

WAEWAETOREA AND URUPUKAPUKA ISLANDS MANAGEMENT PLAN



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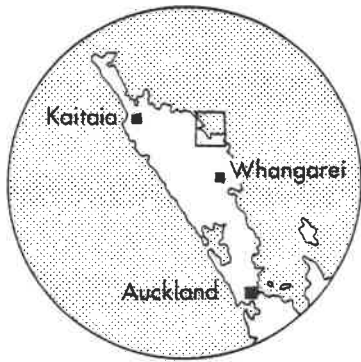
THE HISTORY OF THE
CITY OF BOSTON
FROM 1630 TO 1890



WAEWAETOREA AND URUPUKAPUKA ISLANDS Management Plan

Prepared by
Department of Lands and Survey
for the
BAY OF ISLANDS
MARITIME AND HISTORIC PARK BOARD

Auckland
August 1983

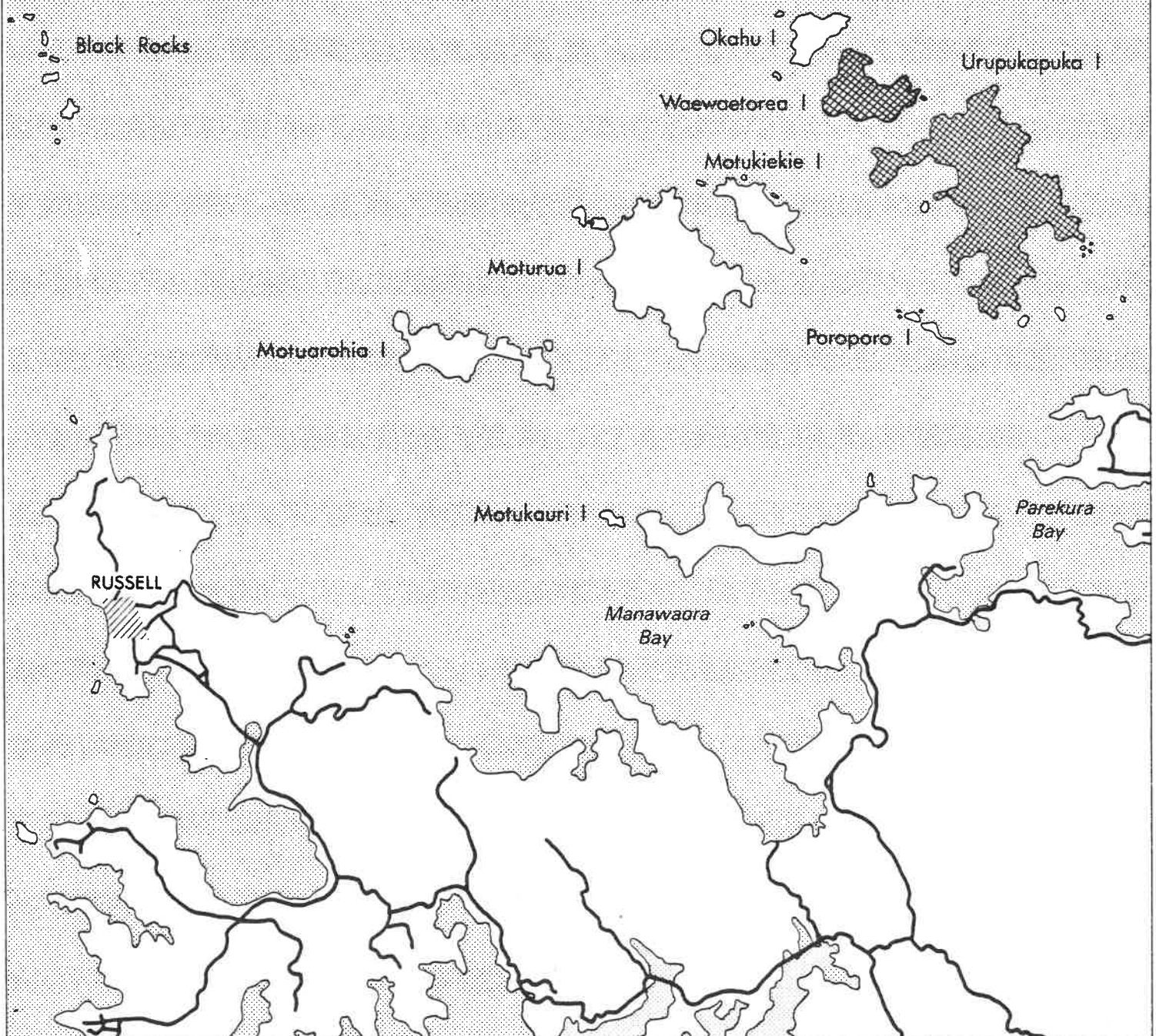


Locality Plan.

SCALE



Bay of Islands



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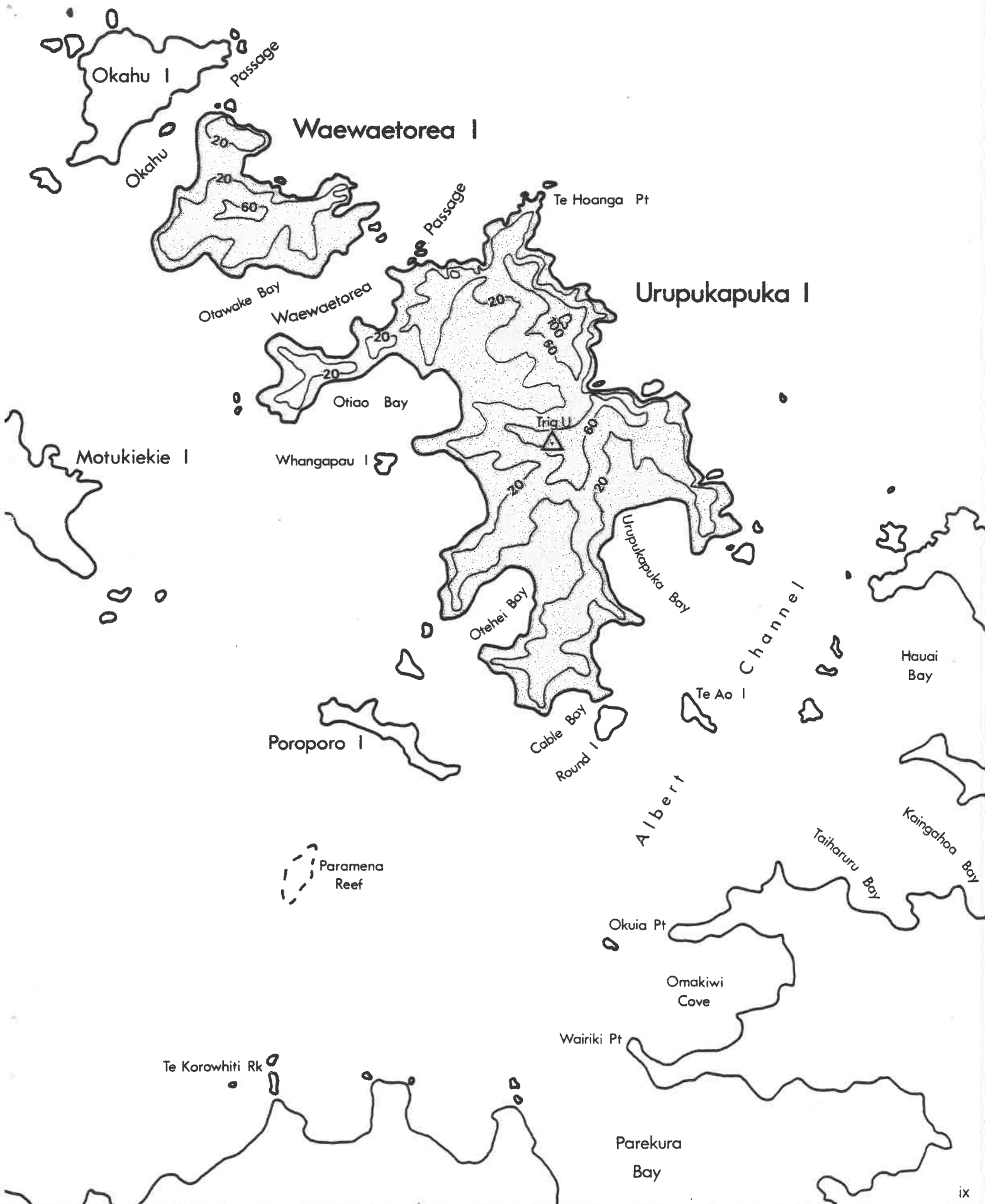
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Urupukapuka and Waewaetorea Islands

400 0 400 800 1200 1600m

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1. Introduction and Objectives

1.1 INTRODUCTION

The Bay of Islands Maritime and Historic Park Board, officially appointed on 22 February 1979, is now engaged in the process of formulating its objectives and policies for the overall management of the 50 separate reserves which comprise the Bay of Islands Maritime and Historic Park. The Park, by virtue of its diverse and widely separated resources, lends itself to a planning process involving several stages or levels of policy making. These will eventually lead to the preparation of a general management plan. In this continuous planning process, certain decisions of a more immediate nature must be made from time to time to preserve management options in the longer term.

This management plan is intended to serve the immediate planning requirements of Urupukapuka and Waewaetorea Islands, with the clear understanding that it will be reviewed continually as the Board gains experience and further defines its overall management objectives for the Park.

Urupukapuka and Waewaetorea are important elements of the major island group located in the northeastern Bay of Islands. The two islands not only share a close physical relationship, they also have similar management concerns. In particular, both are presently being farmed, in contrast to the other islands of the Park which are being allowed to regenerate. They are the main recreation islands in the Park as distinct from the other islands which are classified primarily for their scenic qualities. These considerations have led to the decision to produce a single plan for both islands.

The management concerns which prompted this plan relate to the degree of scrub reversion occurring on the islands, and the detrimental effect this has been having on farming, recreation and archaeological values. It was also evident that these activities or values were competing with, rather than complementing, one another.

The overall goal of this plan is to establish proposals for managing both islands as high quality, recreational resources by protecting and enhancing those features which contribute towards natural forms of outdoor activity.

Management is based on a "farm park" concept, whereby livestock farming is used as a means of maintaining the closely cropped areas of grassland. When interspersed with bush clad gullies and coastal margins, these provide an attractive setting for many forms of recreational activity, reduce fire risks and facilitate interpretation of archaeological sites. An important element of the farm park concept is the development of a comprehensive decision-making process that orders and places in perspective all competing land uses in accordance with the overall goal.

This plan will first identify those features which contribute to the special character of the islands. A set of management guidelines in the form of objectives and policies will then be formulated to establish the appropriate level or intensity of each activity, and to define their inter-relationships. These objectives and policies will be further refined in the plan by detailing management proposals for the design and implementation of certain facilities required in the short term.

1.2 OBJECTIVES

The following objectives provide the basis for the management of Urupukapuka and Waewaetorea Islands within the context of an overall decision-making process for the Bay of Islands Maritime and Historic Park.

1. TO PRESERVE AND ENHANCE THE OPEN SPACE QUALITIES AND RURAL CHARACTER OF URUPUKAPUKA AND WAEWAETOREA ISLANDS FOR THE USE, BENEFIT AND ENJOYMENT OF THE GENERAL PUBLIC FOR OUTDOOR RECREATION.
2. TO ENCOURAGE THE PROTECTION AND WISE USE OF THE COASTAL MARGINS AND MARINE RESOURCES OF THE ISLANDS TO A LEVEL WHICH ENHANCES THE EXPERIENCE OF PARK VISITORS.
3. TO PRESERVE THE HISTORIC AND ARCHAEOLOGICAL FEATURES OF THE ISLANDS AND WHERE APPROPRIATE INTERPRET THESE FOR THE BENEFIT OF THE GENERAL PUBLIC.
4. TO MANAGE THE RESERVES AS A FARM PARK TO A LEVEL WHICH IS COMPATIBLE WITH THEIR BIOLOGICAL, ARCHAEOLOGICAL AND RECREATIONAL SIGNIFICANCE.
5. TO ENSURE THAT ANY FUTURE USE OR DEVELOPMENT OF THE ISLANDS IS CONSISTENT WITH THE CONCEPT OF A MARITIME AND HISTORIC PARK, WITH PARTICULAR REGARD TO THE ISLANDS' ENVIRONMENTAL CAPACITIES.

2. National and Regional considerations

The provision of public open space in New Zealand on a per capita basis is quite generous by international standards, but its distribution shows large regional imbalances. This is particularly evident by the fact that 86% of the land contained in national parks is found in the South Island, while the majority of people (72%) live in the North Island.

In the past, emphasis has been placed on the preservation of national landscapes in our national parks, and it is only in recent times that Maritime Parks have begun to fill the need for accessible open spaces which are orientated primarily towards recreation. In view of the continuing fuel crisis, it is likely that further pressure will be placed on areas of open space which are close to large urban concentrations.

Trends in outdoor recreation in New Zealand have closely followed developments overseas, and show significant increases in the popularity of water-orientated recreational activities. The Northland Regional Development Resources Survey (1978) has identified Northland's unique inventory of natural water resources as holding a high potential for recreational development. In similar fashion, the Northland Holiday Travel Surveys of 1975/1976 and 1978/1979 have indicated a steady growth in the number of visitors to the Northland region, with the Bay of Islands being the destination of approximately 27% of those surveyed. The majority of the visitors (68%), as one might expect, are from the Auckland area. This survey also indicates a high degree of popularity for such activities as swimming, visits to historic sites and places of natural beauty, fishing, walking, boating and picnicking.

The continuing growth of recreational demands made on Northland, particularly for water-related activities, is a result of several important factors. These include increases in the population of Auckland, increased leisure time, changes in the age structure of the population, new developments in recreational equipment and the indirect effects of an ongoing energy crisis. The coastal areas and islands of the Northland Region will be a particularly significant

resource in satisfying the future recreational needs of the large population concentrated in the greater Auckland area. It is within this context that the role of the Bay of Islands Maritime and Historic Park, and the individual reserves which form it, should be evaluated.

3. Local considerations

The Bay of Islands Maritime and Historic Park extends along the Northland coast from the Whangaroa Harbour in the north to the Whangaruru Harbour in the south, and comprises some 50 separate mainland and island reserves totalling 2800 hectares in all. These reserves contain areas of spectacular natural scenery and high recreational potential, and include sites of great historical and archaeological interest.

The Park is constituted under provisions of the Reserves Act 1977, which provides a formalised procedure of reserve classification and planning. Pursuant to Section 40 of the Act, the Bay of Islands Maritime and Historic Park Board is charged with the duty of administering and managing reserves under its control to ensure that the use, enjoyment, development, maintenance, protection and preservation of these areas is in accordance with the purpose for which they are classified. In terms of this obligation, it is apparent that the Board's management of the reserves comprising the Park must be in accordance with the designated classifications, and that these classifications form an important step in the overall management of the resource. These reserves have now been classified in terms of sections 17, 18 and 19 of the Reserves Act 1977.

The pattern of reserve classifications adopted by the Board has been designed to achieve a balance between recreational development, historic and archaeological preservation, and the protection and enhancement of the natural coastal landscape, which serves as a scenic backdrop to more developed areas. This pattern is reflected in the following classifications of the islands in the Bay: Okahu, Motukiekie, and parts of Moturua and Motuarohia are scenic reserves; while Waewaetorea and Urupukapuka are recreation reserves. On the nearby mainland Marsden Cross is classified as historic.

The Act specifies that areas classified as scenic reserves have as their primary purpose the protection and preservation of natural features or landscapes. Areas classified as recreation reserves provide principally for recreational and sporting activities for the physical welfare and enjoyment of the public and for

the protection of the natural environment and beauty of the countryside. There is emphasis on the retention of open spaces and on outdoor recreational activities, including recreational tracks in the countryside. In many respects Urupukapuka Island and Waewaetorea Island appear to be ideally suited to this latter classification by virtue of their open, tranquil nature and relative accessibility. It is envisaged that both islands will share similar management objectives designed to enhance their combined development as an important maritime park recreational resource, in contrast to other islands in the Bay which will be allowed to revert to native bush in accordance with their classification as scenic reserves.

Both islands also share a close physical and historical relationship with nearby mainland areas, particularly Rawhiti/Hauai. This relationship depends on the relatively calm and sheltered waters of the semi-enclosed Te Rawhiti Inlet, which facilitates safe and easy access by small craft of many kinds. At the present time Urupukapuka is regularly visited by organised tour operators. However, landing on the island from these craft can be rather difficult, as the Otehei Bay wharf is currently closed to the public. There is potential for a joint arrangement with the lessee to upgrade this facility to serve public transport. These larger tour vessels are also available for charter hire by the general public, but a faster and cheaper method of transport are the water taxis, which can be hired from either Russell or Paihia and reduce round trip travelling times to about one hour. While the quickest way to travel to the islands is by amphibian aircraft available from Paihia, the most popular means of transport remains the small outboard powered runabouts which can reach the islands from main tourist centres in less than an hour.

The primary tool of land use planning employed by Bay of Islands County Council is zoning, used in conjunction with a district scheme. The Bay of Islands County District Planning Scheme contains general policies and objectives which recognise and seek to conserve the unique natural attractiveness, excellent beaches and natural potential for water recreation of the extensive sheltered waters comprising the natural harbour system of the Bay of Islands. In this instance, the District Scheme has zoned all the islands, with the exception of portions of Moturoa (Moturoa Island Holiday Resort Zone) and Motuarohia (Rural B) and the lease area at Otehei Bay on Urupukapuka Island, as "Rural C". The objective of the Rural C Zone is to foster scenic protection and maintain the general character of existing coastal features by restricting permitted uses.

Otehei Bay, under the previous district scheme, was a Tourist Facilities Zone in recognition of the limited, historic tourist facilities provided there in

the past. Council has recognised this function in its amalgamated review by rezoning the property as Rural B in anticipation of possible future development which will complement the essentially open and tranquil nature of Urupukapuka Island.

Council envisages a range of accommodation types in low key buildings without impinging on adjoining reserves, and that the number of persons provided for should not exceed the sewage disposal and water supply capabilities of the site. The following criteria have been adopted by Council as a guide for considering possible development at Otehei Bay:

- (i) The extent to which the proposed development would mar the natural coastal environment;
- (ii) The extent to which proposed buildings and other structures are subservient to the landform;
- (iii) The extent to which the proposed development would reduce or increase the amenities of Otehei Bay;
- (iv) The extent to which the proposed development is consistent with the character and permitted uses of the remainder of Urupukapuka Island.

