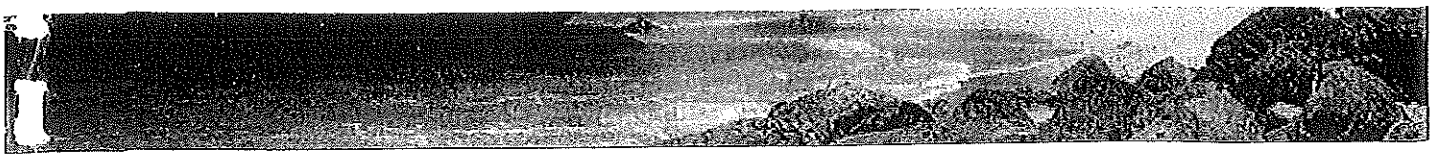

Coromandel Peninsula Conservation Land Management Plan

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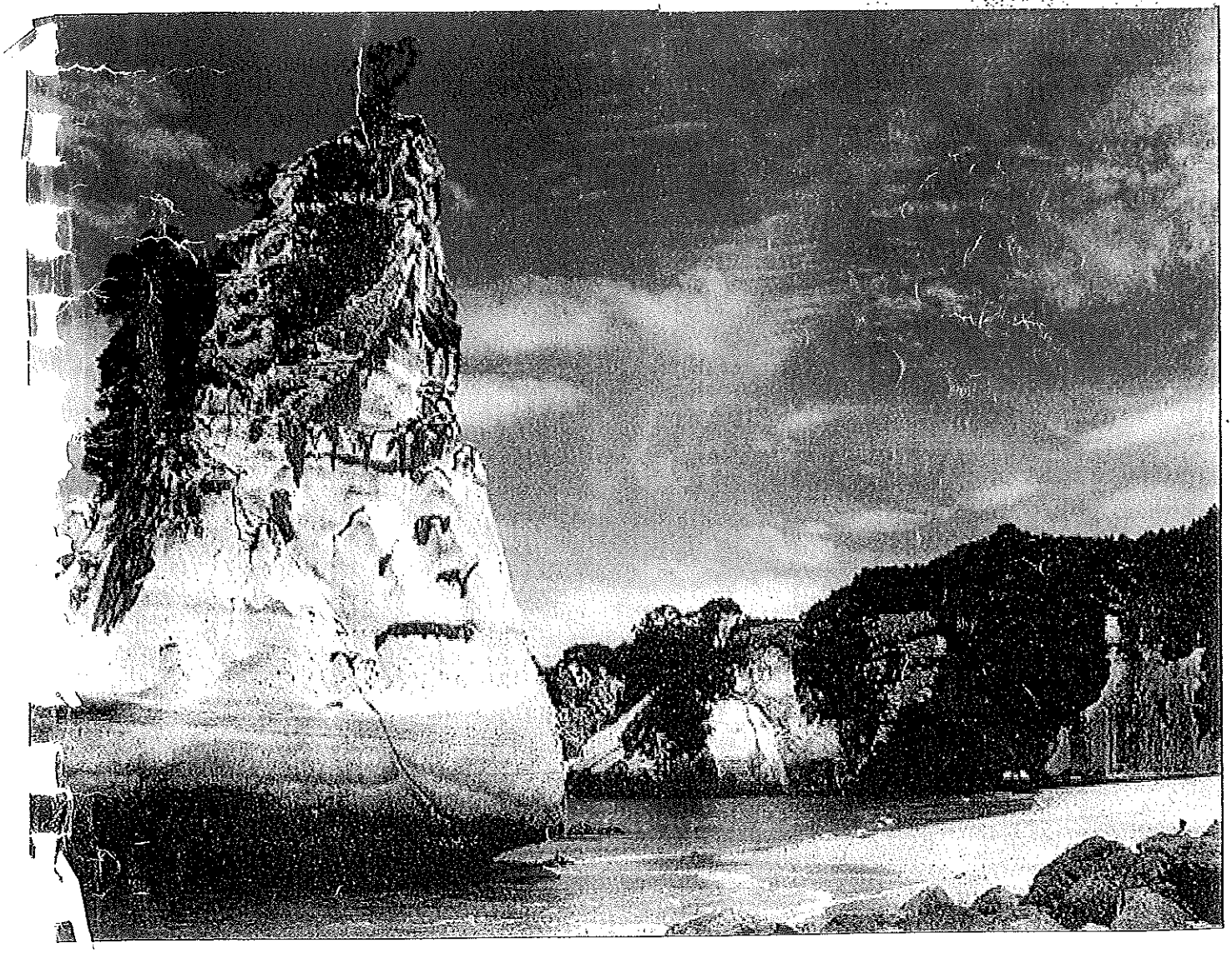

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Te Papa Atawhai

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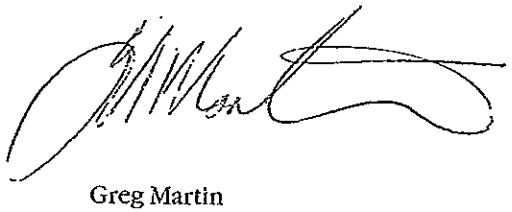
CONTENTS

Foreword

The Coromandel Conservation Land Management Plan sets out, for the next 10 years, management directions for land on the Coromandel Peninsula administered by the Department of Conservation. The plan has been prepared over time, allowing public consultation via a discussion document, further non-statutory opportunity to comment, and a statutory draft.

I want to thank all those people who took the time to provide feedback via written submissions, phone calls and meetings with Department staff. Local knowledge and experience provided an important contribution to the development of the plan.

Special thanks to those individuals and organisations who made formal submissions to the draft plan, and those who followed up with verbal submissions before the hearing committee. Thanks also to Department staff for their contribution, for without their experience and guidance, preparation of this management plan would not have been possible.



Greg Martin
Waikato Conservator

Management Philosophy

The underlying philosophy in this management plan is to preserve and conserve the natural and historic heritage on conservation land within the administrative boundary of the Hauraki Area Office. Where appropriate, both natural and historic heritage will be accessible to New Zealanders.

The primary objectives of the philosophy are to:

1. Preserve the intrinsic value of natural and historic resources.
2. Provide for their appreciation and enjoyment by the public.
3. Safeguard the options of future generations so they may also experience natural and historic resources presently enjoyed.
4. Give effect to the principles of the Treaty of Waitangi.

1. Introduction

1.1 PLAN OBJECTIVES

This Conservation Management Plan has been prepared in accordance with Section 17E of the Conservation Act 1987. The plan is a statutory document that in part implements the Waikato Conservation Management Strategy, by establishing detailed objectives for the integrated management of natural and historic resources.

The plan applies to all conservation land (including off-shore islands administered by the Department) on the Coromandel Peninsula (Map 1) including Te Whanganui-A-Hei Marine Reserve. Map 1) shows the Waikato Conservancy and Hauraki Area boundaries. The Waihou River forms the boundary between the Hauraki Area and neighbouring Waikato Area, with the centre of the river bed being the boundary line.

The objectives in this plan, formulated after a lengthy public consultation process, express the Department's overall management intentions for conservation land. The plan's purpose is to guide management by setting direction and implementation methods for achieving stated objectives. Whether objectives are achieved will depend on the level of available resources, community support and participation.

The plan has an effective life of 10 years from the date of approval (February 2002), but may be reviewed at any time as a result of change in circumstances or legislation. The Director-General of Conservation, after consulting with the Waikato Conservation Board, may at any time initiate a review or amendment of the plan or part of the plan.

1.2 PREPARING A CONSERVATION MANAGEMENT PLAN (CMP)

Under the Conservation Act 1987, Conservation Management Plans shall be written if:

1. Their preparation is required by a Conservation Management Strategy [Section 17E(2)]; or
2. There is an operative Conservation Management Strategy and the Minister of Conservation requires their preparation [Section 17E(3)].

The process for the development of a CMP is set out in Section 17 of the Conservation Act 1987, and can be summarised as follows:

- An initial notice is sent out asking for suggestions and comments.
- Draft CMP prepared and released for formal public comment (submissions).
- Hearings on submissions if required.
- Amendment of the draft CMP for consideration by the Waikato Conservation Board.
- The Board considers and revises the draft.
- When satisfied with the CMP, the Board may approve the plan, or if it feels the draft needs further consideration, may send the draft to the New Zealand Conservation Authority for consideration, amendment and approval.

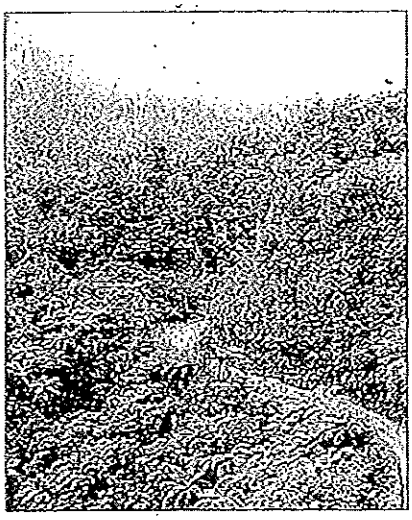
1.3 REASONS FOR PLAN DEVELOPMENT

The operative Waikato Conservation Management Strategy notes the Coromandel Peninsula has special ecological, geological, social and cultural issues that support the need for a conservation management plan:

- Presence of natural resources that merit high priority protection, for example Mt Moehau, Mercury & Aldermen Islands, Te Whanganui-A-Hei Marine Reserve;
- Presence of rare or endangered native species including some that are found nowhere else in the world (Middle Island tusked weta, Moehau stag beetle);
- Presence of introduced pests and weeds that are threatening the continued functioning of indigenous ecosystems, natural communities and the survival of threatened species;
- Presence of areas and resources of special spiritual and cultural significance to tangata whenua that merit high priority protection measures;
- The presence of high value historic resources that are deteriorating and losing integrity;
- Contains high value recreation resources that need to be used in a manner that does not threaten the qualities for which they are enjoyed;
- Is subject to high seasonal visitor pressures that adversely affect conservation values, creating demand for visitor facilities and services;
- Contains sites of ecological significance vulnerable to browsing animals, requiring priority for wild animal control;
- A high level of Conservancy resources is given to the Peninsula. A management plan can better direct these resources.

1.4 OVERVIEW

Conservation land on the Coromandel Peninsula is classified in a number of ways (Table 1, page 9). The present gazetted classification of land generally reflects the historic use of the land under applicable statutes, for example, the Reserves Act 1977.



Part of the 72,000 hectare Coromandel Forest Park. Des Williams / DOC photo

Within the Hauraki Area boundary (see Map 1), the largest area of DOC administered land falls within the Coromandel Forest Park, some 72 000 hectares stretching from the Karangahake Gorge to almost the north of the Peninsula.

The remaining areas of land managed by the Department within the Hauraki Area are a mixture of reserves (including some off shore islands, see Chapter 6), sanctuaries, marginal strips and leases.

The only marine reserve on the Peninsula - Te Whanganui-A-Hei (Cathedral Cove) Marine Reserve - was gazetted in 1993.

The geological history of the rocks that form the Coromandel Peninsula began 200 million years ago. Subsequent periods of tectonic uplift, sea encroachment and withdrawal, weathering and volcanic activity have carved a rugged landscape featuring rocky and sandy beaches, distinctive estuaries and harbours for which the Peninsula is known today.

As a consequence of volcanic activity, mineralised water rose up along faults and fractures, depositing minerals as the water cooled. Extinct volcanoes eroded over time, revealing gold and silver mineral deposits. Conservation land on the Peninsula incorporates much of the Hauraki Goldfields and, potentially, deposits of other metallic and non-metallic minerals.

Original vegetation displayed distinct plant associations and individual plants, probably as a result of landform and latitude.

ISLANDS	
Nature Reserves	8
Scenic Reserves	5
Wildlife Sanctuary Reserves	5
COROMANDEL PENINSULA	
Scenic Reserves	31
Historic Reserves	8
Scenic and Historic Reserves	1
Recreation Reserves	26
Wildlife Reserves	4
Other Reserves*	5
Marginal Strips	177
Stewardship Land	72
Forest Park	1
Ecological Areas (within Forest Park)**	6
Other Land***	21
TOTAL	370

Table One: *Summary of lands administered by the Department of Conservation within the Hauraki Area.*

* Other reserves include: Landing; Lighthouse; Marine; Esplanade.

** Gazetted EA's include: Otahu; Moehau; Papakai; Waiomu; Kapowai; Parakowai Geological Area. (Proposed EA's include: Motutapere; Ti Tipi.)

*** Other land includes: leased land; car park; walkway; access strips; battery land; covenant land.

Most abundant of forest types were mixed associations of kauri, podocarp and broad-leaved species, with stands of kauri, tawa or towai. Small, isolated pockets of kauri-beech association can be found.

A combination of partial isolation, mild oceanic climate and mountainous country may have accounted for a number of plants that are absent elsewhere, rare or threatened.

The exploitation of timber, particularly the logging of kauri, began with European settlement. The main nineteenth and early twentieth century industries included gumdigging, flax milling, land clearance for pastoral farming and mining.

	FORMER VEGETATION ASSOCIATIONS	PRESENT CONDITION OF ASSOCIATIONS
COLVILLE ED	Kauri-taraire-podocarp-broadleaved forest dominated. Dense stands of kauri forest, localised areas of rimu-tawa and rimu-taraire-tawa forests. Coastal forests dominated by pohutukawa. Smaller areas of duneland vegetation and saline wetland. Kauri-Beech	Most severely depleted ecosystems are dense podocarp, coastal and kauri forests. Almost all kauri forests have been logged. Lowland and coastal ecosystems, dunelands and saline wetlands are also severely depleted.
MERCURY ISLAND ED	Dominated by coastal forest.	All islands modified either by forest removal or introduced species. Some potential for habitat restoration.
THAMES ED	Kauri-podocarp-broadleaved forest dominated. Some dense stands of kauri, at higher altitudes rimu-tawa forest and montane podocarp-broadleaved forest dominated. Coastal forest was present along the Thames Coast.	Most severely depleted are the coastal forest and various associations of kauri. Thames coastal forest all but disappeared, remnant is substantially modified. Kauri forest removed at both lower and higher altitudes.
TAIRUA ED	Kauri-podocarp-broadleaved forest dominated. Significant areas of kauri-podocarp-broadleaved-beech forest. At higher altitudes rimu-tawa forest and montane podocarp-broadleaved forests dominated. Substantial coastal forest, saline wetlands, mangrove forest. Dense podocarp likely prominent on eastern gentler low altitude country.	Most severely depleted are lowland (dense) podocarp forest, coastal forest and duneland vegetation. Significantly reduced are kauri forest, rimu-tawa forest and montane podocarp-broadleaved forest. Remaining kauri, rimu-tawa and montane forests are protected, although kauri forest has been logged.
WAIHI ED	Kauri-podocarp-broadleaved forests and kauri-podocarp-broadleaved-beech forest dominated. Significant areas of rimu-tawa forest, at higher altitudes montane podocarp-broadleaved forest. Coastal forest dominated in the east, lowland (dense) podocarp forest in major valleys. Small areas of duneland vegetation and wetland.	Severely depleted are lowland (dense) podocarp forest and coastal forest. Kauri forests largely depleted, logged remnants are protected. Rimu-tawa also depleted. Montane podocarp-broadleaved much reduced. Widespread and almost complete loss of forest cover at lower altitude south-eastern parts

Table Two: *Ecological District (ED) Vegetation Associations/Former Associations and Present Condition.* (Source: *Forest Heritage Fund, Waikato Protection Strategy*, Mike Harding, 1997.)

integrate the management of natural, historic, and physical resources of the Hauraki Gulf, its islands and catchment.

The Act provides no direct statutory control over land held as private property or conservation land, other than indirectly through the influence of Regional Policy Statements, Regional and District Plans.

(v) Crown Minerals Act 1991

Since 1991, mining in New Zealand has been regulated principally by two Acts: the Crown Minerals Act 1991 (CMA 1991) and the Resource Management Act 1991 (RMA 1991). The Crown Minerals Act 1991 provides for the management and allocation of Crown owned minerals, while the RMA 1991 promotes the management and control of environmental effects associated with mining activity.

The 1997 amendment to the CMA 1991 in effect prohibits mining and quarrying on:

"All Crown land held under the Conservation Act 1987 or any enactment set out in the First Schedule of that Act on the Coromandel Peninsula that lies north and north west of State Highway 25A (Kopu-Hikuai Road) and the road from Hikuai to Pauanui Beach known as the Settlement Road".

2.1 THE HAURAKI REGION

The Department of Conservation has a responsibility under the Conservation Act 1987 to give effect to the principles of the Treaty of Waitangi. All land in the Hauraki area administered by the Department falls within the Hauraki Tribal estate. The Department acknowledges the primary relationship it has with iwi of Hauraki. The tribal estate is a holistic concept encompassing the sky above and the earth below. It covers a land area of about 1,500,000 - 1,850,000 acres in addition to the offshore islands in the Hauraki Gulf.

The Coromandel Peninsula is traditionally known as *Te Tara o Te Whai* (the jagged barb of the stingray) and the figurative ama (outrigger), with its prow Mount Te Aroha and its stern at Mount Moehau. Taimoana Turoa describes the geography and landscape of Hauraki:

"Much of the terrain of Hauraki is rugged and mountainous rising above the deep valley floor of virgin bush and forest streams. The major waterways have their source in the hinterland catchment and spill over the flat swamplands before emptying into the inland sea of Tikapa, the Hauraki Gulf. Sculptured inlets and bays gnaw at the shoreline with precipitous headlands keeping a vigilant watch on the offshore islands and seas."

Taimoana Turoa also described the peripheral tribal boundaries of Hauraki, acknowledging that in some areas interests overlap and intermingle with the Tamaki, Waikato and Tauranga Moana iwi:

"...commencing at the sunken reefs of Nga Kuri-a-Wharei offshore of Waihi Beach on the eastern coast, progressing west inland to Mt Te Aroha, thence to Hoe-o-Tainui. It then follows north along the range line to Te Hapu a-Kohe and the Hunua Ranges to Mumoukai and Papakura. The northern boundary includes parts of the Tamaki isthmus, Takapuna, Whangaparaoa and Mahurangi before terminating at Matakana river estuary south of Cape Rodney. The seaward boundary includes parts of the island of Aotea (Great Barrier), and then southward to its beginning at Nga Kuri-A-Wharei. Included in those margins are the inner gulf islands of Tikapa Moana and those (except for Tuhua island) offshore of the eastern coastline of Tai Tamawahine".

2.2 KO NGA IWI O TE KUPENGANUI O HAURAKI - THE PEOPLES OF THE GREAT NET OF HAURAKI

The iwi, hapu and whanau of Hauraki came in many waves, with Ngati Hako, Ngati Hei, and Patukiriri in the first wave. To the south came Rahiri Tumutumu of the Mataatua canoe with their own traditions. To the Tamaki side were the descendants of Torere - the Ngai Tai. There are others as well whose mana remains embedded in the land today, including Nga Marama, Te Uri o Pou and Ngati Huarere.

In the second wave came the descendants of Hotunui and Marutuahu - the great Marutuahu confederation of Ngati Maru, Ngati Tamatera, Ngati Whanaunga and Ngati Paoa. Their fires burned brightly between Moehau and Te Aroha and from Matakana to Matakana and remain to this day. The Marutuahu migration was also quickly followed by the arrival of Ngati Tara, or Ngati Tara Tokanui also of Tainui who settled in the south.

As a result of these activities only remnants of the original tall forest remain on ridges and plateaus, with podocarps and broad-leaved species found on lower slopes and valleys. Wetlands and dune systems have been greatly modified by human activity and are less extensive in area than pre-European times. Table Two (page 10) provides former associations and present vegetation patterns by Ecological Districts.

The Coromandel Peninsula contains nationally significant habitat for New Zealand native fauna, of which many species are threatened. A number of nationally threatened species inhabit the Coromandel, many of which are present in low numbers and may disappear from the Peninsula. The threatened North Island Brown Kiwi lives in habitat ranging from coastal to lowland forest.

The margins of streams in some catchments, provide habitat for regionally threatened populations of Hochstetter's frogs. Lizards, geckos and skinks occupy a wide range of habitat from coastal to sub-montane forests. Coastal and estuarine margins provide habitat for the threatened New Zealand Dotterel.

The large forest area of the Coromandel that still exists today is considered outstanding fauna habitat. There is an almost continuous tract of forest from Moehau to the Karangahake Gorge. With a small break, the forest then extends southwards through the Kaimai Range, linking up with the Mamaku Plateau.

Pest-free offshore islands offer the best habitat for threatened and endemic species that are unable to survive on the mainland. Highest priority is given to managing these islands.

1.5 STRUCTURE OF THE PLAN

The Waikato Conservation Management Strategy (CMS) identified the need for conservation management plans for the Hauraki Area (including offshore islands administered by the Department), the Kauaeranga Valley, and for reserves between Whitianga Rock and Hot Water Beach, including Te Whanganui-A-Hei (Cathedral Cove) Marine Reserve.

Due to the related nature of these proposed management plans, the Waikato Conservancy made a conscious decision to amalgamate these proposed plans into one document - the Coromandel Peninsula Conservation Land Management Plan.

Chapter One provides an introduction to the management plan.

Chapter Two provides a Hauraki iwi region overview and a Waitangi Tribunal claim overview, as well as an acknowledgement of the important relationship between the Department and iwi.

Chapter Three covers those generic issues related to all conservation land on the Coromandel Peninsula. A number of these issues will also be relevant to the remaining chapters. The preferred structure uses generic issues as the basis for management action over all conservation land. The use of another structure holds considerable potential for duplication as many issues are applicable across all conservation land.

As **Chapter Four** points out, the Kauaeranga Valley requires particular management as it has the best developed visitor services in the Conservancy. It is accessible for visitors to the Peninsula as well as offering a range of recreational experiences and opportunities and use by schools and youth groups. The focus of this chapter is the future direction of management in the valley.

The Cathedral Cove Area and Te Whanganui-A-Hei (Cathedral Cove) Marine Reserve (**Chapter Five**) are the most popular visitor destinations on the Peninsula. There is a need for integrated management of the impacts due to the significant range of high value natural and historic resources that exist here.

Chapter Six discusses island management. Predator free islands are important as havens for threatened species that can no longer live on the mainland. They also allow regenerative growth of island vegetation. Eradication of, and preventing re-establishment of animal pests on offshore islands is a Department priority. This chapter provides an overall framework to guide island management through the continued development of island management plans.

1.6 LEGISLATIVE CONTEXT

(i) Conservation Act 1987

The Waikato Conservation Management Strategy (CMS) is a 10-year strategy (1996-2006) established in accordance with the Conservation Act 1987. The purpose of the CMS is to:

"... implement general policies and establish objectives for the integrated management of natural and historic resources, including species, managed by the Department under the Wildlife Act 1953, Marine Reserves Act 1971, Reserves Act 1977, Wild Animal Control Act 1977, Marine Mammals Protection Act 1978, National Parks Act 1980, Conservation Act 1987, New Zealand Walkways Act 1990, and for recreation and tourism and other conservation purposes."

For reasons outlined in section 1.3 above a Conservation Management Plan is required in addition to the CMS to address specific pressures on conservation land.

(ii) Marine Reserves Act 1971

The Te Whanganui-A-Hei Marine Reserve was established in accordance with the Marine Reserves Act 1971. The short title of that Act describes it as:

"An Act to provide for the setting up and management of areas of sea and foreshore as marine reserves for the purpose of preserving them in their natural state, as a habitat of marine life for scientific study".

Restrictions on the behaviour of persons within the reserve and provision for scientific study are set out in section 17I of the Act and the Marine Reserve Regulations 1993.

(iii) Resource Management Act 1991

The purpose of the Resource Management Act (RMA) is to promote the sustainable management of natural and physical resources. The preparation of regional and district policy and plans under the Act are required to meet this purpose. These documents provided for a wide variety of measures to avoid, remedy or mitigate adverse effects on the environment.

Conservation land is subject to district and regional plans, although the Act does provide for exceptions to land use restrictions.

(iv) Hauraki Gulf Marine Park Act 2000

The Act provides recognition of the interrelationship between the Hauraki Gulf, its islands and catchments (Map 2). The Act has several purposes, one of which seeks to

Paoa. Their fires burned brightly between Moehau and Te Aroha and from Matakana to Matakana and remain to this day. The Marutuahu migration was also quickly followed by the arrival of Ngati Tara, or Ngati Tara Tokanui also of Tainui who settled in the south.

In the third wave came Ngati Pukenga - the Tawera - and Ngati Porou from the east. In each the kupenga of Hauraki recognised a contribution had been made and the bounty of Hauraki - te pai o Hauraki - was shared.

2.3 THE HAURAKI MAORI TRUST BOARD

The Hauraki Maori Trust Board was established by an Act of Parliament in 1988. The enactment of the legislation was preceded by a broad consensus that an organisation representing the twelve iwi of Hauraki should be established to provide for the needs of the Hauraki people. The kaupapa for the Hauraki Trust Board is:

Kia mau ki te rangatiratanga o te Iwi o Hauraki

Hold fast to the chiefliness of the Hauraki tribes.

Section 4 of the Act provides that descendants of the following tribes are beneficiaries of the Board: Ngati Maru, Ngati Paoa, Ngati Tamatera, Ngati Whanaunga, Ngati Hako, Ngati Hei, Patukirikiri, Ngati Tai, Ngati Tara Tokanui, Ngati Rahiri tumutumu, Ngati Porou ki Harataunga ki Mataora, Ngati Pukenga ki Waiau.

2.4 HAURAKI CLAIMS

Since 1987 approximately 45 claims concerning the Hauraki tribal estate have been lodged with the Waitangi Tribunal. The Hauraki Tribunal Hearings commenced in September 1998. Hauraki Maori are seeking substantial reparations including the return of Crown lands within the Hauraki rohe. Crown lands include all conservation land on the Coromandel Peninsula and its natural and mineralogical resources. The Crown has outlined a set of settlement principles that are distinct from the Department of Conservation statutory obligations.

It is expected the outcome of any claim over conservation land on the Coromandel Peninsula will be in accordance with the principles set out in the Office of Treaty Settlements *Crown Proposals for The Settlement of Treaty of Waitangi Claims.*

The process of the settlement negotiations is the responsibility of the Office Of Treaty Settlements and the Minister in charge of Treaty of Waitangi negotiations. The Department, as an agency of the Crown, will provide advice to the Government on conservation matters.

2.5 IWI AND DEPARTMENT RELATIONSHIP

The Department's Strategic Business Plan provides a number of objectives to enable effective working relationships with iwi Maori through the establishment of consultation networks, for example:

- Department staff having training to develop an understanding of te taha Maori.

- Where necessary draft agreements, protocols or memoranda of understanding between the Department and iwi. These should advocate the inclusion of iwi in the management of specific parts of the conservation estate in their rohe, and facilitate access to cultural materials managed by the Department, for example, whale strandings and Ko Iwi.
- Assurance that iwi values are respected and protected.
- National protocols covering consultation, waahi tapu, customary use, whalebone and interpretation are the first protocols to be drafted.

In addition, the Department's Kaupapa Atawahi Strategy outlines the process which enables staff to engage with Maori so that Maori may contribute towards the achievement of conservation results and participate in the management of places of cultural significance to them.

Objective

Promote and further develop the partnership between the Department and Hauraki iwi.

Implementation

- Develop and maintain working relationships with Hauraki iwi to give effect to the principles of the Treaty of Waitangi.
- Provide iwi timely and consistent opportunities for consultation and have regard to their input and interest in managing conservation land within the Hauraki Area.
- Actively promote opportunities for the involvement of iwi in conservation management (including concession and commercial opportunities).

3. Generic Issues

3.1 BIODIVERSITY

Biodiversity (biological diversity) is about representativeness of the variety of life on earth. It includes plants, animals and micro-organisms, the genes they contain, and the ecosystems they form. Ecological management of ecosystems and protected species is part of the Department's core function and a key strategic issue in the Strategic Business Plan, 1998-2002.

Table Three identifies priority sites for integrated conservation management within the Hauraki Area. The sites include public conservation land and, by agreement, some adjoining areas of private property associated with those specific priority sites.

Species and ecosystems managed by the Department shown in Table Three are not prioritised. They are existing priorities relevant to current data. It is possible the contents of the table may change as information is updated.

For management purposes, sites and strategies are prioritised in the following descending order of importance: (1) Offshore Islands, (2) Mainland Islands, (3) Individual sites, (4) Plant pest strategies, (5) Animal pest strategies.

Offshore Islands are of particular importance for biodiversity, being isolated from the mainland, and once free of plant and animal pests, offer refuge and protection for species close to extinction. There are six island units within this plan, two of which, Aldermen and Mercury Island groups, are ranked nationally significant for biological diversity and species conservation (refer Chapter Six).

Ecosystem protection includes management of forest habitat, wetlands, protected species, coastal habitats and marine ecosystems (including marine reserves). Several Coromandel harbours and estuaries/rivers are identified in the Coastal Resource Inventory (CRI) all being of either international or national significance. They provide habitat for threatened bird species and other wildlife as well as indigenous coastal vegetation. These sites include: Whitianga Harbour, Tairua Harbour, Whangamata and Wharekawa Harbours, Manaia and Te Kouma Harbours, Coromandel Harbour, Whangapoua Harbour, Colville Bay, Kennedy and Potiki/Waikawau Bays, Cooks Beach and Purangi River, Otahu Estuary, Firth Of Thames.

Priority historic sites are provided in section 3.4.

Mainland Island sites are specific areas that have characteristics of islands in that they are in some way isolated. They may be totally fenced or surrounded by farmland, allowing integrated conservation management of the site. Because they are subject to continued re-invasion from pests, they require an ongoing commitment. The Moehau Ecological Area is such a site in all but name.

PRIORITY SPECIES FOR MANAGEMENT			
SPECIES	CATEGORY	PRIORITY	LOCATION
North Island Brown Kiwi	A	1	Coromandel
Archey's Frog	B	2	Coromandel
Hochstetter's Frog	B	2	Coromandel
Moehau Stag Beetle	A	2	Moehou
New Zealand Dotterel	B	2	Opoutere
Middle Island Tusked Weta	A	1	Islands
Tuatara	B	2	Islands
Moehau Weta	Yet to be categorised		Moehau
Coromandel Gecko	Yet to be categorised		Coromandel
PRIORITY MARINE AND COASTAL ECOSYSTEMS			
Te Whanganui-A -Hei*	Marine/Coastline/Fringe Forest		
Manaia	Estuary		
Otahu	Estuary		
Otama Dunes and Wetland RR*	Estuary/Dune		
Waikawau Bay RR*	Estuary/Dune/Fringe Forest/Coastline		
Cape Colville RR's*	Dune/Fringe Forest/Coastline		
Hot Water Beach RR*	Dune/Coastline		
Waitaia (Otama)	Fringe Forest/Coastline		
Whangamata/Estuary/Peninsula	Estuary/Fringe Forest/Coastline		
Whitianga Rock S&HR*	Estuary/Fringe Forest		
Shakespeare Cliff	Fringe Forest/Coastline		
Miranda/Firth of Thames	Marine/Estuary/Coastline		
Te Puru	Fringe Forest/Coastline		
Wharekawa	Estuary/Dune /Fringe Forest/Coastline		
Tapuaetahi	Fringe Forest/Coastline		
Ruamahunga	Fringe Forest/Coastline		
Waimama	Estuary/Dune/Fringe Forest/Coastline		
Kaitoke	Estuary/Fringe Forest		
Onewhero	Estuary/Fringe Forest		
Black Jack	Forest Fringe/Coastline		
PRIORITY TERRESTRIAL SITES/ECOSYSTEMS			
Moehau*τ	Subalpine/Montane/Lowland/Coastal/Shrubs		
Castle Rock*τ	Montane/Lowland		
Manaia*τ	Montane/Lowland		
Papakai*τ	Montane/Lowland		
Papa Aroha*τ	Lowland/Coastal		
Kennedy Bay*τ	Lowland/Coastal		
Otama*τ	Lowland/Coastal		
Waiomu/Te Puru*τ	Montane/Lowland		
Te Tipi*τ	Montane/Lowland		
Motutapere*τ	Montane/Lowland		
Kapowai*τ	Lowland		
Otahu*τ	Lowland		
Whenuakite*τ	Lowland/Coastal		
Kauaeranga	Montane/Lowland		
Table Mountain	Montane/Lowland		
Waiwawa	Montane/Lowland		
Southern Coromandel	Lowland		
Maratoto/Puriri*τ	Lowland		
PRIORITY WETLAND ECOSYSTEMS			
Duck Creek	Exotic Mineralised Wetland/Peatbog		

Table Three: *Significant Species and Ecosystems Priorities*

* denotes conservation land

* t denotes conservation land within the Coromandel Forest Park

Sites involving wild animal and plant pest control operations or monitoring programmes that are ongoing are also managed for biodiversity. These sites cover large tracts of land within Colville, Tairua, Thames, Waihi, and Mercury Islands Ecological Districts.

