not less than 80 percent of saturation concentration;
 - (j) there shall be no undesirable biological growths attributable to pollutants.
- (5) Nothing in this Order shall prevent the renewal of any water right or general authorisation which is current on the commencement of this Order.
8. The construction of a dam structure downstream from the Middle River which impounds water in the Middle River as far upstream as the confluence with the Hautapu River is not limited by this Order.

GRAZING LICENCES IN RUAHINE FOREST PARK ¹

DESCRIPTION	AREA	LESSEE	TERM	EXPIRY
<u>1. Grazing Licence No. 376</u>				
Moorcocks Stream (SE Ruahine Ranges) Block VIII Makaretu SD	169.6 ha	Mr L E Hardy Beckford R D 1 Takapau	Year to year (1 April each year)	
<u>2. Grazing Licence No. 301</u>				
(Takapari Airstrip) Section 67 & 68. Block IV Pohangina SD	11.2 ha	Mr R Storey Utuwai R D ASHHURST	Year to year (31 January each year)	

¹ As of 1.6.91

CONCESSIONS OPERATING IN RUAHINE FOREST PARK

INDIVIDUAL/COMPANY PARTNERSHIP	ACTIVITY	AREA	FILE	EXPIRY DATE
1. W J Roydhouse (Kaweka Safaris)	Guided Hunting Trips	North east Ruahine Forest Park	CON008	30/11/91
2. Wanganui Aero Work Ltd (Taihape Unit)	Aerial Transportation	Ruahine Forest Park	CON103	30/6/92
3. Te Onepu Helicopters Ltd	Aerial Transportation	Ruahine Forest Park	CON102	30/6/92
4. T Moffitt	Guided Tramping Tours	Ruahine Forest Park	CON012	31/5/92
5. Wanganui Aero Work Ltd and Consort Belting Ltd	Heli-skiing	Ruahine Forest Park	CON100	31/12/92
6. Garry Strawbridge Helicopters Ltd	Aerial Transportation	Ruahine Forest Park	CON114	30/6/92
7. Leighton & Graham	Aerial Transportation	Ruahine Forest Park	CON101	30/6/92
8. Rick Lucas Helicopters Ltd	Aerial Transportation	Ruahine Forest Park	CCN104	30/6/92
9. Tararua Heli Work Limited	Aerial Transportation	Ruahine Forest Park	CON117	30/6/92
10. Peihamu Air Limited	Aerial Transportation	Ruahine Forest Park	CON118	28/2/93

Updated 18.3.92

HUNTER DIARIES

HELP US TO HELP YOU

It is desirable that a major control of wild animals in the Kaweka and Ruahine Ranges is by recreational hunting. As necessary we will reinforce recreational hunting with aerial or departmental ground operations.

If we allow recreational hunting to be a major control then we need to know that it is succeeding and that animal numbers do not build up either generally through the forests or in specific areas within them.

We intend to monitor animal populations and forest condition by surveys including:

- periodic animal and vegetation surveys
- hunter diary returns
- animal jaw and rumen sampling
- permit statistics
- commercial user statistics

A major part of the survey will be the information you can return to us through the hunters diaries. For these to be of value they must be returned to us and they must be completed fully and accurately.

It is essential that we know where you have seen and hopefully shot your animals, not so that your favourite hunting spot is exposed to others, but so that we can gain a fuller picture of what areas are being hunted, where the animals are, how the populations are changing from time to time, how they relate to various vegetation types and altitudes and how the animal numbers and species vary from one part of the forest to another.

We would like to see recreational hunting as an effective and major method of animal control in Hawke's Bay and we believe that you would like this also. We cannot do so without your help.

Help us to help you - Good Hunting!

ENVIRONMENTAL CARE CODE

10 POINT CHECKLIST

PROTECT PLANT AND ANIMALS

Treat New Zealand's forests and birds with care and respect. They are unique and often rare.

REMOVE RUBBISH

Litter is unattractive, harmful to wildlife and can increase vermin and disease. Plan your visits to reduce rubbish, and carry out what you carry in.

BURY TOILET WASTE

In areas without toilet facilities, bury your toilet waste in a shallow hole well away from waterways, tracks, campsites, and huts.

KEEP STREAMS AND LAKES CLEAN

When cleaning and washing, take the water and wash well away from the water source. Because soaps and detergents are harmful to water-life, drain used water into the soil to allow it to be filtered. If you suspect the water may be contaminated, either boil it for at least 3 minutes, or filter it, or chemically treat it.

TAKE CARE WITH FIRES

Portable fuel stoves are less harmful to the environment and are more efficient than fires. If you do use a fire, keep it small, use only dead wood and make sure it is out by dousing it with water and checking the ashes before leaving.

CAMP CAREFULLY

When camping, *leave no trace of your visit.*

KEEP TO THE TRACK

By keeping to the track, where one exists, you lessen the chance of damaging fragile plants.

CONSIDER OTHERS

People visit the back country and rural areas for many reasons. Be considerate of other visitors who also have a right to enjoy the natural environment.

RESPECT OUR CULTURAL HERITAGE

Many places in New Zealand have a spiritual and historical significance. Treat these places with consideration and respect.

ENJOY YOUR VISIT

Enjoy your outdoor experience. Take a last look before leaving an area; will the next visitor know that you've been there?

Protect the environment for your own sake, for the sake of those who come after you, and for the environment itself.

Toihu te whenua (Leave the land undisturbed)

HUNTER DIARY PRIZE DRAW

All correctly filled in Diaries received within 14 days after 30 June will be eligible for the annual prize draw. You do not have to shoot an animal to win a prize. All diaries including nil returns provide valuable data.

Sponsors have kindly offered the following major prizes for 1991/92.