In summary, the classification of Urupukapuka and Waewaetorea Islands as recreation reserves represents a balance in the Park between the recreational development of more accessible reserves and the maintenance and enhancement of areas, notably other islands, as a scenic backdrop. The present zoning of the islands in the Bay of Islands County District Planning Scheme recognises their potential for sympathetic development as a recreational resource which caters for the needs of recreationalists at a local, regional and national level. The qualities which make Urupukapuka and Waewaetorea Islands suitable for development as a recreational resource are the unspoiled beaches and large, open areas of hinterland, which are readily accessible from the nearby mainland. The aim of future management is to protect and enhance these qualities.

4. History

Very little has been recorded about the history of Urupukapuka and Waewaetorea. The French expedition, led by Marion Dufresne in 1772, drafted a "Plan du Port Marion" in which Waewaetorea Island was identified as the point where the explorers first disembarked. Both islands were also described as containing "Villages of the natives fortified with palisades".

The earliest newspaper account appears to be a brief notice in the New Zealand Gazette, dated 24 August 1842, which advertised a land claim by a Captain Brind, contending that he had purchased 150 acres (60 hectares) of land on Urupukapuka Island from the Ngapuhi Chief Rewa for the price of a horse. This land claim was not upheld, much to the chagrin of Captain Brind, when Rewa claimed that the mare sold to him represented only a deposit, and not a full payment.

The land at Urupukapuka again came to the formal attention of the European community by way of a Maori Land Court hearing in 1905. The testimony given by Maori elders in defence of their tribal land claims gives a brief insight into the early history of the island. The area from Cape Brett to Rawhiti, including the islands in the southeastern part of the Bay, was controlled by Ngare Raumati for something like three hundred years. Intermittent conflict between this tribe and the adjoining Ngapuhi confederation of tribes, including Ngai Tawaka, finally ended in about 1829 when Rewa raided Ngare Raumati strongholds and scattered the defenders after a series of battles in which muskets were employed by both sides. The Ngapuhi apparently occupied this area infrequently from this point on, with the major community being centred at Te Rawhiti. There is mention of several Kaianga (unfortified villages) on Urupukapuka during this period. These appear to be closely associated with extensive evidence of cultivations located behind Otiao Bay, Otehehi Bay, and until fairly recently at Urupukapuka Bay. In the latter part of the 19th century two Europeans, Greenway and Symonds, leased part of Urupukapuka for grazing purposes, and commenced to clear the land.

The Maori Land Court, after hearing evidence regarding the occupation of

Urupukapuka prior to 1840, partitioned the island into three holdings, in which an appropriate number of shares were apportioned to each of the ninety-eight claimants. The history of the island after this title had been established rests primarily with the European. It was not long afterwards that a Mr C F Baker, storekeeper from Russell, began to progressively buy up the land from its Maori shareholders.

In a similar way, Waewaetorea Island was apportioned to a number of Maori owners, depending on their respective claims. By the turn of this century, ownership had effectively been aggregated in favour of the Cross family.

The history of both islands from this time onwards is tied closely with their development and use as sheep grazing farms. In the process of farm development, the islands were repeatedly burned off to establish pasture lands, leaving only isolated pockets of manuka. In addition to being the centre for farming operations on Urupukapuka, Otehei Bay also became a fishing expedition base for the American author Zane Grey in 1927. As a result of this use, a world-famous sea fishing resort was established in the Bay. The remnants can still be seen today. The only other area on the islands inhabited by Europeans was at Entico Bay, incorrectly named after a fisherman named Doro Indico who lived there with his wife in the 1930's.

An American bought Waewaetorea in 1967 with the intention of developing the island. Grazing rights were leased to a local farmer and the public were allowed to camp on the island, providing they donated and planted a tree there. The Crown acquired Urupukapuka Island in 1971, and it was subsequently included in the Park in 1979. Waewaetorea Island was purchased in 1980 and added to the Park during the following year.

Since acquisition by the Crown, both islands have been grazed by cattle, with many areas of former pasture land being allowed to revert to manuka. In spite of this fact, however, the predominant image of Urupukapuka and Waewaetorea given in old photographs, and referred to in accounts by local residents, is of islands covered with pasture lands closely cropped by sheep, and of headlands with many archaeological sites clearly visible on the skyline.

5. The Resource

5.1 BRIEF DESCRIPTION

The total area of Urupukapuka Island is 208 hectares. It is an island of peninsulas and bays and has a coastline of more than 13.5 km. The island's total length from north to south is about 2.5 km. The contour is generally steep, rising to a central ridge. The highest point on this ridge is 99 metres above sea level. Most of the exposed northeastern coastline is inaccessible, consisting mainly of high, rugged cliffs and rocky outcrops supporting a sparse vegetation dominated by pohutukawa. In contrast, the southern and western coastlines contain a series of bays with clean sandy beaches which serve as focal points of public use. Of these bays and beaches, Urupukapuka Bay is the most popular for coastal recreation, while Oteheî Bay offers the safest anchorage.

Waewaetorea Island, located immediately to the northwest of Urupukapuka, is more compact and has a total area of 46.6 hectares. The contour is moderately steep with the exception of some flat land behind the beach facing Okahu Passage. The exposed eastern coastline is dominated by sheer cliffs, while a large bush-covered headland guards the northwestern side. The southwestern parts of the island are generally more protected and contain several sheltered beaches.

Both islands enjoy a relatively moderate climate, with a rainfall of 1200 mm per year, predominantly during the winter months. The islands are occasionally subjected to periods of high intensity rain and wind from the northeast quarter, and summer droughts are a fairly frequent occurrence.

5.2 PHYSICAL FEATURES

The islands are composed of a sequence of sedimentary rocks, mainly greywacke sandstone and argillite rocks of the Waipapa series, with alluvial land occurring on the flat inland parts of the west coast beaches. A band of white marble has been discovered on the northern point of Urupukapuka Island and minor deposits of manganese minerals occur in the rocks just north of Te Akeake Point.

The Water and Soil Division of the Ministry of Works and Development has undertaken Land Use Capability Surveys of Urupukapuka and Waewaetorea Islands with the purpose of determining their potential for future agricultural development. The Land Capability Survey maps areas of similar potential, based upon such factors as slope, geology, soil, erosion and vegetation, to produce units of land which indicate the maximum safe production potential.

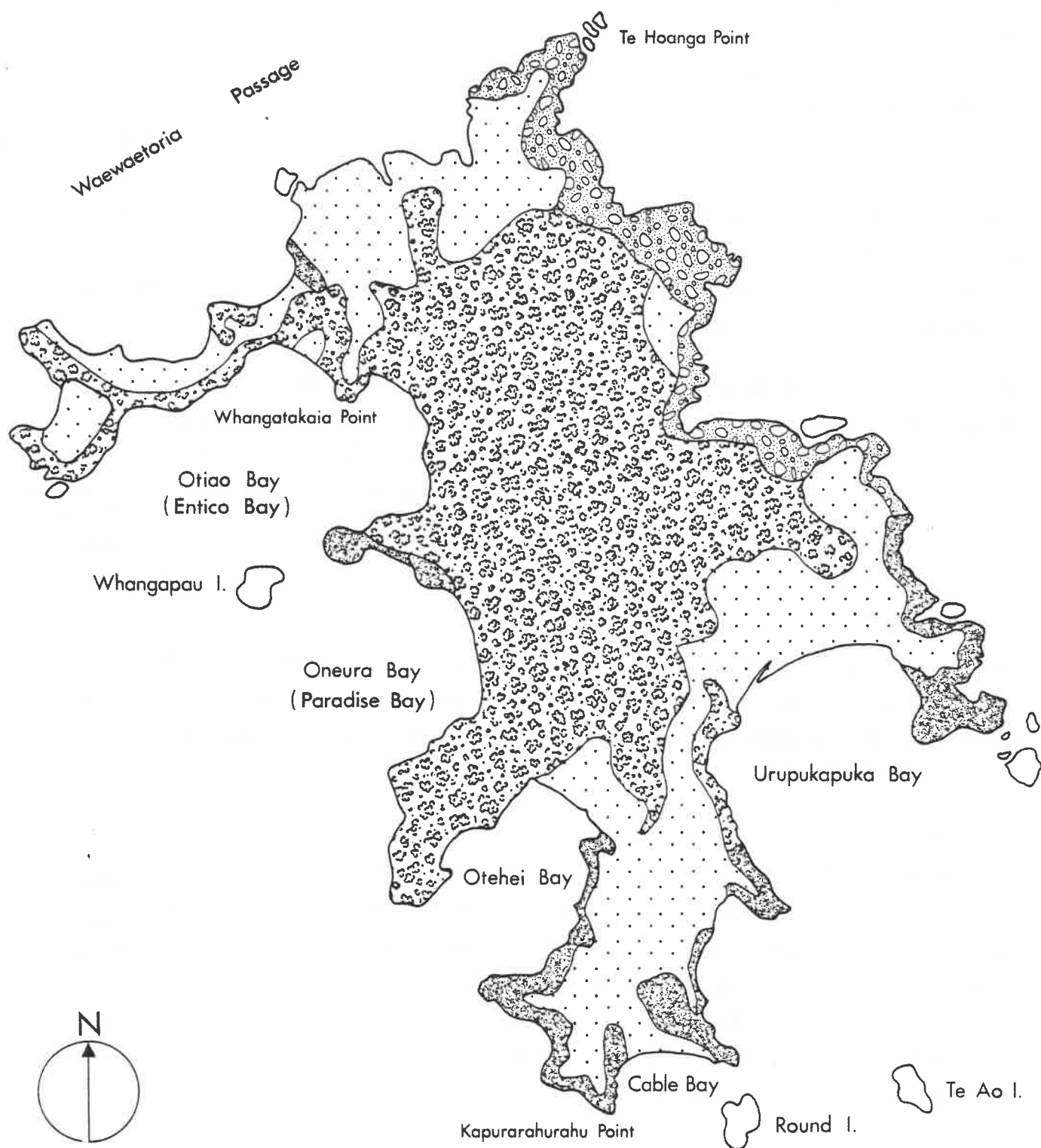
The soils of both islands are predominantly from the Marua Suite and include the Te Rangu steep-land soils, the Marua buff clay loam and the Marua buff clay loam hill soil. The major soil of the Whakapara Suite is the Whakapara sand.

The islands have a long history of burning and grazing, and as a result the present vegetation is similar to that found in most other parts of the Bay of Islands, with the present plant communities being largely artificial. The vegetation can be categorised as either pasture land, which occupies about half of the islands, or regenerating manuka which covers the balance, with the exception of isolated stands of pohutukawa along some coastal portions and headlands.

There are pastures of moderate quality in the southern and eastern sectors with danthonia, paspalum and rat-tail grasses predominating. Kikuyu grass is in the process of spreading out from the beach but has not achieved a significant coverage to date. Parts of these sectors which have been aerial top-dressed have shown a favourable response, indicating considerable scope for pasture improvement. The infestation of pasture weeds in the southern sector appears to be low, but in the eastern sector Australian sedge is a problem.

On Urupukapuka, pasture in the northern sector is generally inferior, possibly due to its lower natural fertility and apparent neglect. The ridgelines are predominantly in grass, but manuka fills the gullies, particularly along some of the steeper portions. Vegetation is often sparse in this sector, covering little more than 20% of the ground during summer droughts and consisting mainly of danthonia, rat-tail and sweet verrall, with isolated pockets of kikuyu. Swamp species also contribute to the food supply for cattle during periods of summer drought.

On Waewaetorea the existing vegetation has been supplemented by planting fruit trees, and pohutukawa. Some of these plantings were destroyed by a fire in 1979 behind Otawake Bay. Foraging by cattle has also taken its toll. Natural regeneration of pohutukawa, and flax along some of the coastal margins, has probably contributed more significantly to the landscape of the island, particularly where these areas have been fenced off to exclude grazing animals.







Urupukapuka Island

Scale 1:15 000



KEY

-  Manuka Kanuka.
-  Pasture.
-  Coastal forest.
-  Coastal cliff association.

Regenerating manuka is the major pasture weed on both islands. It varies in age from young stands invading pastures to remnants more than 50 years old. The dominant stands of manuka and kanuka tend to exclude virtually all other competing species of vegetation. This probably results from a lack of suitable seed sources from other plants, from the selective grazing by cattle, and from the relatively high density of younger stands of tea tree. An important consideration in the longer term management of the islands' is the fact that regeneration will probably never progress beyond mature stands of manuka and kanuka over the whole of the islands, with the exception of limited coastal areas containing pohutukawa in association with a few understorey species. (Esler 1973).

The long history of modification to the natural landscape which has taken place during the normal course of farming operations has therefore resulted in the creation of an artificial environment which responds more positively to improved pasture management techniques than to benign attempts at native bush regeneration.

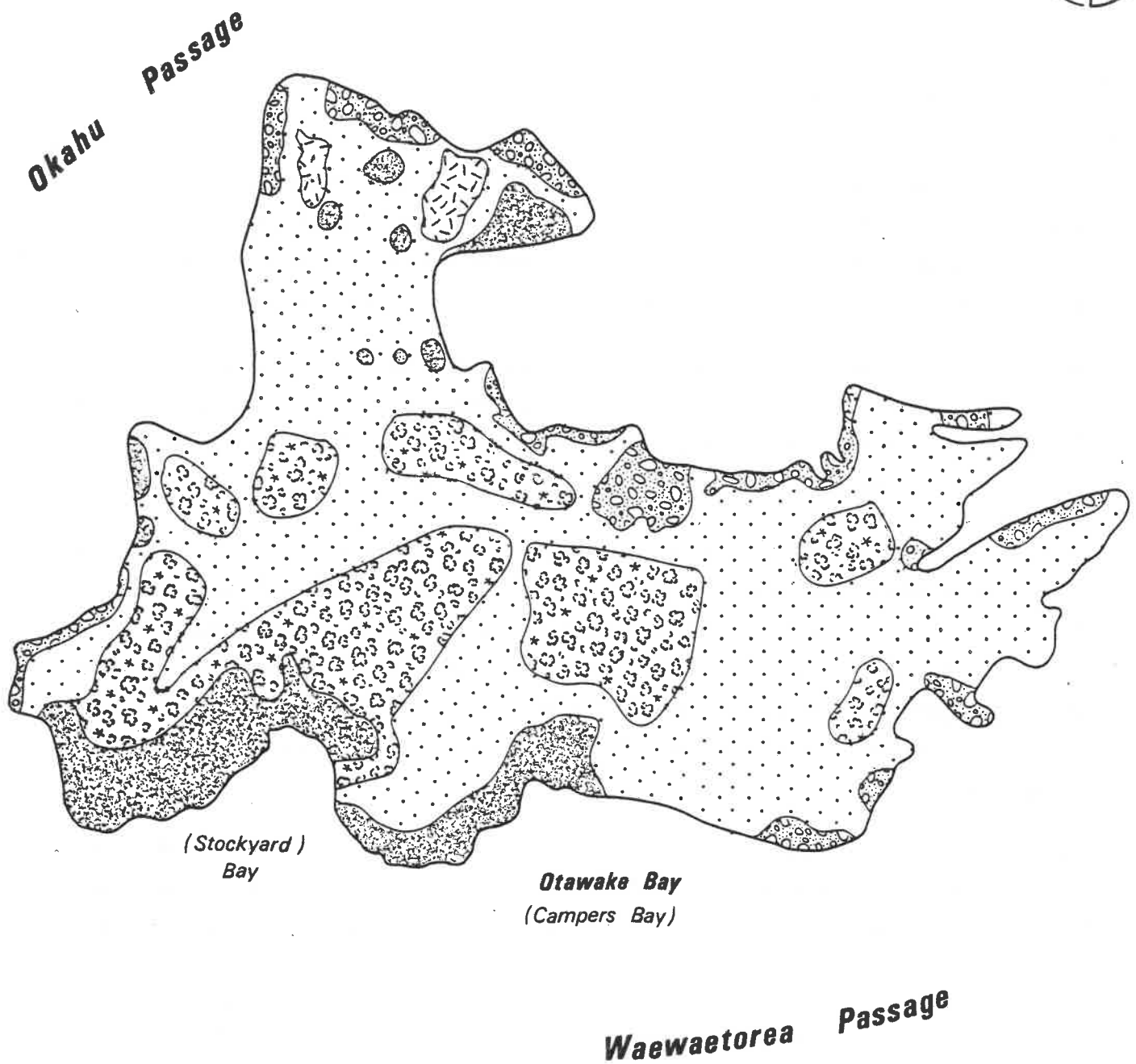
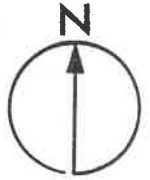
5.3 EROSION

It is now evident that accelerated patterns of erosion on certain portions of the islands have become a critical factor in the deterioration of the natural landscape, to the general detriment of farm productivity, and environmental values.

The northeastern side of Urupukapuka Island is particularly susceptible to geological erosion, resulting in the steep cliff faces which are seen today. Above these cliffs the weathered soil profile has been subjected to wind, sheet, earthslip and rockfall erosion types. Wind and sheet erosion is particularly severe on the eastern tip and northern region, while elsewhere earthslip erosion is the major cause of soil loss. While natural elements are responsible for much of the erosion, it appears that stock tracking along the top of ridges may also be a contributing factor.

The steeper areas of the central part of the island, previously in pasture but now reverting to manuka scrub, suffer from sheet and gully erosion. This is probably as a result of repeated burning and overstocking, with the consequent loss of topsoil.

In areas where water has concentrated in depressions, particularly in the north of Urupukapuka Island, a moderate level of gully erosion has occurred. Where the shoreline is more exposed the sandy soils of the flats have been subjected to a streambank and marine wavelap erosion.



Waewaetorea Island

Scale 1:6 500



KEY

- | | |
|--|---------------------------|
| | Manuka Kanuka |
| | Pasture |
| | Coastal forest |
| | Coastal cliff association |
| | Pohutukawa regeneration |

In view of the erosion factors present, it is imperative that the longer term management be based on sound principles of soil and water conservation with emphasis on achieving improved stability and the retention of ground cover.

5.4 FAUNA AND MARINE LIFE

The island environment of Urupukapuka and Waewaetorea does not appear to contain any significant terrestrial or freshwater vertebrates. The range of species which has been observed is common to many coastal areas of Northland where pasture lands have prevented the type of forest regeneration which provides a suitable habitat for a diverse range of native and introduced animals.