Threats to biodiversity include plant and animal pests, people pressure and fire. Best practice ecological management is critical to the health of indigenous biodiversity and is used to direct and prioritise site management. Current best practice approaches employed in plant and animal pest threat management follow four steps:

1. Inventory, listing what is known to exist in a selected site.
2. Survey, confirm the inventory list by field inspection.
3. Plan and implement threat control programmes.
4. Monitoring of managed sites for outcomes (increase or decrease in ecological values).

Objective

Ensure protection of biodiversity through integrated conservation management of ecosystems and species protection.

Implementation

- Continued implementation of the Coromandel Wild Animal Management Plan 1997-2006.
- Continued implementation of the Waikato Conservancy Plant Pest Management Plan where sites and management options are relevant to the Hauraki Area.
- Continue to use best practice management concept as a means of updating present site selection procedures, management actions and monitoring methodologies.
- A commitment to apply annually for funds to conduct estate surveys to identify potential sites where integrated conservation management is more likely to result in optimal biodiversity outcomes.
- Encourage and support local community biodiversity initiatives.
- At selected sites provide biodiversity interpretation opportunities that educate visitors and advocate ecosystem and protected species management.
- Covenant and/or acquire land to protect sites containing areas of significant biodiversity value.
- Implement the public awareness plan prior to plant and pest control operations.

3.2 PLANT AND ANIMAL PESTS

Plant and animal pests can be generically defined as those species that alter the ecological processes of indigenous ecosystems, and reduce their ability to function as natural systems. Therefore, plant and animal pest control is required to maintain biodiversity.

Sustained animal pest control takes place at priority sites on the Coromandel Peninsula including Moehau, Manaia, Central Coromandel, Kennedy Bay, Papa Aroha, Otama,

Thames Coast, Waiomu-Te Puru, Whenuakite, Kauaeranga, Southern Coromandel, and several East Coast Reserves. The areas are monitored for success and effectiveness of control, and this monitoring determines future control regimes at these sites.

Sustained plant pest control also occurs at priority sites, including Moehau, Thames Coast, Coromandel Islands, and the east-coast dunes. Various other less intensive control operations occur. Plant pest control follows two strategies:

1. Weed-led programmes are designed to eradicate or contain an emerging plant pest species before it becomes a major problem. These programmes are often initiated in situations where a species new to the country or region has been identified, where eradication of a species is possible, or where a plant pest species has a limited distribution.
2. Site-led control focuses on high priority, ecologically valuable sites where plant pests are threatening the important values present.

A full inventory of plant pests on land administered by the Department in the Waikato Conservancy was undertaken in 1997-98. This recorded all identified infestations of ecological plant pests, and noted the occurrence of agricultural plant pests where land administered by the Department adjoins agricultural land.

Identified sites are prioritised and ranked. Prioritisation methodology uses site importance or values, severity of the threat, and practicability and sustainability of control. Areas are then surveyed to provide information to enable sites to be ranked. Ranking is necessary to identify priorities for animal and plant pest control. Generally, prioritised sites will form the basis for work programmes funded via the annual business plan round, and other sources made available such as "Green Package" funding.

The Department also has landowner responsibilities to control ecological and agricultural plant pests as required by the Regional Pest Management Strategy.

Objectives

Reduce animal and plant pests and hold at levels that allow biodiversity at priority sites to be maintained and enhanced.

Conserve and restore, through integrated conservation management, a representative range of the ecosystems formerly present on the Coromandel Peninsula.

Implementation

- Continued implementation of the Coromandel Wild Animal Management Plan 1997-2006.
- Continued implementation of the Waikato Conservancy Plant Pest Management Plan where sites and management options are relevant to the Peninsula.
- Continue to use best practice to update site selection, monitoring methods, and management actions.
- Extend plant and animal pest control into other nationally and regionally ranked sites as resources permit.
- Continue to rank those already surveyed sites thought to have nationally or regionally significant values.
- Continue to survey presently un-surveyed sites with potentially national or regionally significant values.

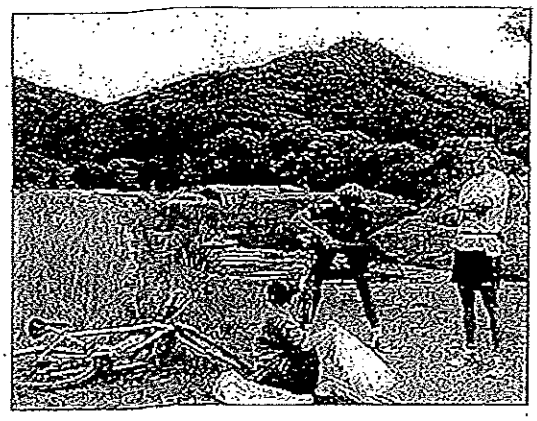
3.3 VISITORS

Visitors are defined as people visiting conservation land for any purpose. Conservation land on the Peninsula offers a wide range of recreational opportunities, including tramping/walks, camping, hunting, mountain biking; sunbathing and snorkelling/diving in the Te Whanganui-A-Hei (Cathedral Cove) Marine Reserve.

The Peninsula is an intensively used recreational area with use highly seasonal. This fact alone holds significance for the level of structures, facilities and services provided, and for biodiversity management.

It is recognised that there has been increased demand for the development of walking tracks on the Peninsula. Both the Department and community groups have a role to play in the future development and subsequent maintenance of such tracks.

The Department acknowledges changes in recreational use on the Peninsula, particularly the rise in popularity of sea kayaking, jet-skiing and mountain biking. Mountain biking has increased significantly in popularity in the past ten years. The Department acknowledges that mountain biking is a legitimate and significant recreational activity (refer to section 3.3.3).



Mountain biking around the Coromandel Peninsula is ever-increasing in popularity. Des Williams/DOC photo.

There is a trend to more accessible 'front' country short walks, ranging from half an hour to two hours. In addition, larger established Peninsula recreational groups such as four wheel drive and tramping clubs, are seeking to take more responsibility for managing their activities and their effects by working more closely with the Department. Management must also consider visitor demographics - 80% of Peninsula visitors are domestic; the remaining 20% international.

Management and standards of visitor and recreational facilities should ideally reflect the present trends and primarily meet local rather than international visitor satisfaction without compromising biodiversity values. However, trends are subject to change so management priorities must remain flexible.

Methods may include control of visitor numbers by constrained levels of facilities and services to currently high visited sites. There is also pressure to open up and control visitor access to previously less accessible ecological sites (e.g., sites where access is by permit only) to facilitate a wider appreciation of our natural heritage.

Changes in recreational use may impact on biodiversity values, other users and the quality of their experience. For this reason monitoring visitor impacts on ecosystems, protected species, along with visitor patterns, access and satisfaction will be required. Management decisions will be guided by best practice methodology which need to recognise the following in descending order:

(1) Protection of biodiversity values.

(2) Health nuisance and public safety.

(3) Protect visitor expectations and experience.

Education is essential, as the informed visitor is likely to have a higher level of satisfaction and respond more readily to opportunities for involvement. The design of interpretation panels may need to change to more easily accommodate information updates and reduce costs of interpretation as management practices are refined or become dated.

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3.3.1 Visitor Management Zones

The Department considers the introduction of specific visitor management zones as a non-statutory technique that offers a means to direct and manage levels of recreational use. Zones cover specific areas of conservation land where intense and extensive recreational opportunities already exist and where the Department considers such opportunities can be further enhanced. They provide clarity and certainty for users without compromising desired biodiversity outcomes. Visitor management zones do not accord one recreational use primacy over another, but rather, where appropriate, uses should be integrated without compromising existing recreational, amenity or biodiversity values. Where possible zones will be linked.

The Visitor Management Zones are:

- Cape Colville Management Zone, incorporating the recreational reserves of Fantail Bay, Port Jackson, Fletcher Bay, Stony Bay and Sandy Bay.
- Waikawau Bay Management Zone, incorporating Waikawau Bay Recreation Reserve.
- Cathedral Cove Management Zone, incorporating the eight Department administered reserves between Whitianga Rock and Hot Water Beach, marginal strips and stewardship land.
- Kauaeranga Valley Management Zone, including all of the Kauaeranga River catchment within the Coromandel Forest Park.
- Broken Hills Management Zone, adjacent to the Tairua River, within the Coromandel Forest Park.
- Maratoto Management Zone, within the Coromandel Forest Park.
- Wentworth / Wharekirauponga Management Zone, within the Coromandel Forest Park.
- Karangahake Management Zone, adjacent to and within the Kaimai/Mamaku Forest Park.

3.3.1.1 - Cape Colville Visitor Management Zone (map 3)

The priority focus of this zone is the protection and restoration of biodiversity values (endangered species, coastal and estuarine ecosystems, vegetation sequences, landscape) and areas of significance to iwi, particularly the summit of Mount Moehau, the burial place of Tama-Te-Kapua, captain of the Arawa waka. Within these priorities, however, there are opportunities for the integration of recreational opportunities. A new route system is being investigated to cross the Coromandel Range (Fantail Bay to Stony Bay), well away from the waahi tapu site on Mount Moehau.

The Cape Colville Visitor Management Zone offers a wide spectrum of recreational pursuits and enjoyment, including cycle touring, camping, diving; boating, fishing, tramping, walking, picnicking and hunting, as well as the added attraction of recreation within a farming environment. Alongside the recreational opportunities are limited concessions, guided walks, mobile shop and farm management.

Geographically the area is relatively remote and tranquil with high scenic and natural qualities providing the essence that attracts visitors annually. The greatest influx of visitors is over the Christmas period with campgrounds well patronised from Boxing Day until the end of January. Additionally, the zone experience includes the traditional right and privileges of walking in safety along the coastline, particularly the Stony Bay to Fletcher Bay walkway. Coastal campgrounds allow boat access across the beach.

The Department's intention is to maintain the combination of experience, rights and privileges presently enjoyed while retaining the present level of concessionaires. The Stony Bay to Fletcher Bay walkway will be maintained as a national walkway providing safe and unimpeded foot access. Although cycling is currently not permitted along the Stony Bay to Fletcher Bay walkway, an alternative (high risk) cycling opportunity exists along the stock route linking Stony and Fletcher Bay. A trial period may be initiated in the future to assess the feasibility of allowing bikes along the Stony Bay to Fletcher Bay walkway.

Campground operations will maintain the traditional beach camping experience, offering basic facilities only. Increase in campground capacity is constrained by health requirements (sewage and grey water disposal), road access, weather, and the protection of biodiversity values. Control is reserved over rubbish removal, fire and dogs.

Beach access for boat launching will be maintained, although water access and egress points will be controlled to avoid potential conflict with other beach users. A hardened access for boat launching is not imperative and would detract from the beach's natural character.

Objectives

Provide for a spectrum of recreational opportunities consistent with the primary objective to protect biodiversity values.

Integrate recreational opportunities that are consistent with the protection of sites of Maori cultural significance.

Provide for and maintain a remote and traditional recreational experience.

Implementation

- Maintain existing facilities and capacity at all Department administered campgrounds.
- Campground bookings remain on a 'first-in-first-served' basis.
- Not allow the booking of permanent campground sites.
- Current fire and dog restrictions to remain in place.
- Require a 'pack-it-in-pack-it-out' approach. If necessary introduce a charge for rubbish disposal as part of the campground fee.
- Allow boat launching and indicate appropriate launch access and egress with signs. No formal launching structures will be constructed. Existing concrete launch pad at Port Jackson will not be upgraded. If and when it becomes a hazard it will be removed.
- Initiate a trial allowing cycle use on the Stony Bay to Fletcher Bay Coromandel Walkway to allow for assessment of impacts.
- Where access is to be restricted or prohibited, signs, fencing or other means will be used to clearly indicate the restriction.

- Not allow any recreational use or activity within the zone where it degrades or significantly detracts from scenic and natural values and other recreational experience. CMS Appendices criteria will apply.
- Phase out Mt Moehau track that leads to private property and waahi tapu site.
- Phase in the development of a track (route) from Fantail Bay to Stony Bay.
- Be aware of the need to protect natural, historic and cultural values.

3.3.1.2 - Waikawau Bay Visitor Management Zone (map 4)

The zone offers a remote tranquil setting with high scenic and natural qualities. The protection and restoration/rehabilitation of biodiversity values is the primary objective. There is however, the desire to integrate recreational opportunities with biodiversity management.

The zone provides similar recreational experience to Cape Colville particularly the swell of visitors over the Christmas and New Year holiday period. Opportunities exist to pursue both water and land based recreational pursuits as well as to observe day to day farm park management activities. Traditional experiences include walks along the coastline, use of the campgrounds, the ability to launch boats across the beach and a picturesque forest walk that climbs excellent vantage points and return walk through farm land.

The Department's intention is to maintain the remote experience and rights and privileges presently enjoyed. Campground management will continue to maintain the traditional beach camping experience, offering basic facilities only. Increase in campground capacity is constrained by health requirements (sewage and grey water disposal), road access, damage to campground surfaces, and the protection of biodiversity values. Control is reserved over campground booking procedures, rubbish removal, fire and dogs. Across beach access for boat launching will be maintained, although control will be placed over water access and egress to avoid widespread boat launching and conflict with other beach users.

Objectives

Provide for and integrate recreational opportunities consistent with the primary objective of protecting biodiversity values.

Provide for and maintain a remote and traditional recreational experience.

Implementation

- Maintain existing facilities and capacity at all Department administered campgrounds.
- Campground bookings remain on a first-in-first-served basis.
- Not allow the booking of permanent campground sites.
- Current fire and dog restrictions to remain in place.
- Require a 'pack-it-in-pack-it-out approach. If necessary introduce a charge for rubbish disposal as part of the campground fee.
- Retain across beach boat launching and indicate appropriate launch access and egress with signs. No formal launching structures will be constructed.
- Where access is to be restricted or prohibited, signs, fencing or other means are to be used to clearly indicate the restriction.

- Not allow any recreational use or activity within the zone where it degrades or detracts from scenic and natural values and present recreational experience.
- Be aware of the need to protect natural, historic and cultural values.

3.3.1.3 Cathedral Cove Visitor Management Zone (map 5)

This zone incorporates reserves and marginal strips between Whitianga Rock and Hot Water Beach and all are accessible by vehicle or on foot. The Department's primary objective is to maintain the present recreational experience by minimising development to protect the scenic and amenity and recreational value of the reserves.

Recreational opportunities at Cathedral Cove are closely linked to the use of beaches, associated walks, picnic areas and the natural beauty of the coastline. Coastal walk opportunities are available at Whitianga Rock, and between Cathedral Cove and Te Pare Point via a combination of formed tracks, public access across beaches, along esplanade reserves, roads and unformed roads. The reserves offer an alternative to the more developed and intensively used coastal areas such as Hahei and Hot Water Beach.

The Department supports the establishment of formal coastal walk linkages between Whitianga Rock and Te Pare Point. However, future linkages between Te Pare Point and Hot Water Beach are problematic. Although the coastal margin has reserve status (Te Pupuha Recreation Reserve), the precipitous cliff topography does not permit safe access. In addition, coastal walk linkages would require agreements with several coastal landowners.

While there is potential for increased use of Cathedral Cove Recreation Reserve, past visitor surveys indicate the basic attraction of the reserve and associated beaches is the absence of facilities and the perceived feeling of remoteness. Public attitudes have changed little over time, hence no change is imminent.

Visitor numbers to the reserve rose from about 72,000 in 1993/94 to nearly 140,000 in 2000/2001. Peak visitation occurs between December and February with relative low numbers May to June (4000 per month). National and international promotion efforts by Tourism Coromandel and the New Zealand Tourism Board may have contributed to this increase.

This significant increase in visitor numbers invariably has consequences for management of present walk surfaces, car and camper van parking spaces, security of vehicles and toilet facilities. The high visitation (foot traffic) and short duration intensive rainfall events combine to erode present walk surfaces more quickly.

The zone will be monitored continually and assessed for indications of a shift in visitor attitude. The results of monitoring will help determine the balance between use and the ability to ensure durable maintenance regimes of existing facilities. Nevertheless minor developmental changes should occur that are designed to encourage use of existing tracks, provide interpretation and improve access generally.

The laying and monitoring of different walk surfaces is one option available to determine the best and most practicable surface for the long-term.

The Department funded car park upgrade has occurred in spite of much of the car park being road reserve administered by the Thames Coromandel District Council. The continuing management of parking, traffic movement, safety and access to Cathedral Cove is constrained by the split of responsibilities between the Department and the Council. It is a matter accorded some priority given the management implications.

Objectives

Maintain a recreational experience that offers a relatively undeveloped coastal environment.

Provide basic visitor facilities consistent with the first objective, while avoiding impacts on the natural environment.

Implementation

- Maintain existing toilet facilities and monitor their ability to cope, with the possibility of extending or replacing them if needed.
- Seek joint management between the Department and the Thames-Coromandel District Council over the possible extension or replacement of current toilet facilities.
- Improve signage to the Hahei/Cathedral Cove track as a means of easing pressure on the Cathedral Cove car park.
- Consider concession or pick-up-drop-off service provider to relay visitors to car park, reducing the need for car park expansion.
- Lay and monitor short lengths of walk surfaces to determine the best and most practicable surface that can sustain the exceptional high use levels.
- Negotiate the inclusion of road reserve into Cathedral Cove recreation reserve.
- Provide open viewing spots and undertake appropriate landscaping in the vicinity of the kiosk and along the track, for the provision of rest and picnicking areas.
- Be aware of the need to protect natural, historic and cultural resources and values.

Coastal Reserves - Whitianga Rock to Hot Water Beach

The inclusion of Department-administered coastline reserves is a result of a commitment to the integrated (holistic approach) management of this area. The Waikato Conservation Management Strategy (CMS) is specific in the requirement for a conservation management plan for the coastal reserves, steward-ship land and marginal strips. The area includes those recreation reserves, steward-ship land and marginal strips administered by the Department between Whitianga Rock and Hot Water Beach listed below:

Whitianga Rock Scenic & Historic Reserve (map 5a);

Cook Bluff Scenic Reserve/Cook Bluff marginal strip (map 5b);

Cathedral Cove Recreation Reserve (map 5c);

Te Pare Point Historic Reserve/Stewardship Land (map 5f);

Te Pupuha Recreation Reserve (map 5g);

Hot Water Beach Recreation Reserve (map 5h);

Hahei Beach marginal strip (map 5d);

Mahurangi Island Recreation Reserve (refer chapter 6, map 5e).

A further two reserves in the area are administered by the Thames Coromandel District Council, they are: Shakespeare's Cliff Stewardship Land and Historic Reserve and Hot Water Beach Domain Recreation Reserve.

All reserves are administered under the Reserves Act 1977, the general purpose of which is (inter alia) to:

- Provide for the preservation and management of public lands for the benefit and enjoyment of the public;
- Ensure as far as possible, the survival of all indigenous species of flora and fauna and representative samples; and
- Ensure as far as possible, the preservation of access for the public.

The plan should satisfy the following Waikato CMS objectives:

- Recognise and provide for the recreational value of the area (Objective 3.7.2).
- Protect natural and cultural values especially the coastal marine environment between Whitianga Rock and Hot Water Beach (Objective 3.7.3).
- Use the facilities and attractions of the area as a focus for public education about marine and coastal protection and conservation generally (Objective 3.7.4).
- Give effect to the principles of the Treaty of Waitangi (Objective 3.7.5).

The Marine Reserve and the area between Whitianga Rock and Hot Water Beach are shown in the Proposed Waikato Regional Coastal Plan as Areas of Significant Conservation Value. The proposed Thames Coromandel District Plan recognises Department-administered coastal reserves as Natural Character Areas within a Conservation Zone.

It should be noted that all the generic issues in Chapter Three of this plan are applicable to these coastal reserves. Individual proposals for each reserve will be covered, however it is made explicit that these reserves are to be managed in an integrated manner, and in a manner consistent with district council administered reserves.

Whitianga Rock Scenic and Historic Reserve (map 5a)

The reserve land was purchased by the Crown at various times between 1957 and 1978. The steep-cliffs of the three-sided peninsula known as Whitianga Rock plunge down into the harbour. Views of the Whitianga Harbour, township and Back Bay are possible from the rock. The presence of a once inhabited Ngati Hei pa site with trenches and palisade post holes has historic value. Cook visited in 1769 and along with Banks described the pa site in detail. It is one of the few sites in New Zealand where recorded historic observations can be compared with present day features. For this reason the pa site itself is kept in grass and mowed regularly, the remainder of the reserve is covered with coastal forest.

The reserve adjoins residential properties on Purangi Road to the north, Council controlled recreation reserve to the north east, bush clad farmland to the south-southeast and Whitianga Harbour to the west. The Thames Coromandel District Council (TCDC) reserve is undeveloped and forms a contiguous vegetation cover with Whitianga Rock reserve.

Present walk tracks will continue to be maintained to allow access and act as a linkage and a continuation of Council tracks leading from the historic wharf to the historic/

scenic reserve. Visitors are able to access Back Bay and eventually link up with the District Council reserve track leading to Purangi Road.

Existing interpretation is considered adequate but would be amended should the integrated coastal walkway concept be fully realised (refer to Section 3.3.2).

Potential threats to the reserve include possum and weed pests. While possums are always likely to be a threat, weeds within the reserve can be controlled.

Objectives

Protect the historic and scenic values of the reserve.

Facilitate recreational walking use of the reserve.

Implementation

- Continue periodic weed pest control on the reserve.
- Control the direction of visitors through the reserve with signage, interpretation and maintenance of tracks.
- Update signage depicting the reserve's place in the coastal walk concept once it is fully developed.

Cook Bluff Scenic Reserve / Cook Bluff Marginal Strip (map 5b)

The reserve and marginal strip was Crown land reserved from sale for scenic purposes. The reserve comprises two rocky headlands linked by a steep-cliffed narrow strip of coastline. The lower foreshore is studded with pohutukawa trees. There is no walk track system to follow, however, the reserve may be accessed with difficulty via the Cathedral Cove Recreation Reserve. Cook Bluff Reserve adjoins Cook Bluff marginal strip on the north west, a similar, very narrow, steep-cliffed coastal margin with no walk tracks established.

The western end of Cook Bluff Reserve includes a pa site along with middens and terraces, also a levelled area containing a centre hole surrounded by four slabs of rock and four boulders in the corners of the square. The site has not been positively identified, however it was considered to be the site of Cook's "Proclamation of Sovereignty" where he first raised the British flag. Yet past investigation reveals Cook's records contain no clear indication of the flag pole site and neither the Historic Places Trust nor the Royal New Zealand Navy consider the site is directly associated with Cook.

The reserve backs onto developed farmland. Fencing has not been considered necessary because of the topography, although a grassed area of 0.9 ha on the cliff top is being grazed as part of the adjoining property.

Threats to the reserve include graze and browse by livestock, goats and possum, along with weeds and wilding pines that will require regular control operations.

No development work has taken place due to the difficulties of the terrain and access. Given the topography, the Department considers the only development suitable for the reserve is the development of a walk track. The Department as part of the coastal walkways concept will investigate the requirements for the establishment of a walkway between Cathedral Cove Recreation Reserve and Cook Bluff marginal strip including Cook Bluff Scenic Reserve. Along the way there will also be opportunities for new interpretation signage marking points of historic and scenic interest.

Objectives

Protect the natural and historic resources found within the reserve and marginal strip.

Provide for recreational enjoyment of the coastline through the establishment of a walk track.

Implementation

- Continue periodic weed pest control on the reserve.
- Investigate the requirements for establishing a walk track along the reserve and marginal strip.
- As the first step of the investigation, the Department will, in consultation with tangata whenua, complete an archaeological survey of the area.
- Update signage depicting the reserves and marginal strip place in the coastal walk concept once it is fully developed.

Cathedral Cove Recreation Reserve (map 5c)

The reserve (gifted by Mr O.V Harsant to the Department of Lands and Survey in 1971) is a natural amphitheatre coast with a large archway passing beneath the headland. It is covered with coastal forest (including a puriri stand) and inter-tidal flats, has cliffs, boulder and sandy beaches.

Cathedral Cove.
Des Williams / DOC photo

The Department's Coastal Resource Inventory (CRI) records that the site is of national significance and receives a moderate to high landscape assessment rating. The cove itself is a regionally significant geomorphological feature, while the whole reserve is also regionally significant in terms of recreation.

The reserve consists mainly of acidic (rhyolite) volcanic rocks overlying a sequence of rhyolite pumice breccias and ignimbrites. It is soft, loosely compacted material easily eroded by wind and wave action. On much of the bluffs and slopes the hilly yellow-brown earths are thin and limited in development. Good vegetative cover is required to ensure stability. On flat areas where ash has accumulated the soils are good and currently supports pasture.

Given the reserve's susceptibility to erosion on removal of vegetation, combined with the generally high and intense rainfall events, future management of the reserve will continue to give full consideration to maintaining and enhancing indigenous vegetative cover. The reserve also provides an important vegetated buffer zone between the marine reserve and farm land.

To enhance the buffer zone and further reduce the likelihood of erosion, it is the Department's long term intention to return the grassed areas to indigenous coastal vegetation. There exists, however, an indefinite licence (renewable at five-yearly intervals) for grazing and control of weeds, held by Mr Harsant as a condition of the gifting of land. In spite of its long-term intention, the Department will continue to meet grazing commitments unless otherwise negotiated.

The reserve is a high priority site and each year a plan of action will be developed, time-tabling specific work within the reserve. The yearly plan will cover a variety of tasks including proposed track works, visitor monitoring, plant and animal pest control, grazing, interpretation/signs, any development work and budgeting.

The loss of vegetated cover is unacceptable. Animal pest control is undertaken at nominated intervals using bait stations to protect remaining coastal forest, particularly pohutukawa. An assessment of the control programme is subsequently undertaken to determine its success by the amount of bait removed from each bait station and the subsequent monitoring of indicator tree foliage. Weed control is also undertaken on a regular basis particularly to contain the spread of wilding pines, the removal of adult pines (where practicable) and woolley nightshade.

The reserve is an important link for the coastal walk concept between Whitianga Rock and Te Pare Point. Access continuing through the reserve to Cook Bluff Scenic Reserve will be investigated.

Objectives

Enhance indigenous vegetative cover on the reserve.

Protection of existing indigenous vegetation on the reserve.

Implementation

Develop annual work plans for replanting and for plant and animal pest control in the reserve and adjoining reserve.

Te Pare Point Historic Reserve and stewardship land (map 5f)

Purchased in 1983 for the purposes of the Reserves Act 1977, the land later had registered against its title the status of Historic Reserve. The now gazetted stewardship land was formerly Crown land allocated to the Department in 1987. The land is a prominent coastal hill at the southern end of Hahei Beach that provides panoramic coastal views. Much of the land is covered in pasture, however pockets of coastal forest exist.

Two pa sites, Te Pare and Hereheretaura, make the area significant for the local iwi (Ngati Hei). There is moderate visitor usage confined to walking and picnicking. Historic interpretation is provided at the commencement of the walking track.

The infestation of gorse over the area threatens conservation values. The ability to see the modified land form would be lost if it was totally vegetated. Consultation with Ngati Hei is sought with regard to management of the area. Grazing and weed pest control are the priorities. A licence to graze the land will be renewed to maintain the pasture and help suppress the spread of gorse.

Given the special significance of the area to Ngati Hei and the desire to protect the coastal views, future development of the area will be minimal and restricted to:

- walk track improvements;
- replanting; and
- update interpretation identifying the coastal walk linkages between Te Pare Point and Whitianga Rock should it be firmly established.

Walk track improvements will be subject to visitor use and will require monitoring. Replanting is subject to consultation with Ngati Hei. There is a need to keep the pa sites clear of vegetation. Replanting will also be confined to endemic coastal vegetation species.

Objective

Ensure the continued protection of the historical values providing limited recreational activity to walking and picnicking.

Implementation

- Control the spread of gorse through regular grazing and spray.
- Monitor walk track usage and initiate track improvement if proven necessary over and above regular maintenance.
- Select areas for vegetation replanting that do not impact on or obscure pa sites.
- Provide opportunities for Ngati Hei input into reserve and stewardship land management.

Te Pupuha Recreation Reserve (map 5g)

The land was previously Crown land reserved from sale for the purpose of recreation. This long coastal strip linking Hot Water Beach Recreation Reserve with Te Pare Point stewardship land is mainly rugged with precipitous cliffs and rock faces which jut out into the sea, but includes some areas of pasture and duneland. Pedestrian access is possible by crossing the shallow stream at the northern end of Hot Water Beach.

Conservation values include the presence of banded and New Zealand dotterel, variable oystercatcher, Caspian tern, Australasian gannet and Whitaker's skink. In terms of landscape values the reserve is mostly covered with manuka, kanuka and mixed native shrub associations. The exposed rock faces along the cliffs are bare. Notwithstanding the recreation reserve classification of this coastal strip, past development of the reserve has not taken place. Its purpose is the protection of the coastline and visual appeal when viewed from the sea or nearby headlands. Adjacent properties include subdivision, conservation blocks and farm land.

Threats to the reserve include browse by goats and wilding pines infestation. The mostly rugged nature and precipitous cliffs of the reserve raise safety considerations for walkers. Given the hazardous landform and the Department's commitment to complete coastal walk linkages between Whitianga Rock and Te Pare Point, low priority is given to the development of this reserve.

Objective

Ensure the continued protection of coastline conservation and landscape values.

Implementation

- Pursue nil-development approach to the reserve.
- Periodic control of goats and wilding pine clearance.

Hot Water Beach Recreation Reserve (map 5h)

This is an area of undulating dune country fronting the northern half of Hot Water Beach and extending back approximately 200 hundred metres to adjoin farm land. It forms an important natural barrier and protection from westerly winds for people using the beach. The land was purchased in 1972 for the purposes of public access and protection of the dunes to ensure they remain undeveloped. The dune system is part of the Waikato Conservancy's priority marine and coastal ecosystem listing that

also includes Otama and Port Waikato dune systems. The southern end of the beach (administered by the Thames Coromandel District Council) is known for thermal springs that surface in the tidal zone.

The dune has a vegetation cover of lupins, toitoi, coprosmas, blackberry and muehlenbekia. Conservation values include New Zealand dotterel, variable oyster catcher, caspian tern and Australasian gannet. The cover of coastal vegetation not only stabilises the dune system but has the added advantage of preserving the archaeological sites. Six archaeological sites have been recorded along the coastline, however one midden site falls within this reserve's boundary.

Past threats include dune vegetation grazing by goats and livestock trespass. The dune is now completely fenced off from the adjoining farm land, preventing livestock trespass. Presently, the dune is stabilised, however, removal of unwanted plant pests such as blackberry, wilding pine and particularly *Agave americana* is required.

Objective

- Maintain dune vegetation for dune stabilisation purposes.

Implementation

- Pursue nil-development approach to the reserve.
- Control invasive weed pests particularly *Agave americana* as a priority.

3.3.1.4 - Kauaeranga Valley Visitor Management Zone (map 6)

The Kauaeranga Valley was the first area to be developed for public recreation after the creation of the Coromandel Forest Park in 1971. People are attracted to the valley for its natural as well as historic (logging and mining) values. The valley offers a wide range of recreational pursuits and interpretation including: a combination of walks, tracks and routes; camping; horse riding; mountain bike trails, abseiling; rock hounding; swimming and picnicking.

