



# Pukekura (Taiaroa Head) Reserves Management Plan

March 2013

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## **Acknowledgements**

The image on the front cover of this Management Plan is a photographic reproduction of a painting depicting Pukekura and represents artist Chris Gaskin's interpretation of known archaeological and botanic information. The original work was commissioned by the Department of Conservation in 1994.

# TAUPARAPARA

## Pukekura

Tera Pukekura

Ka piri hau i te moana

I reira ka puta mai na

Te tuhi mata i Hawaiki

Mekemeke tia ko la o tau kaipuke

Ka kopakopa tia

Te manu haea

tera Pukekura

taku mauka

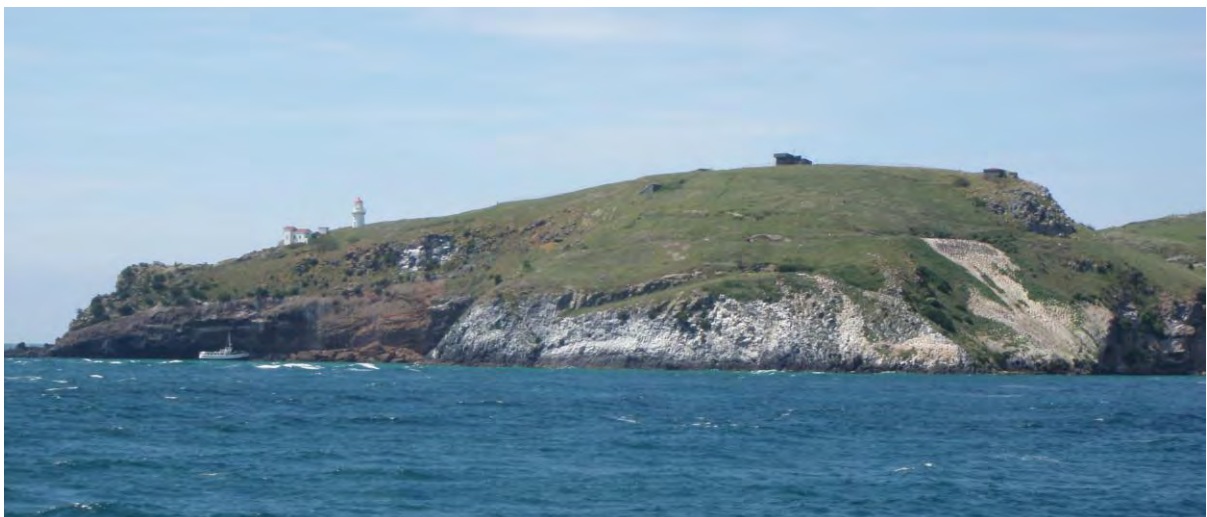
tapu e!

**This waiata relates to Māui**, the great explorer of antiquity, taking refuge in the lee of Pukekura; the sails of his voyaging waka being rendered in tatters by the strong southern winds.

**Pukekura provided Māui with refuge in time of a storm as it has provided** for so many over countless ages. A headland with prominent views in all directions, surrounded on many sides by water, steep cliffs, sources of fresh water and kai, tempestuous weather yet with places of shelter.

It is not apparent that the Waitaha, the first people of the land, utilised the defensive qualities of Pukekura to any great extent; this is understandable given they lived in isolation from other tribes and hostile groups for hundreds of years.

Pukekura provided a haven, however, for the **later arrivals, Kāti Māmoe and Kai Tāhu**.



# Foreword

This draft Management Plan has been jointly developed by the Korako Karetai Trust, Te Rūnanga o Ōtākou, the Department of Conservation and the Dunedin City Council<sup>1</sup>. The Department of Conservation and the Dunedin City Council (as the current administering bodies) are at present responsible for making all statutory decisions under the Wildlife Act 1953, the Reserves Act 1977 and the Conservation Act 1987 for the four reserves that this draft Plan covers and are referred to collectively as the Pukekura Reserves.

In 1992 both the Korako Karetai Trust as the successors to Korako Karetai and Te Rūnanga o Ōtākou, lodged claims with the Waitangi Council Tribunal for the return of Pukekura (Taiaroa Head) which **has been recognised in the Ngāi Tahu Claims Settlement Act 1998** (the NTCSA).

In 2008 the Korako Karetai Trust, frustrated with its inability to gain acknowledgement from the Crown in respect of the limitations of the enquiry into and settlement of the Taiaroa Head claims, withdrew from the claims settlement process prescribed within the NTCSA.

However, recognising the environmental importance of the headland and the need for a structured plan to deal with future development, the Korako Karetai Trust joined with **Te Rūnanga o Ōtākou** to initiate a process whereby such a plan could be formulated.

These two parties, along with the administering bodies, have agreed to work together to bring about this draft Management Plan and will formally establish a Pukekura Management Group to provide governance and ongoing strategic direction and management by the implementation of the Plan.

While the Korako Karetai Trust, through kaitiakitanga, has a moral responsibility to work on behalf of the wellbeing of the headland, it refutes any suggestion that its participation in this process is an acceptance of the NTCSA as it purports to apply to Taiaroa Head.

The purpose of this draft Plan is to provide a consistent management and policy framework for all of the Pukekura Reserves and ensure that any future development and enhancement does not conflict with the reserve values.

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<sup>1</sup> For the purpose of referencing, this Management Plan should be attributed collectively to these four bodies.

# 1. Introduction

*"Naia te toa a Tarewai, kei a ia ano tana patu".*

"This is the bravery of Tarewai, I have my patu back again". This relates to the legendary retrieval by Tarewai of his patu and is metaphorically used to illustrate manawhenua once again being involved in the management of Pukekura.

## 1.1 Preamble

The location of Pukekura at the entrance to the Otago Harbour, bordered by rugged cliffs and a sheltered beach against the backdrop of the southern ocean, is key to why this area is so highly valued.

The importance of Pukekura is due to:

- The presence of significant wildlife.
- The history, cultural significance and connection for manawhenua.
- Historical features relating to post colonial use and defence strategies.
- The outstanding coastal landscape.
- The ease of access to this area for Dunedin's residents.
- The headland being Dunedin's premier wildlife tourist attraction.
- Providing a community service for shipping control operations and a meteorological station.
- The headland being a place where people can be educated about cultural and conservation values through the use of existing facilities.