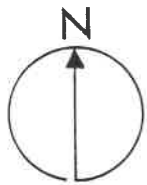
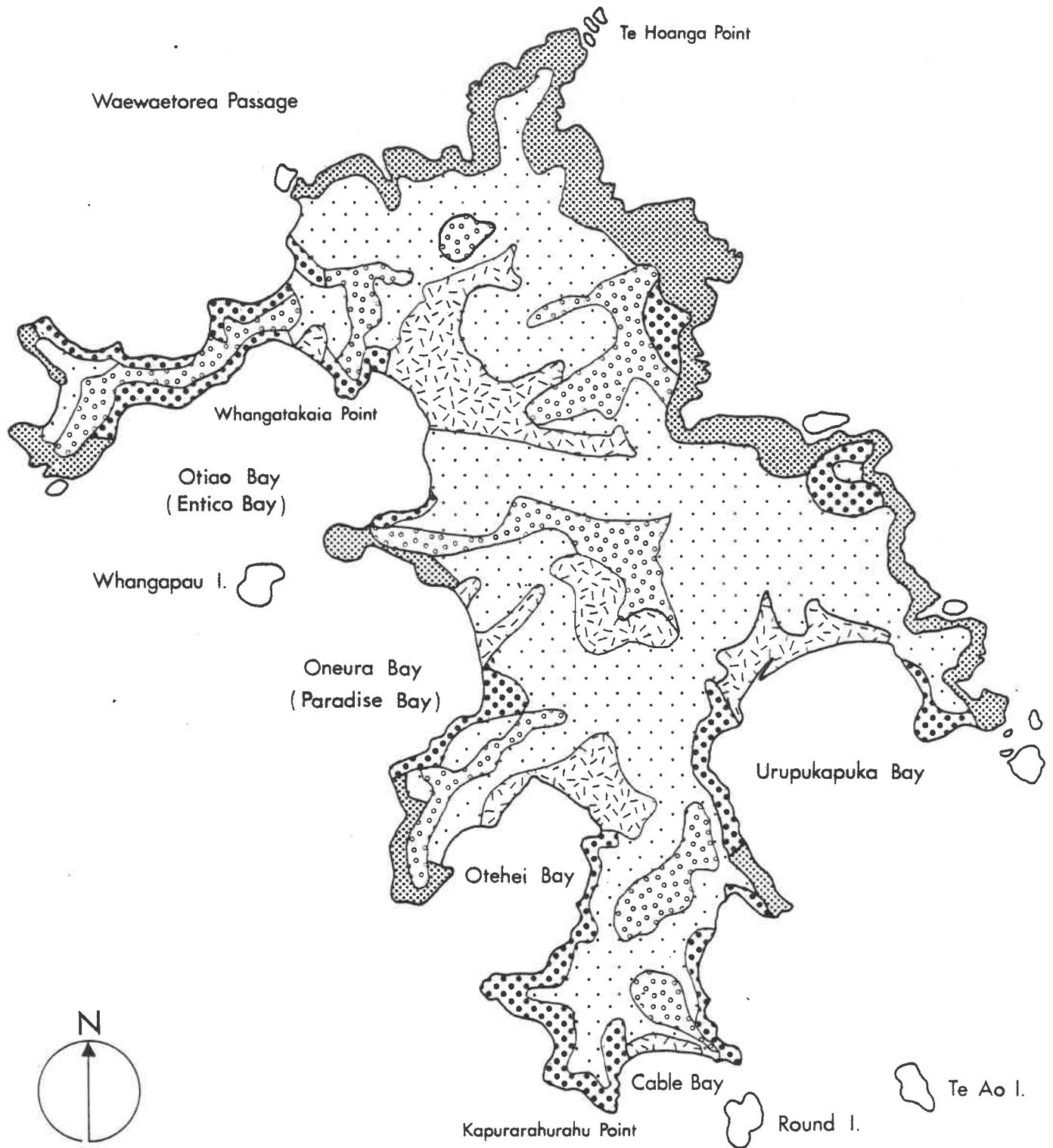
Rats and stoats are evident on both islands. The most interesting find to date has been the discovery of several primitive native species of trapdoor spider above Otaio and Whangatoki Bays on Urupukapuka Island. These spiders require a relatively undisturbed, humid forest or scrubby habitat.

The bird life consists mainly of common introduced species, together with some of the more widespread small native species such as fantail and swallow. Sea-birds include such common inshore varieties as redbilled and blackbacked gulls, whitefronted and caspian terns, gannets and various types of shags. The weka was introduced to Urupukapuka in 1981 after the Wildlife Service determined that the island was unsuitable for the release of other native birds such as the kiwi or saddlebacks.

In contrast to the terrestrial environment on the islands, the surrounding marine zone contains a diversity of animal life. This diversity, which includes over 64 different species of fish, indicates a typical coastal assemblage of marine fauna. (Offshore Island Research Group 1980).

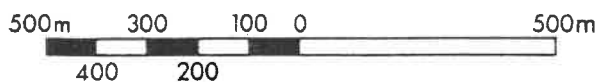
Among the variety of species found the blennie fauna is the most diverse. The bottoms of sheltered bays contain large expanses of sea grass which appears to have spread fairly rapidly in recent times. These bottoms generally change to a shell bed of Tawera towards the channel, and then become increasingly muddy close to Rawhiti Inlet, where a larger molluscan population is supported. The entrance to Urupukapuka Bay has a fairly high population of scallops, many of which are undersized but are still being heavily exploited. Pipsis and cockles are both common in Otehei Bay beach, and pipsis are evident in the lower portions of the tidal beach at Urupukapuka Bay.

In view of the modifications to the natural terrestrial environment on



Urupukapuka Island

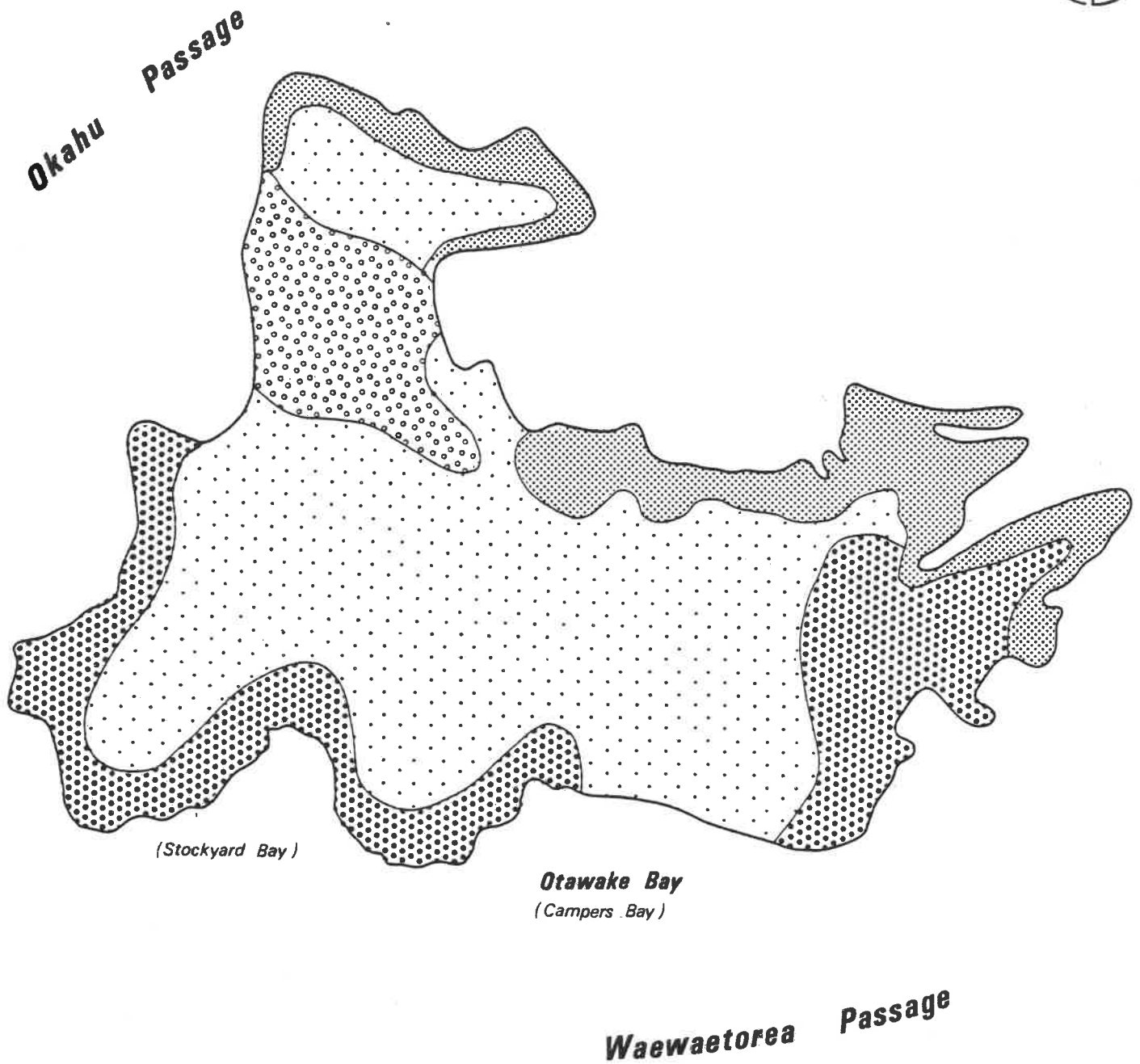
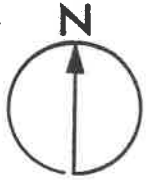
Scale 1:15 000



KEY

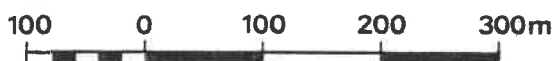
Units	Limitation	Recommended Land Use
IVs IVw	Soil Wetness	Suitable for limited cultivation. Best suited to long term grazing.
Vc	Climatic	Suitable for grazing. Climatic conditions limit cultivation.
VIe VIw	Erosion Wetness	Suitable for grazing. Swamp area probably best retained for water conservation.
VIIe	Erosion	Increased steepness and erosion hazard limits grazing usage. Some protection planting may be desirable.
VIIle	Erosion	Sheer coastal rock cliffs with limited soil depth. Unsuitable to any form of productive land use.

Urupukapuka and Waewaetorea, it is considered likely that interpretation of the natural history of the islands will have to rely more heavily upon an explanation of the surrounding marine environment. The current level of exploitation of this resource is high, and therefore some form of additional protection will be required in order to maintain and enhance its qualities.







Waewaetorea Island

Scale 1:6 500



KEY

Units	Limitation	Recommended Land Use
	IVc Climate	Pastoral use with some cultivation possible
	VIe Erosion	Suitable for grazing
	VIIe Erosion	Increased steepness and erosion hazard limits grazing. Bush areas would be best fenced from grazing animals
	VIIIe Erosion	Sheer coastal rock cliffs with negligible soil depth. Unsuitable to any form of productive land use

6. Archaeology

The Bay of Islands has a considerable volume of recorded history regarding its Maori inhabitants which complements the many archaeological sites remaining. Early accounts indicate that the Maori inhabiting the area were numerous and powerful, and as a result they left a substantial imprint upon the landscape in the form of terraced headlands and hillslopes, ridges dotted with pits, and beach fronts containing charcoal and food remains. Early explorers' descriptions of their initial contact with the Maori give a vivid description of aspects of their lifestyle, and remark on the complexity of their social organisation. The existing evidence of Maori occupation offers an excellent opportunity for interpreting pre-European history. However, problems can occur in protecting sensitive archaeological sites which are subjected to intense public use.

The islands are extremely important from an archaeological standpoint because of the comparisons they provide with sites on the mainland. The northeastern coastlines of Urupukapuka and Waewaetorea are steep and inhospitable along their exposed flank, while the southern and western portions of the islands contain a number of sheltered inlets and bays behind which are small fertile alluvial flats. These form suitable areas for human settlement. In a logical fashion, the positioning of defensive sites on the islands reinforces the close physical relationship between the land and its surrounding waters.

The archaeological significance of Urupukapuka Island therefore stems not from a particular quality of any individual site, but from the diverse range of sites which are found in close association with one another. This rather unique collection of sites can provide a reasonably full picture of the everyday life of the pre-European Maori for both the archaeologist and visitor to the park.

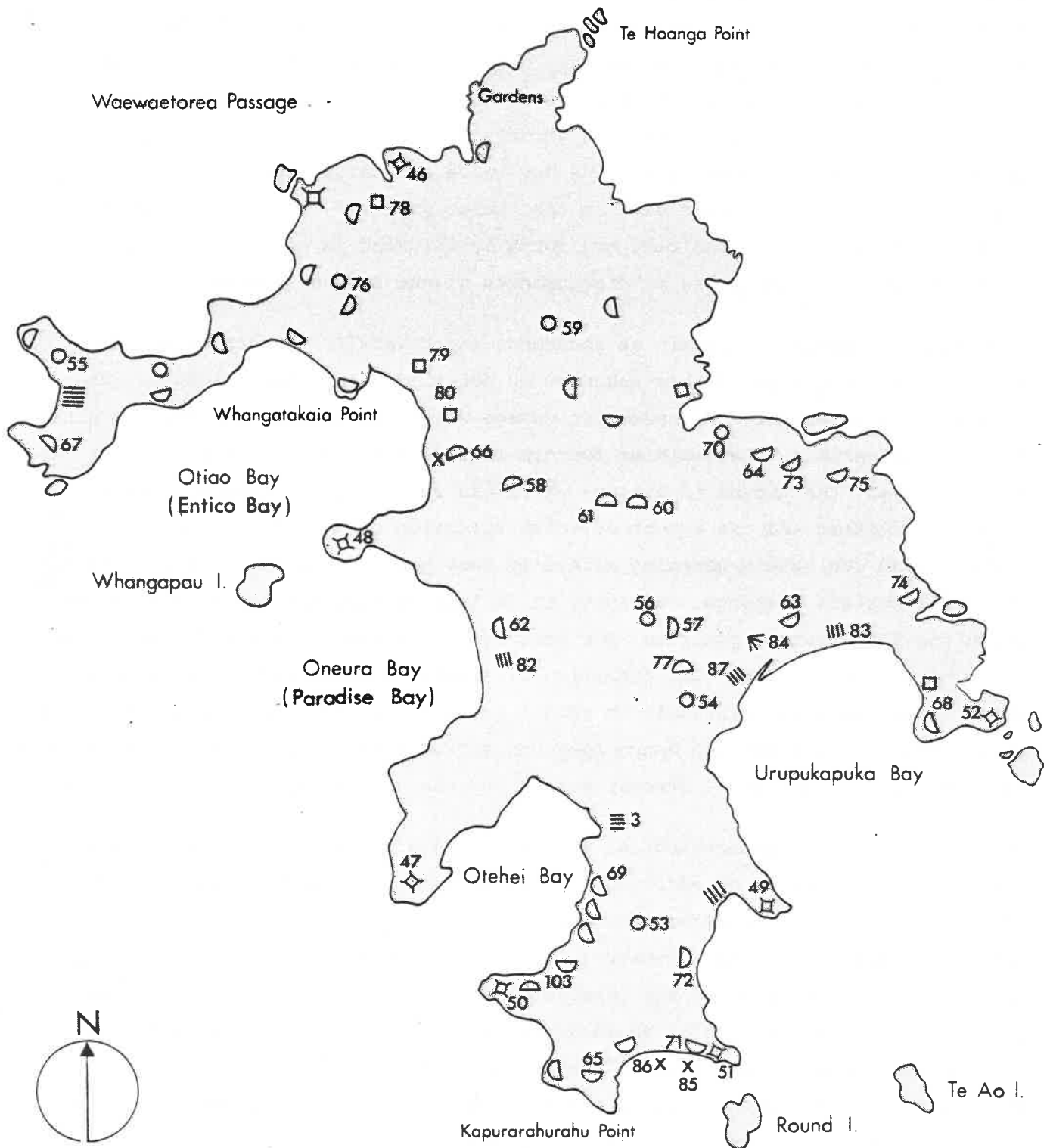
The archaeological sites found on Waewaetorea, while fewer in number, are nonetheless well preserved and seem to indicate a pattern of permanent occupation with close links to both neighbouring islands. These links are evidenced by the complementary positioning and similarity in design of certain pa sites, which capitalise on the obvious advantage of occupying the islands simultaneously.

A site survey (Leahy and Walsh 1976) has served to identify over 42 archaeological sites on Urupukapuka Island, including seven pa of which no two are alike. The pa are all on headlands, taking advantage of naturally well-defended positions. Although some inland ridges appear suitable for defended sites, none have been developed for that purpose. The southern half of the island contains all but two of the pa sites and all are in reasonably good condition, with the exception of the site comprising the southwestern headland of Urupukapuka Bay which is eroding rapidly. The pa sites range in size and purpose. Some are interpreted as small, fortified retreats used only at times of threatened warfare. Others are more complex sites which contain storage pits, numerous, wide terraces and substantial defences. These were probably permanently occupied and were able to withstand a prolonged siege. The pa are defended by steep terraced banks and a single transverse ditch bisecting a headland, but in at least one instance a double transverse ditch has been employed. The pa are interesting in the amount of diversity evident, often as a response to differences in the immediate topography of the sites. The level of sophistication in the design and construction of several of the pa sites suggests a relatively high degree of social organisation and a substantial labour force.

In contrast to the defended pa along the coastline there are a number of terraced knoll sites found on inland portions of Urupukapuka Island. The knoll sites usually consist of a central pit or depression, often banked up around the sides, and a series of concentric, discontinuous terraces following the topography of the knoll. These sites suggest that the living areas contained a substantial structure in the centre, with smaller houses and other structures scattered around it on lower terraces.

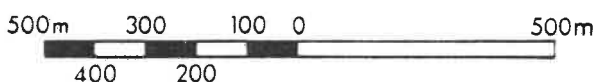
Terraced ridges, which are the remains of small pre-European hamlets, are fairly common on Urupukapuka. Several are distinguished by their terraced spurs and adjoining well-defined field systems. Evidence of gardening in the form of drain and field systems and modified agricultural soils has been found on the flats of Oneura, Otehei and Urupukapuka Bays. Midden consisting of scattered layers of shells, fish, bone and burnt stones have been found in a number of locations. It is expected that further finds in this regard will be uncovered as investigations proceed. Midden banks are literally rubbish heaps consisting mainly of food debris, and as such often contain valuable information regarding local fauna, environments and human economies.