Heli-Sika

FLY IN HUNTING TRIPS

- Kaimanawas • Kawekas
- Ureweras • Exclusive private land

Contact: Shamus Howard, Poronui, RD3, Taupo
Phone: (07) 3842816 Fax: (07) 3842826

FREE RETURN TRIP FOR 3 TO ANY KAWEKA FOREST PARK HELIPAD (June-Feb)

WANGANUI AERO WORK LTD.

FIXED WING AND HELICOPTER OPERATORS



P O Box 103, Taihape

Contact: Brian Goodwin
Phone: (0658) 81696

FREE RETURN TRIP FOR 3 TO ANY RUAHINE FOREST PARK HELIPAD




TE ONEPU HELICOPTERS LTD.

JET TURBINE HELICOPTER OPERATORS

Contact: Michael Grooms
C/- Te Onepu, Private Bag, Hastings, NZ
Phone & Fax: (06) 8749762

FREE RETURN TRIP FOR 3 TO ANY RUAHINE FOREST PARK HELIPAD



PRIZE DRAW FOR SIKA & RED DEER GUT SAMPLES KAWEKA FOREST PARK

Forest Research Institute

All hunters providing gut samples for the sika and red deer diet go into a prize draw. Prizes are \$100 and \$50 cash each 3 month hunting period. Gut sampling kits are available at your local DOC office.



STRAWBRIDGE HELICOPTERS LTD.

Contact: Michael Sloan (Hastings)
Phone: (06) 8767020
Garry Strawbridge (Pohangina)
Phone & Fax: (06) 3294893
Cell phone: (025) 427979

FREE RETURN TRIP FOR 2 TO ANY RUAHINE OR KAWEKA FOREST PARK HELIPAD



Lakelano HELICOPTERS

FLY IN COMFORT - Jetranger III, Hughes 5000
HUNT - Sika, Rusa, Red, Fallow, Wild Pigs
FISH - Rainbow & Brown Trout
KAWEKAS - UREWERAS - KAIMANAWAS
PLUS: Over 750 square kilometres of private hunting concession.

Contact: Derek Lowe (Murapara)
Phone: (07) 3665267

FREE ONE WAY TRIP FOR 3 INTO ANY KAWEKA FOREST PARK HELIPAD

Your local helicopter operators are helping with the management of your sport. Please show your appreciation, support the...

AREAS TO BE CONSIDERED FOR INCLUSION IN THE PARK

1. Sentry Box Scenic Reserve

This is a 30 hectare reserve situated on the northeastern flanks of the Park near Mangleton. It protects a limestone outcrop in association with secondary broadleaf forest. Cabbage trees are a distinctive feature of the reserve.

The Department will investigate whether it would be beneficial and/or appropriate to include this area in the Park.

2. Outliers near Wakarara Road (NE Ruahine Ranges)

There are several small areas of stewardship land around Wakarara Road/ Makaroro River. They are managed as part of the Park and the Department will proceed with the requirements to include them in it.

3. Wakarara Range (Conservation area administered by Department of Conservation)

2872 hectares of the Wakarara Range, to the east of the Ruahine Ranges (see map 2) is DOC Conservation land. This deeply dissected range forms a distinctive landmark in Central Hawke's Bay.

The Range is mostly covered in manuka forest above head height. However, in the southern part of the range pockets of mixed broadleaved species predominate, and in the eastern part of the range (in and around the Poporangi Stream) and tributaries of the Makororo River, there are remnants of podocarp-beech forest communities.

The lower slopes of the range are owned by private forestry interests and planted in exotic trees, mainly pines. One hut, Poutaki Hut, is located in the range and maintained by the Department. Recreational use of the area is not great however, with limited access and no tracks. Pig and deer hunting are predominant recreational activities.

4. State Forest Outlier - Kawhatau Valley

125 hectares of Crown land adjoin the Park near Kawhatau Field Base. The land was gifted to the Department for addition to the Park, but during the land allocation process in 1987 this did not occur. The Department will clarify the status of the land and if appropriate include it in the Park. The land is forested and would make a logical extension to the Park.

5. Ikawatea Catchment (DOC Stewardship Land)

Although outside existing Park boundaries this area, together with a similar sized area in the Apias Catchment has been managed as part of the Park for many years.

A recent decision of the Maori Land Court has determined the boundaries of these areas. Approximately 2400 ha (half the area) is deemed to be Crown Land (DOC Conservation Area - see map 2) and the remainder has been identified as Maori Customary Land. (The Maori Land Court is currently investigating whom are the Beneficial Owners and in the meantime the Apias area is being jointly managed by the Maori Trustee and the Department.)

The Ikawatea Catchment, as indicated in several sections of this plan, has significant botanical, wildlife remote experience and landscape features, and would be best managed as part of the Park. It is proposed to manage it to protect the remote qualities of the area.

The Department will proceed with the requirements to include this area in the Park and will liaise closely with adjacent landowners to protect its remote qualities.

6. Kumeti Area SE Ruahine Ranges Conservation Area Administered by Department of Conservation

Parts of part section 8, section 9, Block XII, Norsewood SD.

In February 1991 158 hectares of land bordering the south-east flanks of the ranges were gifted to the Department for addition to Ruahine Forest Park.

The area's chief ecological value lies in its contiguity with the Ruahine Forest Park, to which it is a low altitude complement. It is an elongated strip enclosing a series of spurs, gullies, braided streams and steep hillslopes found on greywacke.

The former forest cover has been logged of its large podocarp and broadleaved trees, burnt several times and grazed and browsed by domestic and feral herbivores. Now there exists a mosaic of regenerating native scrub and low forest. Podocarps (rimu, matai and kahikatea) are common, but the vegetation is dominated by broadleaved species (lacebark, mahoe, pigeonwood, rangiora, cabbage tree, tawa, etc). Tree ferns are abundant, sometimes dominant, and there are areas of kanuka, manuka and bracken.

Should domestic stock be excluded and feral herbivores kept in low numbers, the vegetation would regenerate towards tall native forest even more prolifically than at present. (G Walls, pers comm).