With so many important and diverse values, it is crucial that the management of Pukekura provides the necessary protection for the natural and cultural values while accommodating appropriate

human use. Although there are many values and uses, it is recognised that some are more significant and are therefore given greater importance in the management of Pukekura.

Pukekura is made up of a number of reserves with various reserve classifications administered under the Reserves Act 1977, Wildlife Act 1953 and the Conservation Act 1987.

This draft Pukekura Management Plan, which encompasses all the reserves, ensures that the entire headland is managed in an integrated and consistent way by manawhenua and the administering bodies.

Representatives of the Korako Karetai Trust, Te Rūnanga o Ōtākou, the Department of Conservation and the Dunedin City Council have jointly produced this comprehensive Management Plan for Pukekura.

The Management Plan provides a policy framework for decisions relating to the management and development of Pukekura. Prioritising values and identifying 'Guiding Principles' ensures that Pukekura is sensitively managed and provides for all the values and uses of the headland.

The statutory obligations, reserve classifications, value priorities, guiding principles and other administration documents concerning this area have all been considered when developing the aims, objectives and policies detailed in this plan.

## 1.2 Pukekura Values and Guiding Principles

Pukekura has many values. Access and use of the headland is important for the public and for tourism. However, the most important values of Pukekura are the wildlife and their habitats and the cultural significance for manawhenua.



Due to the significant conservation value of this headland, native flora and fauna are afforded the greatest value. Therefore the protection of wildlife and their habitats is of upmost concern when management make decisions regarding activities and developments.

The management of Pukekura places significant value on the cultural connections to Pukekura recognised in whakapapa traditions and customs.

Public access is provided to enhance public appreciation of Pukekura in a way which is consistent with the Pukekura values. Access is also essential in relation to shipping control. Activities on Pukekura relating to the historic features also require access.

Pukekura has an international reputation as a place to view wildlife and visitor activity on Pukekura contributes to Dunedin's economy.

The Pukekura values in order of significance are as follows:

1. Ecological.
2. Cultural.
3. Historic.
4. Public Appreciation.
5. Tourism and Commercial.

The Guiding Principles listed below have been established to ensure that all the uses and important aspects concerning the management of Pukekura are recognised.

These Guiding Principles are consistent with the conditions and restrictions under the terms of the **Ngāi Tahu Claims Settlement Act 1998** (Schedule 116) in respect to the administration and management of the nature reserve. These Guiding Principles are not listed in priority order.

- Protection and enhancement of native flora and fauna.
- Enhancement and protection of landscapes and landforms.

- Recognition and protection of Wahi Tapu and Wahi Taoka.
- Recognition of the manawhenua **hapū of Ōtākou and Korako** Karetai.
- Recognition of the principle of customary access for manawhenua **of Ōtākou.**
- Agreed processes for takata whenua access to cultural material.
- Recognition that the headland is a significant visitor attraction for the city and ensure appropriate public access.
- Protection of the heritage and archaeological features of Pukekura.
- To ensure good quality interpretation which reflects all values to maximise education opportunities.
- Recognition and enhancement of the scenic values of the headland.
- Allow for appropriate facilities and/or amenities. Recognition of the importance of services for safe navigation.
- Ensuring that waste management is of a high standard and consistent with the cultural values.
- Co-operation and collaboration with adjacent land owners.

### **1.3 Vision for Pukekura**

Sustainable management of Pukekura is the result of considering the headland's various uses and values and their hierarchical nature.

The priority of management to protect the various flora and fauna species native to Pukekura and their habitat (and, if necessary, enhance and extend the habitat) ensures that Pukekura continues to be an important wildlife location with high conservation values.

Pukekura has a rich cultural landscape and this history is preserved through careful management of the land and the telling of its story.

**The mana of the hapū of Korako Karetai and Ōtākou continues to be recognised** through the inclusive approach to Pukekura's management. Sites of cultural and historical significance are respected and protected and customary access and access to cultural material is made possible.

The importance of Pukekura and its wildlife as Dunedin's premier wildlife visitor destination is recognised. Appropriate public access and provision of amenities will provide visitors with a quality experience of an internationally recognised wildlife destination. Interpretation reflects all the values of Pukekura.

## **1.4 Purpose of a Management Plan**

Where Territorial Local Authorities are the administering bodies of reserves classified under the Reserves Act 1977, they are generally required to develop reserve management plans<sup>2</sup>. Where the Department of Conservation manages reserves under the Reserves Act 1977 or under the Wildlife Act 1953, the Department has the option of preparing a Conservation Management Plan as provided for in the Conservation Act 1987.

Reserve Management Plans and Conservation Plans differ only in that they are governed by different Acts and therefore there is a slightly different process to gaining plan approval. Management plans for reserves administered by the Dunedin City Council are approved by the Dunedin City Council. For the nature reserve, approval is from the Otago Conservation Board.

The aim of a management plan is to ensure that the management and development of the area is based on

sound principles and to ensure that any future proposals for activities and developments meet the purpose(s) of the reserves.

Management plans are designed to identify priorities and therefore resolve any uncertainty and potential conflict over various uses and expectations. The needs of the key stakeholders and the public are clearly identified through their involvement in the process of developing the Plan. Management plans therefore provide guidelines for future decision-making.

Because of the various classifications and status of reserves that comprise Pukekura and the integrated management approach to the whole headland, it is appropriate that this Pukekura Management Plan is both a reserve management plan and a conservation management plan.

The purpose of a reserve management plan under the Reserves Act 1977 is to:

*"Provide for and ensure the use, enjoyment, maintenance, protection and preservation ... and, ... the development, as appropriate, of the reserve for the purposes for which it is classified." (Reserves Act 1977 Section 41(3))*

The purpose of a conservation management plan is to:

*"...implement conservation management strategies and establish detailed objectives for the integrated management of natural and historic resources within any area or areas [managed by the Department under the Wildlife Act 1953, ... the Reserves Act 1977 ... or this Act], and for recreation, tourism, and other conservation purposes." (Conservation Act 1987 Section 17E and [subsection 17E(4)])*

A management plan also provides efficiency gains for management of the reserve. For example, there may be no need to publicly notify or gain Ministerial consent for matters that have already been addressed in the management plan and planning process, where the compatibility of an activity with the

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<sup>2</sup> There are some exemptions, depending on the classification of a reserve.



overall purpose of a reserve is recognised.