Waewaetorea Island contains nine sites, most of which are in good condition. These sites comprise two headland pa, a small defended knoll, several terraces, field systems, taro gardens and a possible canoe shelter. The pa sites are



Urupukapuka Island

Scale 1:15 000



KEY

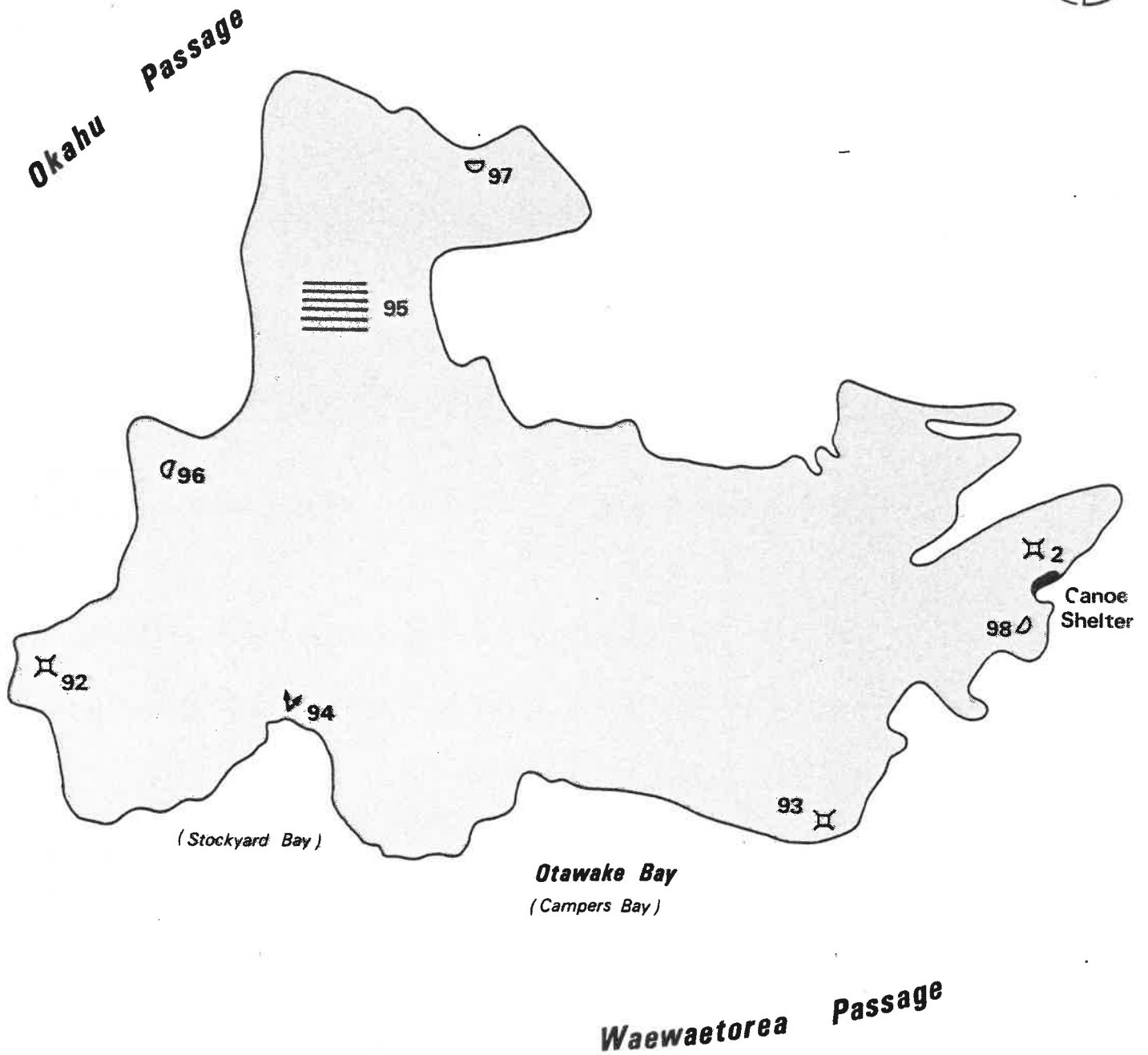
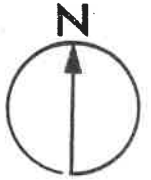
- | | |
|-----------------------------------|-------------------------|
| □ Pa site. | X Midden / garden soil. |
| ◐ Terrace or terrace pit complex. | □ Pit. |
| ○ Knoll terrace. | ↗ Drain / field system. |

Archaeological site numbers refer to the N.Z. Archaeological Associations National Site Record System and should be prefixed by N12/.

similar in design to those found on Urupukapuka, although there is a suggestion that the southernmost site may have been later modified for defence against musket warfare. Garden areas recorded on the island are remnants of larger plantations and these have left surface impressions in the form of striations where drains were formerly constructed. The taro gardens include a number of wild taro plants growing in a swampy stream behind the Bay where the cattle ramp is situated. Perhaps the most significant site is the "canoe shelter", which is an extremely rare find because these shelters are normally situated in beach foredunes and as a result are often subjected to disturbances of one form or another.

Both islands appear to contain an abundance and diversity of archaeological evidence that could be further enhanced by detailed site investigations. The degree of interference and consequent damage which has already occurred to sites varies considerably. Determining factors include the type of clearing which has been employed, the amount of erosion which has resulted, the type of animal grazing permitted and the extent of scrub reversion occurring. Reversion of cleared land can have a damaging effect by root penetration of the soil, thereby obscuring surface features. However, it is land development and grazing by cattle which has the greatest potential for destruction in sensitive areas, particularly along ridge tops, through the formation of tracks, fencing and rotary slashing. These sites are also vulnerable to people pressure because they are often located where access is easiest and hence they can suffer considerable erosion in the form of tracking or slumping of steeper scarps and the gradual filling in of ditches.

The preservation of archaeological evidence, therefore appears to be dependent upon a two-fold effort of additional field investigation and evaluation, combined with the formulation of effective management techniques designed to protect and enhance selected features. Preservation alone, however, is not enough. Consideration must also be given to the interpretation of selected archaeological sites so that these can serve as an added attraction for visitors. This will also help to promote a greater awareness of the area's Maori history and the need for protecting it. Archaeological interpretation is therefore considered to be an integral part of the overall recreational development of both islands.







Waewaetorea Island

Scale 1:6 500



KEY

-  Pa Site
-  Terrace or terrace pit complex
-  Drain/field system
-  Taro clumps

Archaeological site numbers refer to the N.Z. Archaeological Assocs. National Site Record System and should be prefixed by N12/

7. Recreation

The recreational use of Urupukapuka Island dates back as far as 1927, when Otehei Bay was used as a base for big game fishing expeditions. At a later stage the Otehei Lodge resort was established and became the focal point for recreational activity on the island for many years. The proliferation of privately owned boats in recent years has placed increasing pressure on bays and beaches that provide opportunities for coastal recreational activities such as swimming, skin diving, snorkelling, fishing and sunbathing. Other forms of activity, such as tramping and walking over the islands, have also increased in popularity, but remain subordinate to the management of the islands as farming units.

The recreational use of the islands, including camping on Urupukapuka Island, has been monitored during the peak holiday periods since 1979. This programme consisted of boat and camping party counts, together with a questionnaire designed to survey the type and extent of recreational activity.

The boating surveys have confirmed that Urupukapuka Island is the most popular destination for boats of all types, accounting for the highest average number of boats per day during the survey periods. Urupukapuka is followed in succession by Moturua, Motuarohia, Waewaetorea and Motukiekie Islands. The relative popularity of bays on Urupukapuka Island itself are noted in the following descending order: Urupukapuka, Otehei, Paradise, Cable, Entico and Whangatakia Bays. The survey questionnaire indicates that campers come to the islands primarily from launching ramps at Paihia, Russell and Rawhiti/Hauai Bay.

At Waewaetorea the western side of the island receives slightly more use by boats than the two bays along the southern side. The most popular area for day-use recreationalists is the beach fronting onto the Okahu Passage. A complete summary of the survey results is contained in Appendix A.

In response to increasing pressure by the general public, in 1978, camping was permitted at Urupukapuka Bay and Cable Bay.

Since that time the level of camping has shown a steady increase. The overall pattern has also changed with a shift in camper numbers from Urupukapuka Bay to Cable Bay, reflecting a preference for a more sheltered position.

The policy is to require campers to be totally self-sufficient, with the exception of potable water, and to request that they make their own provision for toilet facilities and rubbish disposal. The general consensus among campers indicates strong support for continuing this simple, informal style of camping. However, as visitor pressure increases it is imperative that camping be continually monitored to ensure that environmental capacities are not exceeded. The personal approach to toilet provision has presented some problems. While it is probable that a higher level of supervision will suffice in the short term it may be that ultimately some limit will have to be imposed on the number of campers in specific areas, particularly Cable Bay.

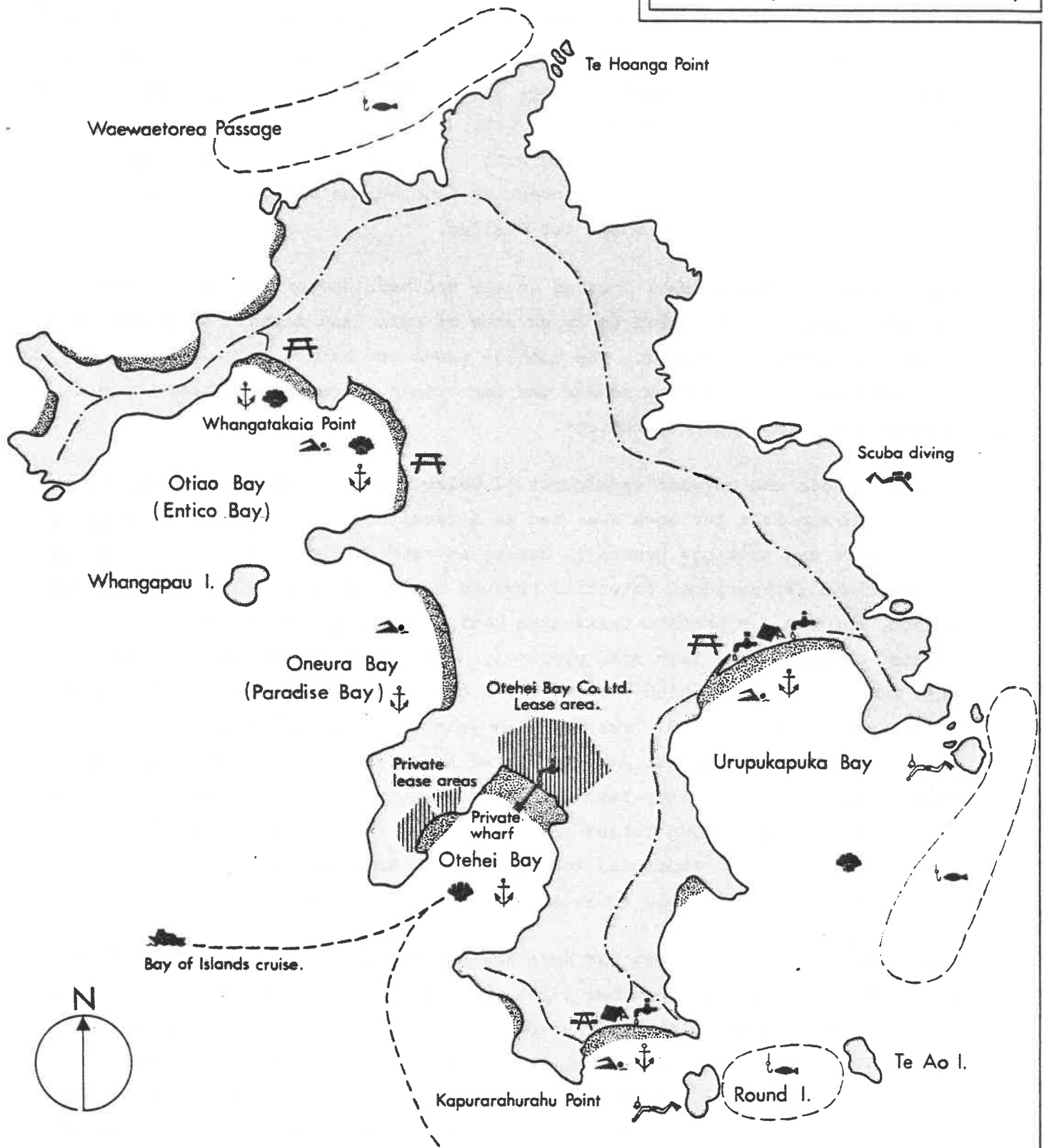
The survey data also showed a marked increase in the extent of "unauthorised" camping in other bays on the island. This increase appeared to reflect a desire by some visitors for a more isolated, short-term form of camping, rather than overcrowding in the camping ground at Urupukapuka Bay. In view of this trend, the Board decided to liberalise its existing camping policy in areas where short duration, isolated camping would not conflict with day users. On this basis the balance of Urupukapuka Island with the exception of Paradise, Entico and Otehei Bays, was deemed suitable for this limited form of camping activity. The level of this form of camping has remained relatively low over the 1981/1982 and 1982/1983 seasons, accounting for approximately 10% of all camping activity on the island.

The essential difference between the two styles of camping is that the "informal" type relies upon the provision of a reliable water supply, whereas the "remote" experience does not depend upon such a facility. The scale and diversity of Urupukapuka Island is sufficient to provide ample opportunity in the foreseeable future for both types of camping experiences. On the other hand, Waewaetorea contains only two bays of any size and on this basis the island is to remain a day-use area.

Inland portions of Urupukapuka Island are not presently suffering from heavy visitor use. When further developments such as a planned network of walkways, signposting and other information facilities are provided, it is anticipated that use of these areas will increase. In contrast, the south-western bays and beaches of the island are currently well patronised. This appears to be due mainly to the accessible and attractive natural qualities of these areas.

RECREATION

Current predominant activity



Urupukapuka Island

Scale 1:15 000



KEY

- | | | | |
|--|---------------------|--|---------------------|
| | Sandy beach | | Anchorage |
| | Camp ground | | Shellfish gathering |
| | Picnic site | | Fishing |
| | Water point | | Snorkeling |
| | Pedestrian movement | | Swimming |

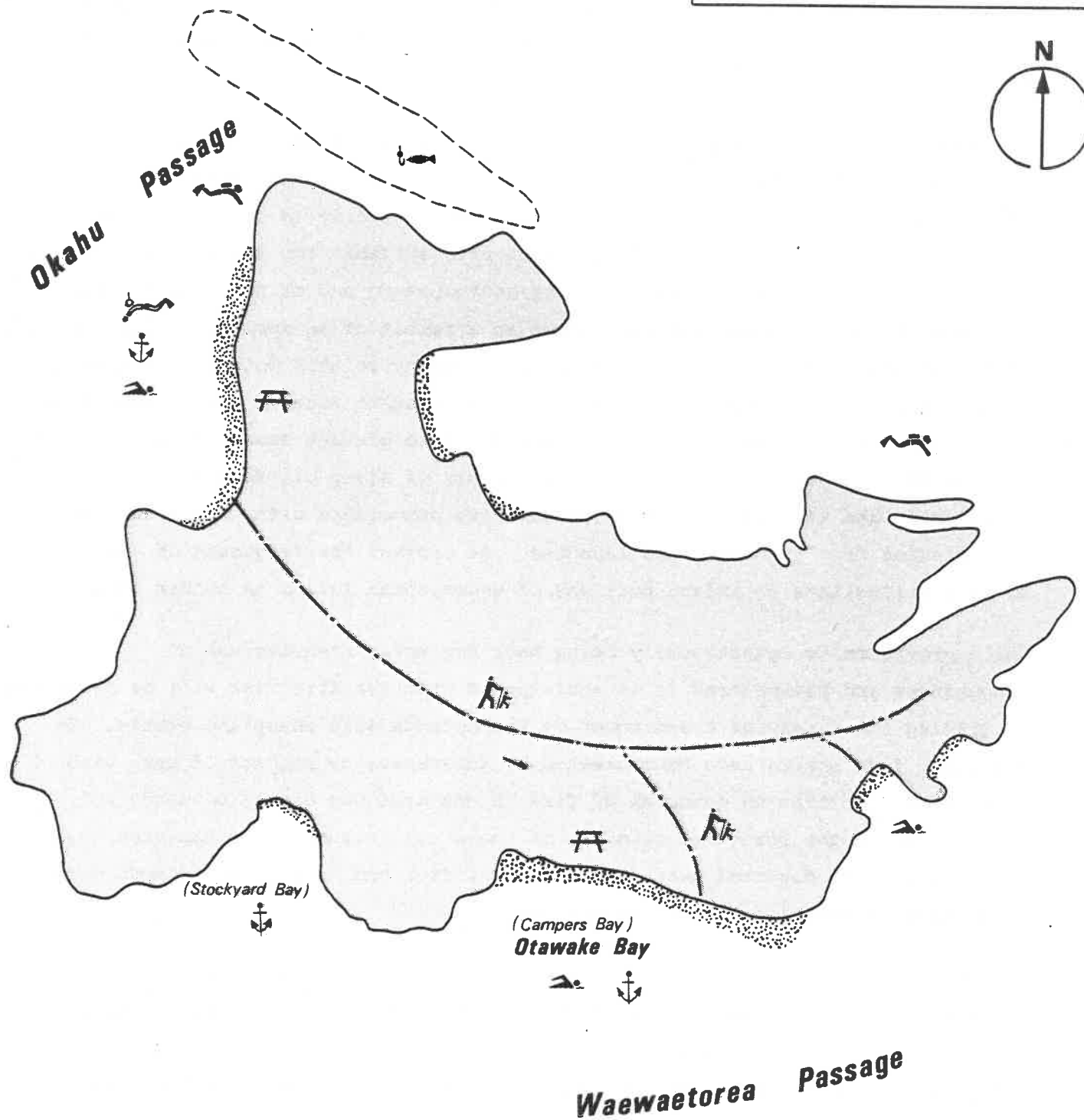
Urupukapuka Bay is presently the most popular boat use area, probably because of its large sheltered bay and long, sweeping sand beach which is backed up by a substantial area of flat pasture land. This beach, within a short, safe distance from launching facilities at Rawhiti/Hauai, appears to contain ample area to cater for both camping and day usage with little conflict. A planned programme of tree planting and associated protective fencing has been undertaken at Urupukapuka Bay to provide shade and shelter.

Kapurarahurahu (Cable) Bay, located on the southern end of the island, has a smaller beach, but is backed up by an area of open land capable of accommodating a limited number of campers. The cabbage trees and mature pohutukawa dotting the headlands and rising ground behind the bay create a tranquil setting which is popular with many recreationalists.

Otehei Bay has the outward appearance of being contained as a sheltered body of water separate from the open sea, and as a result it has a special attraction for boat owners and tourists generally during adverse weather conditions. The beach itself lacks recreational potential because of its shingle nature and southerly aspect, but the 4.8 hectare lease area behind the beach has a long history of tourist development. This area presently contains an assemblage of cottages, huts and outbuildings which are the remnants of a tourist accommodation resort which burned down in 1973. The lease is granted for a five year term with perpetual rights of renewal for successive five year terms. There are several other houses on two shorter-term leasehold properties. Otehei Bay contains the only wharf on Urupukapuka Island and is the most suitable stopping point for regularly scheduled, commercial tourist boats. Arrangements should be made to upgrade the wharf, possibly in association with the Board.