The Department will proceed with the requirements to include this area in the Park, and to fence boundaries.

7. Pohangina Reserve

Two Department of Conservation Reserves adjoin the Park near Pohangina Field Base on the Pohangina Valley East Road (see map 2).

The 61 hectare reserve surrounding the Field Base is included in the Park. The larger 155 hectare reserve adjacent to the Pohangina River downstream of the smaller reserve, is however not included in the Park.

The Department will investigate the appropriateness of including this area in the Park.

8. Wharite Peak

There are two small Conservation areas in the vicinity of Wharite Peak (transferred in April 1986 from Woodville Country Council to the Crown).

(i) Unformed Legal Road

2.67 ha adjoining sections 2, 3 and 4, and passing through section 5, Block VII, Gorge SD.

(ii) Unformed Legal Road and Gravel Reserve

3 ha adjoining sections 1, 2, 3 and 6, Block VII, Gorge SD.

The Department will proceed with the requirements to include the above areas in the Park.

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Protect the environment for your own sake, for the sake of those who come after you, and for the environment itself.

*Toitu te whenua
(Leave the land undisturbed)*

(The NZ Environmental Care Code was developed by a number of organisations, including FMC, ECO, NZ Mountain Safety Council, NZ Institute of Park and Recreation Administration Inc., Royal Forest & Bird Protection Society of NZ, and co-ordinated by the Department of Conservation 1991).

HISTORIC PLACES ACT 1980

An Act to preserve the historic heritage of New Zealand, to continue the New Zealand Historic Places Trust and to establish the New Zealand Historic Places Board of Trustees with the necessary powers and functions for the full and proper attainment of the objectives of this Act, and to amend and consolidate the Historic Places Act 1954 (18 September 1980)

BE IT ENACTED by the General Assembly of New Zealand in Parliament assembled, and by the authority of the same, as follows:

1. Short Title and commencement - (1) This Act may be cited as the Historic Places Act 1980.

(2) This Act shall come into force on the 1st day of February 1981.

Cf. 1954, No.14, s.1

2. Interpretation - Unless the context otherwise requires; -

"Archaeological site" means any place in New Zealand -

(a) Which at any material time was associated with human activity which occurred more than 100 years before that time; or

(b) Which is the site of the wreck of any vessel where at any material time that wreck occurred more than 100 years before that time, -

and which is or may be able through investigation by archaeological techniques to provide scientific, cultural, or historic evidence as to the exploration, occupation, settlement, or development of New Zealand:

"Historic Area" means an area which contains an inter-related group of pre-historic or historic features which have historical value as a group even though some or all of the features may have little historical value individually.

"Historic Place" means a place (including a site, building, or natural object) which is historic by reason of an association with the past and which demonstrates or provides evidence of any cultural, traditional, aesthetic, or other value of the past; and includes -

- a) archaeological sites
- b) traditional sites

"Traditional Site" means a place or site that is important by reason of its historical significance or spiritual or emotional association with the Maori people or to any group or section thereof.

KNOWN HISTORIC RESOURCES IN RUAHINE FOREST PARK

An inventory of historic resources and/or resources which may require further investigation to determine their historic significance was prepared in July, 1991.

The following resources were identified and described and recommendations made, where appropriate, on their future management. A more comprehensive description of the resources listed below is included in the full inventory which is available at the Conservation Department (Napier Conservancy Office and Pohangina and Ongaonga Field Centres).

1)	Ruahine Hut	-	NZMS260, U21 957777
2)	Shutes Hut	-	NZMS260, U21 931829
3)	Rangiwahia Hut	-	NZMS260, T22 681418
4)	Herricks Hut	-	NZMS260, U21 964742
5)	Fulcher Hut	-	NZMS260, T22 663382
6)	Master's Shelter	-	NZMS260, U21 951698
7)	Howlett's Hut	-	NZMS260, U22 773399
8)	Ellis Hut	-	NZMS260, U21 913605 (just outside Park Boundary)
9)	Sentry Box Hut	-	NZMS260, U21 915655
10)	Longview Hut	-	NZMS260, U22 767347
11)	No Man's Hut	-	NZMS260, U21 900752
12)	Coppermine Creek/ Mines/Track	-	NZMS260, T23 547036
13)	Track from Ruahine to Shute's hut	-	NZMS260, U21 956777 to 932829 NZMS260, U21 776957 to 822939
14)	Colenso Track	-	NZMS260, U21 826611
15)	Memorial Cairn to Lester Masters	-	NZMS260, U21 894747
16)	Colenso Memorial Cairn	-	NZMS260, U22 855593
17)	Lessong Monument	-	NZMS260, U21 929783

NB: As discussed in Section 2.5.3 and 5.1.10 of the Plan no historic buildings, traditional sites or historic areas have been officially recorded or classified in the Park. However, the old Coppermine at Coppermine Creek has been officially recorded as an archaeological site.

The resources inventory (DOC, 1991) which is summarised above, identifies other sites, buildings, or tracks which may have historic significance and which may warrant either classification under the Historic Places Act, or recognition by some other means (i.e. interpretation on site, notices in huts describing their historic significance). To date no decisions have been made on management of these resources. This will be considered during preparation of the Hawke's Bay Conservation Management Strategy. The Strategy will also determine priorities for management of historic resources.

If or when other historic places are identified they will be added to the above list and managed to protect their historic values.

STATUTORY REQUIREMENTS FOR MANAGEMENT PLANNING

With the passing of the Conservation Law Reform Act 1990, significant changes were made to procedures for management planning for protected areas managed by the Department of Conservation.

The Conservation Act 1987

The Conservation Law Reform Act amended the Conservation Act 1987 to require the preparation of Conservation Management Strategies and to provide for preparation of statements of General Policy and Conservation Management Plans. The department must manage all conservation areas and natural and historic resources in accordance with these documents.

The relevant provisions of the amended Conservation Act are outlined below.