## **1.5 Pukekura – Legal Descriptions, Classifications and Zoning**

This Pukekura Reserves Management Plan applies to all the reserves listed in this section which are classified under the Reserves Act 1977.

Under the Reserves Act 1977, all reserves must be classified according to their principal or primary purpose. The classification of a reserve is intended to ensure the control, management, development, use, maintenance and preservation of the reserve for a specific purpose or purposes.

The foreshore of Pukekura is a wildlife sanctuary and managed under the Wildlife Act 1953. The Nature Reserve and most of the area of Local Purpose Reserve known as the "Lighthouse Reserve" have wildlife refuge status under the Wildlife Act 1953.

The classifications and legal descriptions of the reserves within this Management Plan are described in detail in this section. Map 1 and Map 2 show the key reserve status information overlaid on the physical site.

In the Dunedin City District Plan, Taiaroa Head is within the 'Peninsula Coast Outstanding Landscape Area' and the 'North West Peninsula Landscape Conservation Area' Landscape Management Areas. Landscape management rules apply to these areas which seek to control 'principal threats' and 'other threats' as identified in the District Plan. All activities not specifically referred to in the Landscape Management Areas are classified according to the underlying zone of the land which, for Taiaroa Head, is zoned 'Rural'.

In the Dunedin City District Plan, Taiaroa Head (excluding the Lighthouse Reserve) is an 'Area of Significant Conservation Value'. This status determines the types

of activities permitted in this area. The Dunedin City District Plan also identifies archaeological sites and heritage structures at Pukekura.

Section 1 SO 22583 (within the Lighthouse Reserve) has a designation (D485) for the Meteorological Service of New Zealand Limited for 'Meteorological Purposes', ie the Taiaroa Head Weather Station. This designation is approximately 20m x 20m at the Trig site. Designation requirements by the Meteorological Service New Zealand (Decision DP27.2/17) are detailed in Appendix 2.

All archaeological sites in New Zealand are protected under the Historic Places Act (1993). An archaeological site is any place where pre-1900 human activity has occurred and which can be investigated through archaeological methods. Pukekura is an extensive Maori and Pakeha archaeological site, with all areas contained within this management plan being part of this site. A Features Map showing sites of interest is attached as Appendix 5.

### **Taiaroa Head Nature Reserve**

Comprises the following legal descriptions:

- Lot 1 DP 300145, held in CFR 21191 being 0.4363 hectares, being more or less.
- Lot 2 DP 300145, (CFR under action) being 4.83 hectares more or less.

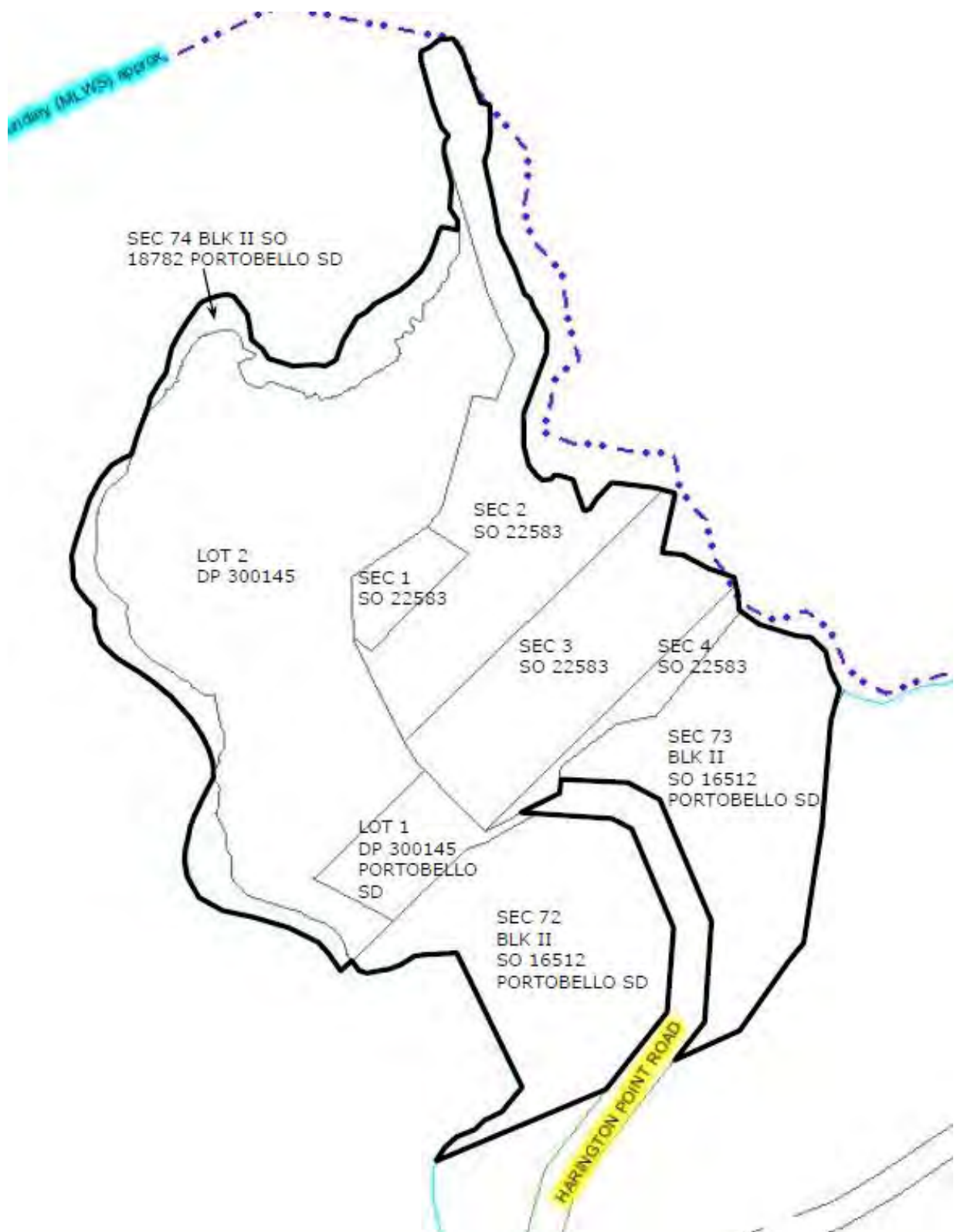
The total area is 5.2663 hectares.