Existing routes provide important linkages between visitor management zones. There are no plans to develop further routes linking the Kauaeranga Valley to adjacent zones. Consideration will, however, be given to establishing track linkages between existing tracks to provide loop systems or alternative exits from conservation land and to upgrade existing tracks providing key linkages within the existing network.

The range of camping types (campsites and campgrounds), facilities, and camping experiences in the Kauaeranga Valley are to remain. The rule of thumb provides for the more remote camping experience the deeper the visitor moves into the valley. The change from walks to tracks to routes is indicative of the expected experience.

The Department recognises potential areas for limited development of hut, shelter or toilet construction on specific routes and tracks, as well as powered sites for campervans/motorhomes. An option exists for hut development near Christmas Creek, providing for a two-night stay over a three-day tramp. The proposed construction of this hut combined with an upgrade of the second stage of the Kauri Trail Track, will complement and reduce visitor pressure on the existing Pinnacles Hut facilities.

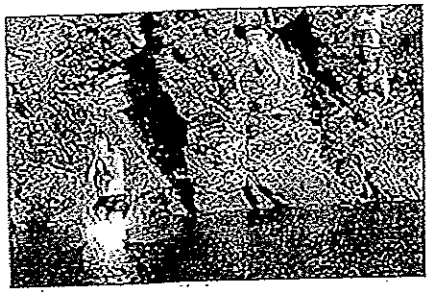
Shelter construction (low maintenance, open-sided) potentially can take place at Crosbies Clearing and along the Motutapere route. Shelter construction and maintenance by tramping clubs is a possibility provided responsible long term

management is agreed to between clubs and the Department. A sealed vault toilet facility will be considered at the Billygoat Basin remote campsite.

While there is no strong current demand for campervans/motorhomes, projected national demographics show an ageing population that may result in demand for powered campground sites. In anticipation of demand the Department considers an area near Shag Stream adjacent to the Kauaeranga Visitor Centre appropriate for future powered sites.

There are two existing education camps on conservation land in the Kauaeranga Valley, run by various groups external to the Department. While there may be potential for expansion of these sites, the Department intends to stay with the status quo and restrict new facilities on conservation land.

Sensitive removal of exotic deciduous amenity species will continue throughout the valley, over time. Specific deciduous shade trees, for example, will be removed once indigenous plantings have matured sufficiently. This is consistent with the ongoing removal of exotic forests and rehabilitation of these areas through natural and enhanced regeneration of indigenous vegetation. The objective is to promote the natural character of the valley, though exotic trees perceived to have historical or greater amenity value will be retained.



Hoffman's Pools - popular spot in the Kauaeranga Valley. Des Williams /DOC photo.

The visitor centre, administration buildings and workshop will remain in the Valley. The Department recognises the benefits of general public information being available on main routes or highways, for example at Thames or Kopu. The Kauaeranga Valley Visitor Centre is, and continues to be, a key link or 'point of contact' between the travelling public and the Department. Links with public information centres on the Peninsula are being fostered and maintained as an integral part of Hauraki Area's strategic approach to maintain information in the public arena. The role of the visitor centre could shift to having a greater emphasis on education, as well as a first point of contact for visitors seeking a hinterland experience.

Hunters and rock hounds require permits. Permit application forms provide information concerning restrictions on these recreational activities within the valley.

All concession applications will be considered under Part IIIB of the Conservation Act 1987 and section 10.6 of the Waikato Conservation Management Strategy. The Hotoritori rifle range and horse track remain open for use.

Edwards Lookout provides for recreational abseiling. The site has a 25-metre abseil and a 6 - 7 metre rock climb with four permanent abseil anchors provided. The physical nature of the locality precludes any abseil expansion at the site.

Popular day uses of the valley include swimming and picnicking. The Department is satisfied with the number of day use facilities, but will monitor the demand and provide additional facilities if proven necessary.

The Department will pursue options for security of day user vehicles, but the basic responsibility to lock and remove valuable items from vehicles remains with owners. Security signage is already in place and Department staff undertake night time patrols during peak season. Serious consideration will be given to video surveillance of specific sites at various times.

There are two mountain bike tracks in the Hotoritori catchment, one for beginners and the other for more experienced riders. There is potential to extend the track for more experienced riders, though the possible extension area will bring mountain bikers into

conflict with existing horse track users along parts of the route. Nevertheless, the Department will consider ways by which potential conflict may be avoided.

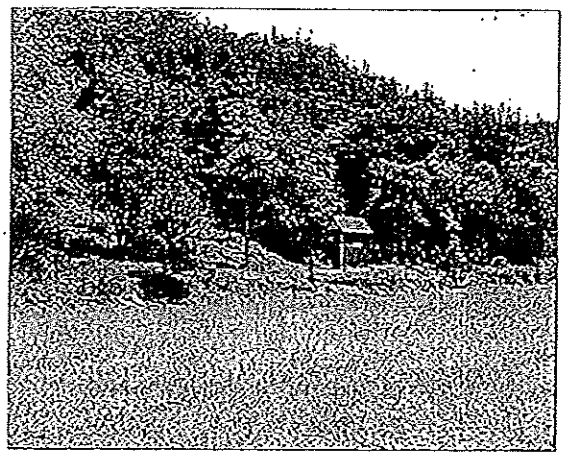
Objective

Provide for and integrate recreational opportunities consistent with the primary objective of protecting biodiversity and historic values.

Implementation

- Maintain existing walks, tramping tracks and routes.
- Upgrade existing tramping tracks and look for options to develop new tracks by providing linkages and loops between existing tracks and roads.
- Seek support to maintain existing routes and their use as linkages to adjacent visitor management zones.
- Consider in specific areas minor development for visitor enhancement, in particular shelters, toilet facilities and powered sites.
- Consider allowing expansion of the two existing education camps rather than the development of new education camps on conservation land.
- Retain the existing Visitor Centre complex and consider raising its profile as one point of contact for conservation land on the Coromandel Peninsula.
- Not allow further establishment of abseiling sites in the Valley.
- Assess options for car park security and educate visitors on the steps they can take to reduce theft from vehicles.
- Investigate the extension of the Hotoritori catchment to accommodate experienced mountain bikers.
- Upgrade the second stage of the Kauri Trail Track.
- Investigate and, where appropriate, raise campground fees to cover rubbish disposal costs.
- Require a 'pack-it-in-pack-it-out' approach.
- Undertake consultation with local iwi Ngati Maru (refer to Chapter 4).
- Be aware of the need to protect natural, historic and cultural values.

3.3.1.5 - Broken Hills Visitor Management Zone (map 7)



Broken Hills Campground.
Des Williams / DOC photo.

Recreational opportunities at Broken Hills are related to its former gold mining and kauri logging history. Currently the area provides walks and tracks to mining heritage sites, in particular two stamper batteries. Visitor experience may be described as low key. Interpretation panels of the area's heritage values are on site. The Department provides for camping, rubbish and basic toilet facilities.

It is proposed that all walks and tracks leading to mining heritage sites be upgraded and maintained to national standards. The linkage with the Kauaeranga Valley via route access will be maintained to national route standards.

Broken Hills also offers opportunities for hunters and rock hounds. Both these activities require permits and restrictions apply.

Objectives

Increase access to and interpretation of historic heritage sites.

Provide a remote camping experience.

Implementation

- Retain current campground capacity and facilities. .
- Require a visitor 'pack-it-in-pack-it-out' approach.
- Where and when appropriate consider introducing a charge for rubbish disposal as part of the campground fee.
- Be aware of the need to protect natural, historic and cultural resources and values.

3.3.1.6 Wentworth/Wharekirauponga Visitor Management Zone (map 8)

The Wentworth Valley has been mined and logged for kauri supplying local mills. It is accessible by road from Whangamata, ending at a parking and picnic area on the edge of the Coromandel Forest Park. Historical information is provided at the road end.

Recreational opportunities include: camping; tramping, the Wentworth Falls Track leading to the 50 metre Wentworth Falls and the Wires track beyond; historic mining sites; picnicking; hunting; the historic tramline and the Parakawai Geological Reserve andesite formation.

The Wentworth campground attracts large numbers of campers over the summer period. Basic barbecue, food preparation, cold water shower and toilet facilities are provided, in keeping with the more or less remote camping experience (natural traditional camping opportunity). The Department intends to maintain the status quo at the campground and provide suitable campground management.

Objective

Ensure visitor access to, and a self-exploration approach for the Wentworth / Wharekirauponga Valleys.

Implementation

- Maintain the present walk and track systems in the valleys.
- Improve interpretation signs where required to facilitate objective.
- Retain Wentworth campground's present capacity, monitor use.
- Investigate ways to provide suitable on-site Wentworth campground management.
- Be aware of the need to protect natural, historic and cultural resources and values.

3.3.1.7 - Maratoto Visitor Management Zone (map 9)

The Maratoto is the southern-most block of the Coromandel Forest Park. An old mining settlement, Golden Cross Mine site and part of a historic telegraph route, (the Wires Track) and the Whangamata Road providing a linkage with the Wentworth Valley, can be found here. Tramping tracks follow these three historic routes, providing visitors with self-exploration opportunities.

In addition, the Maratoto provides opportunities for Off Highway Vehicles (OHV / 4 Wheel Drive) and trailbikes. Hunting is allowed but requires a permit and restrictions apply. As well as recreational opportunities there is one active mining licence (quarry operation) which expires circa 2008.

The Department can enable recreational groups to take responsibility for the long-term management of their activities on conservation land. The off road vehicle associations and the Department have, for example, developed a successful joint management agreement for the continued use of the Maratoto for OHV organisations. Management agreements are useful where recreational activities have the potential to adversely effect the natural environment. These agreements enable adverse effects to be identified and, where possible, avoided or managed appropriately.

Objectives

Facilitate the self-exploration experience for visitors to historic gold mining sites.

Enable recreation groups to take responsibility and manage for the long term, their activities on conservation land.

Implementation

- Maintain existing tramping tracks to historic mining sites.
- Retain present OHV and trailbike access..
- Utilise management agreements to facilitate recreational group access to conservation land.
- Provide on-site interpretation and information where appropriate.

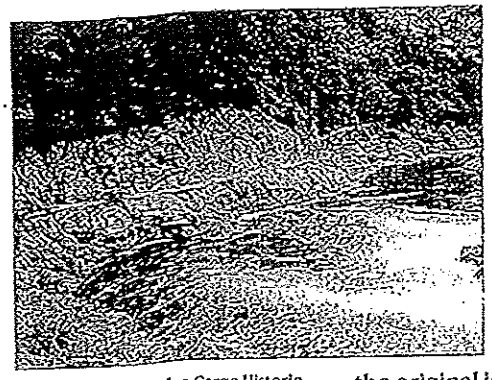
3.3.1.8 – Karangahake Management Zone (map 10)

The priority for management within this zone is the protection of historic resources. An excellent opportunity is provided for the combining of public recreation within an extensive area of historic significance that tells a story of European settlement and gold mining.

The historic gold mining sites at Karangahake are nationally significant. The mines (the Crown, Talisman and Woodstock) were among the top quartz mine gold producers in the country, and also the scene of major technological advances in the treatment of refractory ores.

Most notable of these was the first commercial usage in the world of the cyanide process by the Crown Gold Mining Company (GMC). While many physical elements of the mines remain, the underground pumphouse built by the Woodstock GMC, is the most remarkable. This structure is unique in this country and, despite numerous inquiries, nothing similar is known on overseas goldfields. With its scenic gorge setting, and several adjacent key sites linked by the Karangahake Walkway, and associated Waitawheta Track, the pumphouse has tremendous potential for development as a major heritage site and visitor attraction.

With the closure of the Paeroa to Waihi railway line, work on the Karangahake Historic Walkway commenced in 1979. Over the past twenty-two years there has been an ongoing development programme that has seen the walkway extend beyond the Victoria Battery Site over the Ohinemuri River, and under State Highway 2 to the Waikino Railway Station. This facility was established in 1989 with the relocation of part of the Paeroa Railway Station to its present location at Waikino.



Karangahake Gorge Historic Walkway.
Des Williams/DOC photo.

With the development of the walkway, opportunities for community enterprise providing visitor facilities and services have been capitalised on, further enhancing the interest and experience associated with the area's historic industrial past.

Concessions to the Goldfields Railway and Victoria Battery Tramway Society have both added interest, entertainment and educational opportunities to the area, while still complementing the historic theme.

Further development opportunities exist with the de-commissioning of the Paeroa water supply pipeline by the Hauraki District Council from the original intake several kilometres up the Waitewheta River to the confluence of the Waitawheta and Ohinemuri Rivers. This will link Dickies Flat at the end of the Dickies Flat Road with the Karangahake Walkway.

Extended developments will link the Hauraki and Tauranga areas (from the respective Waikato and Bay of Plenty Conservancies), with the Waitewheta track extending into the Kaimai-Mamaku Forest Park. This provides for a shared management opportunity between the two areas. Agreed operational boundaries have been established. Close liaison is critical to ensure a consistent level of management is maintained.

The Hauraki District Council has donated old pipeline bridges to the Department to provide public access over the rivers at key sites. Hauraki District Council contributed further to the overall development by upgrading the historic Ohinemuri River pipeline bridge to meet foot traffic standards prior to handing over to the Department.

This incredibly rugged and picturesque river gorge, complemented by incredible feats of engineering associated with historic gold mining activity, will provide for a recreational experience of international significance.

Development for passive recreation (walking) is provided to enhance historic protection management and education, a primary role of the Department.

There are a wide variety of recreational opportunities available within the zone, and associated with the walkway. Parts of the walkway are accessible to wheelchairs. The walkway provides access to many popular swimming holes, picnic spots, fishing - both trout and coarse - canoeing, cycling and abseiling.

The walkway is accessible by road from State Highway 2 with points of entry at the Karangahake Hall, Owharoa Falls, the Waikino Historic Station and Visitor Centre, and Dickies Flat access. Parking facilities and interpretation information is available at all locations, with toilet facilities at all but Owharoa Falls. A superbly landscaped fifth access point, developed and managed by the Hauraki District Council, has been established at the Karangahake Reserve linking State Highway 2 to the Karangahake Walkway, via the historic Ohinemuri River Pipeline Bridge.

Objectives

Provide for a spectrum of recreational opportunities consistent with the primary objective to protect historic values.

Provide safe visitor structures, facilities and services that optimise visitor satisfaction and experience while complementing the presentation of historic assets and the promotion of their preservation.

Implementation

- Provide signage and interpretation that guides users accurately and safely, and enhances their historic knowledge and appreciation of the area.

- Provide for visitor access and information to the Woodstock Underground Pump House within five years of plan approval.
- Achieve a loop walk from Waitawheta-Ohinemuri River confluence, via historic relics of the Crown, Woodstock, and Talisman Battery via the windows, underground pumphouse, and return to river confluence.
- Maintain all aspects of the Karangahake Walkway and Waitawheta Tracks to a standard safe for use at all times.
- Be aware of the need to protect natural, historic and cultural resources and values when providing for any recreational use or activity within the zone.

3.3.2 Coastal Walks

There is strong community interest for the development of coastal walks. Both the Department and community groups have a role in the development and subsequent maintenance of such walks. As a priority when establishing coastal walking opportunities, or when support is requested of the Department for the establishment of coastal walking opportunities, the Department will consider the following matters:

1. The primary objective of this management plan which is to preserve the intrinsic value of natural and historic resources.
2. The provision for the public to appreciate and enjoy walks that include sections of the coast.

The Department will also consider:

3. Visitor impacts associated with increased use. Tourism visitor numbers increased on the Coromandel Peninsula by 32% for the year ending September 2000 (New Zealand Tourism Board). Coastal walks will add to, as well as be affected by tourism growth. Action will be taken to identify and avoid or mitigate adverse effects of increased tourism numbers.
4. The range of opportunities available. One visitor experience should not be the only experience able to be enjoyed.
5. The degree of physical access due to topography, safety and owner consent.
6. The ability to extend and link existing tracks and/or combine coastal walks with inland areas to create loop systems.
7. The long-term ability to sustainably manage a coastal walk system.
8. The impact on endangered indigenous species found along the coastline.
9. The spread of weed pests.
10. The increased possibility of fire.

Objective

Establishment further coastal walk opportunities while preserving biodiversity, visitor and cultural values.

Implementation

- Within the next two years initiate a process that involves iwi, interested community groups and individuals to identify and prioritise future coastal walk opportunities.

3.3.3 Mountain Biking

Mountain biking has risen in popularity in the past ten years[1] to the extent that it is recognised by the Department as a significant recreational activity. The quality of the environment in which mountain biking occurs enhances the experience. For this reason land managed by the Department is considered desirable for mountain biking opportunities.

1 Hillary Commission figures up to 1998/1999 record 183,900 participants in mountain biking in the previous year. To put this in context, 289,000 people were involved in tramping in the same period.

Mountain bikers are attracted to many of the places that have historically been enjoyed solely by visitors on foot, thus raising many management issues and challenges. One challenge is to enable bikers to have an equitable experience of natural places without unacceptably affecting the experiences of other users. The physical effects of bikes on natural environments also need to be considered when planning for mountain biking in natural environments.

The following Department guidelines for assessing mountain biking opportunities will be used to assess the effects of bicycles on the recreational value of an area. Section 7.3 in the Department's *Guidelines for use of bicycles on tracks managed by the Department* (1994) states:

7.3 *Whether an area's recreation value is unacceptably compromised will be considered in terms of the Department's obligation to foster recreation and will be determined at conservancy level on a track by track basis taking into account the following considerations:*

(a) The desirability of providing a wide and equitable range of recreation opportunities for all those who use land managed by the Department, including the provision of access appropriate for use by bicycles.

(b) The ability of a conservancy to impose restrictions in some areas and lift them in others to help channel recreation use from intensively used areas into less used areas, or to concentrate bicycle use in traditional areas and exclude use from other areas.

(c) The extent to which the track is used intensively by other visitors and the impact bicycles will have on the experience of these visitors as measured by:

i) The extent to which the area is used for recreation purposes which may be incompatible with the presence of bicycles.

ii) The extent to which any threat to recreation value may be reduced by the imposition of controls regulating the proposed use of bicycles, e.g. use allowed during off-peak walking periods only.

The Department will consider the development or reclassification of any track to enable mountain bike use. The Recreation Opportunities Spectrum (ROS) (which provides for a spectrum of opportunities for recreation use) will be used to guide the reclassification of tracks.

The Department will also consider the physical impacts biking may have on indigenous flora and fauna and the track condition. Where tracks are damaged, or where maintenance is unsustainable access to these cycle tracks will be reviewed.

The Department will investigate the development of biking opportunities at specific sites in the Hauraki Area (see Map 1). The Department's *Guidelines for the use of Bicycles on Tracks Managed by the Department* (1994) stipulates assessment criteria for the establishment of additional mountain bike tracks.

Objective

Provide opportunities for off-road mountain biking.

Implementation

- Follow Department guidelines for use of mountain bikes on existing tracks, when planning for ongoing track assessment or track designation.
- Consult iwi for input into the management of natural areas.
- Determine acceptable levels of social, physical and ecological impact related to the use of mountain bikes on existing tracks and plan and manage opportunities to keep impacts below these levels.
- Work with community groups to develop their aspirations for access to conservation land in ways that are compatible with Department legislation, policy, standards and relevant objectives in this plan.

3.4 HISTORIC RESOURCES

The Department actively manages 23 historic resource sites within the Hauraki Area boundary. Active management aims to minimise their physical deterioration and in time bring them up to a standard of conservation that the Department will then strive to maintain.

Historic resources management is guided by the desire to preserve and maintain sites that play a pivotal role in the history of the Coromandel Peninsula, and are considered to be of national or regional significance. Both Maori and European historic resources fall under proposed management. Management of historic sites may range from simply diverting tracks away from known waahi tapu sites to interpretation of remnants or major restoration and/or stabilisation, for example, the Christmas Creek and Dancing Creek kauri driving dams.

Not all historic sites are actively managed - some may not be known or fully appreciated, and others of special interest to Maori will not be highlighted without full iwi endorsement. Ongoing projects include the inventory and assessment of historic resources and, where practicable, survey and record sites on areas not presently surveyed.

The Victoria Battery site, Whiritoa rock art site and Cuvier Island lighthouse settlement are all priority sites for continued development and management. Management options will depend on the threat to the historic resource, any cultural, community or agency input and/or support as well as available Department resources. Site management may require minimal resource input, for example, grazing pa sites and controlling weeds may be adequate where there are no current plans to physically restore the site. Regular inspections to meet Occupational Health and Safety requirements and in other instances, weed and vegetation control will suffice. Development and management of larger sites like Victoria Battery (Waitawheta Valley) will take place over time.

Objective

Preserve and maintain sites that play a pivotal role in the history of the Coromandel Peninsula and are considered to be of national or regional significance, and more closely integrate historic heritage values into conservation management.

Implementation

- Continue programmed conservation work on priority sites.
- Continue inventory and assessment of historic resources and, where practicable, survey and record sites on areas not presently surveyed.
- Continue to use "best practice" management concept as a means of developing, managing and monitoring historic sites.
- Consult with, and respond to, iwi regarding important historic sites and appropriate means of managing and interpreting these sites.
- Encourage and support in the most appropriate way, community co-operation in management of historic resources on conservation land.

3.5 COMMUNITY PARTICIPATION

For the purpose of this plan community participation is defined as:

"The ability of individuals or groups within a community to involve themselves in conservation programmes or general conservation tasks."

Associated with participation is the good neighbour concept that may be described as a two-way mutual understanding and respect between adjoining land owners. The hope is that by facilitating the two concepts, mutually beneficial conservation outcomes may result as well as increased understanding of conservation values.

The Department has formed a number of working relationships with the Hauraki District Council, Thames-Coromandel District Council, Environment Waikato and other local authorities and organisations. In addition, working relationships exist between the Department and Peninsula communities and groups that have provided conservation outcomes, including: the Valley Education Training Enterprise (VETEL); Thames Coast Protection Society; Friends of Kauaeranga; Victoria Battery Two Foot Gauge Tramway Group; the Kuaotunu Kiwi Sanctuary; Royal Forest and Bird Protection Society branches; tramping clubs; informal groups and individuals.

The support given by local communities to the Department is critical in helping to achieve many conservation outcomes.

Objectives

Communities are to be made aware of support available to them, to enable them to become more actively involved in conserving natural and historic heritage on conservation land.

Build positive relationships with landowners and promote the value of protecting natural and historic heritage on their land.

Implementation

- Achieve protection of natural and historic heritage on private lands through the development of positive relationships with private landowners.
- Provide timely and relevant information and advice to iwi and communities actively involved in conservation.
- Be open to opportunities enabling iwi and wider community participation in conservation management, decision-making, monitoring and compliance.

- Link community and private sector involvement to priority conservation sites where possible and appropriate.
- Provide mutual support and share information with adjacent landowners who value and wish to protect natural and historic heritage on their land.
- When consulting with iwi or communities, follow the Department's national Consultation Policy and Guidelines.
- Seek further opportunities for joint initiatives with local councils.

3.6 ADVOCACY

Advocacy role covers formal Resource Management Act responsibilities relating to the protection of natural and historic resources in terrestrial and marine environments outside of protected areas. The protection of indigenous biodiversity is the key component of the Department's interest in the protection of natural resources. The Department has specific responsibility to monitor the implementation of the New Zealand Coastal Policy Statement, vesting of reclaimed land and coastal tendering. There is also responsibility for the administration of the Foreshore and Seabed Endowment Revesting Act and residual lease and licence responsibilities under the Marine Farming Act.

The availability of Departmental resources and level of threat to natural resources means that priority has to be given to the protection of significant natural and historic resources, including significant indigenous communities and their habitats.

The task of advocacy involves working with local authorities, local communities and landowners through statutory and non-statutory processes to secure protection for, or at least sustainable management of, significant natural and historic resources. Securing support for existing protected areas is also part of this task.

Objectives

An increased understanding of, and support for, conservation of natural and historic resources by communities.

The conservation of natural and historic resources outside protected areas.

Implementation

- Advocate protection of natural and historic resources to local authorities, community groups and landowners through a range of statutory and non-statutory mechanisms.
- Ensure that existing protected areas are suitably shown and supported in policies, plans and protocols.
- Provide information on natural and historic resources to decision makers, community groups and landowners.
- Develop positive relationships with other stakeholders in natural and historic resource management.
- Establish the most effective methods to undertake protection advocacy.
- Develop other methods to statutory options to increase community involvement and participation.

3.7 LEGAL PROTECTION AND STATUS CHANGES

Classifications are categories placed over land conferring legal status. Most common category examples include conservation parks, ecological areas, sanctuary areas, wildlife reserves, recreation reserves and scenic, historic and scientific reserves. The aim of most land classification is to award some protection to natural or historical resources found there. There is variation in the degree of protection imposed by classification for public access and the opportunity for other uses such as recreation, commercial leases and licences.

The Department bases the practical management of priority sites on the biodiversity and historic values present. Where there are rare or endangered species or habitat or forest of high value, management is designed to protect those values irrespective of land classification.

The Department recognises that the status given to land by classification can influence public attitude and the decisions that may be made by those considering applications or uses. It may, in some circumstances be wrongly assumed that stewardship land will not have equal or greater ecological value than, for example, a scenic reserve.

Acquisition refers to the purchase of private land by the Department or the exchange of Department administered land for private land. Land acquisition takes place where the transaction will maximise conservation benefits. Those benefits must outweigh the direct costs involved as well as the opportunity cost of funds not being spent elsewhere. All acquisitions are subject to strict funding criteria and national priorities.

Disposal of land means that the Department sells land that it administers. The options and procedures for disposal of land depends on the particular Act to which the land is subject. Stewardship land found to have conservation value will be considered for reclassification.

Objectives

A Protection status which best reflects the existing conservation and community values of the land area.

Integrated and appropriate land status.

Formal protection of priority sites to complete a network of protected areas.

Implementation

- Any conservation land proposed for disposal, shall be subject to inspection and comment by relevant tangata whenua and the wider public.
- Any land offered to the Department for acquisition or exchange will be assessed in terms of its implications for practical management and in terms of conservancy priorities and purchase funding criteria.
- Review, update and prioritise stewardship land formerly identified for re-classification or possible disposal.
- Negotiate legal protection.
- Encourage public responsibility for the protection of land through local authorities and community groups.

3.8 MINERAL EXTRACTION

Mineral extraction refers to both mining and quarrying as the term "mineral" as defined in the Crown Minerals Act (CMA) 1991 extends to all that extracted by present day mining and quarrying activities.

The exceptions provided in the Act are strict and largely confined to the land owner or occupier use. South of the Kopu-Hikuai and Hikuai-Settlement Roads, both mining and quarrying are not prohibited as of right on conservation land. Access arrangements, however, will be subject to section 61(2)(a)-(e) of the CMA, to which the Minister of Conservation shall have regard when considering any access application. These subsections among other things include the objectives under which the land is administered, the purpose for which it is held and any policy statement or management plan of the Crown in relation to that land.

Formed predominantly from volcanic rock, the Coromandel is rich in gold bearing quartz. Gold and silver are present in both epithermal deposits (formed within 500m of the earth's surface) and the much deeper base metal vein deposits. To date over 40 epithermal sites on the Coromandel have been worked for gold and silver extraction, the majority of which were worked in the mid to late 1800s. A large mining operation currently exists at the Martha Mine, Waihi.

The Department has a duty to be both fair and reasonable when formulating advice to the Minister of Conservation. Difficulties arise when the Department must balance its mission of protection and preservation against the clear desire of the Crown to keep certain protected lands open to the possibility of mineral development. The Department must make it clear through statutory management plans the criteria against which advice to the Minister will be based.

Objective

Ensure the preservation and protection of natural and historic resources in accordance with the land classification purpose and objectives for which the land is held.

Implementation

- Provide to Minister of Conservation natural and physical resource information when directed.
- Advocate the preservation, conservation and protection of natural and historic resources on protected land and others areas determined to be of significance.
- Mining access applications will be assessed against the Waikato CMS Appendix 2 criteria and all other relevant objectives in this plan.
- Notify the Waikato Conservation Board of all applications for access under the Crown Minerals Act.

3.9 GENERAL MANAGEMENT

3.9.1 - Concessions

A concession is required for the running of any activity (a trade, business or occupation) on conservation land. A concession means a lease, licence, permit or easement that authorises an activity. Concessions are necessary to make sure services,

business activities and facilities do not conflict with conservation management, have a significant adverse effect on the environment or lessen the value of visitor enjoyment.

Concessionaires are required to pay for the privilege of obtaining commercial or other benefits from the use of conservation land. The amount varies, depending on the scale and type of activity involved.

The Conservation Act 1987 (Part III B) provides the legal basis for considering concession applications on conservation land. In addition to concession legislation, all applications are subject to Waikato CMS section 10.6.1 i-iv, category B and D and assessment and approval criteria provided in the Waikato CMS section 10.6.3.

Where appropriate the Department will consider a precautionary approach, which is to be interpreted in terms of sections 6 and 17U(2) of the Conservation Act 1987. The approach uses discretion when evaluating a concession and the decision whether or not to grant a concession. The approach moves towards a focus on preventing or minimising environmental damage, particularly where effects of a concession are, after careful consideration, determined to be unacceptable.

Of concern to the Department are the future cumulative effects of concessionaires on natural and historic resources. The Department would require that any future concession application add value rather than detract from the current use experience and that it is consistent with the following primary objective.

Objective

Ensure that the effects of all concessions (commercial activity) are consistent with the preservation and protection of natural and historic resources.

Implementation

- Include a requirement to monitor affects of the activity and provide monitoring information to the Department in concession documentation.
- Include a requirement to advocate to clients the preservation and protection of natural and historic resources in concession documents.
- Direct all concession applications to appropriate management zones indicated in section 3.4 of this plan (Visitors).
- Be satisfied that concessionaires have the appropriate skills, qualifications and adherence to any code of practice or best practice associated with or relevant to the activity sought.
- Inform any person operating a commercial activity on conservation land without a concession that they are committing an offence. The person will be required to cease the activity or be liable for prosecution.
- Where appropriate apply a precautionary approach to concession applications. The precautionary approach is defined in terms of sections 6 and 17U(2) of the Conservation Act 1987.
- Favour concession applications that facilitate recreational opportunities that are consistent with the primary objective.
- Where necessary applicants will need to obtain appropriate resource consents as required by regional and district plans.

3.9.2 - Dogs and Domestic Animals

The main purpose of dog control is to protect threatened species and other native wildlife. While dogs are not necessarily the primary cause of particular species decline, they are often a contributing factor. On the Coromandel Peninsula, the North Island brown kiwi, brown teal, weka, dotterel and little blue penguins are also at risk from domesticated cats and ferrets. The North Island brown kiwi is particularly at risk from dog predation - being ground dwelling and flightless, it can not easily escape dogs.

The Conservation Act 1987 (1996 Amendment) allows the Department to officially gazette (*NZ Gazette*) areas as either a 'controlled dog area' or an 'open dog area'. There are already areas which are designated Controlled Dog Areas, they are:

Wilderness, Sanctuary and Ecological Areas;

Wildlife Refuges;

Wildlife Sanctuaries;

Wildlife Management Reserves.

Nature, Scenic, National and Scientific Reserves;

These and other areas declared Controlled or Open Dog Area may be found in the Waikato Conservancy Dog Control Policy. The use of dogs in controlled areas is prohibited unless allowed by a dog permit. Dogs are recognised as useful or as necessary for individual use, for management purposes or in emergencies. Accepted use of dogs on conservation land include:

(a) Seeing-eye dogs;

(b) Companion (Certified by Top Dog Companion Trust);

(c) Search and rescue;

(d) Management of protected species;

(e) Wild animal control and permitted hunting dogs; and

(f) Police operations.

The Department does not allow the entry of horses other than on designated formed roads and in specified areas, tracks or facilities designated for use by horses.

Other domestic animals are prohibited from entering conservation land except into specified areas or under conditions authorised by permit.

Objective

To control the entry of dogs and other domestic animals, including horses, onto conservation land.