(a) General Policy (section 17B)

The purpose of General Policy is to facilitate the implementation of the Conservation Act. General Policy can be prepared for conservation areas of any class or description. Statements of General Policy must not derogate from any provision in the Conservation Act or any other Act.

Draft statements of General Policy are prepared in consultation with the NZCA. The Minister of Conservation approves statements of General Policy after such statements have been considered by the Authority.

(b) Conservation Management Strategies (section 17D)

Conservation Management Strategies will 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
- Marine Reserves Act 1971
- Wild Animal Control Act 1977
- Marine Mammals Protection Act 1978
- National Parks Act 1980
- Conservation Act 1987
- New Zealand Walkways Act 1990
- Reserves Act 1977

or any of them, and provide for recreation, tourism and other conservation purposes.

The Act requires coverage of the entire conservation estate by CMS's within 5 years of the passage of the Conservation Law Reform Act (ie by April 1995).

A CMS cannot derogate from any provision of the Conservation Act or any other Act, nor can it derogate from any statement of General Policy or affect any agreement or arrangement between the Minister or the Director General and any landowner (other than the Crown) under the Conservation Act or any other act (S.17D(3) Conservation Act 1987).

Conservation Management Strategies will be prepared by the Department of Conservation in consultation with Conservation Boards. They will be approved by the New Zealand Conservation Authority.

(c) Conservation Management Plans (section 17E)

Previously there was a requirement to prepare management plans for each protected area administered by the Department. A large number of plans were prepared but a significant number of protected areas were not covered by management plans. With changed legislation a CMS will now cover the entire estate, and CMP's need only be prepared for specific areas, which will be identified in the CMS. In the Hawke's Bay Conservancy the Minister requested that CMP's be prepared for Kaweka and Ruahine Forest Parks, under section 17E(3) of the Act, prior to development of the CMS.

A CMP shall establish detailed objectives for the integrated management of natural and historic resources (including species) within any area or areas under the:

- Wildlife Act 1953
- Marine Reserves Act 1971
- Marine Mammals Protection Act 1978
- Reserves Act 1977
- Conservation Act 1987

The Conservation Law Reform Act amended each of these Acts to provide for any plans prepared under these to be approved as Conservation Management Plans under the Conservation Act.

The preparation of CMPs is not mandatory and they will not be prepared for each protected area managed by the Department. A CMP must not derogate from the Conservation Act and any other Act, or any statement of General Policy, nor from any provision of a CMS.

In most cases conservation boards will approve CMPs. However, the Act contains provisions for the call up of plans for approval by the NZCA and referral of plans to the NZCA by Conservation Boards for approval. The Minister, the NZCA, or the Conservation Board itself can request that the plans be referred to the NZCA for approval.

HUTS INCLUDED IN THE NATIONAL HUT PASS SYSTEM

Aranga
Barlow
Broom
Cattle Creek
Craigs
Crow
Daphne
Diggers
Diggers Fork
Gold Creek
Heritage Lodge
Herricks
Hinerua
Ikawatea Forks
Iron Bark
Iron Gates
Kelly Knight
Kiritaki
Kumeti
Leon Kinvig
Longview
McKinnon
Mid Pohangina
Maropea Forks
Ngamoko
No Mans
Opawe
Otukota
Parks Peak
Pourangaki
Rangiwahia
Ruahine
Ruahine Corner
South Makaretu
Sparrowhawk Bivouac
Stanfield
Sunrise
Te Ekaou
Top Gorge
Top Maropea
Triangle
Triplex
Waipawa Forks
Wakelings
Waterfall

NB: The huts not included in the above list (Waikamaka and Howletts Huts) are privately owned, but are available for all Park users. A number of bivouacs, which are not included in the hut pass system, are also present in the Park.

THE WILDERNESS POLICY 1985

The Wilderness Experience

- (a) The idea of wilderness is very personal. It embodies remoteness and discovery, challenge, solitude, freedom, and romance. It fosters self-reliance and empathy with wild nature. Wilderness is therefore principally a recreational and cultural concept which is compatible with nature conservation.
- (b) Wilderness recreation is available to everyone and is an important part of the wide range of recreational opportunities that exist and should remain in New Zealand. A wilderness experience can be gained in a variety of natural landscapes but for some people a large natural area is required. However, to retain the widest opportunities for outdoor recreation, management of some large remote areas as wilderness is necessary.
- (c) The wild lands of the world are rapidly shrinking and will become rare in the near future. The opportunities New Zealand can offer for wilderness recreation is therefore of international significance.

Wilderness Areas

Wilderness areas are wild lands designated for their protection and managed to perpetuate their natural condition and which appear to have been affected only by the forces of nature, with any imprint of human interference substantially unnoticeable.

- (a) Tracts of land chosen to be protected through appropriate management as wilderness areas should meet the following criteria:
 - (i) they will be large enough to take at least 2 days' foot travel to traverse;
 - (ii) they should have clearly defined topographic boundaries and be adequately buffered so as to be unaffected, except in minor ways, by human influences;
 - (iii) they will not have developments such as huts, tracks, bridges, signs, nor mechanical access.
- (b) A wilderness system should have a wide geographic distribution, and contain diversity in landscape and recreational opportunity.
- (c) An area which has a wilderness character but does not meet some of the above criteria and is managed essentially in accordance with the Wilderness

incompatibility, such as infrequent air access or a maintained hut.

- (d) Wilderness areas may be established under several statutes, or by zoning in management plans.

Legislative provisions:

1. **State Forest Land**¹ Section 63E of the Forests Act 1949 as inserted by Section 19 of the Forests Amendment Act 1976.
 2. **National Parks** Section 14 of the National Parks Act 1980.
 3. **Reserve Land** Section 47 of the Reserves Act 1977.
 4. **Crown Land** No legislative provision currently in the Land Act 1948 but areas may be zoned in management plans.
- (e) Wilderness designation preserves resources and thus options for future use of the land. Ideally wilderness areas will be managed in perpetuity but the designation is not necessarily permanent in terms of the relevant statutes, and can be revoked, if deemed necessary.
 - (f) Public comment on proposals for the setting apart, revocation or variation of wilderness areas will be sought through news media and management plans in accordance with relevant legislation.