The Taiaroa Head Nature Reserve is classified as a Nature Reserve under the Reserves Act 1977 and is currently administered by the Department of Conservation. The purposes and management principles of nature reserves are set out in Section 20 of the Reserves Act 1977 (refer to Appendix 1 for details).

This area also has a wildlife refuge status (NZ Gazette 1938 p. 2084 (section 14(5) Wildlife Act 1953).



**Map 1: Reserves Act 1977 Classifications**



**Map 2: Cadastral Map**

## Local Purpose Reserves

The Dunedin City Council currently administers the two Local Purpose Reserves within Pukekura – known as Pilots Beach Reserve and the Lighthouse Reserve. Both of these reserves are classified as Local Purpose (wildlife protection, maritime safety, cultural and visitor facilities) under the Reserves Act 1977.

The classification and management of a Local Purpose Reserve is set out in Section 23 of the Reserves Act 1977 - refer to Appendix 1 for details.

The land above the road that accesses the car park is known as the Lighthouse Reserve.

The wildlife refuge status covering the Nature Reserve also covers a section of the Lighthouse Reserve (NZ Gazette 1938 p. 2084 (section 14(5) Wildlife Act 1953 applies).

The two local purpose reserves comprise the following legal descriptions:

Pilots Beach Reserve:

- 3.9153 hectares, more or less, being Section 72-73 Block II Portobello Survey District, held in CFR OT10C/1310 (subject to water supply easement in gross in favour of the Dunedin City Council created by Proclamation 6915 ).

Lighthouse Reserve:

- 3.4332 hectares, more or less, being Sections 1, 2 and 3 SO Plan 22583, held in CFR 177143.
- 0.2430 hectares, more or less, being Section 4 SO Plan 22583, held in CFR 186483 (subject to water supply easement in gross in favour of the Dunedin City Council created by Proclamation 6915).

The total area is 3.6762 hectares.

## Wildlife Sanctuary – Taiaroa Head Foreshore

0.7400 hectares, more or less, being Section 74 Block II Portobello Survey District; S R 1979/164, SO Plan 18782. Proclaimed by the Governor-General in Council pursuant to Section 9 of the Wildlife Act 1953 - refer to Appendix 5 for details. This Wildlife Sanctuary is currently administered by the Department of Conservation.

Sanctuary status is given to wildlife habitats which by their nature or that of the wildlife found there, are very susceptible to damage or disturbance by uncontrolled human entry. The foreshore sanctuary at Pukekura is intended to protect the wildlife species and their roosting or breeding sites around the shoreline boundary of the nature reserve, by prohibiting human access except under permit.

## Wildlife Refuge Status

8.7 hectares, more or less, covering the nature reserve and most of the lighthouse reserve; NZ Gazette 1938 p.2084 (section 14(5) Wildlife Act 1953) – refer to Appendix 4 for details.

Refuge status is a means of signifying the importance of a wildlife habitat which may not be otherwise protected. The wildlife refuge was declared at a time when there was no other formal protection of wildlife values on the headland. Subsequent classification of the reserves provides formal protection; however, the wildlife refuge status remains.

## 1.6 The Otago Peninsula Trust

The Otago Peninsula Trust is a registered charitable trust which was formally established in 1967 to encourage the preservation and enhancement of the natural and historical features of the Otago Peninsula.

The Trust has two long-term leases over a significant area of reserve land at Pukekura from which it operates the

Royal Albatross Visitor Centre, guided tours and visitor education programmes. The Trust also has a permit from the Department of Conservation to take tour groups into the Nature Reserve.

With the support of the community, the Trust has invested several million dollars in developing the visitor centre and the albatross viewing areas. The facilities are recognised as being of national and international importance.

Both the leases and the permit confer a range of rights and obligations on the Trust. Many of these rights and obligations relate to management issues that are covered in this Plan, including but not limited to:

- Current and future access to, and/or use of, various buildings and structures on Pukekura.
- Repairs and maintenance of buildings located on Pukekura.
- Waste management.
- Fencing.
- Weed control.

Given the extent to which these rights and obligations influence the day to day management of Pukekura, it is acknowledged that the administration of the Management Plan will require and benefit from input from the Otago Peninsula Trust in an advisory role on matters that affect the Trust as a significant stakeholder.

## 1.7 Consideration of other Documents

Reserve management planning does not occur in isolation as there are other broader documents that guide it. In developing this Pukekura Management Plan the statutory documents of the administering bodies – such as the Dunedin City District Plan and the Department of Conservation; Conservation General Policy and Otago Conservation Management Strategy - were considered. The **Kāi Tahu Ki Otago** - Natural Resource Management Plan

(2005) is a primary planning document and therefore another important reference document.

However, there are other policy and planning documents that relate to, and affect decisions made at, Pukekura. There is a need to work co-operatively with other agencies that have policy and planning documents relevant to Pukekura.

## 1.8 Ngāi Tahu Claims Settlement Act 1998

In 1992, two claims were lodged with the Waitangi Council Tribunal by the successors to **Korako Karetai (Korako Karetai Trust) and Te Rūnanga o Ōtākou** for the return of Pukekura (Tairaroa Head).

The outcome of this Tribunal process is described in the **Ngāi Tahu Claims Settlement Act 1998** (the NTCSA), which details the future vesting and administration of areas that make up Pukekura. The eventual return of the 'sites' of Pukekura to the **Korako Karetai Trust and Te Rūnanga o Ōtākou**, as detailed in the NTCSA, requires that the management of the individual 'sites' continues to be in accordance with their current reserve classifications under the Reserves Act 1977. Map 3 shows the site areas that are referred to in the NTCSA.

Under the NTCSA, the administration of all the returned land on Pukekura, which incorporates the Nature Reserve (Site 1 and 2), the Local Purpose Reserves (as offered by the Dunedin City Council – Sites 3 and 4) and may include the 'Tairaroa Head Foreshore' (Wildlife Sanctuary), is to be managed by a Joint Management Body. This Joint Management Body will include the **Korako Karetai Trust, Te Rūnanga o Ōtākou, the Department of Conservation** and the Dunedin City Council.

The NTCSA 1998 sets out the process for the various 'sites' to be returned to the **Korako Karetai Trust and Te Rūnanga o Ōtākou**.



As detailed in the NTCSA 1998, the vesting of all sites is subject to a number of conditions and restrictions (provided in Schedule 116). However, these conditions and restrictions do not take precedence over the Reserves Act 1977.