Implementation

- Prohibit the use of dogs (except guide and companion dogs in controlled areas and those under control of authorised persons) unless allowed under a dog control permit or during a specified time when the area may be open to dogs.
- Consider prosecution of persons found to have contravened Controlled Dog Areas, particularly where threats to species have occurred.
- Support the principle of dog, cat and ferret free subdivisions adjacent to known vulnerable indigenous wildlife, for example North Island brown kiwi habitat.

- Identify areas where the use of horses shall be allowed and not allow horses outside of identified areas.
- Not allow the entry of all other domestic livestock onto conservation land except in specified areas or authorised by permit conditions.

3.9.3 - Coromandel Farm Parks

The Department of Lands and Survey purchased the Waikawau Bay and Cape Colville Farm Parks during the 1970s. The pastoral land was allocated to the Department of Conservation in 1988. Farm parks are classified as recreation reserves under the Reserves Act 1977, allowing the Department to lease the land and continue to farm.

Fletcher Bay campground, Northern Coromandel. Des Williams / DOC photo.

The long term sustainability of farm parks is sometimes questioned given fluctuations in pastoral farming revenue, the region's topography, high rainfall and soils that are susceptible to erosion. Notwithstanding, considerable conservation gains are being made as a result of the Department managing this land.

Retention of farmparks provides open spaces and allows the establishment of walks and tracks for recreational purposes. Coastal margins and natural character are preserved. Margins of streams and pockets of indigenous forest are fenced to protect against livestock damage, and to maintain water quality and remnant indigenous coastal vegetation. Farmparks also provide opportunities for urban visitors to experience the rural environment and aesthetic values.

Small exotic afforestation woodlots currently exist as a consequence of planting by land owners prior to purchase by the former Lands and Survey Department. Current woodlot management is integrated with the preservation, protection and rehabilitation of natural resources and natural character. Major afforestation is not considered an appropriate long term land use practice.

The Department will continue with its policy of clearly defining areas for conservation and various land use practices.

Objective

Maintain and develop farming practices as an integral part of farm park management while being consistent with the Waikato CMS conservation and recreation objectives.

Implementation

- Control goat and pig grazing on farm parks.
- Remove woodlots (eventually) from ridgelines to enhance coastal landscape values.
- Allow natural regeneration of steeper areas once existing woodlots are harvested.
- Manage lower slope woodlots as production units.
- Retire and re-vegetate areas of coastal cliffs, steep hillsides and riparian margins and fence where appropriate.
- Fence off pockets of indigenous vegetation.
- Continue weed control programmes.

3.9.4 - Fencing

Fencing is used to protect natural and historic values. Fencing can protect relatively unmodified waterways, coastal pohutukawa, margins of wetland remnants and estuaries and riparian margins of streams from domesticated animal grazing.

The Department will continue to use fencing as a management tool where it is considered necessary for protecting conservation, historic or cultural values and where there are statutory fencing requirements. Where other means fail (for example, negotiated settlement) to have a fence erected or repaired, the Department may deem it necessary to invoke adjoining occupiers liabilities under the Fencing Act 1978.

Objective

Use of fencing to protect natural and historic values from livestock grazing.

Implementation

- Continue to plan fencing requirements and apply for annual funding.
- Investigate co-operative fencing arrangements with adjoining land owners.
- Use the Provisions of the Fencing Act 1978 as a means of controlling livestock movement onto conservation land.

3.9.5 - Exotic Forestry

Exotic forestry blocks may be established only on conservation land classified as recreation reserve under the Reserves Act 1977.

Existing exotic woodlots on recreation reserves and new established woodlots will be managed to ensure minimal impact on conservation values. In all cases the value of the woodlot will be second to conservation values. Once woodlots have been cleared, the land will be allowed to regenerate to native vegetation.

Options for the removal of pines include commercial harvesting, felling to waste, poison or other appropriate means of control. On all other conservation land exotic woodlots, wildling pines and other exotic species will be removed progressively.

Objectives

The preservation and protection of indigenous vegetation through the removal of exotic species.

The management of exotic woodlots on recreation reserves that is consistent with conservation values.

Implementation

- Removal of existing wildling pines and other exotic species and allow natural regeneration and/or rehabilitation of indigenous vegetation.
- Use of best practice management for the removal of exotic species that is consistent with the primary objective.

3.9.6 - Fire

Both the physical and human characteristics of the Coromandel Peninsula (weather conditions and patterns, vegetation types, terrain, micro-climates and people pressure) combine to make fire a significant threat to biodiversity and the control and management of fire difficult.

The predominant causes of uncontrolled fire include: land clearance; burning of slash; weed control; roadside fires (campers, stolen cars, cigarettes in very dry conditions); and landowners burning rubbish. During the years 1993 and 1997, 41 percent of conservancy recorded fires occurred on the Peninsula.

Under the Forest and Rural Fires Act 1977, the Minister of Conservation is the fire authority for conservation land and a one kilometre contiguous fire safety margin. The Act also bestows duties and powers on the Minister in respect of fire control and management.

Through fire there is high potential to either reduce the numbers of, or lose indigenous species altogether. This is particularly true for islands. Therefore the need to ensure an effective fire capability on the Peninsula to reduce the risk of uncontrolled fire is paramount.

Because the costs associated with fighting fires are high, the practicable management option in the first instance, is fire prevention. To achieve this the Department can declare prohibited fire seasons and cancel fire permits where there is a high risk of uncontrolled fire. In addition, the Department needs to develop a greater level of understanding, within the community, of the threat to conservation posed by fire.

Objectives

To ensure an effective fire capability on the Coromandel Peninsula to reduce the risk of uncontrolled fire and enable quick, efficient and effective control of fire.

Raise the level of public understanding of the threat to biodiversity values posed by fire.

Implementation

- Maintain suitably trained personnel.
- Maintain adequate equipment.
- Maintain appropriate communication with neighbouring fire authorities.
- Maintain a fire permit system for the use of fire in all areas other than approved fire places.
- Provide protection for high value, high risk areas in the form of fire breaks and water supplies.
- Develop zone plans for high value high risk areas.
- Declare prohibited fire seasons and cancel fire permits when fire dangers indicate high risk from uncontrolled fires.
- Develop and implement a public awareness fire strategy.
- Acknowledge the role off road vehicle recreational users can play in spotting fires and/or averting fires by carrying extinguishers.
- Ensure all holders of access arrangements to conservation land comply with fire risk management procedures.

3.9.7 - Aircraft

The control of aircraft that includes fixed-wing aircraft, helicopters, microlights, gliders, hang-gliders and parapents, is the responsibility of the Civil Aviation Authority (CAA) under the Civil Aviation Act 1990.

By virtue of the Conservation Act and the Reserves Act, no aircraft (other than NZ Defence Force or CAA operated aircraft) can land, hover or take-off from a reserve or conservation area without a concession from the Department. Exceptions are made for emergencies arising from bad weather, mechanical or structural defects, or the action is necessarily related to maritime navigational aids.

A permit is required from the Department prior to access to conservation land.

Permit applications are considered on a case by case basis, taking into account the purpose for which a permit is required, its necessity, possible alternatives, impacts on natural, historic, recreational and cultural values, other users and OSH standards. The Waikato CMS provides further criteria against which applications are considered.

The Department uses aircraft for management purposes, particularly wild animal control and vegetation monitoring, and in emergency situations such as firefighting or search and rescue.

Objectives

Control the use of aircraft as a means of private access to conservation land, as well as for commercial or other uses.

Provide for the Department's use of aircraft for management purposes and for emergency situations.

Implementation

- Allow aircraft to be used for access purposes by the Department to carry out management functions.
- Allow access by aircraft for firefighting, search and rescue and other emergency situations.
- Avoid conflict between low-flying aircraft and sensitive habitats and compromising the remote, recreational experience over identified zones.
- Allow private aircraft access to conservation land subject to objectives in this plan and the Waikato CMS aircraft criteria.

3.9.8 - Survey and Research

Upgrading the quality of information about our natural and historic heritage is critical to improved management and meeting stated goals. In order to provide the best protection the Department needs to:

describe the state of indigenous natural heritage and how it is changing;

determine when and how to intervene to protect it;

set medium term targets for these interventions and demonstrate that targets are being met.

continue to expand and update archaeological inventory.

The Department currently utilises scientific surveys based on accepted methodologies to provide ecological information. In addition to conventional scientific survey and research methodologies, it is recognised that local people have knowledge of specific resources and the wider environment. Some of this information exists nowhere else and may be in forms (anecdotal, customary sources) that differ from accepted

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Objectives

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Raise the level of public understanding of the threat to biodiversity values posed by fire.

Implementation

- Maintain suitably trained personnel.
- Maintain adequate equipment.
- Maintain appropriate communication with neighbouring fire authorities.
- Maintain a fire permit system for the use of fire in all areas other than approved fire places.
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- Ensure all holders of access arrangements to conservation land comply with fire risk management procedures.

3.9.7 - Aircraft

The control of aircraft that includes fixed-wing aircraft, helicopters, microlights, gliders, hang-gliders and parapents, is the responsibility of the Civil Aviation Authority (CAA) under the Civil Aviation Act 1990.

scientific methodology. The acknowledgement of both forms of information is important to develop appropriate management practices.

Better information, particularly monitoring and reporting on ecosystems, species and sites and facilities managed by the Department, will help in measuring effectiveness of management decisions. Other information avenues include co-operation and interaction with agencies and voluntary groups in collecting and sharing information.

Objective

Improve understanding of indigenous species, habitats, ecosystems, historic resources, landscapes, landforms, geological features and matters affecting recreational use of conservation resources.

More effective measurement of management decisions.

Implementation

- Facilitate Department staff easy access to existing information sources.
- Co-operate with other agencies and voluntary groups in collecting information about natural and historic resources on the Peninsula.
- Co-operate with iwi and communities in the collection of information about natural and historic resources.
- Generate opportunities for collaboration with government research institutions regarding the collection and sharing of information about natural and historic resources.
- Submit annually to the research section of the Department, projects required for the protection or improved understanding of natural and historic resources on conservation land on the Peninsula.

3.9.9 - Compliance and Law Enforcement

It may be necessary in order to meet objectives stated in this plan, to utilise statutory powers and prosecute offenders. For this to occur the Department requires an effective enforcement system with the capability to identify those who transgress statute, regulations and/or bylaws.

Such capability can be met by Department staff well trained in law enforcement procedures, and suitably trained honorary warranted officers. Response and reporting systems are also essential to capability.

In preference to the prosecution of offenders, emphasis will focus on prevention by developing an advocacy strategy directed to promote compliance with conservation laws and the Department's Environmental Care Code. There are areas where compliance advocacy is difficult. For example, many of the offenders within the boundaries of Te Whanganui-A-Hei Marine Reserve reside outside of the region.

Objective

Maintain and develop effective law enforcement capability on the Peninsula.

Implementation

- Develop and maintain law enforcement capability by having Departmental staff and warranted officers well trained in law enforcement procedures.

- Develop a warranted officer network with tangata whenua and other interested groups to assist staff in ensuring public compliance with conservation law.
- Take prosecutions where warranted.
- Develop an advocacy strategy to promote public compliance with conservation law and the Department's Environmental Care Code.
- Develop and maintain effective and ongoing compliance and law enforcement response and reporting systems.

3.9.10 - Emergency Services and Response

The Department of Conservation throughout the year has a duty officer on call after hours, during weekends and public holidays to respond to public emergency calls. All Department duty officers have at hand procedures to follow should they receive a call. In the case of fire, they will implement the Waikato Conservancy Fire Plan. For whale stranding and search and rescue, the duty officer will implement response procedures.

In implementing the fire plan, whale stranding procedures and search and rescue, the department will follow the Co-ordinated Incident Management System (CIMS). The CIMS manual is the result of a collaborative effort by representatives from a wide range of emergency management organisations and is endorsed by the Department of Conservation. CIMS provides the model for command, control, and co-ordination of emergency response, aiming to build a more proactive incident management response system that will increase efficiencies through better co-ordination of resources.

In the event of coastal emergencies for example, boat accident/overturning, drowning, oil spill, the public should ring the emergency number 111.

The Maritime Safety Authority (MSA) is responsible for the safe conduct of vessels at sea, safety on vessels, navigation and navigational aids, occupational safety and health, oil spill prevention and response. Environment Waikato must also develop a marine spill contingency plan and establish and maintain response team.

In the event of an oil spill the Department will advise the on-scene commander of current information on areas and species of significant conservation value that could be adversely affected either by the spill or the clean-up operation.

Objective

Provide efficient and co-ordinated response to emergencies and whale strandings.

Implementation

- Active use of relevant Department standard operating procedures in emergency situations.
- Implement standard operating procedures following the Co-ordinated Incident Management Systems (CIMS).

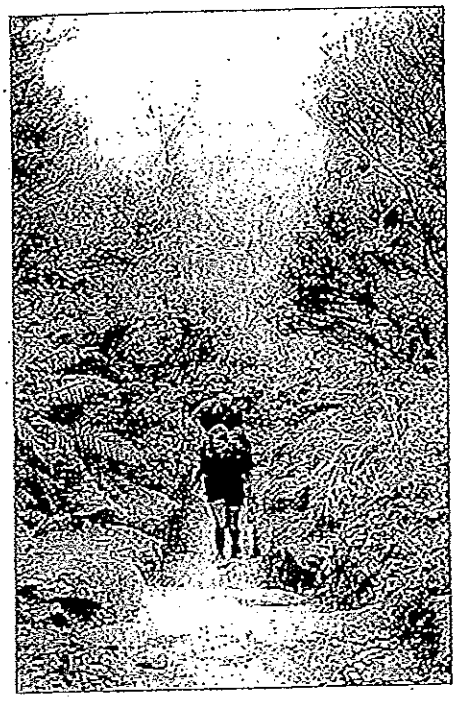
4. Kauaeranga Valley

4.1 PURPOSE

This chapter is concerned with shaping and setting future management direction for the Valley. The essence of a future direction lies with the Department making better use of resources and capacity available at any time. This chapter sets out actions that will enable optimum use of available resources.

Part of the future direction will be to acknowledge the environmental ethic and history of local tangata whenua (Ngati Maru).

4.2 IWI PERSPECTIVE



Kauaeranga Kauri Trail - a solid climb from the road end to Pinnacles Hut. Des Williams / DOC photo.

The spiritual and physical worlds are inextricably linked. All elements of the physical world share the same spiritual parents; therefore, humanity is an integral part of the natural world in both the physical and spiritual sense. The workings of humanity and the environment as part of the natural and spiritual world are expressed in the concepts of mauri and kaitiakitanga.

Mauri is the life force that gives existence to all things. Mauri generates, regenerates and upholds creation, binding physical and spiritual elements together. Traditional approaches to resource management focus on maintaining and enhancing the mauri of ancestral taonga. Tikanga (customary values and practices) have been developed and observed over the millennia in order to sustain the mauri of all things.

Kauaeranga was the original name for the Thames area. The Kauaeranga River also had an original name 'Waiwhakauaranga', which means 'waters of the stacked-up jaw bones'. Ngati Maru historians claim the name originated after a battle where Ngati Maru on the banks of the river, stacked-up the jaw bones of their defeated enemies, in rows, on top of one another.

Objective

Promote and further develop the partnership between the Department and Kauaeranga Valley tangata whenua - Ngati Maru.

Implementation

- Develop consultation networks, protocols, management partnerships and other appropriate mechanisms with Ngati Maru to enable tangata whenua to exercise kaitiakitanga in the Valley. This can include:

  (a) Sharing of information with regard to Resource Management Act consent applications and Conservation Act concession applications.

  (b) Opportunity for input into work plans and visitor facilities interpretation identified in the Hauraki Area Office annual business plan.

4.3 FUTURE DIRECTIONS

The Department's Visitor Strategy (1996) states the primary concern is the protection of intrinsic natural and historic values on conservation land, the relatively unspoiled, unpolluted, and uncrowded environment, the natural scenery and accessible outdoor recreation opportunities. Visitors can have a variety of detrimental impacts on natural and historic values however, and the overriding goal is to:

> *"Ensure that intrinsic natural and historic values of areas managed by the Department are not compromised by the impacts of visitors, and related facilities and services."*

Future direction and management of the Kauaeranga Valley will need to conform to the overriding goal and will also depend on the Department making optimal use of resources and capacity available at any time. To do this the Department must:

(a) Prioritise;

(b) Provide a rationale and criteria for prioritisation;

(c) Provide a 'spectrum' of recreation that guides future actions;

(d) Plan for best use of the Valley;

(e) Ensure maximum security possible for visitors;

(f) Encourage signage to the valley;

(g) Fix a pricing structure;

(h) Focus the purpose of the Kauaeranga Visitor Centre; and

(i) Have consistent design concepts in the Valley.

4.4 USE OF DEPARTMENT RESOURCES AND CAPACITY

4.4.1 - Prioritise

There is a need to prioritise and continually prioritise management (implementation) actions to make optimal use of the resources and capacity available to the Department. A high priority, for example, may be placed on completing site development packages already committed to in the Valley, before implementing other management actions. High priority may also be placed on seemingly small, less urgent actions that can be completed in a short period rather than lingering incomplete.

The recreational prioritisation exercise for the Kauaeranga Valley ideally needs to take place within the context of a wider Hauraki Area prioritisation. The recreational site prioritisation exercise should also fit within the Waikato Conservancy visitor management programme prioritisation. This would provide consistency between Areas and provide the advanced information for annual business planning.

4.4.2 - Prioritisation Rationale

The fundamental reasons for prioritisation other than that stated above are:

(a) Achieving a sustainable asset base (dollars, work hours, other resources);

(b) The ability to meet national standards;

(c) The reduction of maintenance costs when a site is completed;

(d) Provide the greatest possible visitor satisfaction;

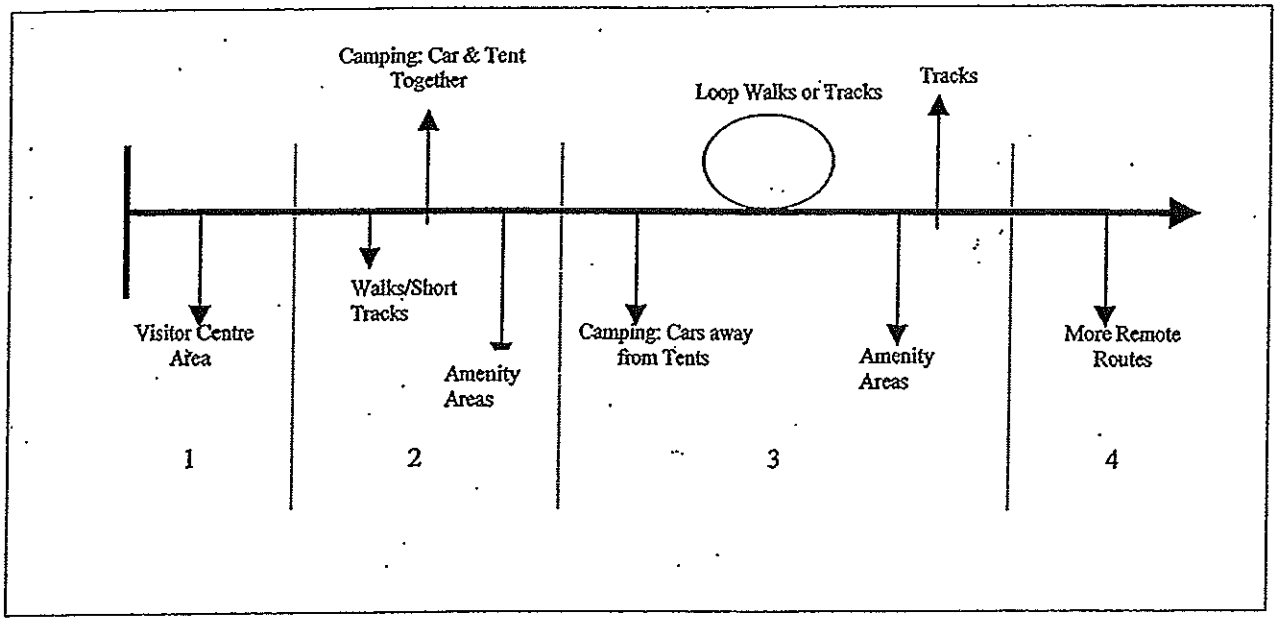
(e) Fully completed sites minimise impacts;

(f) The integration of recreational, historic and ecological conservation management actions;

(g) Meet opportunities such as sponsorship, employment and community initiatives, and attract concessionaires;

(h) Indicate the direction to neighbouring conservancies and other external agencies to facilitate integration where possible to rationalise visitor opportunities in the wider district.

4.4.3 - A Spectrum of Recreational Opportunity



1 = Powered sites for motor-homes; hard campsites; no generators or chainsaws; high security; reticulated water; booking system for sites; possible sewage dump.

2 = Family orientated camping; basic toilet facilities (sealed vault); access to drinking water; grassed camp sites; picnic/BBQ sites and tables; solar powered shower units; possible water supply; self-registration onto sites.

3 = Remote camping; park vehicles and walk to camp site; maximum three hours to campsite; basic toilet and campsite; access to water; raised camping sites; grassed areas.

4 = More remote, possible hut/shelter; route linkages to other Visitor Management Zones; minimum three hours walk.

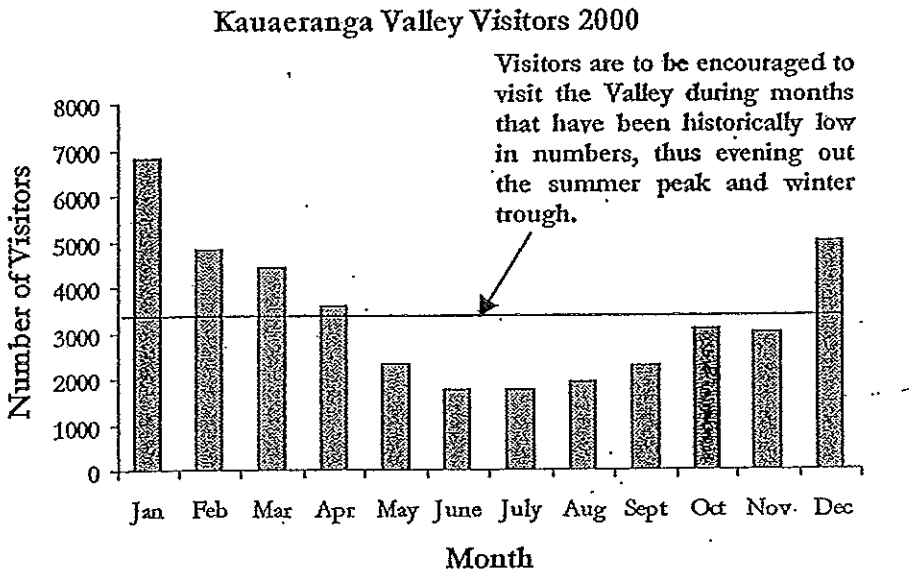
The Department has made a conscious decision to provide the recreational opportunity spectrum for the Valley shown in the diagram above. The range is appropriate for different recreational activity that caters for a wide section of historic and potential visitors to the Valley.

4.4.4 Future 'Best' Use of the Valley

The Department manages and operates a number of facilities and services within the Valley including eight campgrounds, an eighty bunk hut, and a visitor centre with a retailing section, audio visual show and a functioning model dam. All are linked by a network of good standard road and track systems that provide for a safe and enjoyable user experience. Their retention under current policy is very dependent on achieving an appropriate level of cost recovery. The proximity of the Valley to large population centres makes it well suited to short stop visitors, day and overnight trippers as well as long term visitors. The locality is readily available to a large domestic market, with Auckland, Tauranga and Hamilton as gateways for international visitors. The standard of facilities provided has opened up the Coromandel Range to a far wider cross-section of the public, enabling a safe hinterland experience for well-prepared but less experienced trampers.

The promotion of existing facilities and services is directed towards ensuring appropriate levels and spread of use are maintained without compromising user expectations and experience. Information provided ensures visitors' abilities are matched to facilities provided.

The graph below illustrates the seasonal nature of visitor numbers to the Kaueranga Valley for 2000, with December through to March being the peak months. A goal for the Department is to promote the Valley so that facilities such as campgrounds are utilised more evenly throughout the year.



Fee structures are fair and reflect equity between facility and service provided, the experience enjoyed by the user, and costs associated with their operation and maintenance.

Possibly the Valley's greatest asset is the opportunity it provides for outdoor education, with specific emphasis on natural and historic resources. The existing infrastructure - visitor centre, audio visual room, Pinnacles Hut, campgrounds, visitors' house and huts, and associated track systems - already support a reasonable level of use by school groups. Three well-established youth camps in the Valley complement the facilities managed by the Department and all are within close proximity to Thames

Township. The provision of educational services associated with the natural environment and historic heritage would add to an already exceptional regional asset.

The area provides for the identification of robust areas of interest that have the potential to support concessionaire activities with minimal impact on the environment, or the experience of other users.

4.4.5 - Ensure Maximum Visitor Security Possible

It is difficult to fully secure visitor cars, camper vans and tents. A need exists to inform visitors of precautionary steps they can take to reduce the incidence of theft and damage. The introduction of re-locatable security cameras in car parks and campgrounds may be desirable. Liaison and co-operation between agencies (Department of Conservation, Community Board, NZ Police, Tourism Coromandel) is advisable.

4.4.6 - Encourage Signage to the Valley

Signage on major highway routes directing visitors to Peninsula destinations can be improved. The integration of Transit New Zealand and the Automobile Association signage with visitor sites is possible. A greater emphasis should be placed on communicating visitor site facilities present at key road ends and at roadsides.

4.4.7 - Fix a Pricing Structure

National camping area guidelines provide for three charging categories:

(a) serviced campgrounds;

(b) standard; and

(c) informal camping areas.

The Kauaeranga Valley spectrum of camping opportunities reflects national categories. The Strategic Business Plan 1998-2002 schedules a review of visitor facilities and services. It is likely that a review of campground fees will be part of this process.

Factors influencing pricing structure include visitor number increases, expectations, satisfaction and visitor preferences. Other external factors such as the increased use of motor homes may determine the direction of future investment in campgrounds and associated cost structures.

Recreational experience can be influenced by providing appropriate facilities based on the understanding of visitor satisfaction, preferences, motivation and attitudes. An understanding of these factors through targeted research will be useful to decision making and the management of future resources and capacity levels in the Valley.

4.4.8 - Focus the Purpose of the Kauaeranga Visitor Centre

The purpose of the Kauaeranga Valley Visitor Centre is to:

"Provide information for all visitors to increase their awareness and appreciation of New Zealand's natural and historic heritage."

The Visitor Centre provides accurate and high quality information in a manner that is welcoming and in line with the Department's image.

There is the opportunity for professional and innovative presentation of displays and educational programmes, for example the use of video and interactive site displays. Currently the presumption exists that visitors will be more interested in past human activities. While the past should remain an important focus, there may be an additional need to provide information of conservation management actions for the future.

4.4.9 - Have Consistent Design Concepts in the Valley

Implementing Department standards for signs, tracks, structures, campsites, service will result in consistent design concepts. Consistency allows visitors to become familiar with and recognise Department facilities and be assured that similar standards can be expected no matter what part of the country they wish to visit.

It is expected that more consideration will be given to the quality of information that needs to be conveyed to visitors at front country locations.

Objectives

Establish a clear future direction for the Kauaeranga Valley that provides recreational, educational opportunities for visitors consistent with the protection of intrinsic natural and historic heritage.

Optimise public participation in implementing management directions.

Implementation

- Prioritise for the duration of this plan, visitor recreation sites, facilities and services in the Valley to target Department resources and capacity.
- Meet national Department standards for signs, tracks, structures, campsites and services.
- Improve the quality of information provided to visitors by sharing that information with other Conservancies and advise on the content of information disseminated by neighbouring Conservancies.
- Investigate means to provide security for visitor vehicles and belongings at car parks and campgrounds.
- Promote linkages and integration with Tourism Coromandel Peninsula Incorporated and local businesses.
- Review state highway signage to the Valley and, if necessary, seek requirements for the provision of signs on state highways.
- Implement the Kauaeranga Valley Visitor Centre Strategy.
- Involve local organisations, associations and societies, schools, clubs, volunteers where possible and appropriate.

5. Te Whanganui-A-Hei (Cathedral Cove) Marine Reserve

5.1 TE WHANGANUI-A-HEI MARINE RESERVE

5.1.1 - Marine Reserves Act 1971

Te Whanganui-A-Hei Marine Reserve was established in accordance with the Marine Reserves Act 1971 (MRA), the short title of which is:

> *"An Act to provide for the setting up and management of areas of sea and foreshore as marine reserves for the purpose of preserving them in their natural state, as a habitat of marine life for scientific study".*

The Act allow reserves to be established in areas that contain underwater scenery, natural features, or marine life of such distinct quality, or so typical, beautiful or unique that their continued preservation is in the national interest. Marine reserves also provide opportunities for recreation and study.

As administering body, the Department is responsible for the management of marine reserves. Management functions include marking marine boundaries, compliance and law enforcement, issuing scientific permits and monitoring environmental changes.

The Department's Strategic Business Plan requires a review of the scope and purpose of the Marine Reserves Act. The review will make recommendations to the Minister on any necessary amendments to enable the protection of marine areas. The contents of this chapter may be influenced by any future legislative amendments.

5.1.2 - Background

Te Whanganui-A-Hei Marine Reserve was officially established on 20 January 1993. The 1990 report 'Cathedral Cove Marine Reserve Proposal', showed the area to have important values associated with recreation, landscape, physical features, biological features (including coastal vegetation, offshore islands, inter-tidal and sub-tidal habitats), archaeological and historic features. Two other independent assessments reported the proposed site conformed to the criteria set out in the Marine Reserves Act.

In September 1993, the Waikato Conservation Board formed a management committee under section 6N(2)(b) of the Conservation Act 1987 to assist the Department with the management of the marine reserve. Iwi representation on the marine reserve committee enables the infusion of a tangata whenua perspective and gives life to iwi rights granted by the Treaty of Waitangi. If there were no specific iwi representation the Treaty of Waitangi principles confer on the Department the obligation to consult. The intention is to build a relationship with iwi that will enable a two-way free flow of information and provide opportunities for iwi involvement in management.

While the marine reserve proposal did not initially have total support, two reports by the Auckland University Geography Department, in May 1995 and again in March 1997 were similar in their findings. The reports show the principle opposition to the marine reserve centred on restrictions placed on recreational fishers in waters close to their township.

Fears were also expressed that the reserve would adversely affect tourism by either discouraging visits or conversely attracting excessive visitor numbers. The reports determined that the marine reserve is a not a significant factor attracting visitors to the area, rather the majority of visitors are drawn by the scenery, beaches and its peaceful nature.

The reports also found that overall support for the reserve has increased with time and that unacceptable loss of access to safe fishing or other adverse effects have not eventuated. Likewise the anticipated adverse economic effect of the marine reserve on the community has been negligible.

Three years after establishment, the first lobster survey (1996) concluded that although there was no significant difference in numbers within and outside the reserve, the size of lobsters within the reserve was significantly greater. A second lobster survey one year later (1997) found that lobster size and abundance had increased within the reserve, whereas the abundance of lobsters outside the reserve declined. In the same year the first fish survey concluded the overall species richness might be higher in the reserve. Red moki and blue cod in particular were found to be higher in the reserve than adjacent fished areas.

The marine reserve is now well established in the minds of the local community as a necessary measure to protect and enhance representative areas of the marine environment on the Coromandel Peninsula. There remains, however, the need to widen the acceptance of the reserve and its functions to others so that they may also experience a relatively unmodified coastal marine environment in the future.

5.2 LEGAL DESCRIPTION AND CLASSIFICATION

Reserve Name: Te Whanganui-A-Hei (Cathedral Cove)

Legal Description: All that land comprising 840 hectares, more or less, being situated in the South Auckland Land District, being part seabed and part foreshore, and being more particularly shown marked "A" on S.O. Plan 59518 lodged in the office of the Chief Surveyor for the South Auckland Land District.