Management of Wilderness Areas

- (a) To retain natural wilderness qualities developments such as huts, tracks, route markers, and bridges are inappropriate, and in the few cases where such facilities exist they should be removed or no longer be maintained.
- (b) Adjoining lands should be managed as buffers to assist in the protection of a wilderness area. Buffers may contain huts, tracks and bridges but these should be few and vehicle access will be discouraged near the wilderness boundary.
- (c) Wilderness is a fragile resource, susceptible to overuse. While wilderness areas are open to everyone, overuse will be minimised by selecting areas for their remoteness rather than regulating access by permit.
- (d) To ensure the use of wilderness areas at levels compatible with the maintenance of wilderness values, commercial recreation activities may only be undertaken under licence or permit.

¹ Now designated as Conservation Areas and administered under the Conservation Act 1986.

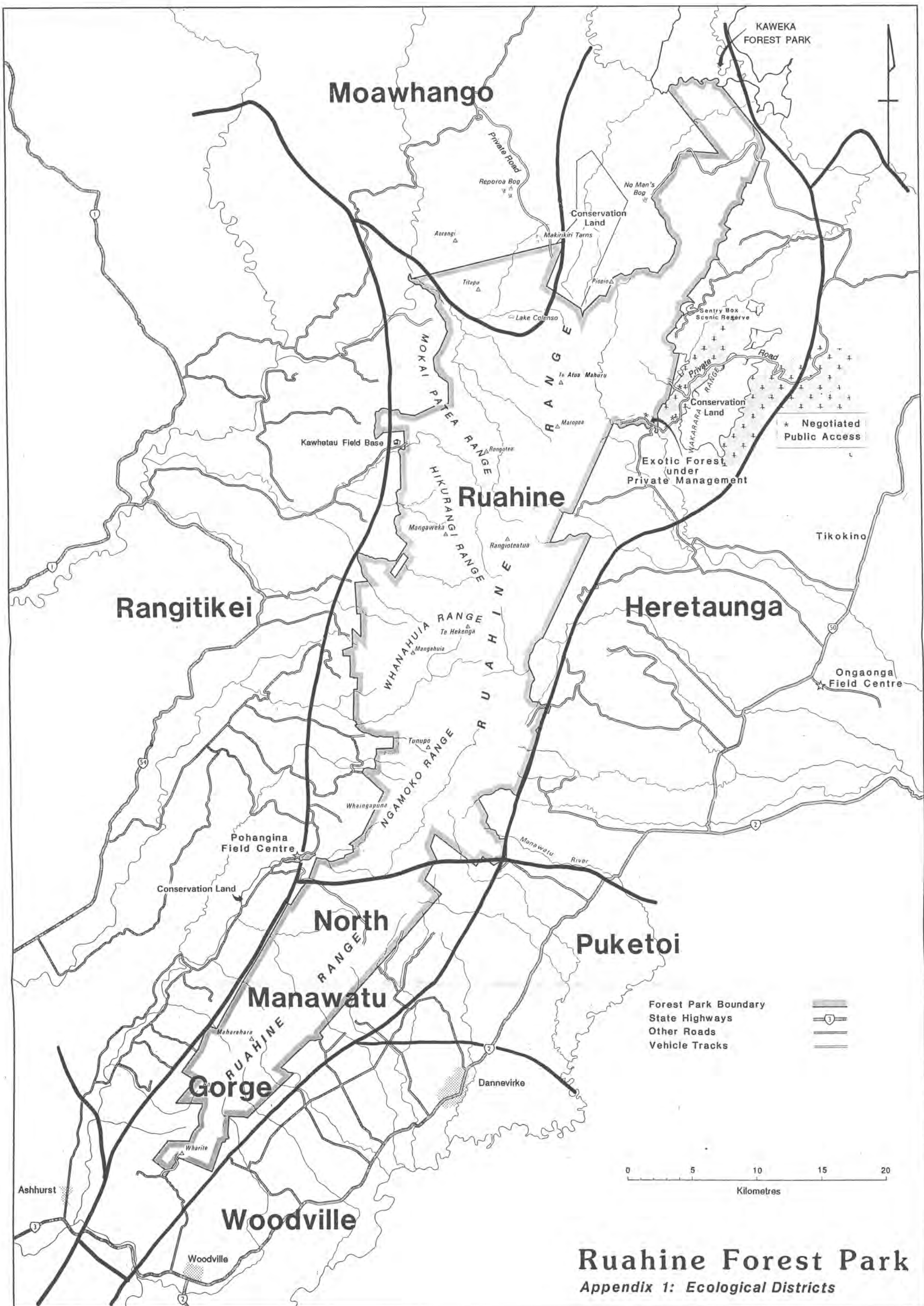
- (e) Because wilderness areas are places for quiet enjoyment, free from obvious human impact, and require physical endeavour to achieve in full measure the wilderness experience, the use of powered vehicles, boats or aircraft will not be permitted. Horses may be allowed where strong historical links exist, and where legislation permits.
- (f) Users of wilderness areas should be self sufficient and depend on the natural environment for shelter and fuel only if the use of such resources does not detract from the values of the wilderness.
- (g) Logging, roading, hydro electric development, and all but hand-methods of mining are also incompatible.
- (h) Exceptions to restrictions on facilities, vehicles, boats and aircraft may apply temporarily to:
 - i) search and rescue operations and emergency flights for fire fighting and medical reasons;
 - ii) control of introduced plants and animals;
 - iii) carefully controlled, minimal impact mineral exploration and prospecting;
 - iv) scientific research which cannot be conducted outside wilderness areas.