The Korako Karetai Trust has ongoing issues with the NTCSA which has delayed its implementation. The Korako Karetai Trust and **Te Rūnanga o Ōtākou** are working to resolve some of those issues. Because of this, the administration remains in the meantime with the Department of Conservation for Site 1 and Site 2 and with the Dunedin City Council for Site 3 and Site 4.

The parties to the proposed Joint Management Body have agreed that although the implementation of the settlement as described in the NTCSA has not yet been effected, it is desirable

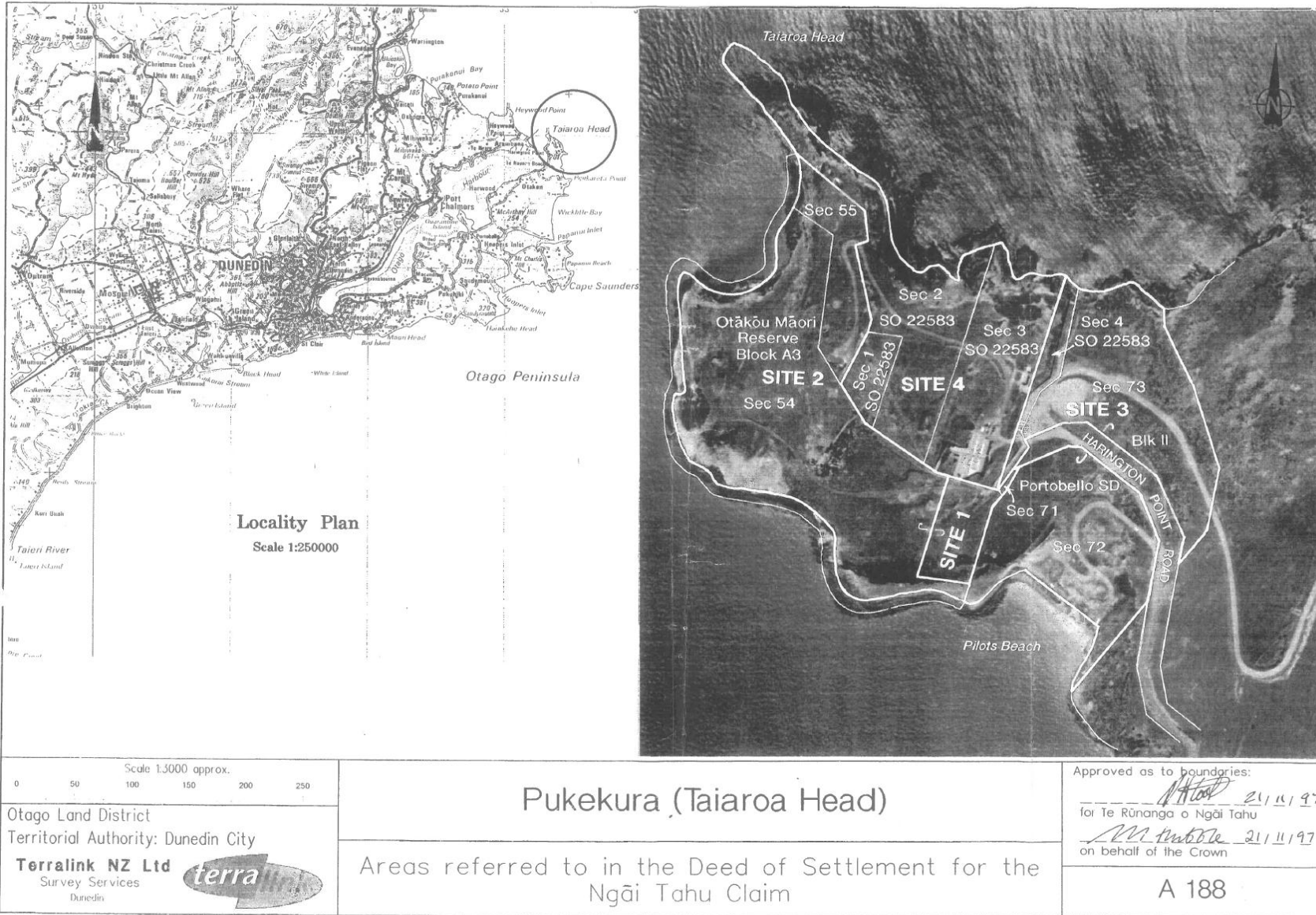
to manage the 'sites' of Pukekura in a consistent and integrated way. This integrated management approach accommodates the existing legal interests and existing legal activities of the Otago Peninsula Trust.

In late 2008, the Korako Karetai Trust and **Te Rūnanga o Ōtākou** invited the Dunedin City Council and the Department of Conservation to participate in a working party to develop a management plan for all the land at Pukekura.

It is recognised that whatever management model exists for Pukekura in the future, the administration of the Management Plan will require and benefit from input from the Otago Peninsula Trust in an advisory role on matters that affect the Trust as a significant stakeholder.



By kind permission of the Department of Conservation



**Map 3: Ngāi Tahu Claims Settlement Act map showing sites**



## 2. Pukekura Values

### 2.1 Ecological Values

A number of native bird species make their home at Pukekura. The royal albatross colony is the only mainland colony of any albatross (*toroa*) species in the southern hemisphere, with a breeding population of around 50 pairs. The height above sea level, the exposure of the headland winds and the modification of the headland's topography and vegetation during human habitation have helped make it a suitable nesting habitat for albatross. The presence of the colony at this easily accessible site has allowed close study of the birds since 1938, as well as opportunities for public viewing since 1972.

Other seabirds nest and feed on the headland including Stewart Island shags (*Koau*), little shags (*Koau paka*), spotted shags (*Koau tikitiki*), sooty shearwaters (*tītī*), black-backed gulls (*karoro*) and red-billed gulls (*tarāpunga*), variable oystercatchers (*tōrea*) and royal spoonbills (*kōtuku-ngutupapa*). Birds which do not breed on the headland, such as gannets (*takapu*), some species of shags (*kōau*), tern (*tara*) and petrel species can be viewed in the skies and on the seas. Little penguins (*kororā*) use the headland for nesting. Yellow-eyed (*hoiho*) and crested penguins (*tawake*) are sometimes seen in the area.