Classification: Marine Reserve under the Marine Reserves Act 1971.

5.3 THE MARINE RESERVE ENVIRONMENT

The marine reserve (Map 11) is situated on the south eastern extremity of Mercury Bay, specifically extending from the north end of Hahei Beach to 300 metres off the northern point of Mahurangi Island, across to the southern end of Motukorure and south to the most western points of Mussel Rock and Cook Bluff Scenic Reserve. The marine reserve is includes the islands Okorotere, Waikaranga, Poikeke, Motueka and Moturoa. All land above mean high water springs is excluded.

The area was chosen because it:

"Contains a mosaic of reefs and soft sediments that support diverse communities of plants, crustaceans, molluscs and fish. These communities are accessible in sheltered locations and provide opportunities for research and education. Much of the Hahei coastline is cliff, rocky and flat shore platforms with occasional sandy and boulder beaches that provide a variety of inter-tidal habitats - these are all represented in the reserve."

Sub-tidal habitat surveys found high quality kelp forests, rock flats, sponge gardens, red algae assemblages, and sand-flats with locally dense scallop populations. The reserve also contains deep water areas, inshore islands and reefs which create their own pattern of currents and shelter reflected in the mix of surrounding habitats".

5.4 MANAGEMENT PHILOSOPHY

The management objectives in this chapter are consistent with the management philosophy stated in the early pages of this plan. The philosophy is consistent with the provisions of the Marine Reserves Act and the Waikato Conservation Management Strategy. The philosophy adopted involves the primary requirement to preserve natural and historic resources.

Visitor surveys show that the coastal land and seascape values, in particular, the relatively undeveloped nature of the land reserves, are largely responsible in attracting visitors to the area. The ability of future generations to experience and enjoy the marine reserve largely sits with the ability to preserve and conserve the marine environment, the ongoing observance by visitors of marine reserve regulations as well as reducing, where possible, potential effects of 'upstream activities' particularly those generated on land.

5.5 RELATIONSHIP WITH OTHER POLICY AND ACTS

5.5.1 Waikato Conservation Management Strategy (CMS)

The Waikato CMS did not specifically require a conservation management plan for the marine reserve, however, such is the close relationship between adjacent land reserves (see Chapter Three, Coastal Reserves) and the marine reserve, it was determined that the marine reserve be included in this plan. Both the Waikato Conservation Board and the Te Whanganui-A-Hei Marine Reserve Committee support this initiative.

The Waikato CMS has a number of objectives for the marine reserve and the coastal areas between Whitianga Rock and Hot Water Beach. This chapter must implement the following CMS objectives.

Objective 3.7.1, To establish and maintain effective protection of Te Whanganui-A-Hei Marine Reserve and win widespread community support for the reserve.

Objective 3.7.2, To recognise and provide for the recreational value of the area.

Objective 3.7.3, To protect natural, historic and cultural values especially the coastal and marine environment between Whitianga Rock and Hot Water Beach, including Mahurangi Island.

Objective 3.7.4, To use the facilities and attractions of the area as a focus for public education about marine and coastal protection and conservation generally.

Objective 3.7.5, To give effect to the principles of the Treaty of Waitangi.

5.5.2 - Resource Management Act 1991

The purpose of the Act is to:

> *"Promote the sustainable management of natural and physical resources by managing the use, development and protection of natural and physical resources..."*

The Act is administered by local government and is implemented through regional and district plans prepared by councils. The Marine Reserve is shown in the Proposed Waikato Regional Coastal Plan as an area of significant conservation value (ASCV).

Discharges to the coastal marine area (CMA) need to be of a high standard to avoid adverse effects on the near-shore marine environment. The Department will advocate best practice approaches for discharges using the RMA resource consent process. In the first instance, attempts to negotiate durable solutions with applicants will be undertaken.

5.5.3 - Hauraki Gulf Maritime Park

The marine reserve is within the boundary of the Park. The legislation establishes a forum that is responsible for promoting the conservation and sustainable management of the Hauraki Gulf.

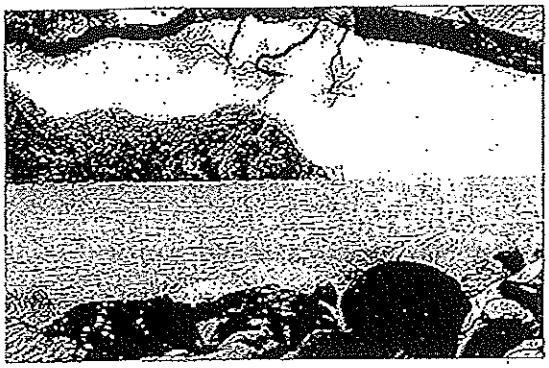
5.6 HISTORIC AND CULTURAL HERITAGE

Ngati Hei are the tangata whenua for the land and sea from Waikawau Bay in the north, to Whangamata in the south, and for the islands of Mercury Bay. Ngati Hei are a legally constituted trust and, with representation on the Hauraki Maori Trust Board, they speak as tangata whenua.

The iwi can trace their origins back to Hei who was on the Te Arawa waka, which sailed with the great fleet to Aotearoa in 1350AD. In tracing their whakapapa the Ngati Hei people are aware that the Hahei vicinity holds many significant ties for them.

On the northward voyage from the Bay of Plenty to Hauraki, Hei selected Te Whanganui-o-Hei (the great Bay of Hei, known as Mercury Bay) to settle his people. To proclaim his 'ownership' of the area, Hei in turn named the second largest and prominent island in Mercury Bay, Te Kuraetanga-o-taku-Ihu, commonly referred today as Motueka or Pigeon Island. Years of persecution from other tribes occurred up until 1835, which resulted in great hardship and loss of life, yet failed to dislodge the Hei people from their tribal lands. Instead, these encounters strengthened their resolve to protect their turangawaewae (the place of their being from which they are inseparable) and to be recognised as the true tangata whenua.

For Ngati Hei, the coast provides nourishment for both body and soul, sustaining the mana that is required for the caring and the protection of taonga. The abundance of kaimoana offered by the many coastal reefs, the titi (northern mutton bird) and other



The Coromandel Coast - of special significance to Hauraki Iwi. Des Williams / DOC photo.

sea birds once prolific on the islands in the bay, combined with a sub-tropical climate, made the area a very desirable location in which to live. The land is rich in history from Maori and European occupation. It is extremely important to Ngati Hei that the mauri of land, sea and air, rivers, lakes and streams, all flora and fauna is protected and nurtured.

Also of great importance is the protection of resources not so easily seen, these being: urupa; waahi tapu; kainga sites; pa sites; midden sites; ancient tracks; fish traps; water acquifers; puna (water springs); inshore and offshore artefacts; any archaeological sites and ancient quarry sites.

It is the intention of Ngati Hei as manawhenua and kaitiaki that the following key principles be maintained:

(a) Restoring damaged ecological systems.

(b) Restoring ecological harmony.

(c) Ensuring and enhancing the use of natural, cultural and historic resources.

(d) Reducing further degradation.

5.7 MANAGEMENT

5.7.1 - Introduction

According to statute, the primary purpose of a marine reserve is to preserve the protected area in its natural state as a habitat of marine life for scientific study. The public is guaranteed free access subject, however, to the primary purpose. The desired outcome is to ensure that the marine ecosystem continues to function exactly as it did prior to human intervention. It would follow that any human use of the protected area would be low.

Few near-shore coastal marine ecosystems are free of wider human intervention or influence. The downstream effects of coastal townships and terrestrial farming practices on the margins of reserves can increase nutrient levels, sedimentation of rivers and harbours and eventual discharge into coastal waters. NIWA field observations and mathematical modelling of current flows (Hickey, 1998) show predominant long shore currents carrying riverine sediments discharged into Mercury Bay, move southward and through Te Whanganui-A-Hei Marine Reserve. The mixing of near-shore water is slow, resulting in higher levels of suspended sediment that pass through the reserve. The effects on marine ecosystem of increased sediment levels and possible settling in the marine reserve have not been quantified.

Hence, the primary focus of management is to ensure that the reserve's ecosystems function as they naturally would in spite of (adverse) human influence.

Permissible activities within the marine reserve such as snorkelling, diving and boating may be sustainable at higher levels so long as they do not interfere with the processes that maintain the ecosystems. There is a requirement to monitor actual and potential effects on the marine reserve, enabling the establishment of appropriate and sustainable levels of activities.

5.7.2 - Iwi and Community Relations

The Te Whanganui-A-Hei Marine Reserve Committee provides a vital link between the Waikato Conservation Board, Iwi and the Hahei community. Its primary function is to provide the Department with local information to aid the management of the reserve.

This function is met by:

(a) Input into the development of a conservation management plan for the reserve; and

(b) Fostering community support for the reserve by advising on:

- Public information and education needs.
- Specific applications to carry out scientific study.
- Compliance and law enforcement.
- Commercial opportunities provided by the reserve.
- The effects of the reserve on adjoining communities.
- Resource consent applications likely to have adverse effect on the reserve.

The committee's functional activities largely implement objectives contained in the Waikato CMS, it responds to requests for information, strives to encourage and win support for the reserve, as well as consider ways to give effect to the principles of the Treaty of Waitangi.

Objectives

Maintain and support a co-operative working relationship with the Te Whanganui-A-Hei Marine Reserve Committee.

Give effect to the principles of the Treaty of Waitangi in the management of the marine reserve.

Promote the involvement and interest of the wider community in the management of the reserve.

Implementation

- Continued representation on, advice to, and administrative support for the Te Whanganui-A-Hei Marine Reserve Committee.
- Consult with, consider and provide opportunities for involvement of the local iwi (Ngati Hei) in management of the marine reserve.
- Provide appropriate interpretation about Ngati Hei customary knowledge and ancestral association with the marine reserve and surrounding waters, while acknowledging that decisions over the use of such information lie with Ngati Hei.
- Consult with and have regard to the interests of the wider community where it shows an interest in the management of the marine reserve.

5.7.3 - Legislative Controls (Compliance and Law Enforcement)

The Marine Reserves Act controls visitor activity within the reserve boundary through existing regulations, via provisions to create new regulations and general management powers of the Director-General. The exercise of the Director-General's powers are considered with regard to the following objectives:

(a) Reserves are maintained so far as possible in a state of nature; and

(b) Reserves are available for the purpose of scientific research.

The Act lists offences that may be committed within reserve boundaries as well as powers of rangers, seizure and forfeiture provisions. Right of access and navigation (other than anchorage and subject to regulations) through or across the reserve are provided for in statute. Regulations can allow the closure of areas within a reserve for purposes of scientific study. Anchorage in cases of emergency is specifically provided for in the Act.

Reckless or blatant disregard of the marine reserve regulations can, in some circumstances, result in immediate adverse effects such as destruction of sensitive areas by anchors, accidental damage by divers, or long-term cumulative effects, such as the removal of marine species.

While the content of the chapter guides the management of the reserve, marine reserve legislation and regulations operate independent of this plan. They are mentioned as a reminder that there are legislative and regulative powers for control over and above the contents of this plan.

Objective

Ensure that the adverse effects of visitor activity within the reserve are minor and of a temporary nature, and that they do not compromise the natural functioning of ecosystems within the reserve.

Implementation

- Monitor the more popular reserve sites, to check for evidence of visitor pressure on sensitive marine communities.
- Advertise Conservation directives to avoid public activity that is likely to have adverse effects on the natural functioning ecosystems within the reserve.
- Consider new regulations where they are needed to preserve the marine reserve environment.
- Operate compliance and law enforcement patrols.
- Undertake habitat mapping and biotic monitoring of the seafloor within the reserve.

5.7.4 - Marine Reserve Boundaries

The global experience is that marine protected area boundaries often reflect political realities as much as they represent marine ecosystems, thus initial ecological boundaries succumb to political realities.

The Department is not advocating a change of the Te Whanganui-A-Hei Marine Reserve physical boundaries, but it must give consideration to the difficulties of protecting marine environments, especially when a political boundary divides singular marine habitats into a protected and unprotected habitat. Reef fish, for example, are subject to by-catch, target species are fished on the periphery using lines and particularly nets, as they move within their habitat and cross from protected to unprotected areas. Benthic species such as blue cod and snapper also suffer from peripheral fishing pressure as they navigate in and out of the protected area.

Local and international scientific monitoring clearly shows that fish densities are low at the periphery of protected marine areas. Studies also indicate that selective species fishing at the edge of marine protected areas may increase density of higher order predators, that in turn may have significant effects on the food web lower order constituents. Obviously there is potential for human induced changes in protected marine areas.

As a conservation agency with statutory responsibility, and to more fully provide protection for species inhabiting the marine reserve, the most appropriate option for the Department is to advocate to recreational and commercial fishermen conservation fishing practices on the periphery of the reserve.

Advocacy measures are not enforceable under any regulatory or legislative requirement, they are self-regulatory conservation practices that the Department would support and encourage. Opportunities or avenues for enhanced protection of particular fish species that frequent the marine reserve, particularly those that would not further deny fishers their rights to take fish outside of the reserve, should be explored.

Marine reserve boundaries that intersect at sea rather than a terrestrial site (an island or the mainland) pose their own management dilemmas. If sea boundaries remain unmarked it is not possible to clearly establish the protected area from the unprotected area. This in turn means a fisher may be unaware of breaching marine reserve regulations and enforcement becomes difficult. To mark 'sea' boundaries a sea buoy is necessary.

Objectives

Local fishers utilising conservation peripheral fishing practices.

Establish where appropriate iwi traditional means to protect important fish habitat or ecosystems.

Clearly indicate the north west sea boundary of the marine reserve.

Implementation

- Investigate and encourage peripheral marine reserve fishing practices that give rise to enhanced fish species conservation without unduly limiting or opposing recreational and commercial fishermen.
- Advocate to fishers and the Ministry of Fisheries the following practices:
  - A requirement that all fishers must be in attendance of their net, and that the net must be withdrawn from the sea when the fisher departs.
  - A maximum time for nets to be in the water.
  - Stipulate a minimum distance that nets may be from shorelines of islands or the mainland.
  - Promote a change of fishing practice away from reef fish to pelagic fish species.
  - Self-imposed limit on the range of species that may be caught.
  - Encourage fishers to move away from placing nets at Mussel Rock and Cook Bluff to north of Mussel rock.
  - Secure a sealite solar powered buoy at the north west sea boundary of the marine reserve (300m north west of Mahurangi Island).

5.7.5 - Scientific Studies

The Marine Reserves Act emphasises the value of marine reserves as areas for scientific study. A provision authorising freedom of access and entry allows the public to enjoy in full measure, the opportunity to study, observe and record marine life in its natural habitat. Nonetheless, such access is subject to impositions and restrictions as may be necessary for the preservation of the marine life, or the welfare in general of the reserve.

Structures, such as moorings or rafts to facilitate research, may necessitate the need for a coastal permit from the Regional Council. The Proposed Regional Coastal Plan permits temporary structures provided they meet conditions stated in the rule. The conditions are:

(a) There is a functional need for location of the structure in the CMA.

(b) The structure shall be removed after use.

(c) The structure shall not be located in any area identified as waahi tapu.

Approval may also be needed from the Maritime Safety Authority that has responsibility for the regulation of surface water activities; prevent and deal with pollution of the sea; and navigational and safety within the coastal marine area. Generally, Marine Reserve Regulations 1993 regulate the conduct of persons as well as providing for scientific study in reserves.

Little or no medium to long term gathering of data has taken place within an area prior to protection being established. The accumulation of such baseline data is rare or non-existent nationally and globally. The collection of baseline data would be beneficial to understanding the long-term effectiveness of marine reserves as a marine environmental protection tool. How the collection of baseline data could fit into the existing process of marine reserve proposals requires consideration.

Avoidance of ad hoc scientific studies in favour of long term defined study objectives will reduce the incidence of unhelpful and non-targeted research.

Objective

Safeguard the natural functioning of the marine reserve from potential adverse effects of scientific study other than those that are of a minor or temporary nature.

Implementation

- Assess all applications for scientific study within the reserve against the Marine Reserve Act 1971, The Marine Reserves Regulations 1993, and against Waikato Conservancy criteria for approval of applications for scientific study within a marine reserve.
- Inform all applicants for scientific study in the marine reserve of the possible requirement to obtain a coastal permit from the regional council.
- Undertake to process to completion (accept or reject) all applications for scientific study within a period of two weeks provided no additional information is sought.
- The Department will provide research topics for both management projects and pure science projects relevant to both local and national issues and perspectives
- Review Conservancy criteria for marine reserve study.

5.7.6 - Monitoring

Monitoring has two purposes. The first is to monitor present states and seek to discern trends or changes in future states of the reserve's ecosystems. The Department monitors specific species that are considered to be the best indicators of the health of the marine environment.

Spiny lobster, snapper and benthic communities are monitored. The health of the marine environment may be determined to some greater or lesser extent by focusing on changes or trends in the abundance, size or community structure of these species. Other factors such as the thresholds or carrying capacities and species condition can be monitored to discern changes in ecosystem health. Alternatively, the monitoring of habitats rather than species may be preferred. Benthic habitat monitoring internal and external of the marine reserve could provide comparative data of changes over time between protected and unprotected areas.

The second purpose for which monitoring could be undertaken is to provide information regarding impacts on externalities on the marine reserve. The potential adverse effects of sedimentation and fishing are considered the main causes of near-shore marine ecosystem change. Monitoring of water temperature, water quality, visibility and sediment levels may provide information to aid marine reserve advocacy.

Sociological studies can detect visitor perceptions. Visitor perceptions are important as they largely determine visitor use of and attitude to the reserve. If perceptions of the reserve are poor, then a similar poor attitude and use is likely to follow.

There is also the opportunity to integrate and/or co-ordinate monitoring with Waikato Regional Council. The Proposed Regional Coastal Plan (section 18.1 Monitoring the State of the CMA) provides a number of variables to be monitored that could be integrated into marine reserve monitoring.

Monitoring in Te Whanganui-A-Hei Marine Reserve must also meet national consistency criteria. The decision of what to monitor, how long, and what methodology, will be made by the Waikato Conservancy of the Department of Conservation in conjunction with the marine reserve committee and scientific advice.

Objectives

Greater knowledge and understanding of the marine reserve environment.

Targeted scientific study undertaken toward benefits for marine reserve management.

Improved information transfer and advocacy regarding the marine reserve.

Implementation

- Develop a monitoring programme that provides information about the overall state of the marine reserve, particularly its environmental health and trends.
- Monitoring programmes will reflect a balanced mix of scientific as well as sociological research.

5.7.7 - Commercial Activity

There are no restrictions on the operation of commercial activities in a marine reserve. Commercial activities (trade, business or occupation on conservation land) are nevertheless subject to:

(a) Waikato Conservation Management Strategy, Procedures for Assessing and Processing Proposed Uses or Activities and their Subsequent Monitoring and Administration (s10.6, Categories B and D).

(b) The general management and offence provisions contained in the Marine Reserves Act 1991.

(c) Particular powers under the Act (s11) allow the Director-General to take steps to ensure the continued welfare of any reserve in the interest of scientific study and for the enjoyment of the reserve by the public. Steps may include restrictions on the number of commercial operators, visitors, or the imposition of conditions necessary to meet the Act's requirements.

(d) Section 24 of the Act enabling regulations to be made to give full effect to the Act and its administration can apply to the control of commercial operations within the marine reserve.

Commercial operators seeking to work within the reserve must be aware of the Marine Reserve Act provisions and regulations. Where regulations are absent, the Director-General may seek voluntary agreements with commercial operators to avoid potential adverse impacts, including cumulative adverse effects. Commercial operators will be expected to add value to, rather than detract from visitor experience.

In seeking voluntary agreements with commercial operators in the marine reserve, the Department would consider those matters in (a)-(d) above. In order to provide a clearer indication of the issues that may be considered for discussion however, the Department will also consider the following matters:

- Safety for snorkelling, swimming and diving;
- Visual effects from the beach:
- Boat size;
- Boat noise;
- Frequency of visits close to shoreline;
- Is operation marine reserve dependent (could it occur elsewhere?);
- Lanes of entry and exit to shoreline;
- Advertisement placement within managed areas:
- User surveys;
- Diesel or petrol smells;
- Other effects on beach users;
- Number of operators, times and destinations within the marine reserve;
- Effects of proposed activity on established scientific study or marine monitoring programmes;
- Other matters considered relevant.

Objectives

All adverse effects of commercial activity within the reserve are avoided, so that the functions of the reserve's ecosystems are preserved and protected.

Raised public awareness and understanding of the marine environment.

Implementation

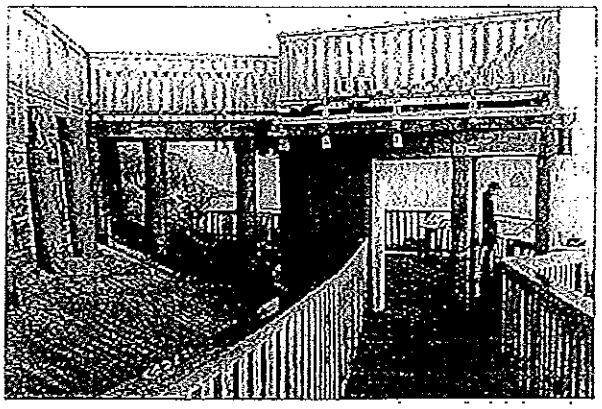
- Consider proposed commercial activities against the Waikato CMS, Marine Reserves Act, regulations, criteria stated in this section and objectives in this plan.
- Establish voluntary agreements with commercial operators to avoid adverse effects on the marine reserve.
- Require as a matter of routine, regular monitoring reports from commercial operators on their activities and changes to the marine environment or adverse effects.
- Where adverse effects on the marine reserve cannot be managed by voluntary agreements, consider the recommendation of new regulations.
- Greater weighting shall be given to those commercial activities that are orientated toward marine environment education and awareness.

5.7.8 - Recreation

The Department had previously commissioned three social impact and attitudes surveys (1994, 1995, and 1997). The surveys show consistently popular visitor recreational activities include fishing, boating and swimming.

Sixty three percent of respondents in the 1997 survey said they formerly fished the waters where the reserve is now located. The majority of these people still fish frequently. Twelve percent of the sample group felt the reserve had adversely restricted their fishing. Boating remains prevalent in the area but not specifically within the reserve. Swimming or snorkelling in the marine reserve off the coastal reserve beaches remains habitual. Diving within the marine reserve is relatively low.

Only one percent of visitors surveyed in 1997 stated the marine reserve influenced their decision to visit the area, whereas scuba diving attracted 10 percent of visitors. The major attractions are the coastal scenery, safe beaches and a non-commercialised atmosphere.



Cathedral Cove kiosk - providing unimpeded views of Te Whanganui-A-Hei Marine Reserve and Hahei Beach. Julie Smith / DOC photo.

Several commercial operators working out of Whitianga regularly visit the reserve (guided sea kayaking; glass bottom boat; scenic jet boat; and an inflatable banana boat). Other boat trips offer snorkelling, diving, fishing and sightseeing, yet few of these operators rank the existence of the marine reserve as a major factor in establishing their business. The survey did reveal these businesses anticipate direct benefit in time, if the expected population growth along with a noticeable increase of marine life occurs.

The Marine Reserves Act guarantees public access to the reserve, although restrictions on public access may be imposed to protect the overriding concern of the welfare of marine life and for scientific study.

On the waters immediately off Cathedral Cove Beach there is potential user conflict between beach and water users. Given that it is the non-commercialised atmosphere and quiet scenic beauty that attracts visitors to the beach, the Department will work towards maintaining that experience. Opportunities for recreational activity in the marine reserve should be encouraged.

Self-regulation and responsible practices by commercial operators can minimise the need for additional regulations. Encouraging dive clubs and dive training centres in teaching and implementing a diver care code can reduce damage to sensitive marine habitats.

Zoning of reserve waters may be considered to manage incompatible recreational activities. Conflict may rise between surface water sports such as sailing, sail boarding, parapenting, swimming, boating, diving, jet skis, and water skiing.

The development of a snorkel trail at Gemstone Bay offers an additional recreational opportunity. Gemstone Bay may need to be zoned and backed by regulation to prevent other uses of the Bay that would put at risk those following the trail.

Objective

Protection of traditional recreational experience of visitors at Cathedral Cove beach.

Recreational use that is compatible with conservation objectives in this plan.

Identified patterns of visitor use and the impact of recreational activities.

Implementation

- Require safe recreational practices relevant to the activity.
- Assess whether recreational activities are marine reserve dependent.
- Use the Te Whanganui-A-Hei Marine Reserve Committee as a vehicle for resolving recreational conflict among recreationalists.
- Provide clear information to the public if zoning of the marine reserve becomes necessary.
- Undertake seafloor mapping of the marine reserve.
- Investigate the need for and placement of a mooring(s) facilitating access to the marine reserve.
- Encourage the introduction of a diver care code promoting environmentally responsible diving practices.
- Implement visitor use-pattern surveys within the marine reserve.
- Develop a snorkel trail at Gemstone Bay.

5.7.9 - Interpretation

Interpretation messages cover specific topics or ideas illustrating a theme (what, where, natural resources present, marine issues and management, visitor use and safety). Messages considered most important are those answering obvious questions that come to mind before, during, or after a visit.

The requirement for interpretation is driven by the need to inform, educate and raise the public level of understanding. Often the public wants and expects a high level of interpretation and educational material. Already the Department has undertaken a number of initiatives to meet this need such as brochures, annual Christmas flyers and a ratepayer newsletter. A folder containing material on the marine reserve is held permanently at the Hahei Library. A marine reserve video may be seen at the Kauaeranga Valley Visitor Centre. Primary signs are installed at boat ramps, marinas, beach frontage and reserves. Secondary signs will be placed at informal boat launching areas and along the marine reserve boundary.

A Cathedral Cove Reserve car park kiosk houses interpretative panels depicting the reserve boundaries, recreational opportunities and restrictions.

Boundary markers are placed at all land boundaries of the reserve with an additional solar panel lighted buoy at the seaward boundary north of Mahurangi Island.

In addition, an information package consisting of general information, habitats and fauna has been disseminated to schools, information centres and dive clubs. Department patrols on the water inform boaties of regulations, boundaries and features of the reserve.

Other countries have installed underwater cameras in marine reserves. Feedback linkages to a central point, usually a visitor centre, allows the public to enter the marine environment without getting wet. Visitors can then begin to identify habitats and species on screen with the help of marine posters or booklets. While the technology is available, hurdles to this kind of technology are costs and security of submerged video cameras and necessary feedback linkages and computer hardware. Such an interpretation and educational approach would benefit from sponsorship.

Computers may also be used for interpretation purposes, allowing visitors to access general and specific information about the reserve, for example, on the Department's Internet site or an interactive marine educational programme.

Objectives

The Te Whanganui-A-Hei Marine Reserve is well interpreted.

Visitors are informed of permitted activities and regulations within the marine reserve.

Implementation

- Continue the annual distribution of information flyers to residents immediately prior to the Christmas holiday period.
- Consider expansion of marine reserve information throughout the area.
- Investigate sponsorship of future interpretation possibilities.
- Survey public interpretation requirements and make changes to interpretation methodologies or content where appropriate.
- Investigate and consider the development and implementation of marine environment school programmes to run at the Kauaeranga Visitor Centre, including a short marine reserve interpretative video.
- Develop and implement an interpretation/educational plan, which should be reviewed annually.

6. Islands

6.1 OVERVIEW

The purpose of this chapter is to provide an overall framework to guide island management. Rather than set goals/aims and objectives for each island or island group, this chapter endeavours to provide a process that will enable more targeted island management plans to be developed in some order of priority. It will provide an impetus to set criteria for prioritisation within and between islands or island groups, which will eventually see the update of existing plans or the development of specific management plans for individual islands or groups of islands.

The Department's Strategic Business Plan places a high priority on offshore islands and sets targets that focus on the elimination of introduced weed and animal pests from islands and for their subsequent restoration. The New Zealand Biodiversity Strategy identifies the need to restore a wider range of natural habitats and ecosystems through restoration programmes on protected offshore islands and mainland sites. Restoration of islands is seen as a practical means of slowing the rate of decline of biological diversity.

Experienced island managers agree that a good approach to island restoration does not necessarily require the re-instatement of ecological communities that existed prior to human influence. It is not always possible or desirable to restore what once existed on islands for several reasons:

- Information of past biological communities may not be known.
- Loss of species through extinction can never be regained.
- Past biological systems were never static; and
- There is no reason why indigenous biological communities lost only a few years ago should have less value than one lost in earlier times.

This approach to island restoration along with the increasing ability to remove pests from islands and the relative freedom from major human disturbance, allows latitude in the biotic composition of communities restored. Moreover, it provides greater opportunities to push restorative processes towards a former state.

Fundamentally, the decision on what is restored will depend on value judgements, although scientific analysis can help identify communities worthy of restoration. Nevertheless, what is restored should not be outside the bounds of normal dynamic processes of communities and ecosystems.

6.2 ISLAND CLASSIFICATION

6.2.1 - Classifications

Taking advantage of opportunities provided by islands to restore habitats and ecosystems requires clearly defined restoration [management] goals (Atkinson 1990). The Waikato Conservancy endorses those island restoration classifications suggested by Towns, Atkinson and Daugherty (1990). Each category reflects the way an island is to be managed. The categories are functionally based which differ in their primary

objectives but overlap to some extent. A primary objective of one category may be a compatible second objective in another. The classifications are not water tight, rather they cover a spectrum of conservation use. Classification is a first cut approach to island management. While each island has its individuality, a classification based on use and the degree of protection needed is necessary for long term management planning. Previously all islands within the Hauraki Gulf had been classified under the now defunct Hauraki Gulf Maritime Park Act of 1967. For the purposes of this management plan the island classification developed by Towns, Atkinson and Dougherty is followed.

Minimum Impact Islands include those with plant or animal species endemic to them, with very fragile biotic systems or with relatively unmodified systems. The primary aim of management is to minimise human interference.

Refuge Islands include a majority of New Zealand's nature reserves that protect not only common lowland and coastal plants and animals, but also provide refuge for many relict mainland species. It may sometimes be necessary to use some refuge islands to ensure survival of mainland species not originally present on the island.

Restoration Islands are a minority group because restoration is a labour intensive activity and is only appropriate where natural restorative processes cannot be expected to secure the future of threatened species and communities. The level of public involvement with restoration on such islands would vary widely according to ease of access and vulnerability of the restored communities to human use. With skilful interpretation it will lead to a broader appreciation of the value of nature conservation.

Open Sanctuary Islands are also a minority group because they combine extensive programmes of public interpretation of the New Zealand biota with labour intensive species; specific management of plants and animals, including those threatened by extinction or destruction.

Multiple-Use Islands are those with some conservation function but it is secondary to other uses such as farming, forestry or recreation. Farm parks and many privately owned islands could be included here.

Islands	Legal Status
Repanga Island (Cuvier)	Nature Reserve
Mercury Islands Group -	
Atiu (Middle)	Scenic Reserve/Wildlife Santuary
Green	Scenic Reserve/Wildlife Sanctuary
Korapuki	Scenic Reserve/Wildlife Sanctuary
Moturehu (Double)	Nature Reserve
Whakau (Red Mercury)	Scenic Reserve/Wildlife Sanctuary
Kawhitu (Stanley)	Nature Reserve
(Note: Ahuahu or Great Mercury Island is privately owned and is not covered by this plan);	
Aldermen Islands Group -	
Hongiora	Nature Reserve
Middle	Nature Reserve
Ngahoro	Nature Reserve
Ruamahuaiti	Nature Reserve/Wildlife Sanctuary Reserve
Ruamahuanui	Nature Reserve
Motutapere	Scenic Reserve
Rabbit	Stewardship Land
Mahurangi	Recreation Reserve

Table Four: Islands Administered by the Department of Conservation.

6.2.2 - Island Administration and Classification

Islands administered by the Department of Conservation are shown in Table Four (see also Map 12). The islands Motukoranga and Motukorenga and the Whangamata Islands of Hauturu, Whenuakura and Rawengaiti are either privately owned or managed by mutual arrangement between the owners and the Department. The latter two islands, although privately owned, have an underlying status of Wildlife Sanctuary. All other islands off the Coromandel coast are not subject to this management plan, however the Department staff will be made available for consultation should any island owners wish to protect conservation values on their islands.