Education and Information

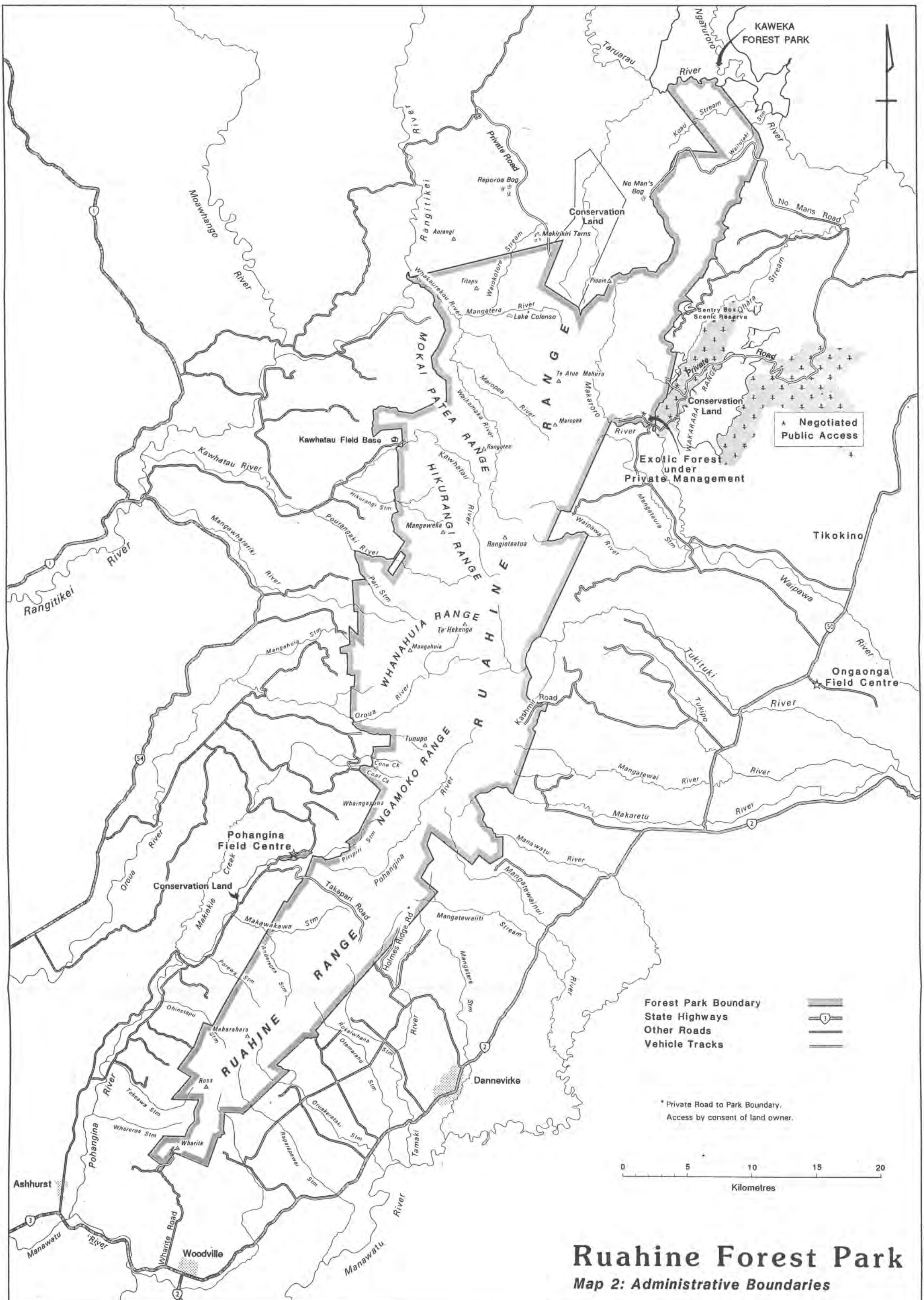
- (a) Wilderness users will be encouraged to minimise their impact on wilderness by applying the Minimum Impact Code. In addition, it is undesirable in wilderness areas to blaze trees or leave cairns.
- (b) Wilderness areas should have their designation identified in management plans but their use will not be promoted.
- (c) Wilderness areas will be distinctly named, and information on them may be obtained from the Department of Lands and Survey, or the New Zealand Forest Service.²