New Zealand fur seals (*kekeno*) restarted breeding at Pukekura in the early 1980s, with over 100 pups now born at the headland every year. New Zealand sea lions (*whakahao*) are occasionally seen on Pilots Beach, while leopard seals (*Rapoka*) and elephant seals (*ihu koropuku*) are rare visitors.

In contrast to its original vegetation cover (which is believed to have been coastal forest and shrubland), Pukekura is now dominated by herbaceous plants. Approximately 150 species have been recorded and there are almost as many exotic species as there are native species. Despite the extent of vegetation modification, several 'Threatened' and 'At Risk' plant species

are present, including the 'Nationally Vulnerable' Cook's scurvy grass (*nau*). Information compiled by botanist Dr John Barkla is included in Appendix 3: Significant Native Species.

Pockets of vegetation dominated by indigenous species are present on exposed coastal cliffs, steep slopes and rock outcrops. Shrublands in these sites commonly have *Coprosma* spp (*raurēkau*), *māpou*, shore koromiko, poroporo and mountain akeake. Rocky outcrops also support a range of native grasses, particularly shore tussock, blue tussock and silver tussock (*wī*).

Lianes and trailing plants are common within shrublands and in some cases are spreading through the exotic grasslands. Common species are bindweed (*panahi*), climbing fuchsia (*kōtukutuku*), pōhuehue, bush lawyer (*tataramoa*) and New Zealand spinach (*kōkihi*).

### 2.2 Cultural Values

Pukekura, located at the head of the harbour and the extreme northern tip of the Otago Peninsula, provides a natural sanctuary for both wildlife and human occupation. It is a wild and windy headland, an ideal habitation for a variety of seabirds and, in traditional times, was a foothold for new arrivals to the Otago Peninsula.

An ancient waiata relates to the time of Māui, one of the earliest arrivals who hove to under the lee of Pukekura to repair his storm damaged sails. The name Pukekura has several meanings. Given its antiquity, it is believed to have been brought from Hawaiiki, one of the distant homelands. The literal translation of "Pukekura" is "Red Hill", which could refer to the colouration of the volcanic rock in outcrops around the headland. This red rock, in the southern dialect, is known as maukoroa.

Te Rae o Tupa is the rocky outcrop at the extreme northern tip of the headland that dips into the Pacific Ocean.

The first known **Kai Tāhu to establish a settlement** on the headland was Waitai, a Kati Kuri chief who came south from **Kaikoura into the Kāti Māmoe**-dominated territory of Muaupoko (Otago Peninsula) during the 17<sup>th</sup> century. Waitai and his followers remained at Pukekura for a time, aligning themselves with the local **Kāti Māmoe chief Te Rakitauneke** in raids against the resident Waitaha. Waitai later moved south to Mokamoka (near Bluff) where he came into conflict **with Kāti Māmoe and was eventually slain.**

It is said that in response to the slaying of Waitai a fighting force led by Maru, Te Aparangi and their nephew Tarewai were sent south to avenge his death. They established themselves on Pukekura with **a friendly section of the Kāti Māmoe.** The natural qualities of the headland with its steep cliffs and often turbulent seas, panoramic views, reliable fresh water, sheltered beach, access to seafood and birds combined to make **Pukekura an admirable pā.**

It was not long before conflict over fishing grounds arose between the Pukekura people and the Papanui-based **Kāti Māmoe**; a conflict in which the deeds of the brave Tarewai came to the fore and inspired the residents of **Pukekura Pā such that the hostile Kāti Māmoe were vanquished. Te Rereka o Tarewai** (the leap of Tarewai) takes its name from this historic engagement.

It was during these early periods that the custom of water burials at Waiwhakaheke on the seaward side of the headland first occur, where the tupapaku (dead) were lowered to the ever turbulent sea below. Waiwhakaheke is an important spiritual site and the name is a permanent reminder of the custom practiced there of "releasing to the sea" the ancestors.

As time passed Moki was placed in charge of Pukekura, while his close relatives occupied the other coastal **pā** to the north along the Otago coast; Te Rehu at Mapoutahi, Te Wera at Huriawa and Taoka at Te Pa o Raki Hineatea. It was during this time that conflict arose and ultimately led to a fight among the visiting cousins at Pukekura where many died and Mki II

was defeated. His son Te Pahi was reinstated at Pukekura by his uncle Taoka. Te Pahi and his wife Hakuiao (**Waitaha and Kāti Māmoe**) are the forebears of the current day manawhenua; that is, **the hapū of Kai Te Pahi.**

Historical accounts during the time of **Tarewai indicate that the main pā** was pallisaded, running from the harbour side of the headland at Te Rereka o Tarewai to the ocean side at Waiwhakaheke. The village site at the time of first European/Pakeha contact was located above the southern end of Pilots Beach (Takiharuru). **The indication is that the Pā itself may have** been unoccupied for some time prior to European arrival. From the 1830's, it is known that the peak of Pukekura was utilised by the early whalers as a lookout for the sighting of whales.

Important historical events that are associated with Pukekura include the signing of the Treaty of Waitangi on the 13 June 1840 by the chiefs Karetai and Korako, on board the HMS Herald while at anchor off Pukekura. Not long after that, in 1844 the lands sold by the **Ōtākou chiefs in Ōtākou (Otago) Block** included part of the headland Pukekura, which was still considered "wahi tapu", being of great spiritual significance to **the hapū of Kai Te Pahi. The headland** since the early 1860's has been an important maritime safety facility overlooking and guiding the endless procession of vessels plying the waters to and from Otago Harbour over that time. Pilots Beach takes its name from the days when the pilot boats were launched from there.

The lands that remained in the ownership of Kai Te Pahi were eventually partitioned in 1868 and Crown Grants were issued to individuals. The Maori land at the headland was granted in the name of Korako Karetai, son of Chief Karetai. With the passage of a series of national security issues starting with the "Russian Scare" in the late 1880s, "proclamations" by the Crown were enacted to take, for military purposes, the land at the headland belonging to Korako Karetai in order to complement the establishment of coastal defences. Following the end of World War II, the

military purpose for the reserves waned and eventually gave way to a heightened recognition of the wildlife values of the headland and, ultimately, tourism opportunities.

The failure by the Crown to recognise the underlying ownership issues with the land taken by proclamation and the **importance of Pukekura to the Ōtākou people, led to the historic Ngāi Tahu Treaty Settlement**, making provision for the return of the underlying ownership of Pukekura to the hereditary owners.