The lease area at Otehei Bay has been the subject of a Town and Country Planning Appeal Board Hearing (16 October 1978) which decided issues relating to zoning, and hence development rights. The Appeal Board, in its decision, has adopted the view that some form of tourist development may be appropriate, but that such development must be in sympathy with the adjoining areas of Park land in terms of design, scale and function. It is the intention of this plan to establish guidelines for the development of Park lands on Urupukapuka Island as a recreational resource, and in doing so, criteria will also be established which will provide a comparative basis for evaluating the environmental impacts of possible commercial development on the island.

Oneura (Paradise), Entico (Indico), Whangatoki and Otiao Bays share a westerly aspect and are backed by scrub-covered catchments containing manuka in various



Waewaetorea Island

Scale 1:6 500



KEY

	Sandy beach
	Picnic site
	Pedestrian movement
	Anchorage
	Fishing
	Swimming
	Scuba Diving

stages of regeneration. These bays, and the beaches behind them, are popular with day use visitors because of their sheltered anchorages and secluded fore-shores.

The most popular day-use area on Waewaetorea is a relatively sheltered beach fronting onto Okahu Passage. The large, flat area behind this beach offers considerable potential for expanded day-use, particularly as the vegetation matures. The only other substantial beach area suitable for day-use recreation-ists is at Otawake Bay, located on the southwestern end of the island. The catchment behind this bay was burnt over as a result of an accidental fire in 1979, and the barren hillsides still bear testimony to this episode. A stock loading ramp is situated in a small bay on the western side of the island close to the taro gardens, which have been fenced out to prevent damage from livestock. The eastern side of the island consists largely of steep cliffs and rocky shorelines, and as a result the major activity associated with this area involves line fishing from runabouts and launches. At present the frequency of visits by recreationalists to inland portions of Waewaetorea Island is rather low.

While provision is intentionally being made for more intensive use of Urupukapuka and Waewaetorea it is anticipated that the fire risk will be minimised by grazing the extensive grass cover on the islands with sheep and cattle. In addition, fire breaks have been created by interspersing pockets of bush with pasturelands so that an outbreak of fire in one area can easily be contained. By encouraging the more intensive use of these two islands it is expected that pressure will be diverted away from more sensitive and fire prone islands such as Moturua, Motukiekie, Okahu and Poroporo.

The Board's existing policy is to allow picnickers small open cooking fires below mean high water mark provided that siting and wind conditions are safe. However, during a prohibited fire season no fires at all are permitted on the islands. A complete fire ban throughout the year is considered impractical and unenforceable, and hence efforts directed at promulgating and enforcing existing Park policy appear to be the most effective measure. A fire plan has been prepared in conjunction with the Forest Service (Waitangi State Forest H.Q.) and together with regular communications it is considered that the present level of fire contingency planning on the islands is adequate.

The marine environment around both islands is used extensively by recreation-ists, and in some cases this use places intense pressure on particular marine resources. While water sports such as swimming, snorkelling and pleasure boat-ing have a minimal impact on the environment, other popular activities such as

fishing and shellfish gathering have resulted in the depletion of these resources in more accessible areas.

Continuing uncontrolled public pressure on scallops, crayfish, kina, reef fish, pipis and cockles is likely to result in a steady deterioration in the size and abundance of these popular species in the vicinity of the islands. The recreation resources of land and sea at Urupukapuka/Waewaetorea should be considered together, so that the management of all activity is coordinated, preferably by a single agency. At present there are a number of authorities, such as the Ministry of Transport, the Northland Harbour Board, and the Ministry of Agriculture and Fisheries, who are involved in the administration of maritime-related activities. It may be appropriate to explore ways in which some form of unified management over land and sea in the area could be achieved.

In summary, both islands have gained recognition as offering a range of opportunities for various forms of outdoor recreation by virtue of their relatively accessible location and particular natural qualities. A programme of annual surveys has helped to identify the existing pattern of recreation, and has also given an indication of what future trends are likely to be.

At present, Urupukapuka Bay and Cable Bay, by virtue of their position and large hinterland, are the primary camping areas for groups and long stay visitors. Otehei Bay, with its lease area, private land holdings and the only wharf on the island, has long been identified as being suitable for some form of sympathetic tourist accommodation development. The scale of development must be compatible with the recreational use of the island and must not compromise the function of the bay as the only suitable entry point for commercial operations. A large resort would interfere with public access, and would exceed the environmental capacity of the land and surrounding waters. The western bays are sensitive to both fire risk and damage to archaeological sites, and hence lend themselves for use as low-key day use areas which do not rely upon substantial ancillary facilities. There is an obvious need to closely liaise with commercial interests in the area to ensure a common approach in the development of the island.

On Waewaetorea the secluded bays of the northern and western sides of the island are also popular with day-users who seek less crowded and more natural beach areas. In contrast, the rugged eastern coastlines of both islands, with their steep cliffs and exposed aspect, lend themselves to preservation as semi-wilderness areas.

The present pattern of use is therefore largely concentrated at the beach areas

and over adjacent bays. However, if the full recreational potential of Urupukapuka and Waewaetorea Islands is to be realised, it is clear that attention must also be given to the more inland portions of the islands, and to the surrounding marine environment. In the first instance it will be necessary to rationalise management objectives so that existing and future activities over the whole of the islands complement rather than compete with one another. Some form of coordinated management should also be exercised over the marine environment so that this resource can sustain a reasonably high level of activity. A first step in that direction is the investigation and regular monitoring of fishery stocks in the area to provide the information base essential for long term protection and control.

8. Farming

Pastoral farming has been a dominant feature in the history of Urupukapuka and Waewaetorea land use since the turn of the century. As the land was progressively leased or purchased from the original Maori owners, it underwent a gradual process of burning and clearing to ultimately establish pasturelands over both islands. Subsequently the two islands were grazed solely by sheep, creating a closely-mown appearance that can still be seen in some of the old, undated photographs on file at the Russell Museum. The original shearing shed, concrete dipping trough and other sheep farming structures from this era, when upwards of 500 ewes grazed Urupukapuka Island, can still be seen at Otehei Bay.

In more recent times Urupukapuka has been grazed by 170 head of rising two-year old Angus steers. On Waewaetorea stock levels have generally been maintained at between fifty to eighty cattle. Rapid scrub reversion of paddocks on Urupukapuka reduced the carrying capacity of the farm to almost half the level of roughly five years ago. The infestation of noxious weeds on both islands, particularly Australian Sedge and Apple of Sodom, has also caused concern.

Urupukapuka Island achieved a profit on its balance sheets for the period 1979/1980 but in view of the rapid deterioration in pasture quality, and consequently in the stock unit carrying capacity, it was evident that farming could not be sustained on that basis. A significant input of both capital and intensive management would have been required if farming were to continue on the island. On Waewaetorea there has also been some scrub reversion and rank growth, particularly when grazing was interrupted during the transfer of the island to the Crown. Since Urupukapuka and Waewaetorea are now being managed as one farming unit it is considered appropriate that all development should be coordinated for both islands in order to create a single, cohesive unit.

Initially Urupukapuka was fenced into three large paddocks, which varied considerably in both pasture quality and development potential. The largest paddock totalled 95.5 hectares, of which 35.5 hectares was in heavy scrub, 28.5 hectares in reverting scrub and 28.5 hectares in poor pasture. Scrub control by

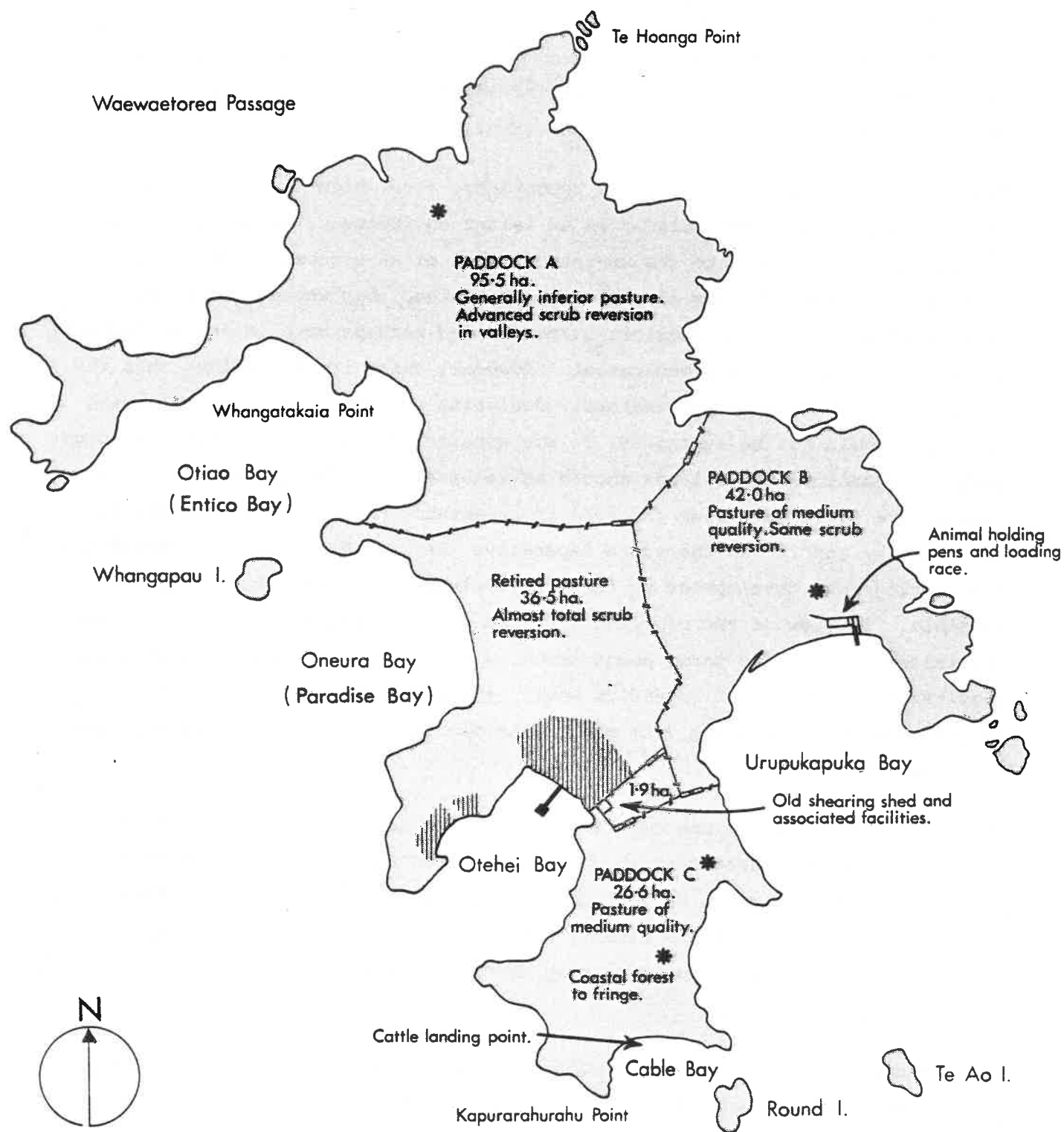
hand cutting and subsequent aerial oversowing/topdressing have now been employed successfully in this area. The smaller paddocks, (42 hectares) and (26.6 hectares) contained pastures of medium quality which varied according to aspect and relief. However, scrub reversion in these areas was also a factor.

A timber loading race and holding pens have been constructed at Urupukapuka Bay and there is further potential for stock watering development and electric power supply reticulation on the island. Stock on both islands are transported by a large barge which is permanently moored at Otehei Bay.

On Waewaetorea the farmland initially consisted of poor pasture (25 hectares), reverting scrub (6 hectares), controlled grazing (8.6 hectares) and land permanently retired from grazing (7 hectares). The hill pastures contain mainly danthonia, ratstail and paspalum grasses. Some patches of kikuyu grass are evident on fertile ridgetops and are being selectively grazed by cattle, particularly during the summer months. The island is well fenced to the extent that in some areas extraneous fencing can be removed to prevent stock tracking. The stockyard and loading facilities are in good working order and there are several catchments on the western side of the island which can be developed for stock watering.

The more recent policy of grazing the islands with cattle was based on a number of farming considerations, including ease of management. However, it was apparent that grazing by cattle was in conflict with archaeological, conservation and recreational values. For instance, archaeologists had suggested that considerable damage was being done by cattle grazing on or near sensitive sites. Inconsistent pasture management had also obscured several outstanding archaeological features. From a botanical standpoint the islands had a poor vegetative cover, partially as a result of noxious weed infestations encouraged by cattle damage. This had accelerated the process of erosion in certain areas, while discouraging a healthy regeneration of native coastal vegetation. The soil conservation reports also expressed concern about the rate of erosion which was occurring through stock tracking. Recreational activity often relies on open areas of closely cropped grass to facilitate movement. However, it was apparent that cattle grazing had resulted in rough, unsightly looking pastures.

While it was clearly established that grazing by cattle was a less than ideal answer to the problem of maintaining grassed areas on islands which are suitable for recreation, there unfortunately did not appear to be any easy solutions to this problem. The problem of managing the plant cover in areas with archaeological sites or those being used for recreational purposes has been referred to







Urupukapuka Island

Scale 1:15 000



KEY

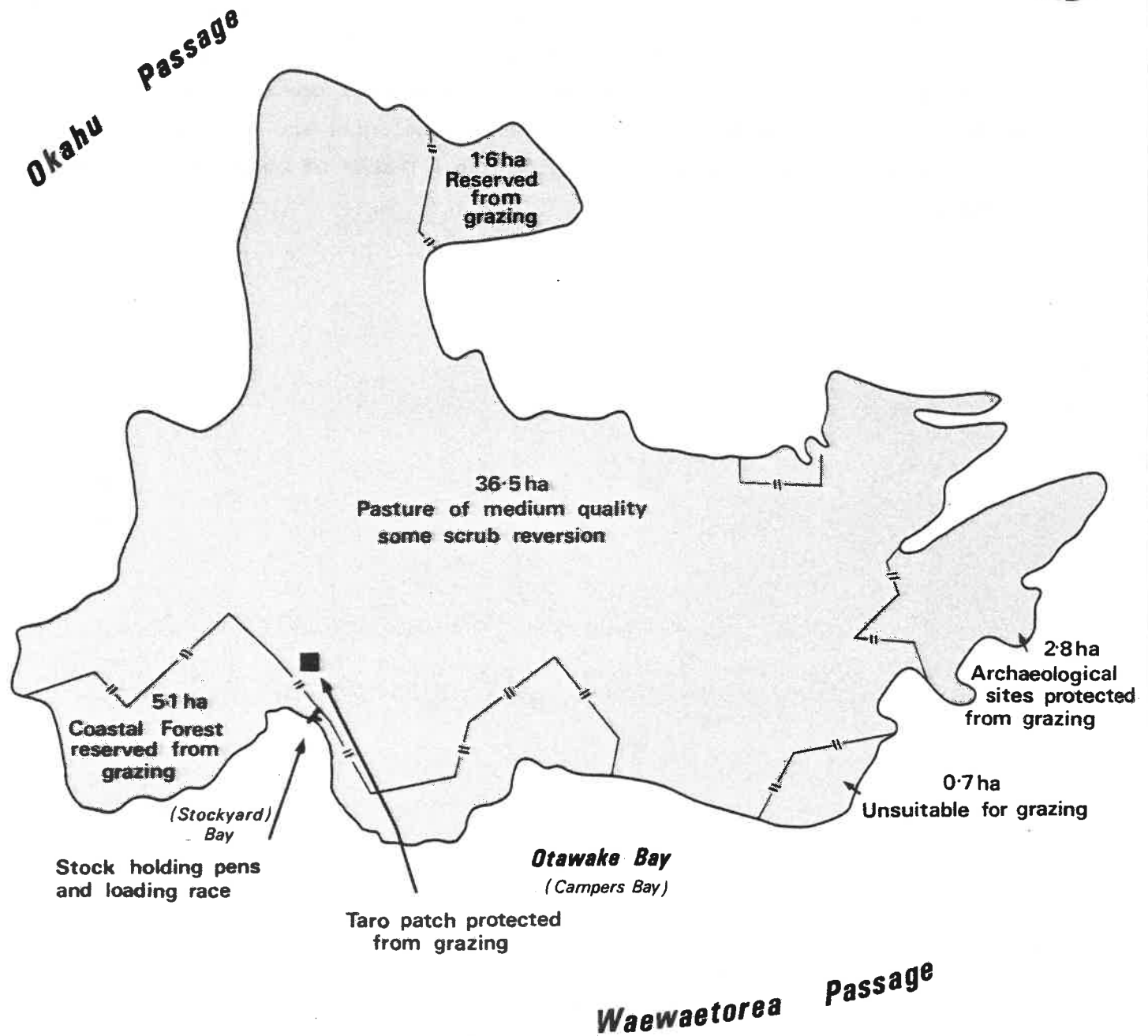
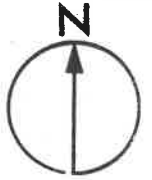
-  Stock fences
-  Gate
-  Dam
-  Private lease areas

in a report by A E Esler (1974), in which he concludes that such areas can be most effectively managed with sheep. Elsewhere it has also been demonstrated that sheep farming is generally more compatible with the specific aims of recreational development, particularly if the farm is managed intensively in smaller grazing units with significant inputs of topdressing, etc.

The unique combination of climate, topography, vegetation and soil structure found in Northland, particularly in an island environment, appeared to present a considerable impediment to the re-introduction of an economical sheep-based farming operation. It was also clearly recognised that sheep have a specific pattern of grazing which requires different and perhaps more intensive forms of stock control and pasture management. However, since it was obvious that the quality of pasturelands was seriously declining and that the current farming operation could not be sustained, it was considered appropriate that the longer term management of the islands should be re-assessed. Considerable capital expenditure would have been involved in re-establishing areas of pastureland on the islands, and it was therefore imperative that sound economics be achieved by structuring such development so that it complemented as many functions as possible. In view of the problems incurred over the previous 5 years in managing the island as a cattle farm, doubt arose as to whether the capital investment required to combat scrub reversion would have been adequately safeguarded by merely continuing existing farm management practices. On that basis the need for this plan arose.

With the development of the two islands as a recreational resource, it is logical that their management should now be based upon a wider range of considerations which take account of such factors as overall goals and the relationships between various uses. It is clearly desirable that every effort be made to ensure that the farming operation complements and assists the use of the islands for recreational activity.