² Now Department of Conservation

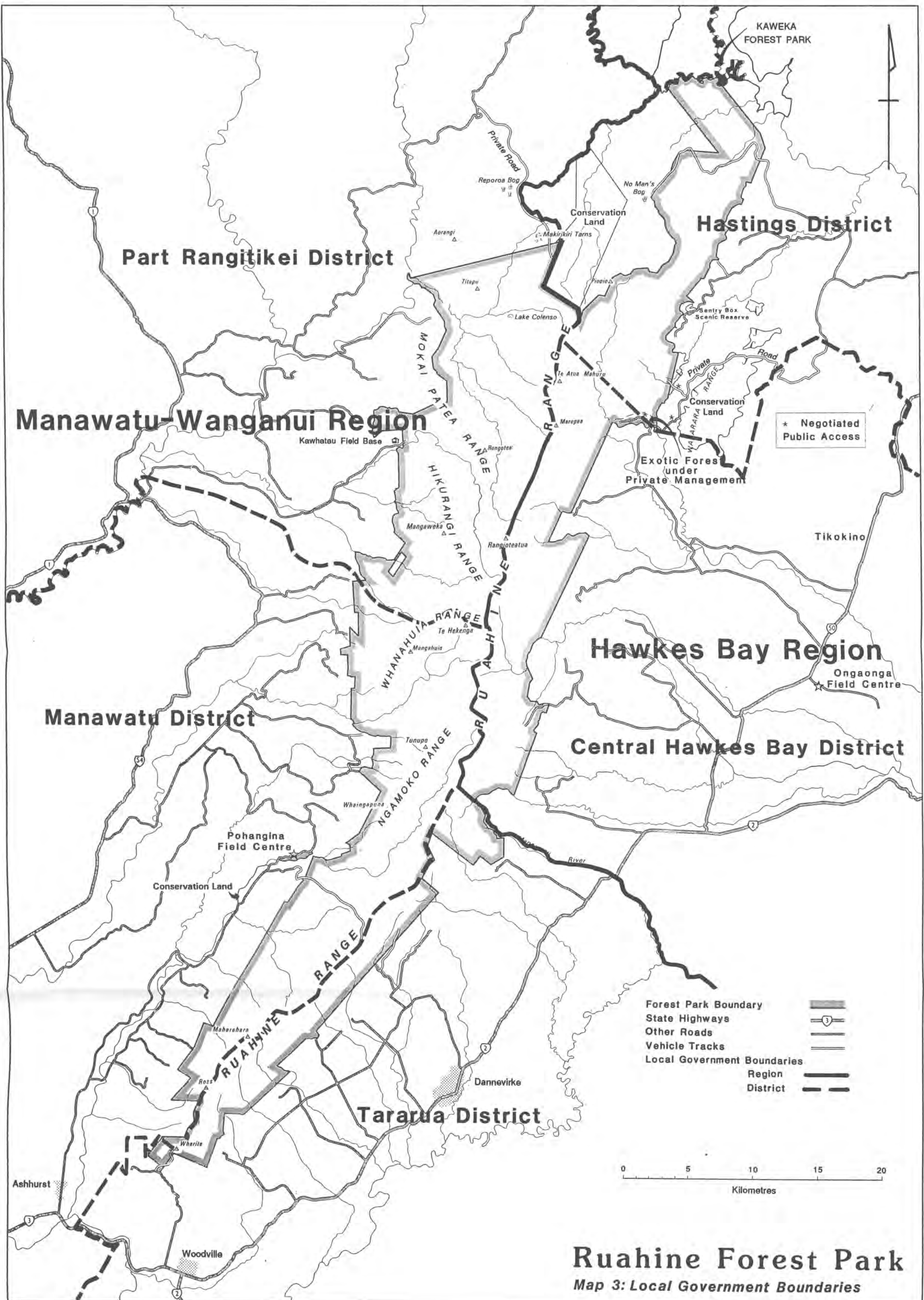
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Ruahine Forest Park
Appendix 1: Ecological Districts