6.3 WAIKATO CONSERVATION MANAGEMENT STRATEGY (CMS)

6.3.1 - CMS Objectives

The Waikato CMS (section 3.6) sets out objectives for islands administered by the Department. The objectives remain central to the purpose of this plan.

Objective 3.6.1: to preserve and enhance the outstanding ecological values of the islands.

Objective 3.6.2: to create a refuge for threatened mainland species formerly present within the Mercury Island Ecological District on Stanley (Kawhitu) Island, Red Mercury (Whakau) and Cuvier (Repanga) Islands (and possibly Great Mercury (Ahuahu) Island and any other suitable privately or Maori owned islands, should this be acceptable to the owners).

Objective 3.6.3: to protect historic and cultural resources on land administered by the Department and advocate their protection elsewhere.

Objective 3.6.4: to foster public knowledge and understanding about, and support for island protection.

3.6.5: to investigate and, if appropriate, seek marine protection for an area of marine environment associated with the Mercury and/or Aldermen (Ruamahua) Islands.

3.6.6: to give effect to the principles of the Treaty of Waitangi.

6.4 ISLANDS AND ISLAND GROUP DESCRIPTION

6.4.1 - Cuvier (Repanga) Island

Cuvier is the oldest and most isolated of the islands in the Hauraki Gulf-Coromandel area. The closest land is Great Mercury Island 16 km to the south south-west.

There has been little research into Maori tradition relating to the island, however the first arrivals are thought to have either made landfall on the way from Hawaiki or to have visited Cuvier soon after. Archaeological information enables tentative conclusions to be drawn about Maori occupation. One conclusion is that the number and aggregate area of terraces (presumably for house sites) and large storage pits, suggests a moderate and/or sustained occupation of the island.

European history of Cuvier largely surrounds the building and manning of a lighthouse and a World War II radio station, and by all accounts a history of isolation, storms and

technological changes. The Government acquired 49 ha in 1884 for the purpose of building a lighthouse, and by September 1889 lighthouse operation had commenced. Accommodation and ancillary buildings, wharf and tramway were also constructed. The lighthouse was eventually fully automated (solar powered) in March 1982.

Red Mercury Island enclosure for captive breeding of Middle Island tusked weta.
Des Williams / DOC photo.

The Department presently maintains one lighthouse keeper house, a generator shed plus a large storage shed. Some preservation work has been done on the tramway. Maintenance of the radar station barracks and generator shed has also taken place. Future work is likely to include the restoration of two 20-metre steel radio direction finder beacon masts.

Cuvier Island and thirteen associated stacks and rocks are deemed to be kiore free since 1993. The last cats and feral goats (apparently intentionally released soon after the lighthouse began operation) were removed over thirty years ago.

Botanical composition of the present forest and widespread distribution of charcoal indicates the original forest had been all but completely destroyed by Maori (either intentionally or by accidental spread of fire), but not all at the same time. The coastal forest was also intensively browsed by domestic livestock (lighthouse keeper's milking goats, cows and sheep) and feral goats.

About 90 ha (53%) of the island is presently covered in regenerated forest which is dominated by pohutukawa (100-200 years old). Flax, bracken, manuka or kikuyu grass now covers formerly cleared areas. Sedges, bracken and rengarenga dominate the steep coastal slopes. Tuatara, six species of lizards and about twenty bird species are found on the Island. Potential threats to ecological values can arise from the accidental or intentional introduction of mammals, invertebrates and weeds.

6.4.2 - Mercury Island Group

The Mercury islands are volcanic land bridge islands, once joined to the mainland during the last ice age, but were separated by rising sea levels between 10,000 and 8500 years ago. Much of typical lowland mainland flora and fauna would initially have been present on these islands. The predator and wild animal status of individual islands are provided in Table Five.

The most dramatic change for the larger islands occurred with the arrival of humans about 1000 years ago. Archaeological evidence and location suggests that it was a major population centre for Maori until about 1820, having departed after a disastrous fire or decimated by tribal wars. By the nineteenth century Pacific rats would also have been established on the larger islands. Periodic burning to ease access for mutton-birding would have destroyed much of the original vegetation. All the islands in fact, have been adversely impacted by fire.

Middle and Green Islands have remained relatively unmodified and free of all introduced mammalian predators and rodents. Middle Island in particular is a biological treasure with a high density of burrowing seabirds, Tuatara, the Middle Island Tusked weta, ten species of lizards and a unique milk tree forest. Green Island has seven species of lizards and the largest known population of Suter's skink. Because of the species that have survived here, these islands can be used to help reconstruct ecosystems elsewhere in the Mercury group of islands.

Islands	Area (Ha)	Stacks (Ha)	Area	Mammal Pests
Green	2.3	Stack A	.15	Both (H) Free
Middle (Atiu)	13.2			(H) Free
Unnamed islet NW of Stanley				(H) Free
		Stack east of Double Island	.55	(H) Free
Korapuki	17.5			Kiore & rabbits removed 1986 & 1987, now free.
		Korapuki Stack A	.28	(H) Free
Double (Moturehu)	32.5			Kiore removed 1989 now free. Unknown
		Moturehu Stack A	.12	Unknown
Red Mercury (Whakau)	225			Kiore removed 1993, now free.
		Tokaroa Rock	.35	Free
		Richard's Rock	-	Unknown presumed free.
Stanley (Kawhitu or Atiu)	100			Kiore & rabbits removed 1991, now free.
		Stanley Stack A	.2	Kiore removed 1991, now free.
		Stack B	.36	Unknown
Great Mercury (Ahuahu)	1860			Cats, ship rat & kiore, very few goats.
Privately owned Associated islets				
Motuwharangi	1.8			Unknown
Motukaha	1.3			Unknown
Moturoa rock	1.7			Unknown
		Numerous rocks and stacks	<1.0	Unknown

Table Five: *Mercury Island Group Predator/Wild Animal Status*

Source: Coromandel Wild Animal Management Plan 1997-2006. (H) = Historically

With the eradication of kiore in 1986 and rabbits in 1987, Korapuki Island is now considered free of introduced species. This enabled the translocation of the rare Whitaker's skink from Middle to Korapuki in 1988. Previously, the small island's biological communities suffered severe impact from the presence of rats and rabbits and burning during the 1930s.

Forest dwelling species of lizards and the tuatara were apparently eliminated via rat predation and habitat destruction. For the same reason the invertebrate communities of the forest litter are severely depleted. The direct impact of rodents and rabbits on the vegetation has a number of indirect consequences. Seedling density is low and browsing has prevented regeneration, while litter was prone to drying rapidly, further reducing decomposer density.

Table Six: *Management undertaken on islands within the Mercury Island Group*

Location (area)	Vegetation cover	Significant fauna	Previous modification	Mammals removed	Prominent exotic species remaining	Remedial activities undertaken	Remedial activities proposed
Green Island (3 ha)	Coastal broadleaf scrub and forest, including wharangi, mahoe milktree and karo.	Dense burrowing seabirds, tuatara and seven species of lizards.	None known.	None present.	European starlings.	Periodic weed control (boxthorn); permanent bait stations (rodents).	No change.
Middle Island (13 ha)	Coastal broadleaf scrub and forest, including wharangi, mahoe milktree and karo.	Large, flightless orthopteran (tusked weta); dense burrowing seabirds, tuatara and ten species of lizards.	Charcoal in soils indicates at least one localised fire.	None present.	Inkweed (primary colonisation only), European starlings (large roosts).	Permanent baits stations (rodents).	No change.
Korapuki Island (18 ha)	Pohutukawa canopy over broadleaf (mahoe) subcanopy and flax.	Scattered burrowing seabirds; subfossil tuatara and five species of lizards.	Maori garden sites and pits; all forest cover removed by burning; kiore; rabbits.	Kiore (1986), rabbits (1987).	Increased abundance of starlings and spread of annual weeds e.g inkweed, nightshade after mammals removed	Permanent bait stations (rodents); release of marbled skink (1992-1993), robust skink (1992-1993), Suter's skink (1992), Whitaker's skink (1988-90), tree weta (1997), darkling beetle (2000).	Release of Pacific gecko, *Cambridgea* spider, ground weta, tusked weta, tuatara.
Double Island (33 ha)	Coastal broadleaf forest with rare milktree.	Scattered burrowing seabirds, but locally dense populations of Pycroft's petrel, six species of lizards.	Probable past forest removal for gardening; Maori garden sites.	Kiore (1989).	Pampas?	Permanent bait stations (rodents); release of tusked weta (2000).	Release of marbled skink, robust skink, Whitaker's skink, tuatara.
Stanley Island (100 ha)	Pohutukawa canopy and extensive broadleaf (mahoe) with remnant tall broadleaf/hardwood	Scattered burrowing seabirds, but locally dense populations of	Maori habitation sites and pits; almost all forest cover removed by burning; kiore;	Kiore and rabbits (1991).	Pampas	Permanent bait stations; release of saddleback (1977; pre-date mammal eradications), robust	Supplementation of tuatara (captive breeding); release of tusked weta; weed control

	forest and rare milktree.	Pycroft's petrel; relict tuatara (<20) and five species of lizards.	rabbits.			skink, Whitaker's skink (1995), return of adult tuatara (2000).	
Red Mercury Island (225 ha)	Pohutukawa and regenerating coastal broadleaf forest, with remnant tall broadleaf /hardwood forest.	Scattered burrowing seabirds, but locally dense populations of Pycroft's petrel; relict tuatara (<20) and five species of lizards.	Maori habitation sites; extensive burning in 1934; kiore.	Kiore (1992).	Hakea, boxthorn, pampas	Permanent bait stations; release of saddleback (1966), little spotted kiwi (1983) (pre-date mammal eradications); robust skink, Whitaker's skink (1994-1995); supplementation of tuatara by captive breeding (1996); tusked weta (2000)	Weed control

Tuatara are found on Middle, Red Mercury and Stanley Islands but populations are on the verge of extinction. Again free of introduced pest species the little spotted kiwi and saddleback have been successfully re-introduced to Red Mercury. Double Island is also free of introduced mammals and predators. Whitaker's and Robust skinks were re-introduced to both Red Mercury and Stanley Islands in 1995/6.

Potential threats to these islands include deliberate or accidental introduction of rats and mice from visiting boats. There is also the potential for castaway rodents to arrive on driftwood or flotsam from Great Mercury - the closest island. For this reason, it has been argued that any approach to proposing a conservation strategy for the Mercury group of islands must include Great Mercury Island, even though it is privately owned.

The closeness of Great Mercury will affect any restorative programmes on other islands, particularly Middle and Green Islands. If stoats, for example, were ever released on to Great Mercury, other islands in the group would be accessible to stoats. Biological diversity would be at risk should rodents successfully invade these islands.

Management actions undertaken on islands within the Mercury Island Group are given in Table Six (pages 78-79).

6.4.3 - Aldermen Island Group

In 1970 the Maori Owners of the Aldermen Islands (Ngati Hei, Ngati Hako and Marutuahu), gifted the islands to the Crown. As part of the terms of gifting, mutton-birding for grey-faced petrels by the original owners continues.

Archaeological evidence of early human influence on these islands, (terraces, platforms, stone walls and middens and the absence of middens and terraces on Hongiora, which has the best water supply of all the islands within this group), and the shortage of good cultivable land, suggests only seasonal occupation.

Islands	Area (ha)	Stacks	Area (ha)	Mammal Pests
Ngahoro	3.35			(H) Free
The Spire	2.15			(H) Free
Half Island	1.56	Stack A	.12	Both H Free
Big Hump	1.25			(H) Free
Island north of Ruamahuanui	1.65			(H) Free
Ruamahuanui	32.5	Stack A	.28	Both (H) Free
Ruamahuaiti	25.			Pigs in 19C now gone, (H) predator free
Ruamahuaiti		Stack A	.4	(H) Free
Ruamahuaiti		Stack B	.12	(H) Free
Ruamahuaiti		Stack C	.18	(H) Free
Hongiora	16.25			(H) Free
Middle Chain	23.12			Kiore eradicated in 1993, now free.
		Middle Stacks: A-E Little Hump	 <.5 <.1	 Presumed free Free
		Stacks north of Middle Chain: A B	 .65 .25	 (H) Free (H) Free

Table Seven: *Aldermen Island Group: Predator/Wild Animal Status*

Source: Coromandel Wild Animal Management Plan 1997-2006. (H) = Historically

Occupation probably coincided with the breeding seasons of the grey-faced and white-faced petrels (when an almost continuous supply of fledglings birds would be available from November to February) and the abundance of deep-sea fish which are found near shore at this time of the year.

While the Aldermen Islands appear to have been regularly visited the major differences with other islands are to be seen in the short duration of occupation and the inferred low population. The restricted nature and abundance of flora and fauna and the scarcity of fresh water in the height of summer appears to have precluded sustained settlement. Seasonal occupation of the Aldermen Islands means that, of all the offshore islands, these have largely escaped modification by humans, although burning of vegetation (mid-nineteenth century to 1935) on some of the islands had occurred. As a result, individual island's vegetation composition and distribution have been altered to a greater or lesser extent.

One survey reports the presence of about one hundred different species of plants including rare species. The absence of browsing animals would have markedly reduced any further stress while individual island's flora and vegetation are regenerating at different rates, reflecting the differing times fires occurred. Individual islands predator and wild animal status are provided in Table Six.

6.4.4 - Motutapere Island

The small island of Motutapere (45 ha) lies off the west coast of the Coromandel Peninsula. Possum were eradicated in 1994 along with ship rats and mice. The presence or absence of other predators on the island has not been confirmed, although it is possible that cats and stoats may have been present.

The island is almost completely covered in regenerating forest after a large fire destroyed much of the cover about 50-70 years ago. A small area of remnant forest can be found in the southwest. The Mahoenui Giant weta was introduced in 1997.

The closest farmed island - Whanganui - lies only 450m east, within the swimming distance of stoats and possibly Norway and ship rats. However the invasion or re-invasion is considered an unlikely event. Mitigation measures can be taken to reduce this risk further. These include bait stations along the adjacent coastline of both Whanganui and Motutapere Islands.

6.4.5 - Rabbit Island

Rabbit Island (3.12 ha) lies north of Opito Point at the southern end of Opito Bay. There are three associated rocks for which there is no animal pest information.

Animal pest information for the island is limited. Kiore and ship rats may be present but unconfirmed. The presence or absence of rodents, reptiles and invertebrates is unknown.

The island is highly modified by past human use, including fire. There is some regenerating pohutukawa along the coastline. Flax, coprosmas, cabbage trees and tree ferns are also present.

If there are remaining reptiles and invertebrates on the island they are potentially threatened by kiore and possibly ship rats. The island is also within swimming distance for stoats and Norway rats from the mainland. Again the potential for introduction or re-introduction of rodents from visiting boats always exists.

6.4.6 - Mahurangi Island

Immediately offshore from Hahei Beach lies Mahurangi Island (21.3 ha). The island (once farmed) is highly modified and is now deemed to be free of rodents. The last goat was removed from the island in 1915. Norway rats were present but appear to have died out. Similar to other islands, Mahurangi is within the swimming range of stoats from the mainland.

The island is regenerating, some pohutukawa are present on the cliffs. Some grassland remains although a considerable area of the island is covered in gorse, which has provided habitat for the transfer to the island of the Giant Mahoenui weta.

A re-vegetation strategy commissioned in 1994 set out work to meet the primary objective - the enhancement of the island's natural character (past botanical characteristics). Planting was also to reflect potential recreation usage and threatened species habitat. The work outlined in the strategy complements an extensive planting programme undertaken by the Department of Lands and Survey in the late 1980s. These plantings have established successfully and some are now self-seeding.

6.5 MANAGEMENT

6.5.1 - Island Management Approach

Formerly, the Department considered three themes to guide island management, biodiversity, history and people. Since then the Department's Strategic Business Plan, the national Biodiversity Strategy and the Visitor Strategy confirm as the primary objective the requirement to conserve and protect intrinsic natural and historic values. Nevertheless, history and people themes remain important.

History and people are assessed in terms of positive and negative effects on biodiversity. The level and frequency of historic impact on islands through forest clearance, fire, storm events, human habitation, customary use and so forth will in part determine the level of protection required and will also govern the ability of an island to accommodate visitors. Some islands or island sites are so important because of their natural and/or historic values that visitor access should be controlled or even denied.

6.5.2 Achieving Island Management

Several steps (Diagram 1) need to be taken to implement the above approach.

Step 1: Requires identification of Department administered islands (Table 4).

Step 2: Classification of administered islands using the system developed by Atkinson, while also having regard to their Reserves Act 1977 gazetted classification.

Step 3: Decide the order of development of island management plans. Prioritisation criteria will need to be developed to ascertain which island or island group takes priority. The three themes of biodiversity, history and people should be reflected in the criteria. Each plan will contain at least a vision statement, objectives, management actions and timetable of stated actions.

Step 4: When two or more plans have been developed, prioritisation of actions between management plans must be considered.

Step 5: Timetable prioritised actions.

Step 6: Enter prioritised actions into annual business plan.

Biodiversity will be the primary theme of island management plans, but where an island classification allows an element of visitor acceptability a further four points are distinguished as being important in managing public use.

Interpretation

Island educational activities may be developed by the Department or managed via concessionaires. If the Department is to develop interpretation material then a commitment to finding resources and capacity must be considered. If activities are provided as part of a concession then the Department can retain a satisfactory level of control over how concessions are operated.

Managing Traditional Use

Iwi will continue to want access to and use of traditional resources. Guidance can be found in the Department's Strategic Business Plan and Kaupapa Atawhai Strategy. Recreation and interpretation activity can be controlled to prevent conflict with traditional access and use. Joint agreement between the Department and concessionaires can provide an effective tool for managing potential conflicts.

Social Research and Monitoring

Social research is necessary firstly to investigate the capability of the site to enable various levels of use without unacceptable adverse effects on the island environment and management regime, and secondly to determine the level of demand for particular forms of use. Once activities have begun operation monitoring is necessary to confirm levels of use and effects as well as visitor satisfaction.

Recreational Use/Commercial Opportunities

Planning for island recreational and interpretive use must be based on regional demands as well as the suitability of parts of islands or island groups. Private concessionaires or particular robust islands for example, might be encouraged to absorb the majority of use allowing areas of high conservation values to remain undisturbed.

6.6 CRITERIA FOR PRIORITISING ISLAND MANAGEMENT PLANS

6.6.1 - Criteria

Criteria are needed to fulfil the approach and management directions stipulated above. The criteria should be applied to each island or, where appropriate, an island group. Current available information associated with each criterion should be used.

The application of criteria need only be applied once for prioritisation purposes, however the information gained from this process should provide material to guide management objectives and actions in specific island management plans as they are developed.

1. Protected Natural Area Programme (PNAP) or Fauna Survey Ranking criteria.

2. Waikato Historic Resources Inventory.

3. Recreational Opportunity Spectrum (ROS).

4. Wild Animal Management Plan island plan objectives and implementation actions.

Once criteria have been applied, the decision to prioritise the development of management plans should be made. There may also be a need to confirm or alter the initial island classification given the outcome of the prioritisation.

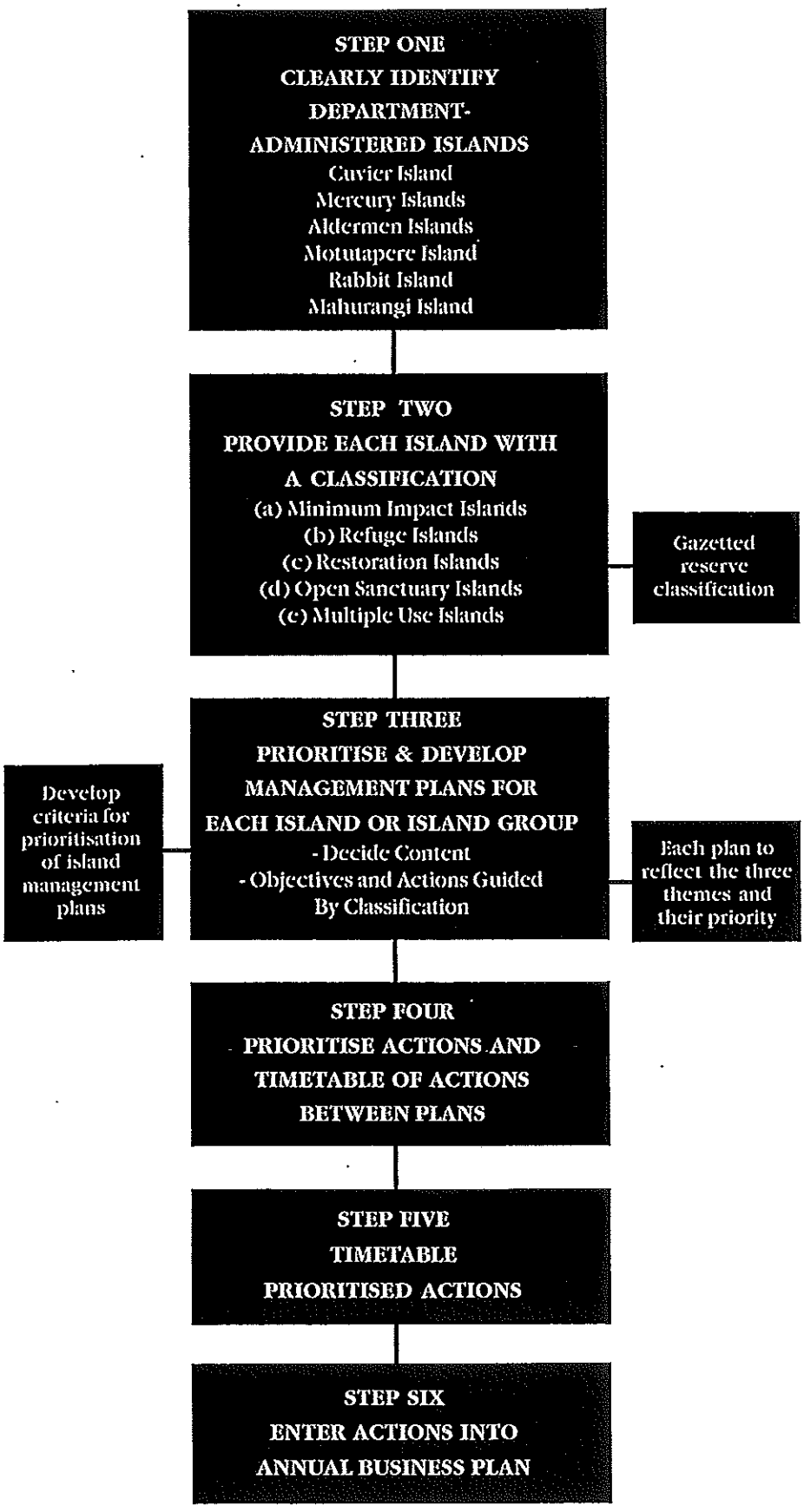


Diagram 1: Process for Island Management

Notes

Maps

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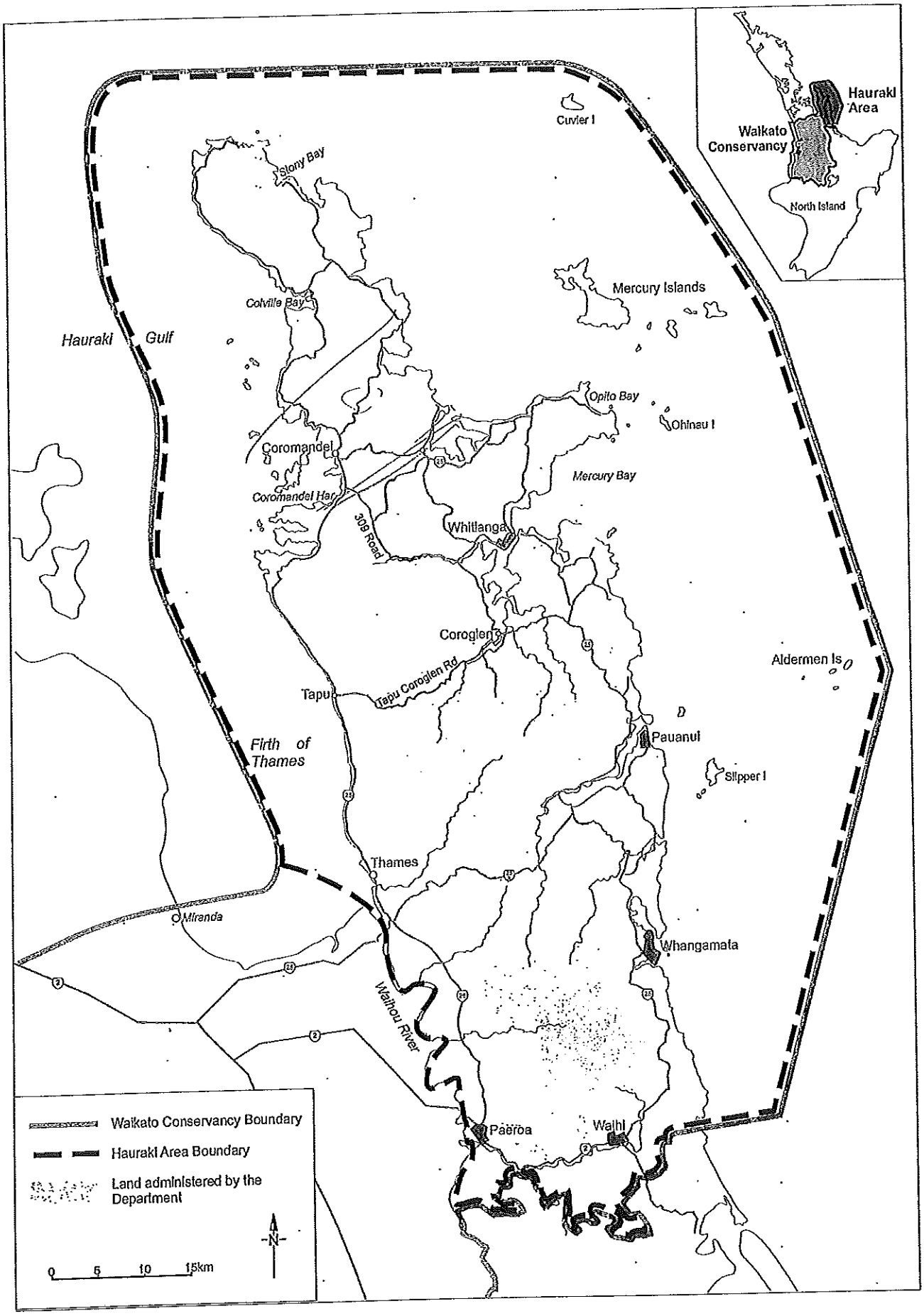
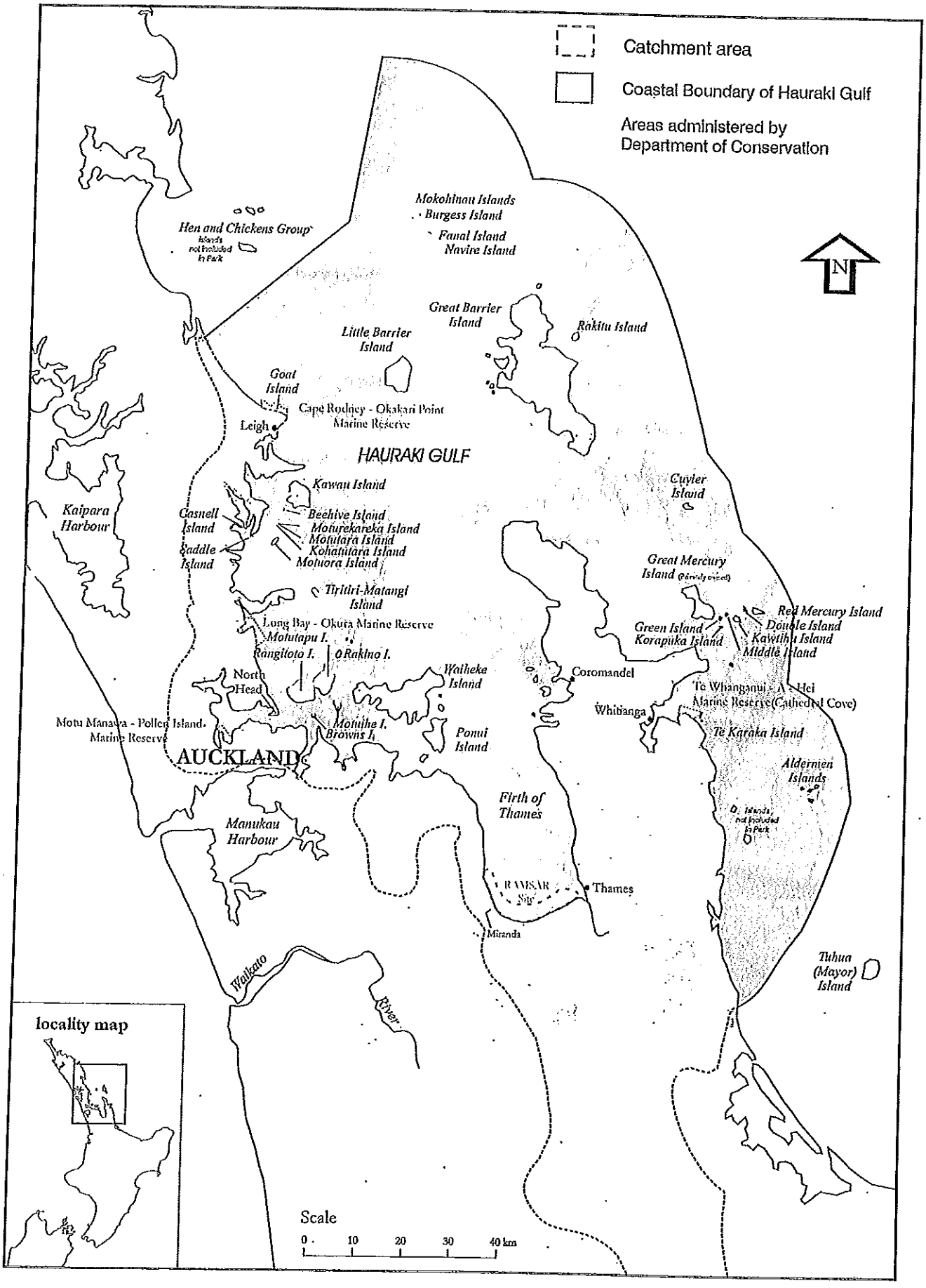
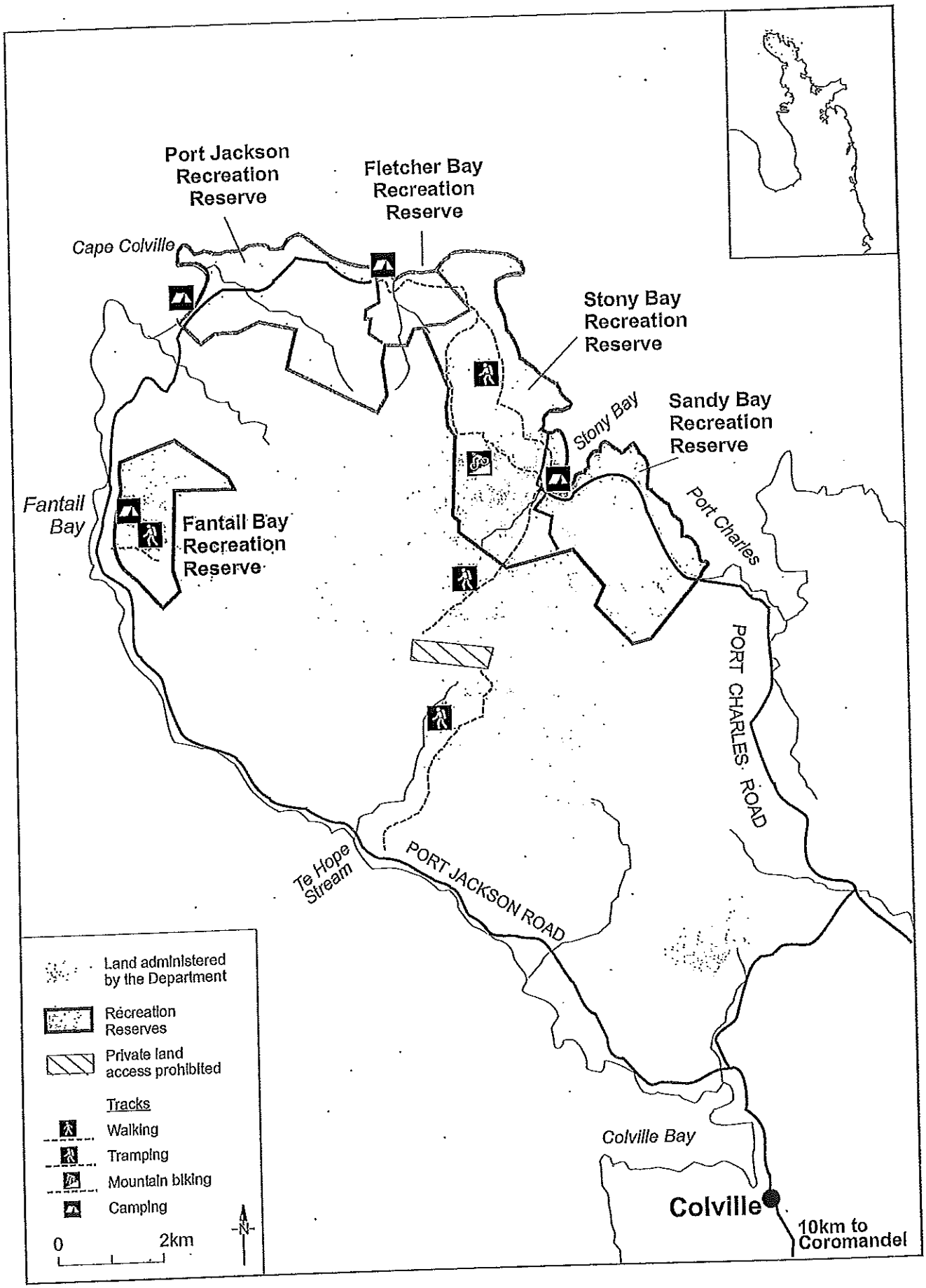
Map 1 : Hauraki Area