Pukekura stands as a symbol of a thousand years of Maori occupation in **the Ōtākou region, a place imbued with the social and religious history of a people**, in the form of man-made terraces, burial grounds, burial preparation areas, cultivations, store and living houses, fortifications, tools, weapons and midden. The sheer extent of the archaeological material found or preserved at Pukekura underscores its "wahi tapu" status.

The duty of kaitiakitanga, or the reciprocal duty of recognising and upholding the cultural values of Pukekura, is central to the philosophy of this Management Plan.

## 2.3 Historic Values

Pukekura and its immediate vicinity had been the site of continuous Maori settlement up until the 1900s. The natural defences and strategic location of Pukekura, from a Maori mindset, ensured that the headland was home **base to many past Ōtākou chiefs and their hapū. This strong affiliation is reflected in the rich history, tradition and place names that evoke memories of past deeds and act as reminders to succeeding generations of their heritage.** The sacredness of such footprints left by illustrious ancestors and remnants of their occupancy make what is left 'insitu' sites of wahi tapu and wahi taoka forever.

Significant loss of many archaeological **sites associated with the Kai Tāhu** occupation of Pukekura has occurred; the overlay of colonial defence infrastructure removing much of the

legible elements of manawhenua occupation.

Northern royal albatross were sighted at Pukekura during the 1890s. The first recorded albatross egg was laid in 1919. Each year until 1935 an egg was laid, but it was removed or broken by vandals or collectors. In 1936, the first chick successfully hatched but failed to fledge as it was killed by a predator. Initial protection of the albatross at Pukekura occurred in 1936 on a voluntary basis by Dr Lance Richdale, a world recognised ornithologist, and these efforts resulted in the first recorded fledging success of an albatross chick from the headland in 1938. Dr Richdale acknowledged the role of signalmen and lighthouse keepers in early efforts to protect the Royal Albatross. A number of individuals and agencies have been responsible for the protection of the royal albatross since that time, including the New Zealand Wildlife Service and, since 1987, the Department of Conservation.

The first post-European/Pakeha colonial settlement structures date from 1865 and were for a Signal Station, harbour pilots house and the lighthouse. A rock sea wall was built during the 1860s and 70s as part of the early pilot station which served the Otago Harbour. This seawall, within the wildlife sanctuary, is of considerable historic interest. More historical detail is attached in Appendix 4 and a Features Map is attached as Appendix 5.

Coast Defence fixed installations followed in two periods; 1885 to 1920 and 1939 to 1945. The "Russian Scares" of the late 1880s led to the installation in 1889 of an Armstrong Disappearing Gun to guard Otago Harbour from possible invasion. This armament was the first to use the principles of hydraulic engineering to absorb and utilise the energy of its recoil. This gun is one of few remaining example of its type in the world that is both near to its original condition and is in working order. Other features of the old military installations include saddle battery gun emplacements and a defensive parapet which runs across the headland.

During the 19<sup>th</sup> Century the Marine Department, Harbour Board, Defence

Department and Justice Department all had people stationed at Pukekura. The resident population at this time was approximately 100 and included **members of the Karetai whānau, service men and their families and 20-30 prisoners.** The community had a school, post office and regular church services. The population was boosted periodically by naval encampments. An historic small stone gaol house from the 1880s is also a reminder of these times.

The main feature of post colonial historical interest for today's visitors is the Armstrong Disappearing Gun and complex, providing informative displays.

## **2.4 Public Appreciation Values**

Public appreciation of Pukekura is linked with the natural environment – outstanding landscape, abundance of wildlife and views of the coastline and ocean. The character of Pukekura and the level of use in this area has changed significantly in the last 50 or so years. Pilots Beach (and the area behind the beach) was, up until the latter half of the 20<sup>th</sup> Century, a popular recreational area for Peninsula and Dunedin residents.

Over time, management of the headland has increasingly placed priority on protecting native species and habitat. This deliberate management has increased the presence and abundance of wildlife. However, methods to protect species that are vulnerable to human disturbance have resulted in restricted public access and thus reduced spaces available for general public access.

Dunedin residents and visitors are attracted to the area because of the dynamic nature of the environs, the seasonal variation of wildlife and the coastal ambience. Public amenities and facilities and land outside restricted areas are used by both visitors and tourists alike. Public use and appreciation is relatively passive; visiting the lookouts and walking around areas accessible to the general public. Pukekura is also a popular scenic drive or cycling destination.

It is important for Dunedin residents to have opportunities to experience and appreciate the natural, cultural and historic values of Pukekura.

## **2.5 Tourism and Commercial Values**

Dunedin is famous for its outstanding landscape, unique heritage and wildlife on the Otago Peninsula. Dunedin's key strengths include significant wildlife attractions, of which Pukekura is a key attraction. The main tourist attraction at Pukekura is the albatross, which is also viewed from other commercial ventures off the headland (for example, water-based tourism). As stated in the Dunedin Visitor Strategy 2008–2015, tourism will play an increasingly important part in the Dunedin economy.

The Otago Peninsula Trust has, on a day-to-day basis, undertaken the management of large numbers of visitors. The Otago Peninsula Trust is a charitable trust whose objectives include:

- The stimulation of public interest and care for the beauty, history and character of Otago Peninsula.
- The preservation of the natural attractions of the Otago Peninsula and the protection of the flora and fauna of the Otago Peninsula.
- The development of tourist attractions, public and recreational services on the Otago Peninsula so that the public may obtain the maximum use or enjoyment of the area in a way that will not detract from or destroy its beauty or character.

Over the years, developments relating to tourism on the headland, including the Royal Albatross Centre, have increased in order to cater for the larger visitor numbers. The visitor centre provides a base for guided tours and offers education programmes and informative displays on wildlife and the history of Pukekura, including live video coverage of the nesting areas.

Visitor numbers to Pukekura have increased from 200 in 1972, when the colony was first opened for public viewing, up to between approximately 37,500 and 47,700 visitors per year taking guided tours from 2003 to 2010. However, these numbers do not take into account the significant number of visitors to Pukekura who do not take guided tours. It is understood that the total number of visitors to Pukekura is, in fact, in the region of 160,000 per year.

Visitors taking a guided tour can view the albatross nesting colony and/or the Armstrong Disappearing Gun installation. Those choosing not to take a guided tour can explore the visitor centre, look at other wildlife and, if fortunate, will see albatross flying around the headland. The social history of Pukekura is also of interest to many visitors.