The integrated farm park is a concept which envisages a suitable balance between a farm and a park so that the public may enjoy natural and agricultural areas, and closely observe farming activities within this environment. The scale of the islands is such that they can provide for recreation in both a natural coastal environment and in a modified rural setting. Grazing provides the most efficient method of maintaining the open, closely cropped areas of grassland required by certain forms of recreation. Therefore pastoral farming is a logical and important aspect of the total park concept. However it is imperative that the type or scale of farming employed must be sympathetic to the overall objectives for managing the islands. In achieving these objectives, a number



Waewaetorea Island

Scale 1:6 500



KEY

—||— Stock fences

of policies and proposals have been formulated to structure a balance between what are considered to be standard farming practices, and what is considered optimal for recreational use. In view of the expanded role farming will assume on the islands, it is recognised that a number of new considerations will apply in terms of the level of management appropriate, the level of constraints required, and the question of responsibility for overall control and financial commitment. It is intended that the objectives, policies and proposals contained in this report will serve as a guide for making a number of decisions relating to these issues.

9. The Management Concept

In determining the most appropriate form of development for Urupukapuka and Waewaetorea Islands consideration must be given to their wider role within the context of a new and expanding maritime and historic park complex. Regard must be given to the special natural and cultural qualities of the islands and how these may be best used to satisfy probable trends in the area's future pattern of recreational use.

The obvious and major attraction of the Park is the great water system of the Bay of Islands - its many beautiful sheltered bays and inlets, its numerous islands and its distinctive shoreline. Throughout the history of the bay this water system has served as the communication and transportation link between widely dispersed areas of settlement. The important historical component of the Park spans not only early European exploration and later colonisation in the Bay of Islands, it also includes the much longer period of Maori occupation.

It is evident that the "experience" offered by the Bay of Islands Maritime and Historic Park will differ in many ways from the traditional type of "experience" found in other established national parks, notably in the South Island. The Bay of Islands landscape has been significantly modified by a long series of human activity including early Maori clearing for defensive and cultivation purposes, and subsequent native forest logging, gum digging, burning and clearing for pastoral development, and the introduction of exotic flora and fauna by Europeans. These modifications form a part of the history of the Bay of Islands.

It is clear that the experience of a maritime park will rely more heavily upon the character and form of recreational activity offered, rather than upon a strict attempt at landscape preservation. The islands in the Bay are an important resource in this regard because of the unique opportunities they present for natural and historical interpretation, for outdoor water-related sports and for pursuits such as sightseeing. The range of activities offered on and near these islands will have a direct relationship with the natural features and history of the area, and will contrast with and complement the commercial services offered on the more developed areas of the mainland. The protection and native

regeneration of some islands in accordance with their classifications will likewise balance and enhance the development of others, notably Urupukapuka and Waewaetorea, for recreational and educational activity.

The overall management concept for Urupukapuka and Waewaetorea is to create a farm park on both islands. The term "farm park" is used here to mean the grazing of an area by livestock to facilitate various forms of outdoor recreation. The open, closely-cropped paddocks maintained by grazing, interspersed with bush clad gullies and coastal margins, help to create a pleasant environment in which movement is encouraged, archaeological features are maintained, camping is assisted and scenic vistas are protected. The judicious combination of natural and developed areas can serve to maximise opportunities for a range of activities. It should also be pointed out that the activity of farming itself can be of interest to visitors from urban areas.

On the other hand, the farm park concept, by virtue of the multiple uses provided for, serves as a vehicle for rationalising apparently competing land uses by placing each of these in a proper perspective according to an overall goal. The overall goal is to develop a recreational resource which complements the existing character of the island. The rationalisation of possible conflict between these various uses or activities in accordance with this goal is obviously the key to the successful long term management of Urupukapuka and Waewaetorea Islands. For instance, farming operations serving as an adjunct to a recreational facility may not reasonably be expected to serve as an economical unit. In similar fashion, certain forms of recreational activity may not be conducive to maintaining a viable pasture land or to safeguarding archaeological values.

The practical rationalisation of uses on the islands will be achieved by formulating a clear set of guidelines in the form of objectives and policies which establish the appropriate level or intensity of each activity and define their inter-relationships. These objectives and policies are further refined by detailing management proposals for the design and implementation of certain facilities required in the short term.

Management planning is also a process of continuous review and it is expected that the objectives, policies and proposals will be constantly re-evaluated as knowledge increases or circumstances change.

10. Objectives

The following objectives provide the basis for the management of Urupukapuka and Waewaetorea Islands within the context of an overall decision-making process for the Bay of Islands Maritime and Historic Park.

1. TO PRESERVE AND ENHANCE THE OPEN SPACE QUALITIES AND RURAL CHARACTER OF URUPUKAPUKA AND WAEWAETOREA ISLANDS FOR THE USE, BENEFIT AND ENJOYMENT OF THE GENERAL PUBLIC FOR OUTDOOR RECREATION.
2. TO ENCOURAGE THE PROTECTION AND WISE USE OF THE COASTAL MARGINS AND MARINE RESOURCES OF THE ISLANDS TO A LEVEL WHICH ENHANCES THE EXPERIENCE OF PARK VISITORS.
3. TO PRESERVE THE HISTORIC AND ARCHAEOLOGICAL FEATURES OF THE ISLANDS AND WHERE APPROPRIATE INTERPRET THESE FOR THE BENEFIT OF THE GENERAL PUBLIC.
4. TO MANAGE THE RESERVES AS A FARM PARK TO A LEVEL WHICH IS COMPATIBLE WITH THEIR BIOLOGICAL, ARCHAEOLOGICAL AND RECREATIONAL SIGNIFICANCE.
5. TO ENSURE THAT ANY FUTURE USE OR DEVELOPMENT OF THE ISLANDS IS CONSISTENT WITH THE CONCEPT OF A MARITIME AND HISTORIC PARK, WITH PARTICULAR REGARD TO THE ISLANDS' ENVIRONMENTAL CAPACITIES.

11. Policies and proposals

In accordance with the stated objectives, the policies and proposals which follow will serve to form a management framework for guiding decision-making.

Outdoor Recreation

Explanation

Urupukapuka and Waewaetorea Islands have an established pattern of outdoor recreation which can be further developed by providing additional opportunities for certain forms of activities which are considered to be low-key, non-polluting, self-reliant, informative and have a minimum of conflict with other existing values. This development, in part, will take the form of improving pasturelands, constructing low-key pathways and providing for a range of camping experiences. Any specific facilities provided will be ancilliary to natural forms of recreation and will be designed to be in harmony with the island setting. It is proposed that camping and other accommodation facilities will be provided for on Urupukapuka Island, while Waewaetorea Island will remain solely a day use area.

OBJECTIVE 1

TO PRESERVE AND ENHANCE THE OPEN SPACE QUALITIES AND RURAL CHARACTER OF URUPUKAPUKA AND WAEWAETOREA ISLANDS FOR THE USE, BENEFIT AND ENJOYMENT OF THE GENERAL PUBLIC FOR OUTDOOR RECREATION.

POLICY 1.1

To maintain a good quality pasture on areas not vulnerable to erosion in an attempt to preserve the visual landscape qualities and encourage low-key forms of outdoor recreation on more inland portions of the islands.

Proposals

- 1.1.1 Undertake a programme of scrub control and regrassing on selected portions of the islands in accordance with plans 1 and 2.
- 1.1.2 Fence off areas identified as having high levels of erosion, and encourage the regeneration of stabilising vegetation by planting native species.
- 1.1.3 Manage areas experiencing moderate levels of erosion by resowing, top-dressing and selective grazing to encourage the retention of a healthy grass sward.

POLICY 1.2

To develop a system of pathways which facilitate pedestrian movement and improve access to points of interest.

Proposals

- 1.2.1 Construct a series of low-key tracks as shown on plans 1 and 2.
- 1.2.2 Identify tracks and associated facilities by employing a uniform standard of signposting.
- 1.2.3 Provide pedestrian stiles where tracks intersect fence lines.

POLICY 1.3

To provide permanent opportunities for informal camping on selected portions of Urupukapuka Island.

Proposals

- 1.3.1 Establish informal camping areas at Urupukapuka and Cable Bays in accordance with plans 3 and 4.
- 1.3.2 Undertake a tree planting programme at Urupukapuka Bay.
- 1.3.3 During peak holiday periods provide for a level of management necessary to ensure that individual provision of toilet and rubbish disposal facilities does not compromise natural and archaeological values.
- 1.3.4 Undertake a programme of monitoring to determine the level at which camping exceeds environmental capacities or conflicts with day use on Urupukapuka, and instigate controls on the number of campers before these limits are exceeded.

- 1.3.5 Examine the longer term implications and consequences of providing communal toilet facilities at Cable and Urupukapuka Bays on the basis of information gained from this monitoring programme.
- 1.3.6 Permit short duration, isolated "remote" forms of camping on Urupukapuka Island, with the exception of Paradise, Entico and Otehei Bays.
- 1.3.7 Maintain the present role of Waewaetorea Island as a day-use recreational area.

POLICY 1.4

To provide for natural forms of outdoor recreation that are predominantly resource-based and are in harmony with the natural, rural, historical and archaeological settings of the islands.

Proposals

- 1.4.1 Encourage simple, passive recreational activities such as picnicking, sightseeing and historical/archaeological interpretation by providing low-key facilities appropriate to these uses.
- 1.4.2 Provide information to the park visitor by way of pamphlets, handbooks and simple signs regarding the opportunities which exist on the islands for natural forms of non-exploitive outdoor recreational activity.

Coastal and Marine Areas

Explanation

It is clear that the recreational pressure on or around the islands will increase as the Park continues to develop. At present much of this use is associated with water sports, and hence careful consideration must be given to the future management of the coastal margins and marine resources in order that a high level of recreational activity can be sustained without damage to the environment. The natural character of coastal margins can be preserved by reinforcing existing vegetation and by limiting the development of facilities in these areas. Lines of authority for the management of marine areas are presently complicated and distant. Hence an essential step in securing protection of the marine environment surrounding the islands concerns achieving some form of unified control, preferably by a local agency such as the Park Board.

OBJECTIVE 2

TO ENCOURAGE THE PROTECTION AND WISE USE OF THE COASTAL MARGINS AND MARINE RESOURCES OF THE ISLANDS TO A LEVEL WHICH ENHANCES THE EXPERIENCE OF THE PARK VISITOR.

POLICY 2.1

To preserve the natural character of the coastal margins.

Proposals

- 2.1.1 Reinforce existing areas of coastal forest by selective fencing and planting of native species, primarily pohutukawa.
- 2.1.2 Provide a minimum of facilities within this zone.
- 2.1.3 Ensure that any structures considered essential to natural forms of recreational activity are designed and sited in a manner which is sympathetic and subservient to the natural coastal landscape.
- 2.1.4 Adopt specific control measures designed to reduce erosion on coastal margins presently being subjected to high levels of stock tracking.
- 2.1.5 Discourage the construction of fireplaces except in areas where these do not conflict with natural values or pose an immediate fire danger.

POLICY 2.2

To explore methods of improving management control over the inter-tidal and marine zones of the islands in order to safeguard and enhance the experience of the Park visitor.

Proposals

- 2.2.1 Undertake a programme of monitoring the marine resources surrounding the islands to provide a data base necessary for effective management.
- 2.2.2 Liaise with appropriate governmental agencies to determine the extent to which additional controls may be necessary under the Harbours Act 1950 and Fisheries Act 1908 to maintain the quality of the islands' marine resources.
- 2.2.3 Apply for a grant of control for the foreshore, seabed and waters surrounding the islands under S. 8A and 165 of the Harbours Act 1950.

- 2.2.4 Create an on-going management structure to evaluate feedback from the biological monitoring and recreational survey programmes adopted, and use this information to introduce or change controls as the circumstances warrant.
- 2.2.5 Develop methods of interpreting selected features of the islands' natural marine resources for the benefit of the general public.

Archaeological Features

Explanation

Urupukapuka Island contains numerous archaeological sites that suggest a dense settlement pattern at some time in the pre-European past. This settlement was probably based on small villages overlooking garden areas, with ready access to nearby defended headlands. On Waewaetorea Island the number of recorded sites is much smaller but demonstrates a similar range. The two islands together therefore represent an important archaeological resource that must be protected in terms of the Historic Places Act 1980. Damage to archaeological sites occurs in a number of ways. These include tree-root infiltration, natural erosion, erosion and pugging by cattle, and human interference. Protection will be assisted by further site identification, selective fencing, grazing by sheep (refer Policy 4.1) and on-site interpretation. The interpretation of appropriate sites will not only serve to inform visitors of the islands' historical and cultural significance, but it will also help to stimulate greater awareness and support for attempts at preservation. Interpretation of archaeological features will therefore add another dimension to the recreational use of the islands.

OBJECTIVE 3

TO PRESERVE THE HISTORIC AND ARCHAEOLOGICAL FEATURES OF THE ISLANDS AND INTERPRET THESE FOR THE BENEFIT OF THE GENERAL PUBLIC.

POLICY 3.1

To identify and evaluate the archaeological resources of the islands.

Proposals

- 3.1.1 Commission a comprehensive investigation of archaeological sites over the islands.

- 3.1.2 Adopt a plan which specifies the level of protection which should be afforded to each site.
- 3.1.3 Plot all archaeological sites precisely on large scale aerial photographs to aid management.
- 3.1.4 Compile archaeological and historical background information on the island which can be translated into a form suitable for informing the general public.

POLICY 3.2

To devise specific management techniques for the protection and interpretation of archaeological features.

Proposals

- 3.2.1 Fence selected archaeological sites on the islands in accordance with plans 1 and 2.
- 3.2.2 Where practicable, allow sheep to graze fenced off archaeological sites by removing the bottom two strands of wire on certain fencelines.
- 3.2.3 Construct low-key tracks to selected sites using a design and materials appropriate to the level of interpretation and protection desired.
- 3.2.4 Develop a range of low-key interpretive devices using signs, illustrations, diagrams and reproduced drawings to explain selected sites to the general public.
- 3.2.5 Provide a written guide and explanation of sites open to the public by publishing information in the Park Handbook or, if appropriate, in a separate pamphlet.
- 3.2.6 Ensure that management considerations affecting archaeological sites are referred to an archaeologist for comment, and that development proposals receive required approvals from the Historic Places Trust.
- 3.2.7 Exercise care in the design and siting of any required facilities in order to encourage appropriate behaviour towards sensitive sites by members of the general public.

Farming

Explanation

The intention is to create a farm park on Urupukapuka and Waewaetorea whereby grazing animals are used as an efficient and cost effective means of maintaining corridors and open paddocks of closely-cropped grassland. These spaces, framed against steeper bush clad slopes, provide an attractive and functional setting for a variety of passive recreational activities such as tramping, sightseeing, casual games, sunbathing, camping and historical or archaeological interpretation.

Farm development will therefore be structured so that it serves to maintain a balanced and pleasing pattern of pasture and bush by opening up ridge tops, retaining vegetation in upper catchments, improving existing pastures, permanently retiring erosion prone soils, and preserving the natural character of coastal areas. This involves a process of scrub clearing, some landscape planting, and a phased change from a beef stock to a sheep-cattle regime. In this latter regard, older cattle will be used to first crush rank growth, followed by younger cattle and some sheep in the intermediate stages, with the ultimate goal of establishing a predominantly sheep to cattle ratio on the islands to maintain a healthy grass sward over all pasturelands. Other changes proposed include the subdivision and mob-stocking of paddocks, and the adoption of a more comprehensive farm management decision-making process that takes into account various recreational, archaeological and conservation issues on the islands.

OBJECTIVE 4

TO MANAGE THE RESERVES AS A FARM PARK TO A LEVEL WHICH IS COMPATIBLE WITH THEIR BIOLOGICAL, ARCHAEOLOGICAL AND RECREATIONAL SIGNIFICANCE.

POLICY 4.1

To employ farming practices which complement the recreational use of the islands.

Proposals

- 4.1.1 Undertake a staged programme of converting the existing cattle grazing operation to a predominantly sheep-cattle grazing unit over both islands in order to protect archaeological sites, reduce erosion and enhance recreational development.

- 4.1.2 Adopt scrub clearing and pasture management techniques which have minimum conflict with existing natural, archaeological and recreational values.
- 4.1.3 Permanently subdivide the paddocks on both islands according to plans 1 and 2 and investigate the use of electric fencing where temporary subdivisions will improve pasture quality.
- 4.1.4 Provide for a level of management, particularly in respect of stock rotation, which ensures the maintenance of a closely cropped, attractive grass cover over all pasture lands on the islands.
- 4.1.5 Leave manuka strongpoints in gullies to control erosion.
- 4.1.6 Avoid the use of bulldozed farm tracks, particularly along ridge lines.
- 4.1.7 Examine the potential for creating kikuyu based pastures in more exposed areas where minimum conflict will occur with regenerating bush.
- 4.1.8 Construct new fencing in a manner which enhances the natural flow of the landscape, particularly in areas where steeper catchments are being allowed to naturally regenerate.
- 4.1.9 Avoid the use of exotic trees and shrubs in revegetating areas prone to instability.

POLICY 4.2

Develop the farm as an integral part of the recreational resource.

Proposals

- 4.2.1 Create a single farm management unit for Urupukapuka and Waewaetorea Islands.
- 4.2.2 Enhance the general public's awareness of the farm park concept by providing information and practical opportunities for learning about various farming operations.

POLICY 4.3

To protect existing values by adopting a comprehensive farm management decision-making process.

Proposals

- 4.3.1 Ensure that all decisions regarding farm management are made within the context of the wider goals and objectives for the islands.
- 4.3.2 Arrange for discussions with the appropriate advisor when archaeological, conservation or recreational issues arise during decision-making.
- 4.3.3 Provide for an expanded role for farm staff in the administration of recreational activity.
- 4.3.4 Prepare specific farm management safeguards for areas requiring special protection and ensure that these are maintained during normal farming activity.
- 4.3.5 Organise regular on-site meetings at least twice a year with all parties involved to monitor progress and to modify management proposals as appropriate.

Future Development

Explanation

The objectives, policies and proposals contained in this plan are not intended as a "blueprint" for Urupukapuka and Waewaetorea. Their purpose is to establish a planning philosophy for both islands and to enable decisions for future development to be made according to an ordered, rational process. Wherever particular features have been identified as being sensitive to development, or where features have been earmarked for some form of development, it will be necessary to establish distinct policies. One area which merits particular attention because of its intended function and obvious development potential is Otehei Bay.

Notwithstanding any lease arrangements, all developments must be integrated with management plan policy. The Board will not permit any land on Urupukapuka and Waewaetorea Islands to be freeholded. Lease areas, as in national park situations, are intended to provide concessionnaires with a base from which to serve ordinary visitors to the Park. The facilities that concessionnaires provide must relate directly to the resource and its existing pattern of use, rather than creating new demands or duplicating something provided elsewhere.