Ruahine Forest Park
 Map 2: Administrative Boundaries



KAWEKA FOREST PARK

Hastings District

Part Rangitikei District

Manawatu-Wanganui Region

Kawhatau Field Base

* Negotiated Public Access

Exotic Forests under Private Management

Tikokino

Hawkes Bay Region

Ongaonga Field Centre

Manawatu District

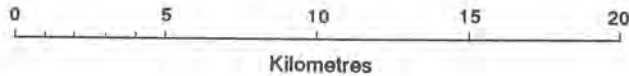
Central Hawkes Bay District

Pohangina Field Centre

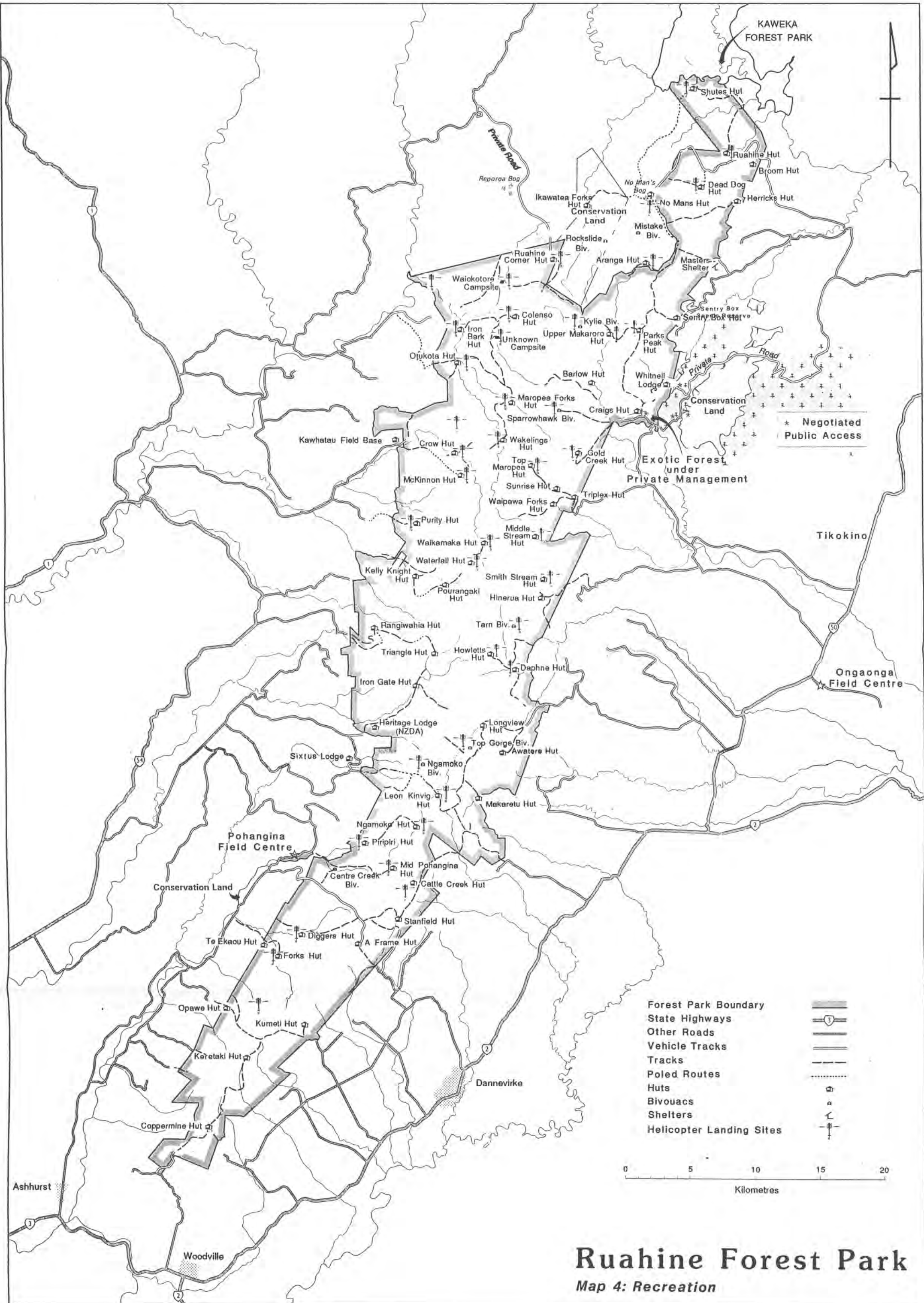
Conservation Land

Tararua District

- Forest Park Boundary
- State Highways
- Other Roads
- Vehicle Tracks
- Local Government Boundaries
- Region
- District

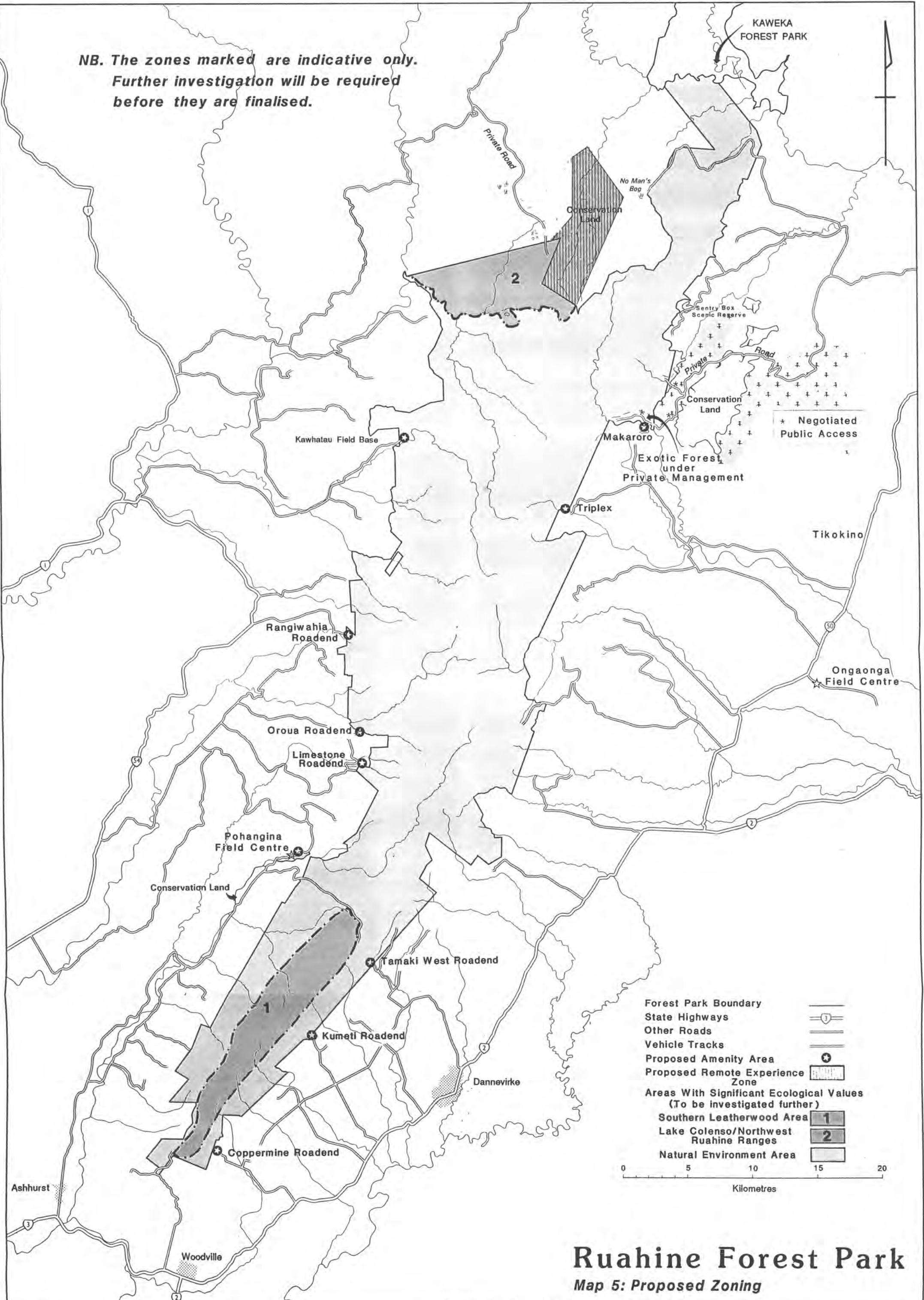


Ruahine Forest Park
Map 3: Local Government Boundaries

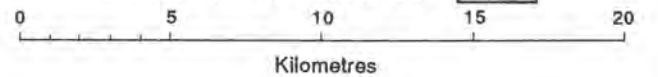


Ruahine Forest Park
 Map 4: Recreation

**NB. The zones marked are indicative only.
Further investigation will be required
before they are finalised.**



- Forest Park Boundary
- State Highways
- Other Roads
- Vehicle Tracks
- Proposed Amenity Area
- Proposed Remote Experience Zone
- Areas With Significant Ecological Values (To be investigated further)
- Southern Leatherwood Area **1**
- Lake Colenso/Northwest Ruahine Ranges **2**
- Natural Environment Area



Ruahine Forest Park
Map 5: Proposed Zoning