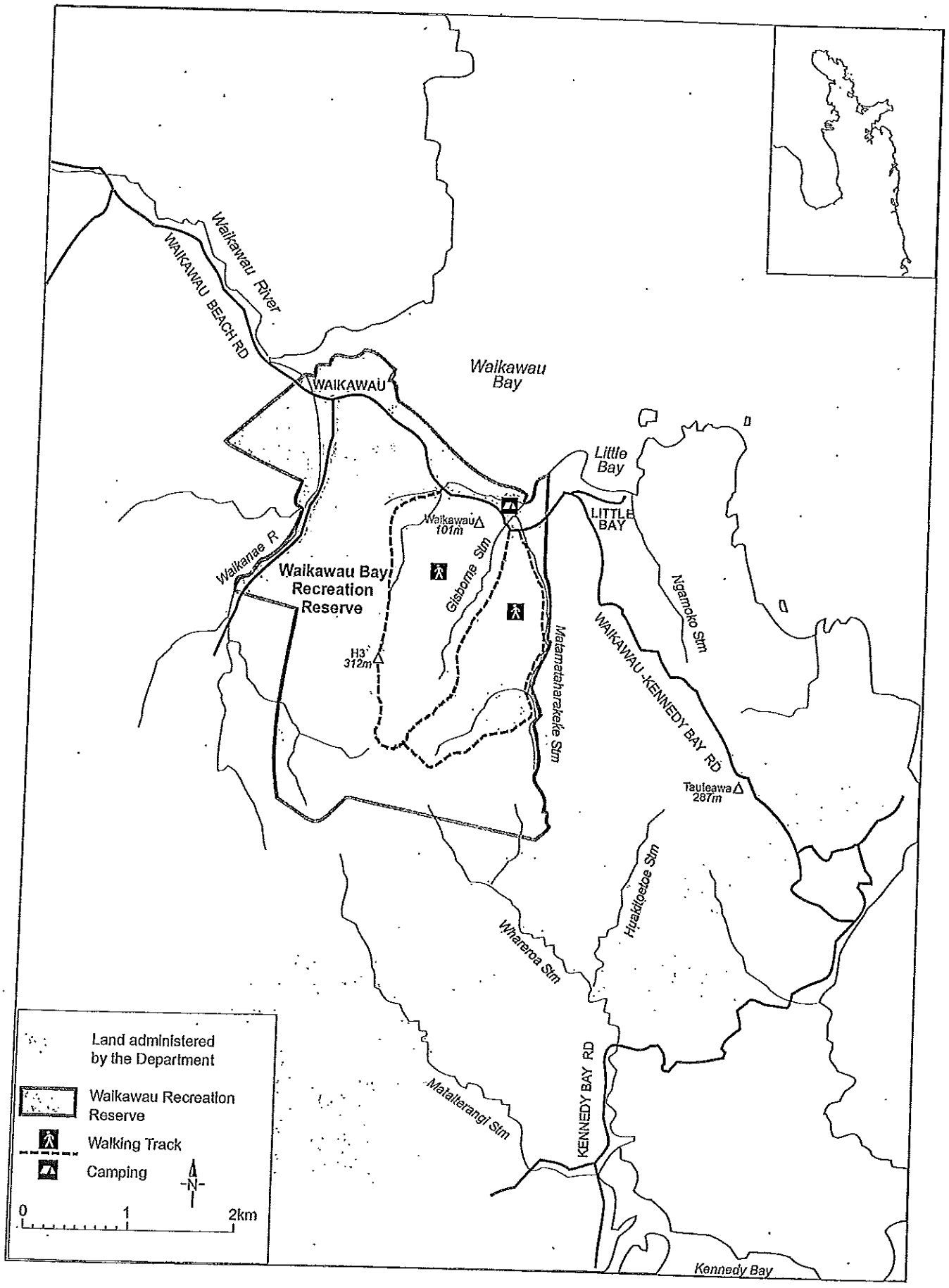
Map 2 : Hauraki Gulf Marine Park



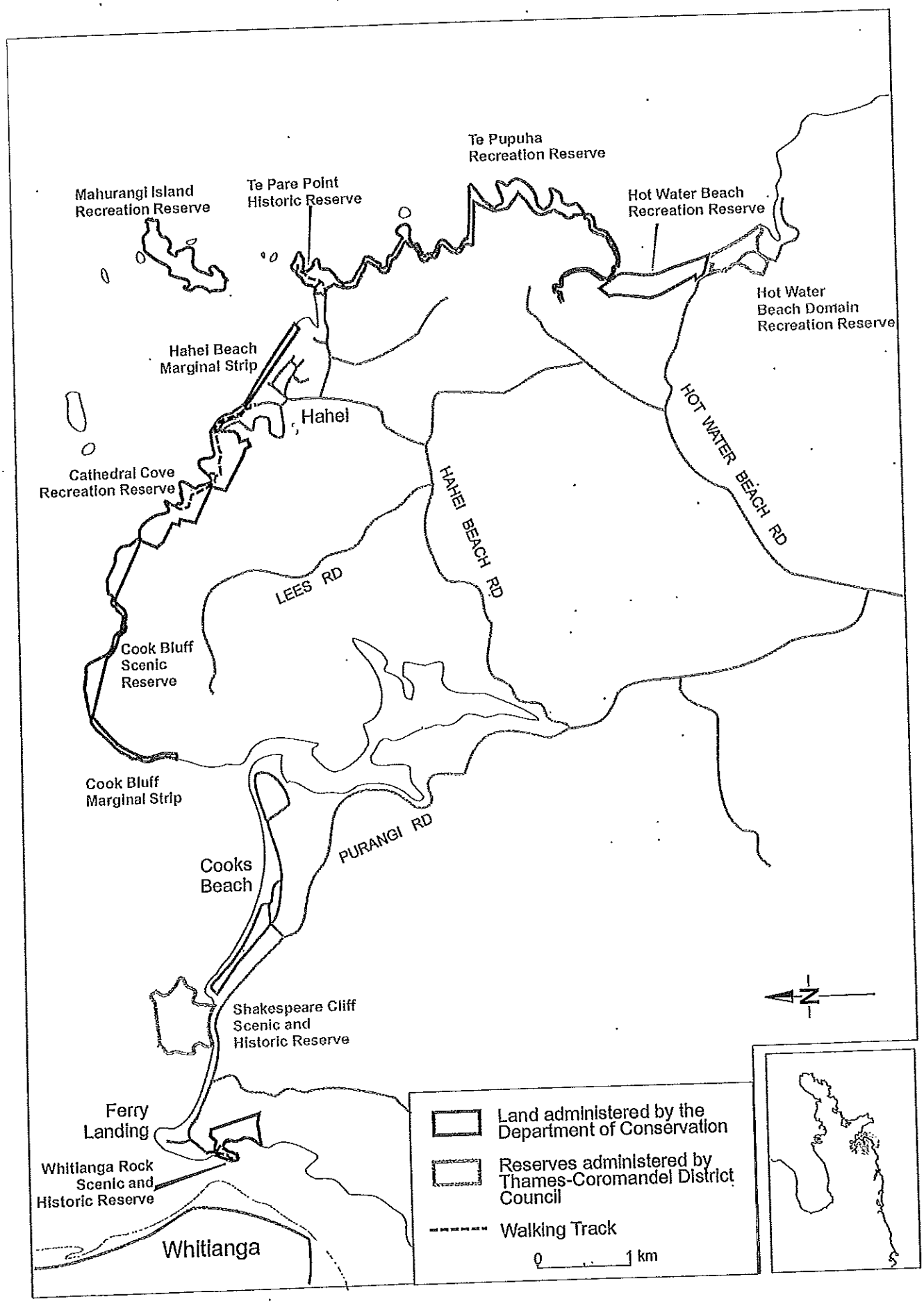
Map 3 : Cape Colville Visitor Management Zone



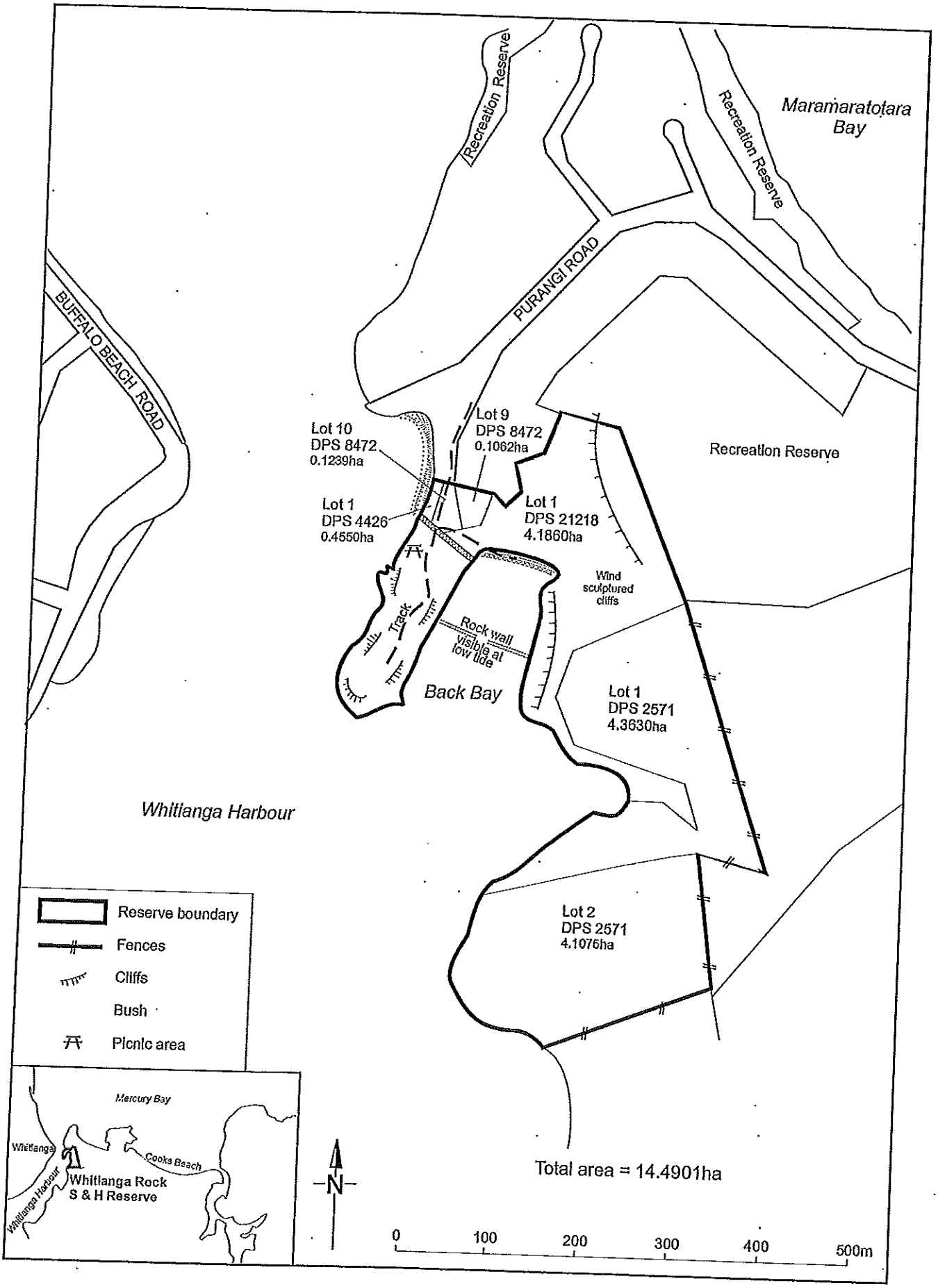
Map 4 : Waikawau Bay Visitor Management Zone



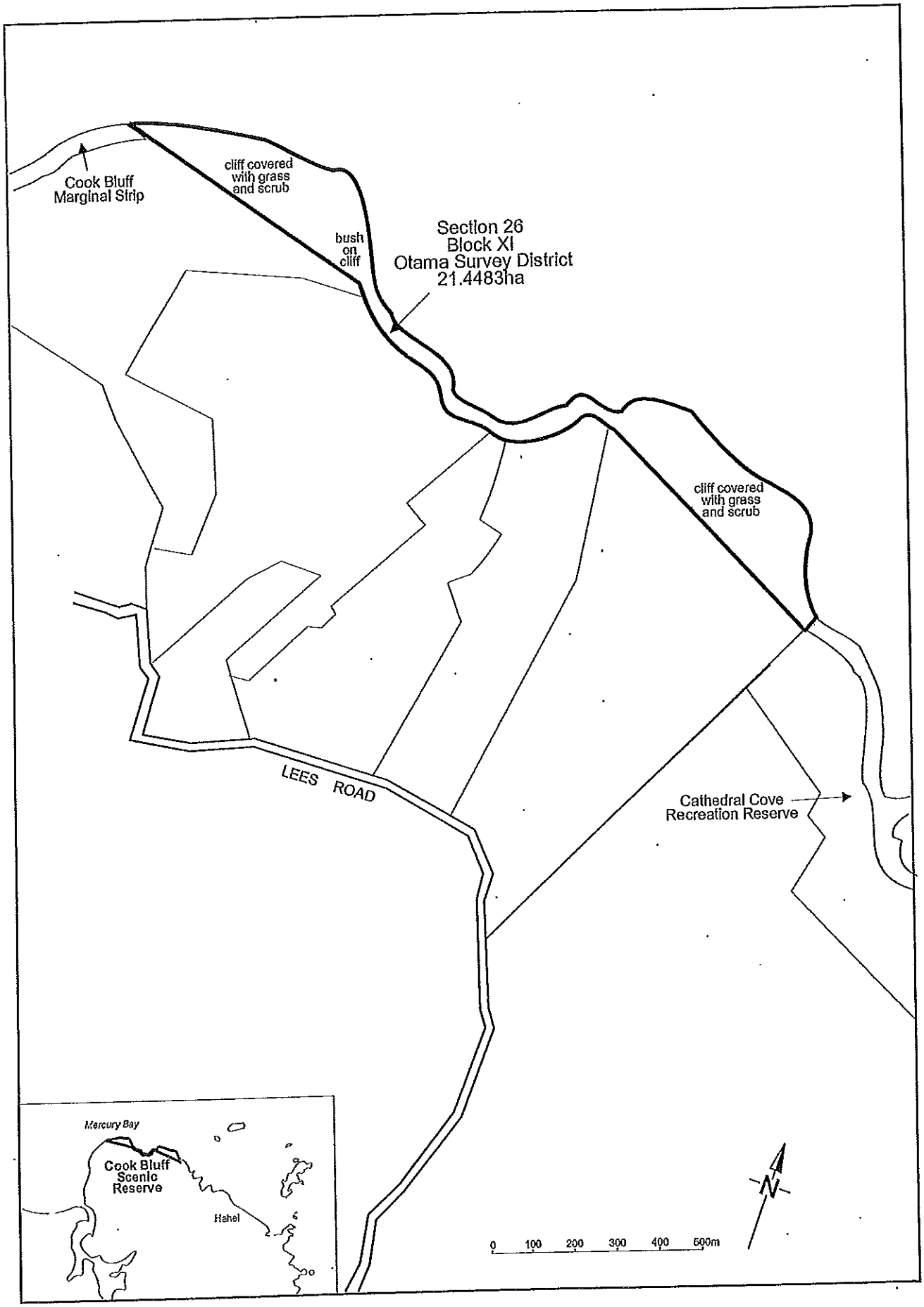
Map 5 : Cathedral Cove Management Zone - Coastal Reserves



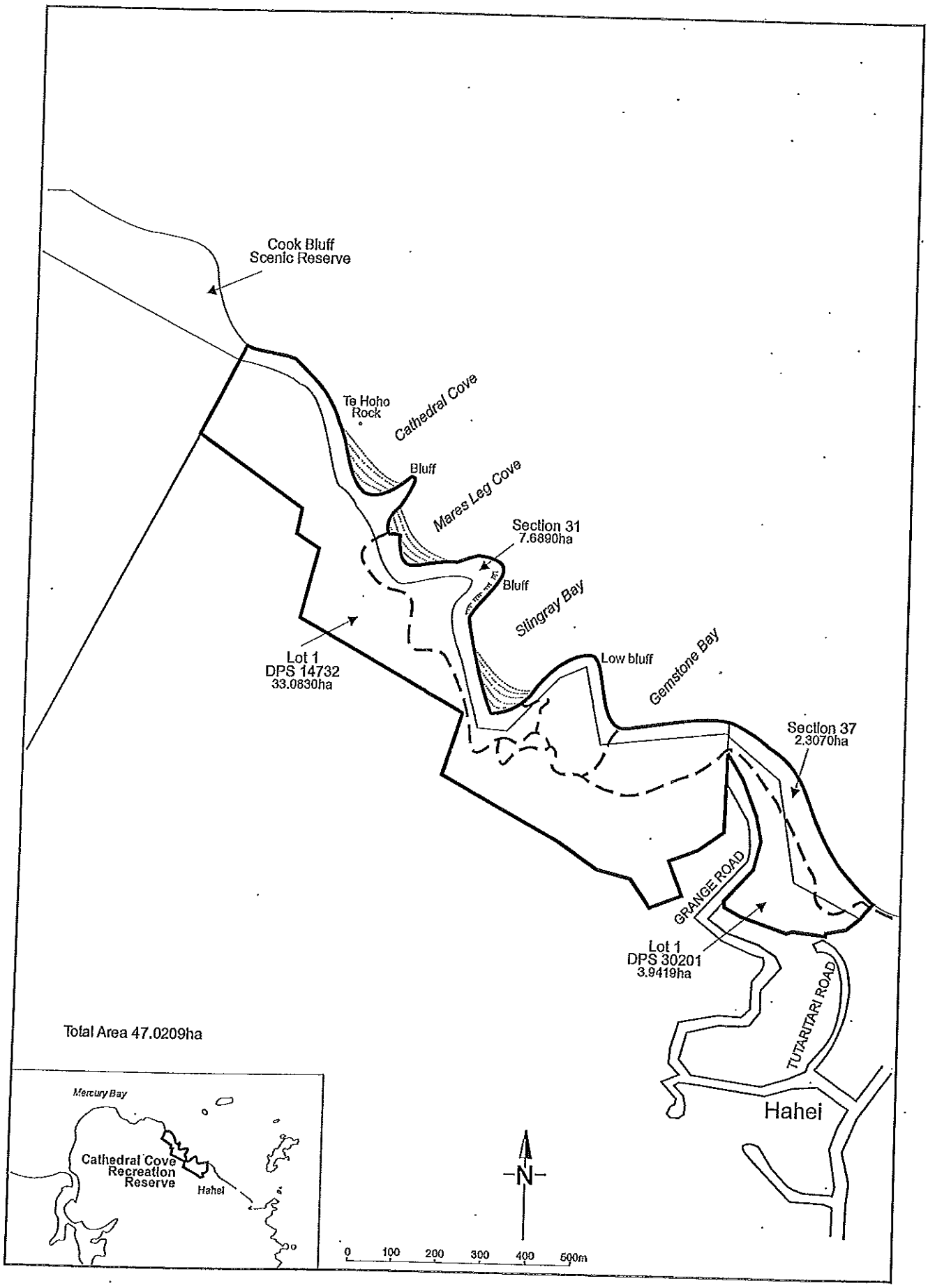
Map 5a : Whitianga Rock Scenic and Historic Reserve



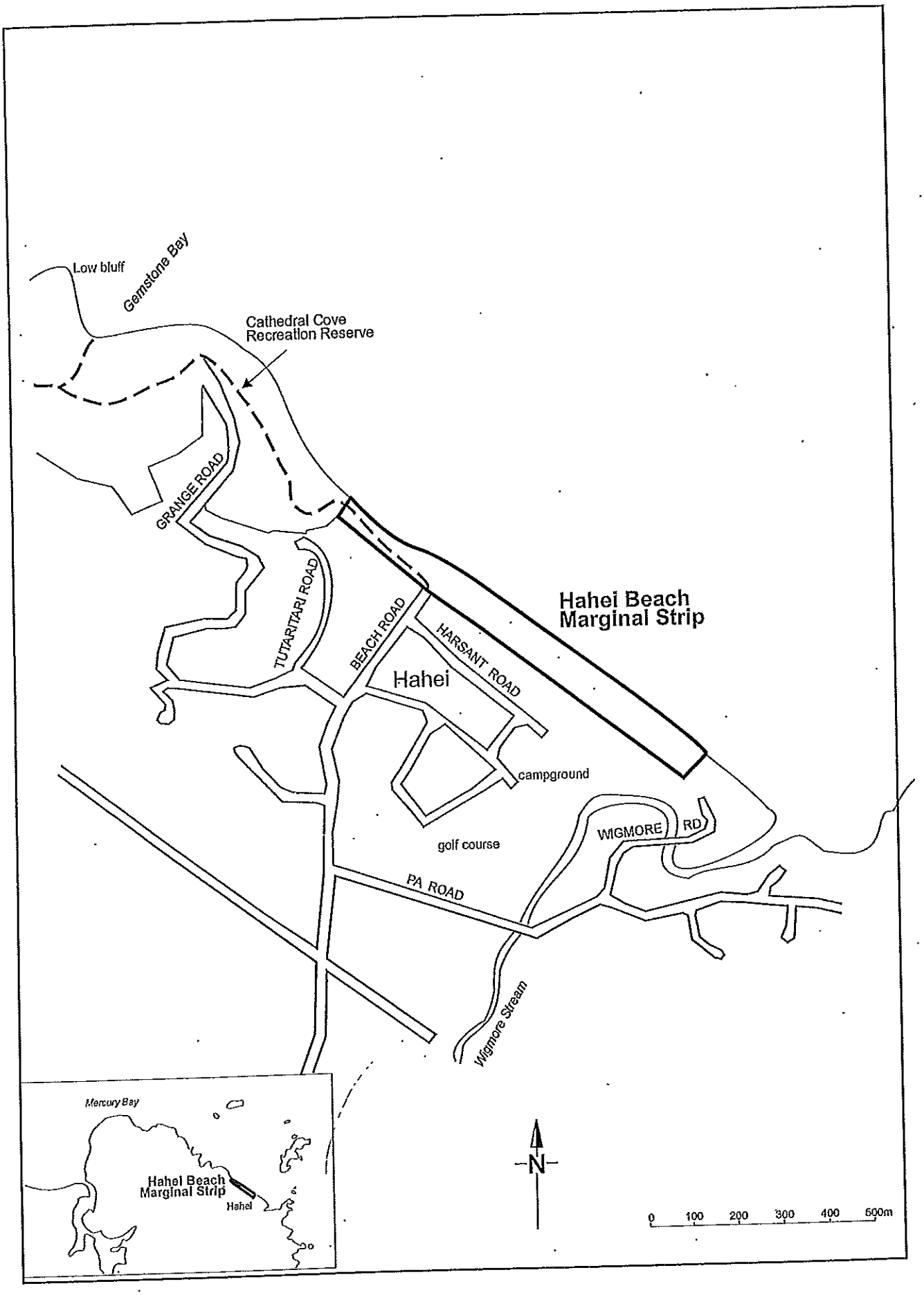
Map 5b : Cook Bluff Scenic Reserve



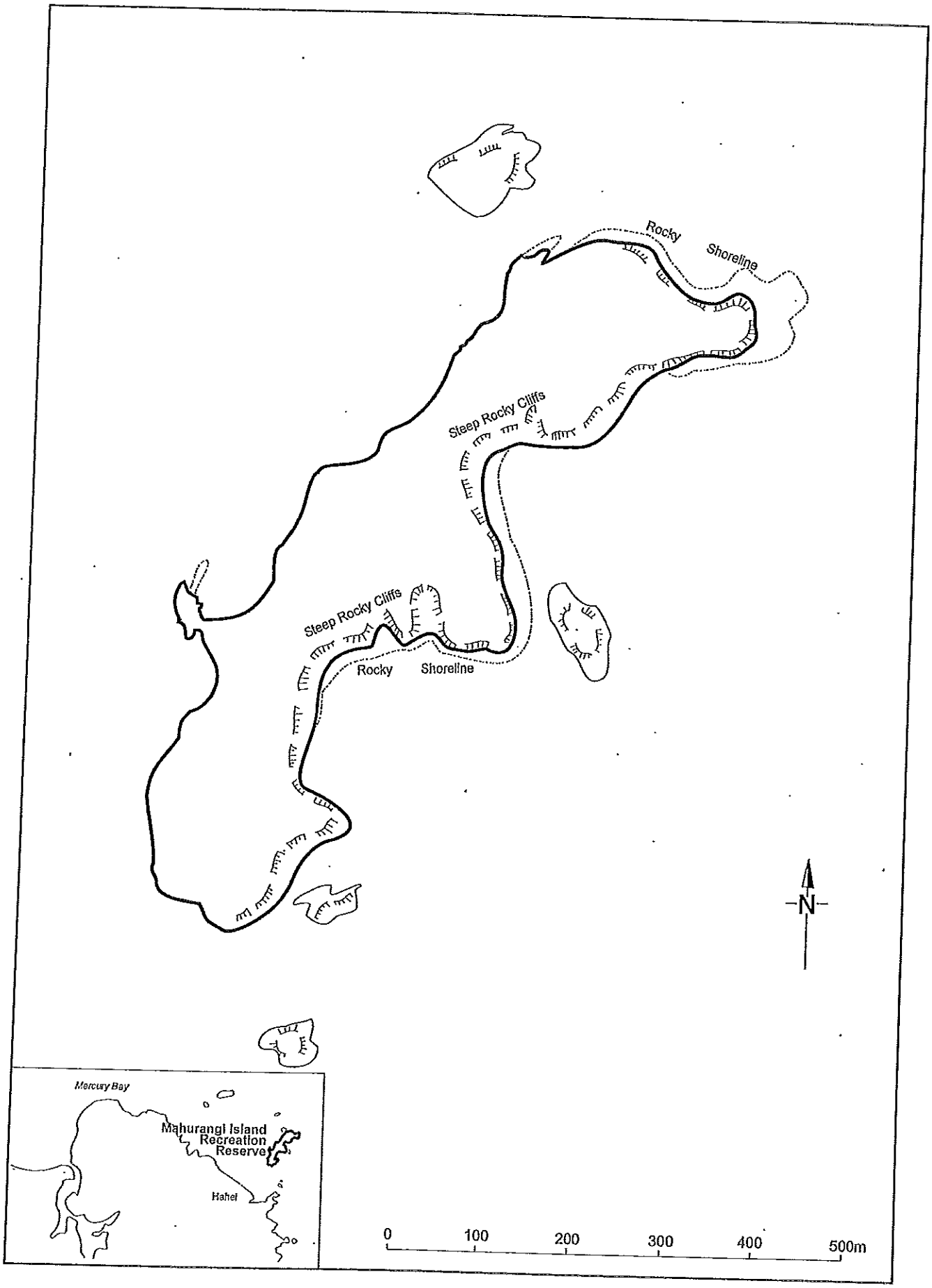
Map 5c : Cathedral Cove Recreation Reserve