The Board believes that both day-use and overnight facilities can be successfully

established at Otehei Bay. Day facilities should provide refreshments and limited supplies to visitors. The Board considers that appropriate accommodation facilities would consist of a maximum of 30-50 low density, single storey cabin-type units designed to harmonise with the landscape. All services must be contained within the lease area and will not be allowed to exceed the environmental capacity of the land and surrounding waters.

OBJECTIVE 5

TO ENSURE THAT ANY FUTURE USE OR DEVELOPMENT ON THE ISLANDS IS CONSISTENT WITH THE OVERALL CONCEPT OF A MARITIME AND HISTORIC PARK, WITH PARTICULAR REGARD TO THE ISLANDS ENVIRONMENTAL CAPACITIES.

POLICY 5.1

To provide for free and open entry and access to all reserve areas with the exception of areas containing archaeological or natural features sensitive to people pressure.

Proposals

- 5.1.1 Discourage any form of development or use which will alienate any bay, beach, catchment or other portion of the islands serving as access for the general public.
- 5.1.2 Ensure that farming operations do not conflict with free access along the network of pedestrian walkways.
- 5.1.3 Encourage the development of Otehei Bay as the entry point for commercial transport by upgrading the existing wharf, possibly in association with the Board.

POLICY 5.2

To adopt criteria for the sympathetic development of the Otehei Bay lease areas.

Proposals

- 5.2.1 Provide for development which is related to the specific use of the island and which does not merely duplicate facilities more appropriately offered on the mainland.
- 5.2.2 Restrict all development and support facilities to the area contained within the boundaries of the lease, and ensure that it does not exceed the environmental capacities of the land and water.

- 5.2.3 Ensure that development reinforces the natural character of the island by remaining subordinate to the coastal landscape in terms of scale and design.
- 5.2.4 Ensure that development does not conflict with open access over reserve areas on the island.
- 5.2.5 Avoid the use of exotic trees and shrubs in any landscape development of the lease area.
- 5.2.6 Limit the tenancy of existing short term leases in Otehei Bay to the present leaseholders and prohibit the freeholding of any land on Urupukapuka and Waewaetorea Islands.

POLICY 5.3

To protect natural features from insensitive forms of development.

Proposals

- 5.3.1 Discourage the development of any recreational facility which relies upon structures which are out of character with the natural landscape.
- 5.3.2 Avoid the use of overhead power lines, particularly along ridge tops.
- 5.3.3 Safeguard the mineral resources of the islands by discouraging all forms of mining activity.
- 5.3.4 Oppose the applications for a licence or lease of a marine farming site in the vicinity of the islands.

Appendix A

Visitor Surveys

1. Introduction

Initially, a camping survey of Urupukapuka Island, and a boat counting programme around the main group of islands, was instigated to coincide with the overall Bay of Islands Recreation Survey (1979-1980).

These camping and boat counting surveys, which have been continued on an annual basis during subsequent summer holiday periods (December-January), provide valuable information regarding the present use of the area and also give an indication of future trends in this regard.

2. Camping Surveys

2.1 General Information

The Urupukapuka Island camping surveys sought information regarding the following:

- * mode of transport
- * embarkation point
- * length of stay
- * source of information
- * number of visits
- * toilet arrangements
- * rubbish disposal arrangements
- * opinion on location of rubbish barge
- * source of water

- * recreational activities
- * types of restriction (if necessary) favoured
- * general comments and criticisms.

Survey questionnaires were designed to be administered to campers by Park staff. The results were recorded on "Holerith" type cards in order to facilitate data manipulation. The total number of campers was also counted on a daily basis. Each response represents one party. General demographic information such as age/sex distribution, party type/size, home location, mode of transport and accommodation type was also recorded. The return rate was generally high (over 50%).

2.2 Party Type

The majority of parties on Urupukapuka were family groups (83%) and the average (mean) party size ranged between 5.4 and 6.2 in the surveys. The number of people in various age/sex categories varied, with the youngest (0-10 years) and oldest (61+) categories being under-represented relative to the national population while the remaining categories were over-represented.

2.3 Home Location

The home locations of visitors appear to be fairly evenly distributed between Whangarei (29%), South of Auckland (24%), Bay of Islands (22%) and Auckland (21%). There has been a steady decline in the number of parties from Auckland (37%-21%) over the last two years.

2.4 Transport

The majority of camping parties (85%) use their own boat to get to their destination on Urupukapuka Island, while the balance rely upon friends with boats (10%), or use commercial transport (5%). In previous years Rawhiti/Hauai Bay was the main point of departure (29%) for campers travelling to the island, but that has now changed in favour of Paihia/Waitangi (41%) and Russell (24%), with Rawhiti/Hauai now third (21%).

2.5 Information

People generally learned about camping opportunities offered on Urupukapuka from friends or acquaintances. The Park Headquarters (5%) and other visitor information centres (4%) did not figure prominently as sources of information. However,

the camping information pamphlet issues by the Park Board and available on the island had been read by the majority (59%) of the parties.

2.6 Number of Visits

First time campers accounted for the largest category (40%) of parties interviewed, followed by those camping 1-2 times previously (22%), those camping 2-3 times per year (19%) and those using the facilities regularly during the summer (10%).

2.7 Toilets and Rubbish Disposal

The majority of campers (66%) usually rely on pit toilets while on the island, with chemical toilets (24%) and boat toilets (9%) serving the balance of the respondents. The opinion of most parties (64%) is that toilets should not be provided by the Park Board in the future under any circumstances.

While a substantial percentage (40%) of campers made use of the rubbish barge anchored off Moturua Island, the majority (55%) carried their rubbish out with them. Parties generally utilised the water sources nearest at hand, such as the reticulated water at Urupukapuka Bay or the hand pump at Cable Bay.

2.8 Camping Areas

Camping activity on Urupukapuka has grown from an estimated 47 parties in the survey period 1979-1980 to 932 parties in the 1981-1982 period. Although Urupukapuka Bay was originally the most popular camping area, the most heavily patronised area by campers is now Cable Bay (46%). The western side of the island, with the exception of Otehei Bay, was opened up for primitive camping in 1981-1982 and slightly more than 100 parties (11%) used this opportunity. If and when the need for some form of restriction on the number of campers arises, the majority (59%) would favour a permit system, and to a lesser extent (24%) a first come-first served arrangement. Some respondents (17%) do not want to see any restrictions under any circumstances.

2.9 Recreational Activities

The principal activities enjoyed by campers were water-related, although a majority of the parties (91%) indicated that they had walked over the island. Although archaeological sites are not featured through interpretation at present, a surprising percentage (35%) visited these areas. The main activities were:

Walking over the island	91%
Visiting other Bays	83%
Swimming	94%
Fishing	94%
Sun Bathing	91%
Snorkelling	77%
Shellfish gathering	74%
Scuba Diving	37%
Water skiing	26%

3. Boat Counts

3.1 Major Island Group

Park staff are responsible for conducting an organised boat count of the main island group in the Bay during the peak summer holiday period.

In 1981/1982 a total of 3806 boats of all types were counted around the seven main islands. This compares with 2895 boats in 1979-1980, indicating an overall increase of 31% in two years. The relative importance of the main islands in this regard are as follows:

Urupukapuka Island	49.0%
Moturua Island	31.7%
Motuarohia Island	12.4%
Waewaetorea Island	3.0%
Motukiekie Island	3.0%
Poroporo Island	.4%
Okahu Island	.2%

The positions of Urupukapuka and Waewaetorea Islands relative to the other islands have remained fairly constant over the survey periods. In terms of boat type, the use of these two islands is similar to the overall pattern of use in the Bay, whereby keelers predominate (47%), runabouts are next in popularity (24%), followed by launches (19%) and trailer-sailers (10%).

3.2 Urupukapuka Island

Urupukapuka Bay consistently has the highest boat count of any bay in the main island grouping, with an overall count of 435 boats and a peak count of 41 boats

in the 1981-1982 survey. The relative position of the bays surveyed at Urupukapuka Island in terms of numbers of boats are as follows:

	Total	Peak	Average
Urupukapuka Bay	435	41	15.5
Otehei	420	28	14
Paradise	258	23	9.6
Whangatakaia	240	29	8.6
Cable	217	18	7.2
Entico	178	26	7.4

Other small and unnamed bays on the south of the island averaged approximately one boat per day, while those small bays on the northwestern side only received occasional use. In the 1981-1982 survey Cable, Otehei, and to a lesser extent Paradise Bay, showed a decrease in use from previous years. Generally, the more accessible, sheltered bays received greater use by runabouts, while the more remote bays were patronised by keelers and launches, often on an overnight basis depending on the weather and wind direction. The location of camping in Urupukapuka and Cable Bays obviously influences this pattern to some extent.

3.3 Waewaetorea Island

Waewaetorea maintains the highest level of use of the three islands flanking Urupukapuka, with the western side of the island receiving most visitors (3.8 boats/day). The two bays on the southern coastline receive slightly fewer visitors (3.1 boats/day). These averages show an overall decline from the previous (1980-1981) survey. The peak counts were 9 boats and 12 boats respectively.

Overall, a total of 117 boats were counted around Waewaetorea during the 1981-1982 survey period.

HOLERITH CARD MONITORING SYSTEM

Administration Instructions

1. Fill out top panel (location, date, etc.) before approaching respondent.
2. Approach respondent, explain purpose of research and obtain information on party composition, origin, transport, accommodation, and boat type by asking questions e.g. "Do you have a boat with you? What sort of boat is it?"
3. Proceed with the questions ensuring the person understands exactly what information you require from them. Interpret the answers to the questions and mark clearly the alternative on the card corresponding to the alternative answers provided on the monitor.
4. Where necessary show the respondent the question card and answers and mark the appropriate alternative on the Holerith card.
5. If none of the alternatives provided satisfy the respondent's answer, mark the "Other" alternative, and write, in the margin provided on the card, the question number and beside it a brief summary of the person's answer.
6. The written question on the monitor sheet is intended as a guide only.

Urupukapuka Island Camping Inquiry

Instructions:

1. Record the number of camping parties in each of Cable and Urupukapuka Bays every day. (Including those parties previously surveyed).
2. Fill out the top panel of the Holerith card; one for each party.
3. Approach each party in turn and ask them to participate in the inquiry.
4. Fill out Party Composition and Origin panel.
5. Mark boat type panel (if they have one).
6. Turn card over.
7. Administer questions.

<u>Question Number</u>	<u>Question</u>	<u>Alternatives</u>
2.	"What recreation activities do you plan to or have engaged in while on Urupukapuka?" (Read or show list)	a. Walking over the Island b. Visiting the other bays by boat (if applicable) c. Water skiing d. Fishing e. Snorkelling f. Scuba diving g. Shell fish gathering h. Sun bathing i. Swimming j. Other (mark and write)
3.	"What mode of transport did you use to get over to the Island?"	a. Own boat b. Bay Jets c. Amphibian d. Dropped off by friends or other non-commercial boat e. Other (mark and write)
4.	"What point did you leave the mainland from to come out to Urupukapuka Island?"	a. Paihia b. Russell area c. Jacks Bay d. Rawhiti/Hauai Bay e. Other (mark and write)
5.	"What kind of toilet arrangements have you made while on the Island?"	a. Chemical b. Pit c. Other (mark and write)

6. "Do you believe that toilets should be provided here?"

- a. No
- b. Yes, definitely
- c. Yes but with reservations about numbers

7. & 8. "How many nights are you staying on the Island for?"

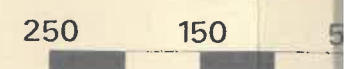
7: a = 10 b = 20 c = 30

8: a = 1 b = 2 c = 3
d = 4 e = 5 f = 6
g = 7 h = 8 i = 9

9. Observe how effective each party's rubbish disposal practices are and rate this effectiveness:

a = Very effective - e = Useless

Scale



Cliff edge erosion compounded by cattle tracking. Gully erosion to catchment above dam, and sheet erosion caused by dam construction and stock pressure on pond. Fence off to exclude cattle but retain access for sheep. Plant Pohutukawas and Flax on eroded areas.

Paddock A is too large for good stock management. Subdivide with new fence as shown. Install new stockwater supply.

Ake Ake Point

Attractive walk follows a switchback ridge in pasture, above a series of sandy beaches. Scrub encroachment has reduced pasture and contributed to tracking. — Open up ridge to increase pasture area, reduce tracking and allow better views. Allow scrub to consolidate on cliffs and promontories, and regenerate on steep erodible soils. Open up beaches to provide access and emphasize access points.

Leave pocket of taller Manuka.

Hand clearing in vicinity of sites N12/55 and N12/67.

Paddock A

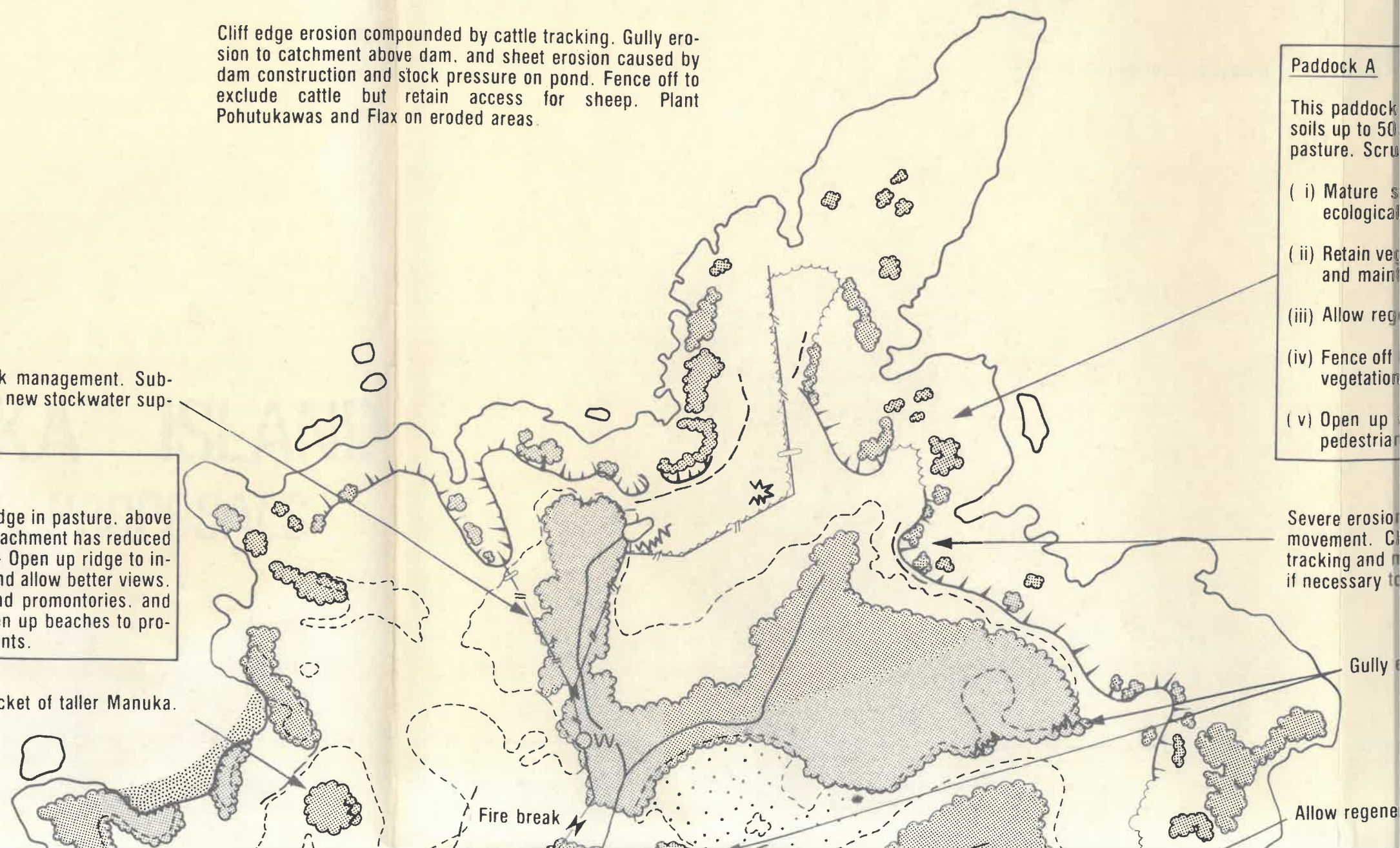
This paddock soils up to 50% pasture. Scrub

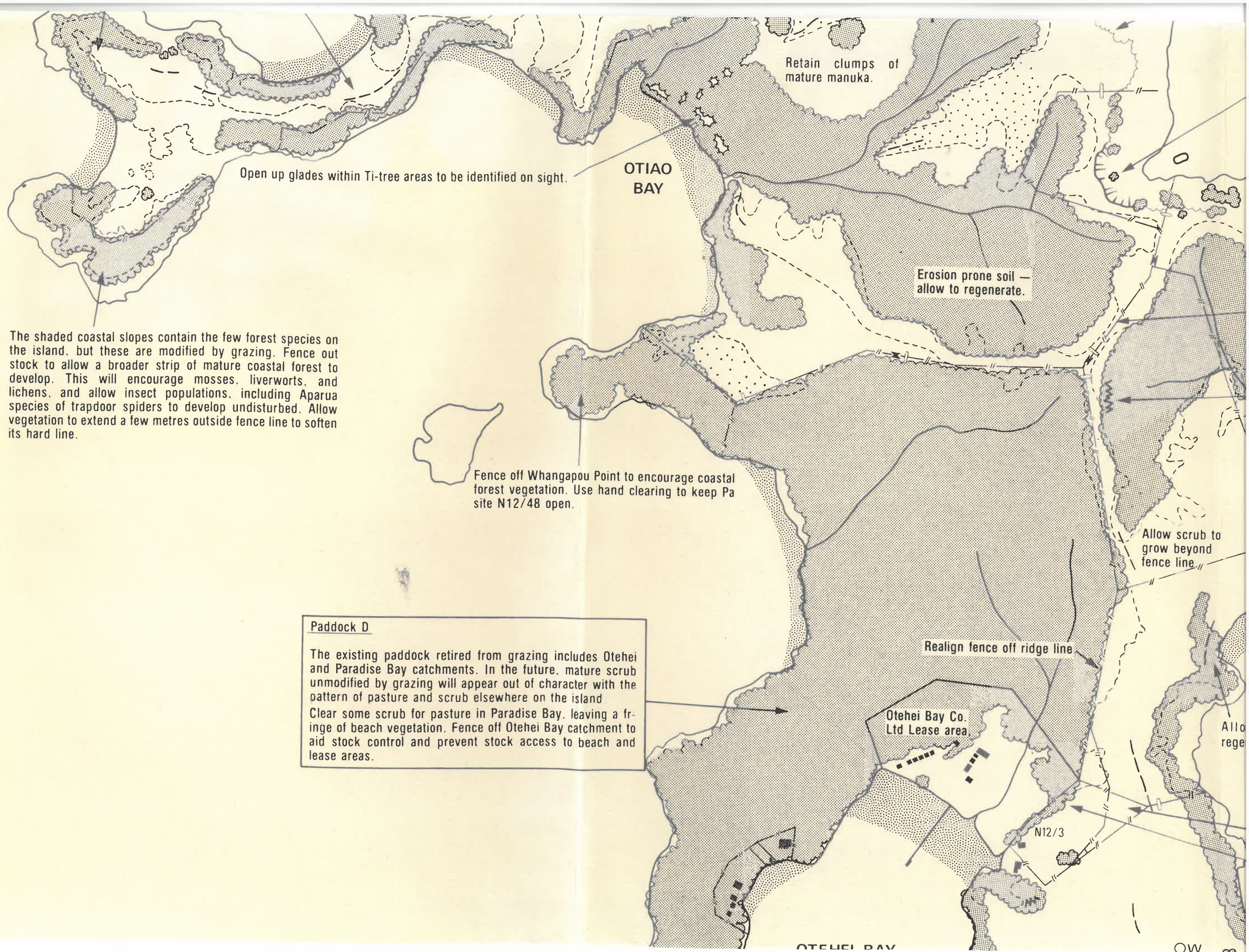
- (i) Mature s ecological
- (ii) Retain veg and main
- (iii) Allow reg
- (iv) Fence off vegetation
- (v) Open up pedestrian

Severe erosion movement. C tracking and m if necessary to

Gully e

Allow regene





Retain clumps of mature manuka.