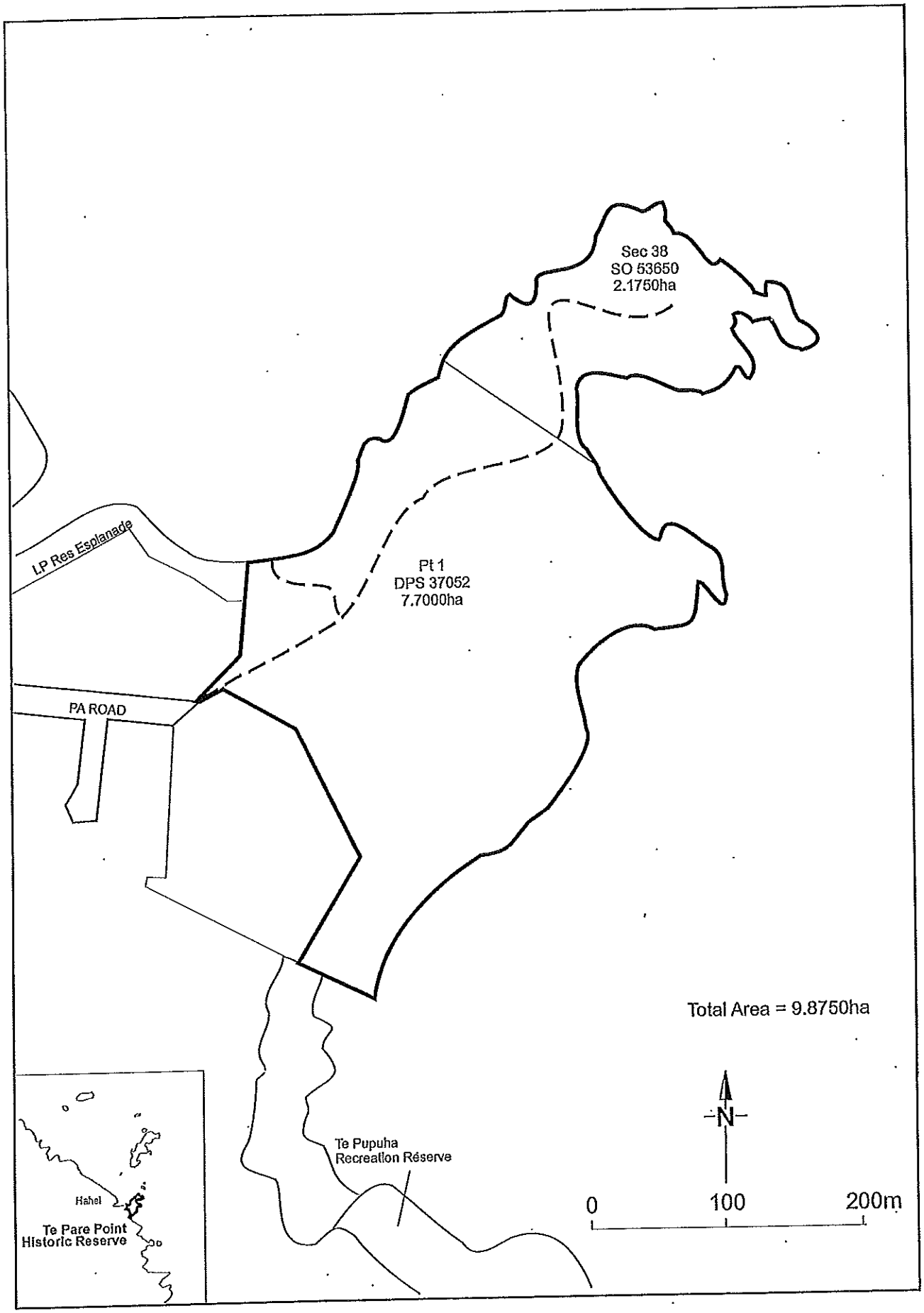
Map 5d : Hahei Beach Marginal Strip



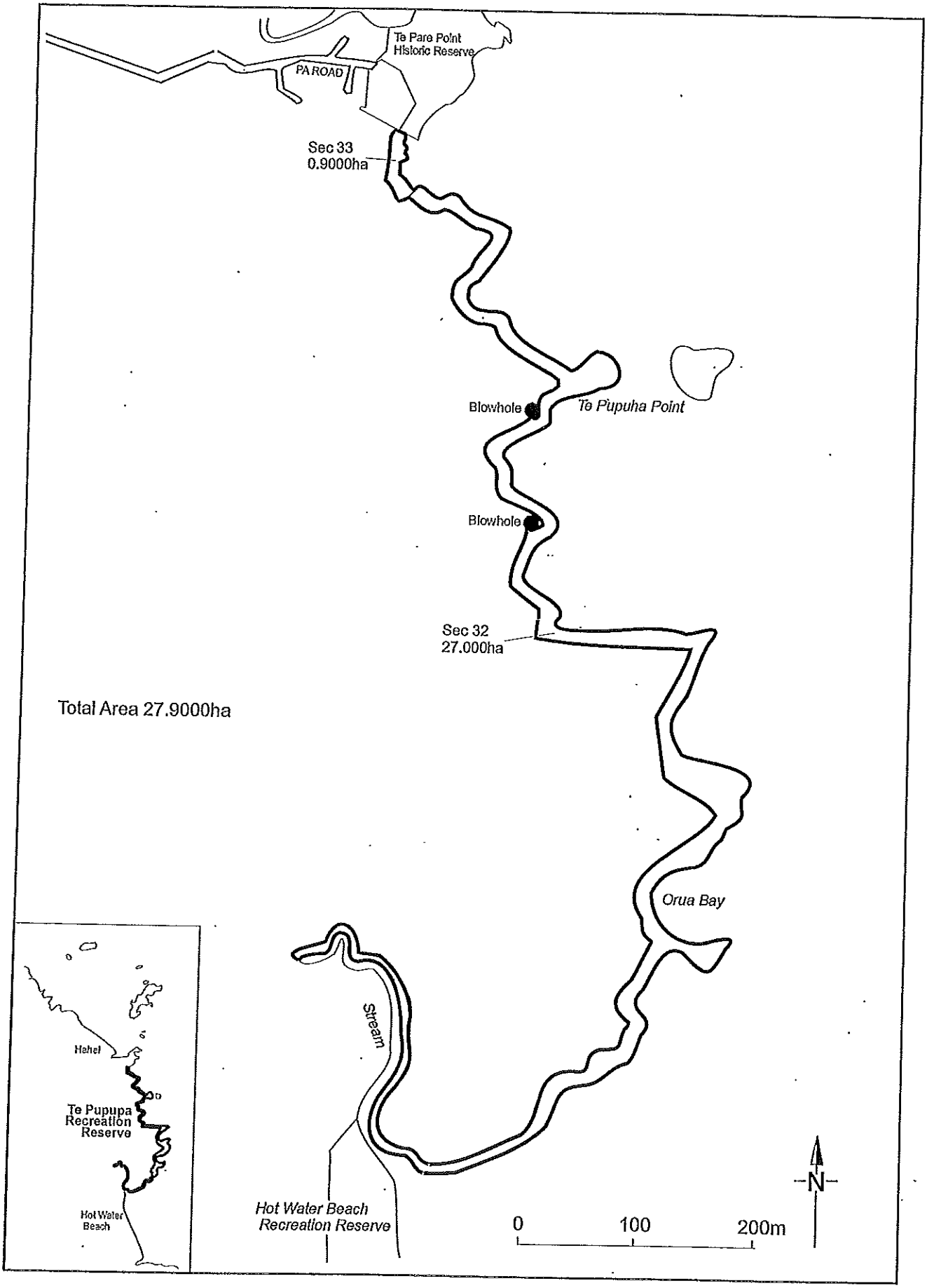
Map 5e : Mahurangi Island Recreation Reserve



Map 5f : Te Pare Point Historic Reserve

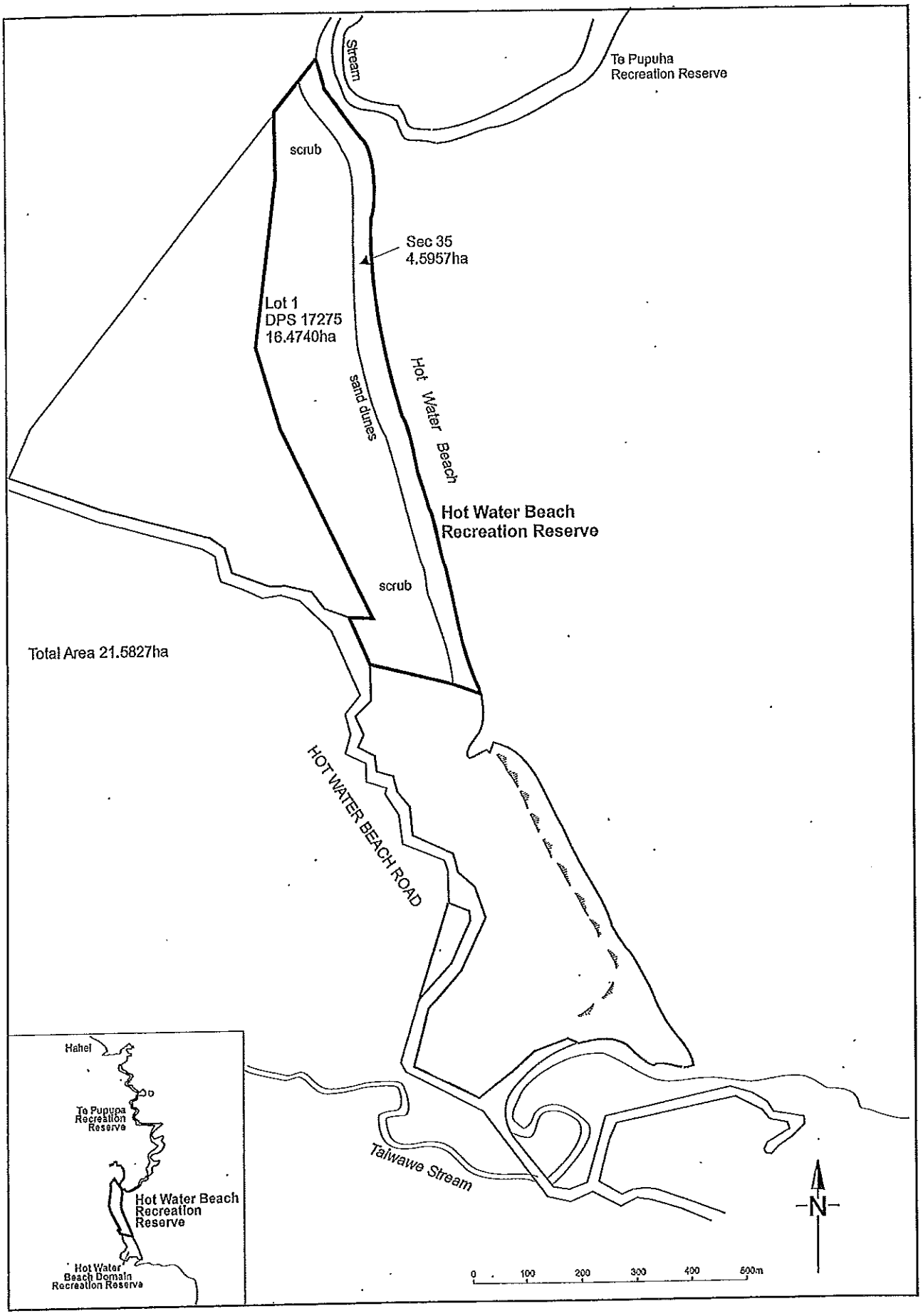


Map 5g : Te Pupuha Recreation Reserve

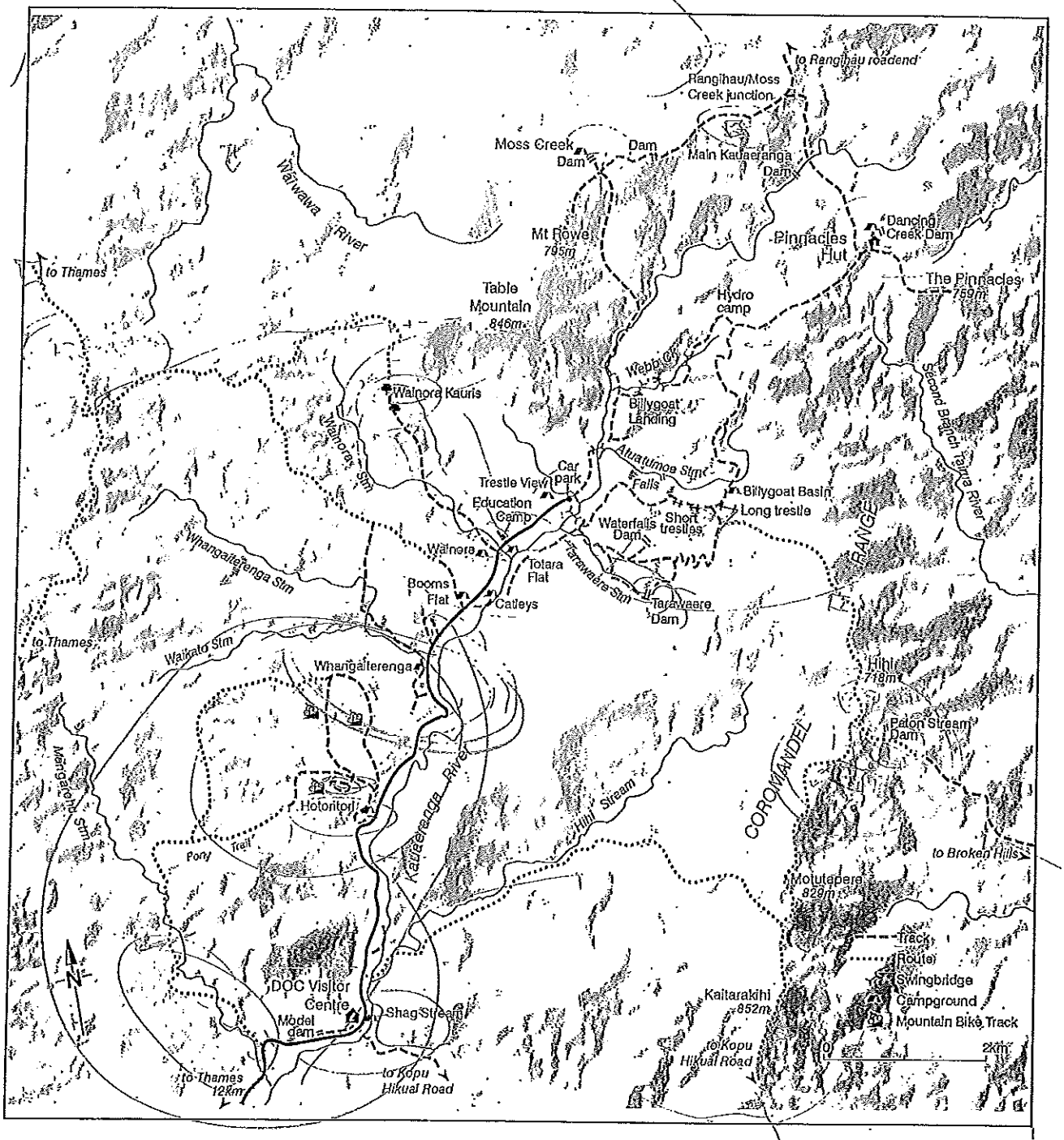


0 100 200 300 400 500m

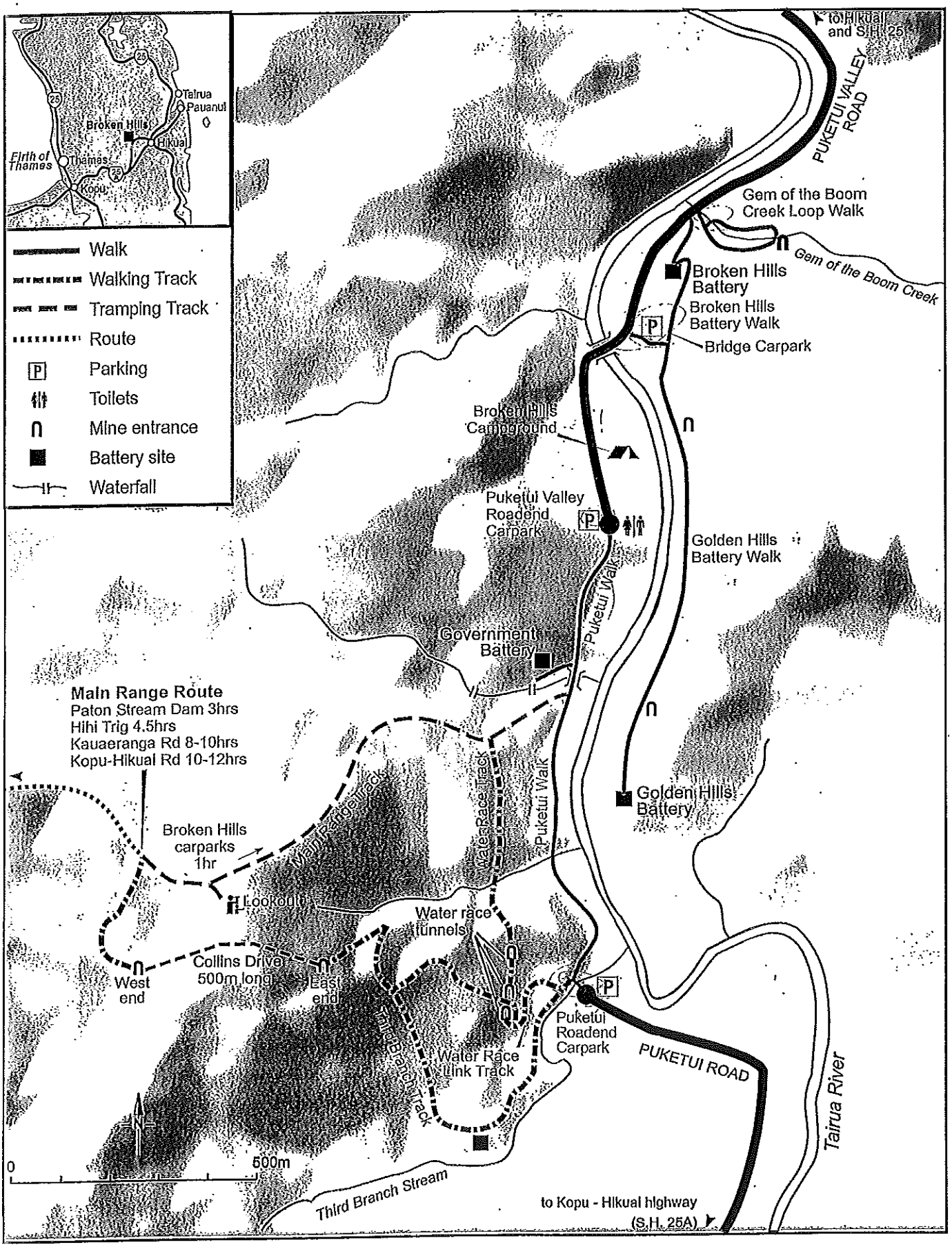
Map 5h :Hot Water Beach Recreation Reserve



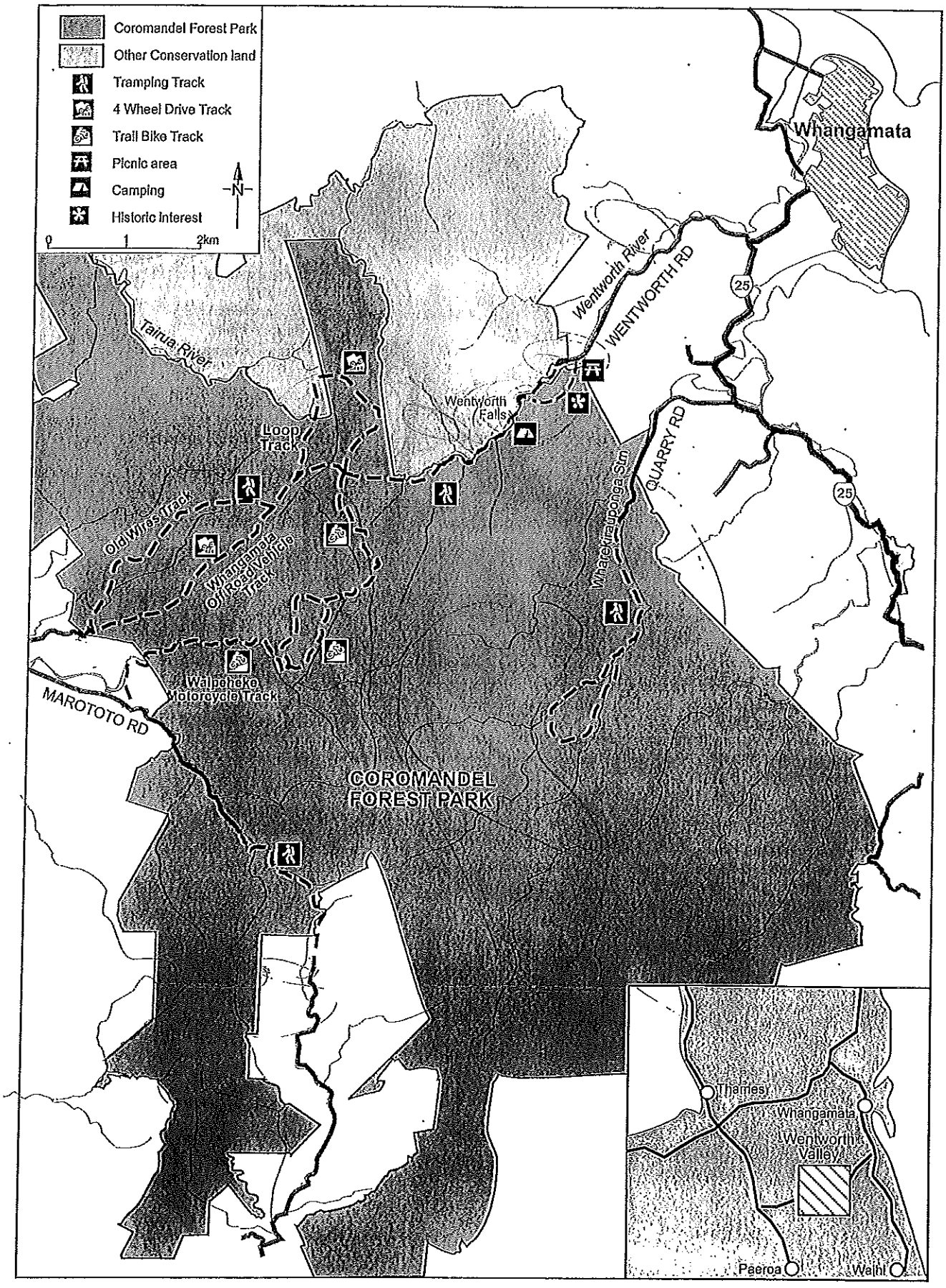
Map 6 : Kauaeranga Valley Visitor Management Zone



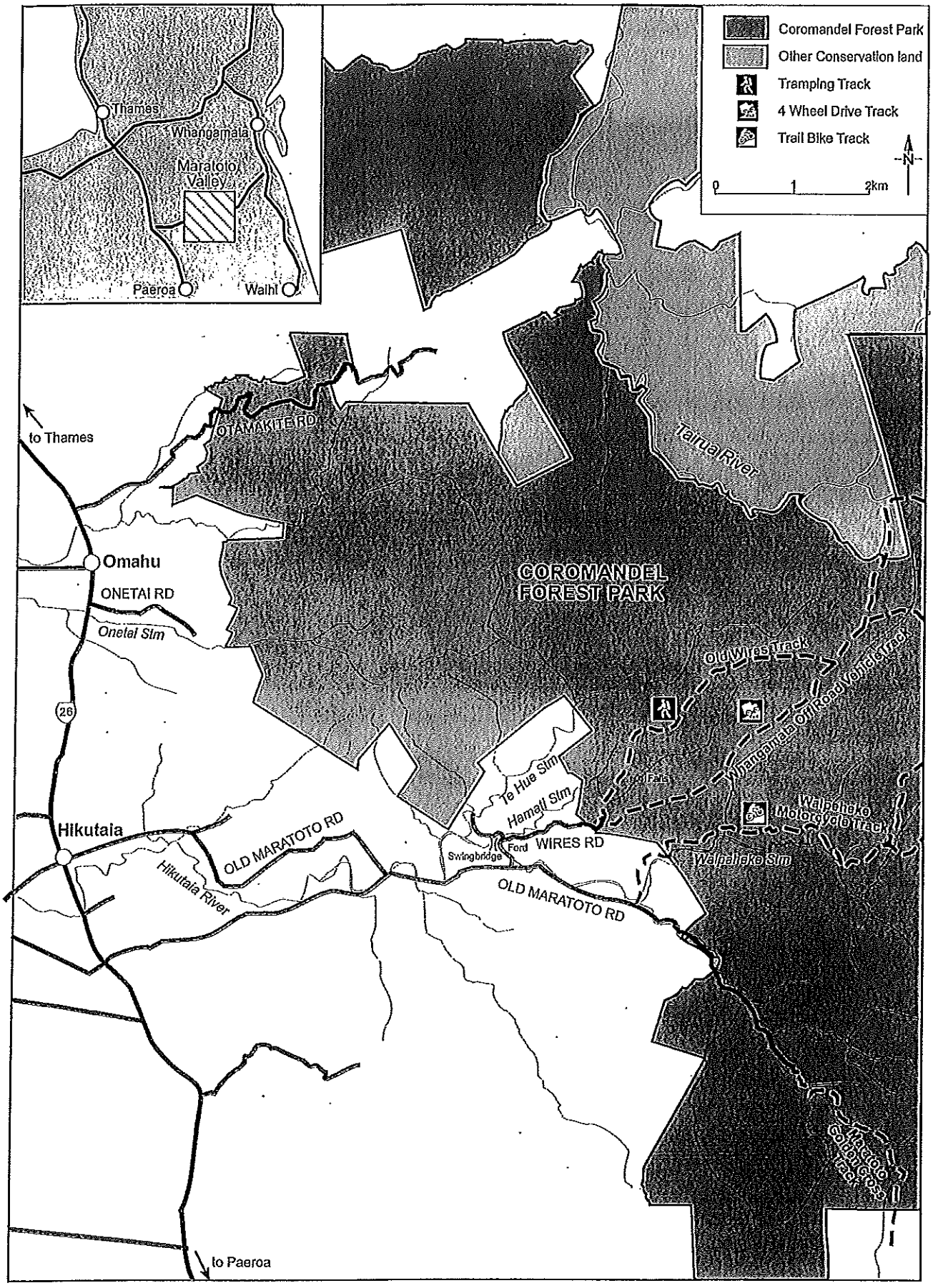
Map 7 : Broken Hills Visitor Management Zone



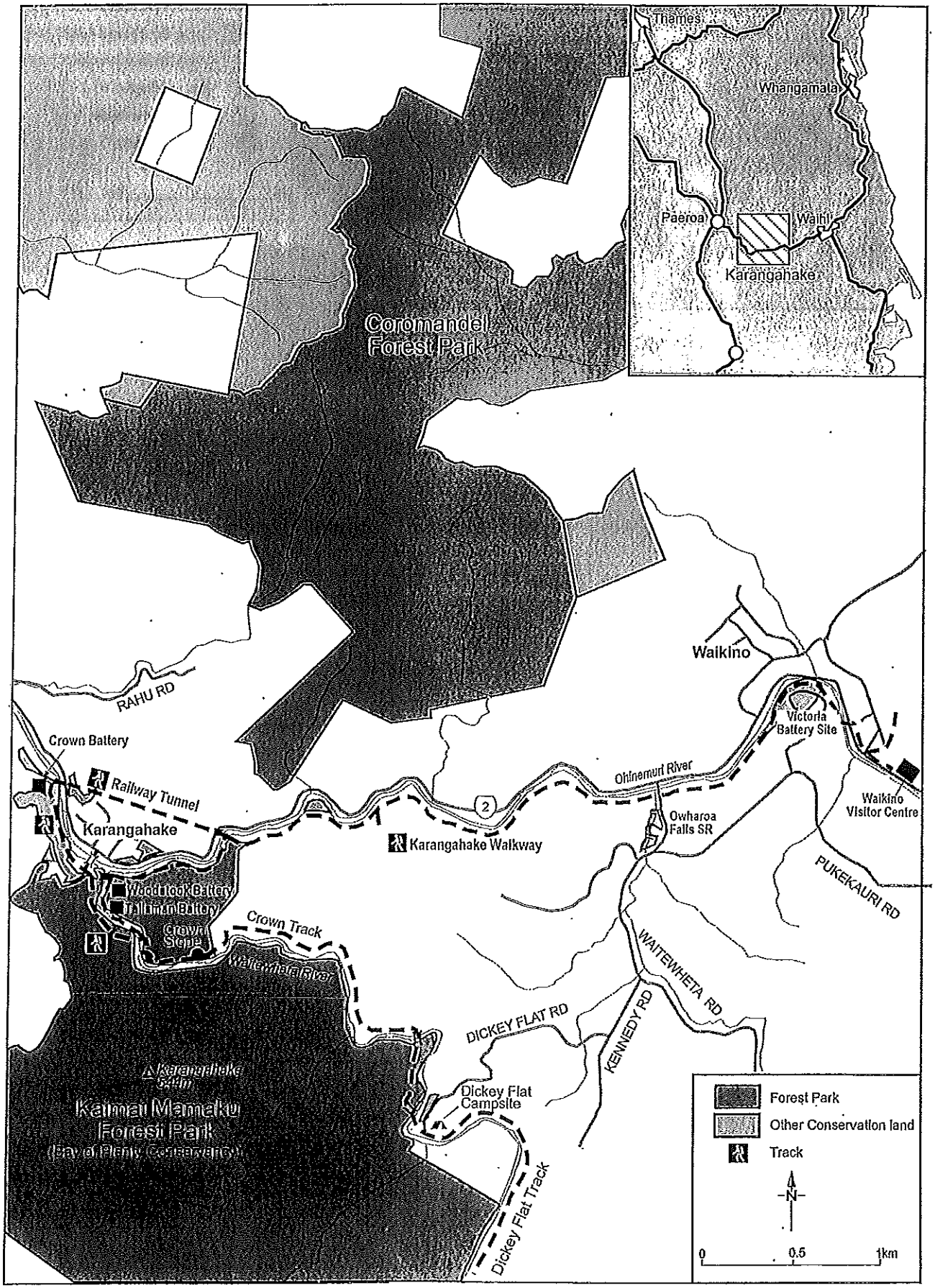
Map 8 : Wentworth / Wharekirauponga Visitor Management Zone



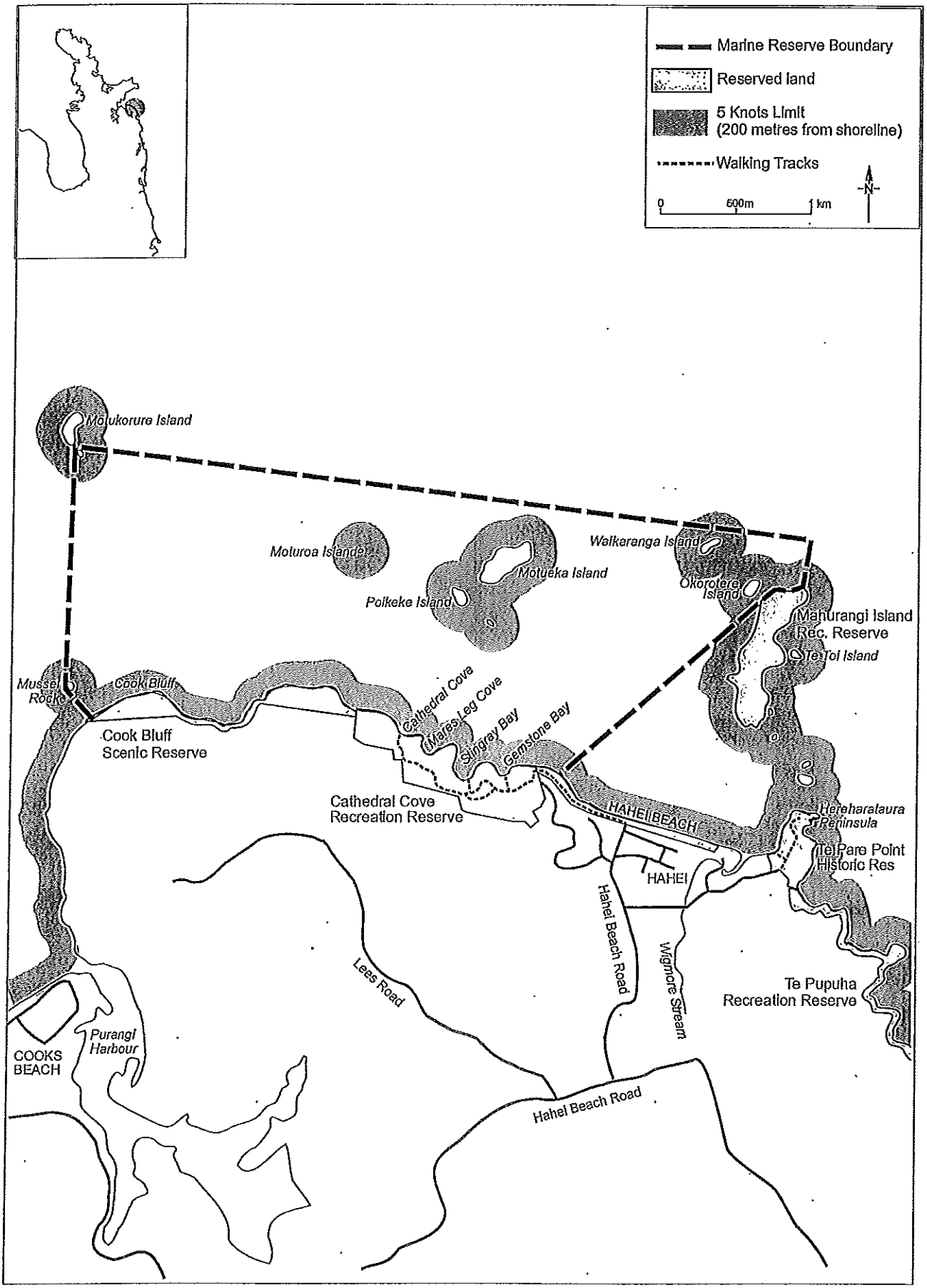
Map 9 : Marototo Valley Visitor Management Zone



Map 10 : Karangahake Visitor Management Zone



Map 11 : Te Whanganui-a-Hei Marine Reserve



Map 12 : Islands Managed by the Department