Open up glades within Ti-tree areas to be identified on sight.

OTIAO BAY

Erosion prone soil — allow to regenerate.

The shaded coastal slopes contain the few forest species on the island, but these are modified by grazing. Fence out stock to allow a broader strip of mature coastal forest to develop. This will encourage mosses, liverworts, and lichens, and allow insect populations, including Aparua species of trapdoor spiders to develop undisturbed. Allow vegetation to extend a few metres outside fence line to soften its hard line.

Fence off Whangapou Point to encourage coastal forest vegetation. Use hand clearing to keep Pa site N12/48 open.

Allow scrub to grow beyond fence line.

Paddock D

The existing paddock retired from grazing includes Otehei and Paradise Bay catchments. In the future, mature scrub unmodified by grazing will appear out of character with the pattern of pasture and scrub elsewhere on the island. Clear some scrub for pasture in Paradise Bay, leaving a fringe of beach vegetation. Fence off Otehei Bay catchment to aid stock control and prevent stock access to beach and lease areas.

Realign fence off ridge line

Otehei Bay Co. Ltd Lease area.

N12/3

OTEHEI BAY

OW

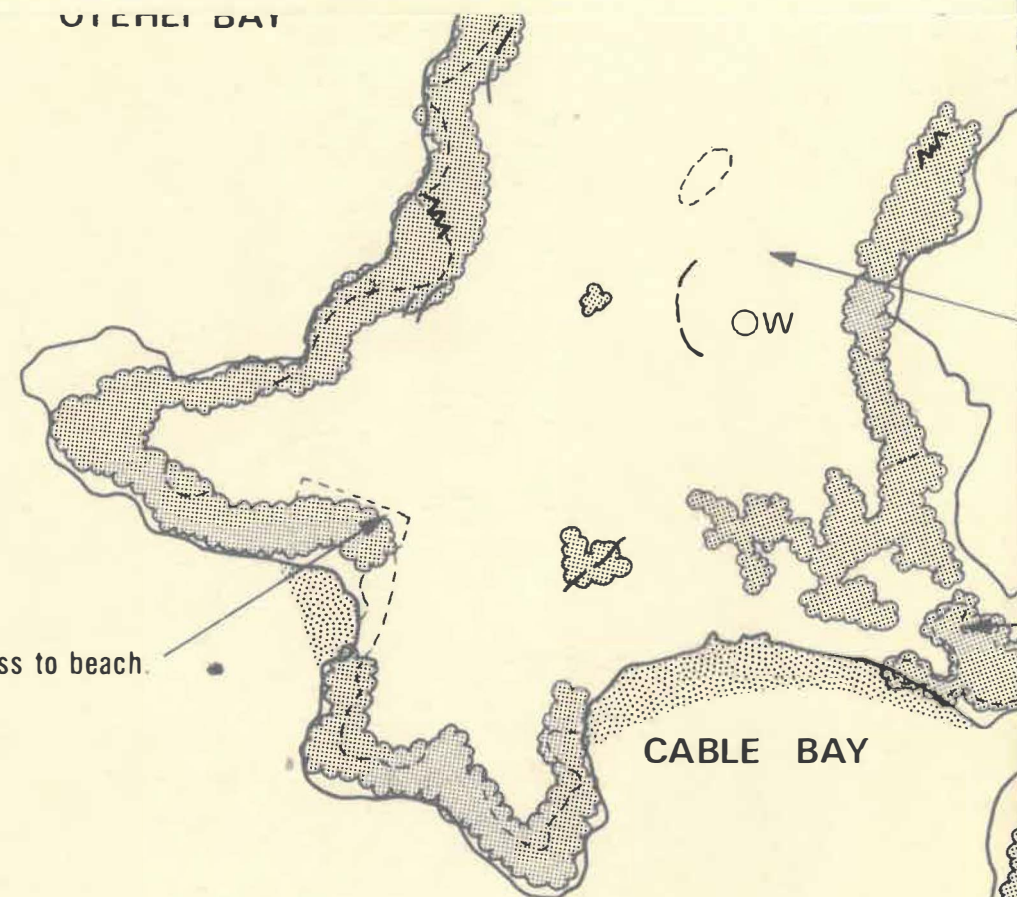
URUPUKAPUKA ISLAND

DEVELOPMENT PROPOSALS

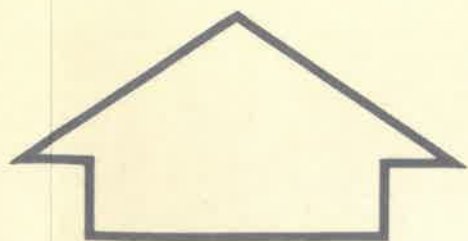
Otehei Bay

Catchment offers limited opportunity for pasture development, and reversion has reached advanced stage. Mature vegetation will help to absorb potential development in this bay. Actively aid revegetation by planting and seeding. Trial planting plots of Pohutukawa, Karaka and Kowhai. Trial seeding plots of Karaka, Kowhai, Titoki, Taraire, Mahoe, Fivefinger, Karo and Houpara.

Remove fence. Partly clear scrub to allow access to beach.



For detailed management proposals see Plan 3.



NORTH

Scale 1:5000

150 50 0 250

KEY

	Existing vegetation edge
	Scrub invading pasture
	Future vegetation edge
	Gully, sheet, slip erosion
	Stock watering point
	Stock tracking
	Cliff edge
	Post and wire fencing
	Stile
	Gate

Paddock A

This paddock has large areas of scrub, some on the wetter soils up to 50 years old, some quite recent encroachment on pasture. Scrub clearance to be guided by following:-

- (i) Mature stands of Manuka/Kanuka are an important ecological/visual feature, and are basically retained.
- (ii) Retain vegetation in upper catchments to prevent erosion and maintain visual pattern for the island.
- (iii) Allow regeneration of thin erosion in prone soils.
- (iv) Fence off badly eroded soils to allow a protective cover of vegetation to develop.
- (v) Open up ridges and spurs where appropriate to allow pedestrian movement.

Severe erosion to cliff edge compounded by restricted stock movement. Clear back edge of scrub by hand to reduce tracking and monitor results. Provide temporary fencing later if necessary to establish Kikuyu grass cover to bare ground.

Gully erosion. Repair with Ti-tree brush and monitor results.

Allow regeneration below this edge.

Severe erosion to cliff edge compounded by restricted stock movement. Fence off from stock and establish Kikuyu grass on bare patches. Monitor results.

Paddock B

In contrast to the rest of the island an open pattern of pasture/scrub has developed in the upper stream catchments. Tendency to sheet erosion on the steeper slopes beneath the ridge and these should be allowed to revert. Paddock is too large to be good stock management. Subdivide with new fences as shown.

Stock tracking. Clear back edge of scrub by hand and establish Kikuyu to worn areas.

Allow regeneration below this edge.

Severe sheet erosion. Fertilize to encourage regeneration. later remove pine trees which may be contributing to erosion. Monitor results.

scrub to beyond line

For detailed proposals see Plan 2.

Stock damage to archaeological sites and foredune. Fence out beach front and stock with sheep.

Allow steep hillside to regenerate.

URUPUKAPUKA BAY

N12/52 Pa site active erosion. Encourage protective vegetation.

Rationalise fence lines in this area.

Allow edge of scrub to expand and extend with cabbage tree planting along lease boundary to visually contain potential development. Avoid planting on drainfield N12/3.

N12/49 Pa site some erosion to frontal defences. Detailed proposals to be prepared by archaeologist.

planting along lease boundary to visually contain potential development. Avoid planting on drainfield N12/3.

N12/49 Pa site some erosion to frontal defences. Detailed proposals to be prepared by archaeologist.

Paddock C

Farming effort has concentrated on this medium quality pasture. The vegetation along the steep vulnerable coastal edge has in places been reduced so much that it no longer provides the necessary protection, and is visually thin.

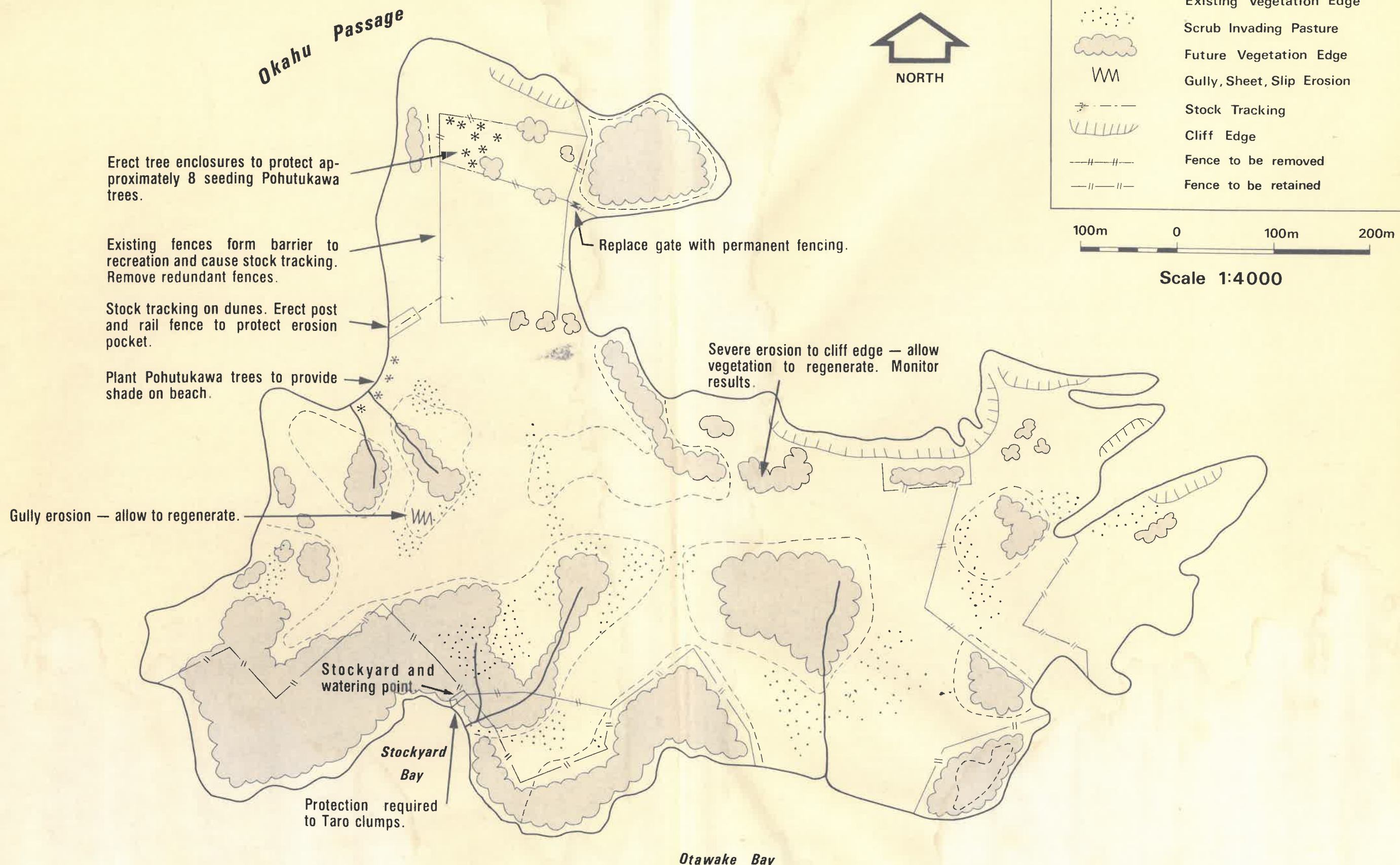
— Allow broader strip of coastal vegetation as shown. As finance becomes available, further portions of coastal forest could be fenced off.

N12/51 Pa site some erosion. Detailed proposals to be prepared by archaeologist.

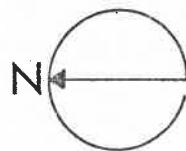
TE AO I

ROUND I

PLAN 1



PLAN 3



N12/83. Archaeologist to prepare detailed report on management and interpretation of archaeological sites in the bay.

Toilet/rubbish holes to be confined to areas north of fence line.

Cattle loading race.

Reef

Terraced ridge

N12/87 Drains

N12/84 Downhill drains.

Urupukapuka Bay

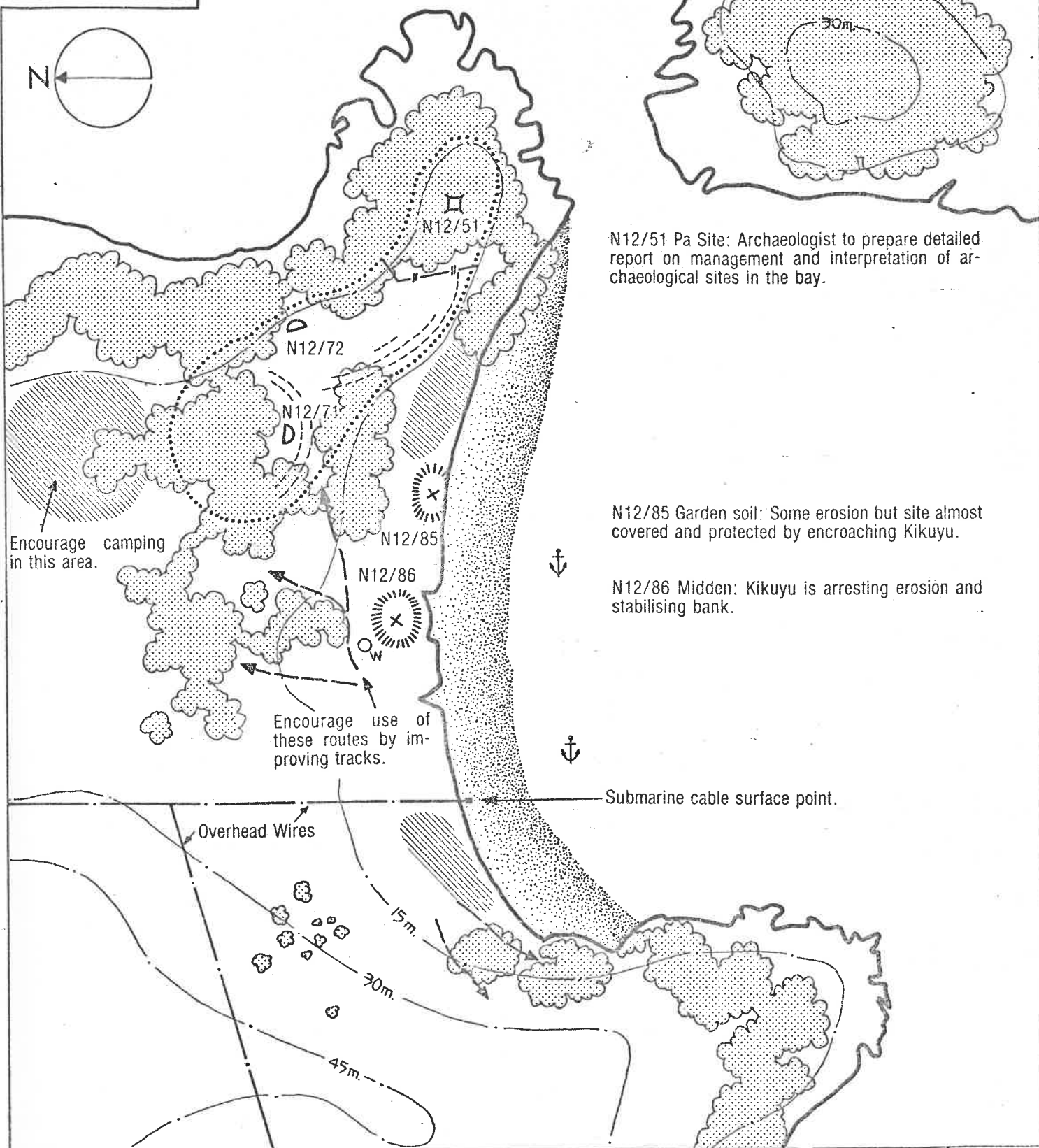
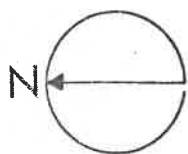
Scale 1:2000



KEY

	Existing Vegetation		Anchorage
	Marshy		Plant Enclosures
	Water Point		Future Plant Enclosures
	Pedestrian Routes		Fences
	Bridges to be Built		Gates
	Vulnerable Eroding Bank		Stiles
	Main Camping Area Associated with Water		

PLAN 4



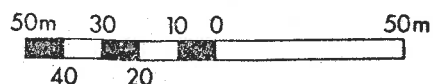
N12/51 Pa Site: Archaeologist to prepare detailed report on management and interpretation of archaeological sites in the bay.

N12/85 Garden soil: Some erosion but site almost covered and protected by encroaching Kikuyu.

N12/86 Midden: Kikuyu is arresting erosion and stabilising bank.

Cable Bay

Scale 1:2000



KEY

- | | |
|---------------------|---|
| Existing Vegetation | Terracing |
| Hand Pump From Bore | Anchorage |
| Pedestrian Routes | Area in which Camping and Toilet/Rubbish Hole Digging Should be Discouraged |
| Main Camping Area | |
| Fence | |

Appendix B

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