Viewing areas, facilities and provision of interpretation for visitors are important. The viewing platform overlooking Waiwakaheke Bay and the fur seals and little penguins at Pilots Beach are key wildlife viewing opportunities.

## **2.6 Landscape Values**

Pukekura presides over the entrance to Otago Harbour, standing as a sentinel to all who pass by sea or travel to it by land; a commanding promontory, buffeted by wind and sea, a sanctuary to wildlife, stronghold to Maori and guardian to the life blood of Otago, the shipping channel. From its northern extremity at "Te Rae o Tupa", to its

southern point "Te Rerenga o Tarewai", across to its coastal edge "Te Waiwhakaheke Tupapaku" and on up to the crest "Pukekura", it represents a cultural landscape to manawhenua.

Today the landscape is a mix of natural elements and man-made features reflecting some of its past and present uses. The headland was modified for farming and military activities. The remaining military features provide us with an appreciation of a bygone era and an insight into the defence technologies of the time. The lighthouse adds interest to the coastal scene and is an easily identifiable feature along the Dunedin coast.

The natural wildness is key to its attraction for viewing wildlife in natural surroundings. The stark landscape seems to be a fitting home for majestic birds and other wildlife adapted to the harsh southern environment.

The headland is an excellent vantage point for panoramic scenic views northwards along the coast and westwards up the harbour. Pukekura can also be seen by road travellers on the Otago Peninsula and the northern coast.

The outstanding landscape value of Pukekura is currently recognised in the Dunedin City District Plan. Tairaroa Head (as Pukekura is known in the Dunedin City District Plan) is within the 'Peninsula Coast Outstanding Landscape Area' and the 'North West Peninsula Landscape Conservation Area' Landscape Management Areas.

### 3. Management of Pukekura

Recognising the cultural connections of Pukekura for manawhenua and the **principles behind of the Ngāi Tahu Claims Settlement Act 1998** (the NTCSA), the Korako Karetai Trust, Te **Rūnanga o Ōtākou**, the Department of Conservation and the Dunedin City Council have partnered in the planning processes and management of Pukekura.

To provide a framework for this, the parties have prepared this Management Plan for Pukekura. This Management Plan will provide clear management guidance to the present administering bodies. The development of this Plan embodies the work and relationship between the four parties.

The Department of Conservation and the Dunedin City Council (as the current administering bodies) are, at present, responsible for making statutory decisions under the relevant Acts.

However, the establishment of a Pukekura Management Group, comprised of representatives of the four parties, will ensure that management of Pukekura is inclusive. The role of this

Pukekura Management Group is advisory, being partners in the interpretation and application of this Management Plan and thus guiding decision making.

To further progress the integrated management of Pukekura, the four parties may seek to have the Minister of Conservation establish a Board to control and manage Pukekura and to thus be responsible for making many of the statutory decisions under the Reserves Act 1977.

For the purposes of this Plan, the term 'Pukekura Management' is used to define/refer to the advisory Pukekura Management group and, when applicable, its successor – a management board or a joint management group.

There are many policies throughout this Management Plan that involve undertaking specific actions. However, Pukekura management consider the policy issues in Table 1 below to be immediate or short-term implementation priorities.



**Table 1**

<b>Priorities</b>	<b>Details</b>
Establishment of the Management Group.	<ul style="list-style-type: none"> <li>• Management Agreement.</li> <li>• Terms of reference.</li> <li>• Communications Plan between Parties.</li> <li>• Legal status of group.</li> </ul>
Establishment of Protocols and Assessment Criteria.	<ul style="list-style-type: none"> <li>• Assist with applications for use on Pukekura.</li> <li>• Management and approvals for authorities requested and granted.</li> </ul>
Development of a Sustainable Water Management Plan.	<ul style="list-style-type: none"> <li>• Review of existing water easement.</li> <li>• Determine current capacity.</li> </ul>
Development of a Sustainable Waste Management Plan.	<ul style="list-style-type: none"> <li>• Reviewing the waste issues.</li> <li>• Implement a plan to meet the values.</li> </ul>
Review of legal road alignments and parking issues.	<ul style="list-style-type: none"> <li>• Harington Point Road.</li> <li>• Tarewai Road.</li> <li>• Resolution of parking safety and capacity issues at the Royal Albatross Visitor Centre Carpark, including ensuring that the existing right of way is not obstructed.</li> </ul>
Development of secondary plans.	<ul style="list-style-type: none"> <li>• Pest animal control programme.</li> <li>• Vegetation management plan.</li> <li>• Signage and interpretive plan.</li> <li>• Fire and emergency plan.</li> </ul>
Confirming ownership and maintenance of all buildings.	<ul style="list-style-type: none"> <li>• Develop a plan of existing ownership and obligations.</li> <li>• Establish future ownership tenure consistent with the values.</li> </ul>
Review the legal rights and obligations contained within all existing authorities including leases, licence and permits.	<ul style="list-style-type: none"> <li>• To ensure that all authorities comply with the aims, objectives and policies of this Management Plan.</li> </ul>



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## 4. Aims, Objectives and Policies

The aims, objectives and policies within this Management Plan have been prepared in terms of the relevant legislation (refer to Section 1.4), the Pukekura Values and Guiding Principles and other relevant guiding documents listed in Appendix 3.

Individual objectives and policies should not be read in isolation. To gain a comprehensive understanding, it is necessary to consider them within the context of the whole plan. They must be implemented and applied with the values and with all the plan's objectives and policies.

### Management Aims

The aims of this Management Plan represent the long-term vision for Pukekura. Management aims complement the Pukekura Guiding Principles. The Guiding Principles identify all the uses and important aspects of the management of Pukekura.

Management aims provide a framework within which any future proposals for development/enhancement, or any other form of action which may impact on Pukekura, can be considered.

The aims of this Management Plan reflect the expectations for the future management of Pukekura. Aims are written as statements of outcome, so that they can be used as a benchmark against which progress can be assessed.

### Management Objectives

The objectives of this Management Plan specify the means necessary to achieve the aims. 'Objectives' explain what the management intends to do. They are oriented towards action and provide the basis for developing specific policies on matters that management will likely need to address.

The objectives are used to assess the suitability of all activities and to identify the controls required to maximise

benefits and to minimise adverse impacts.

### Management Policies

The policies become the means by which objectives are achieved – ie how to implement the objectives. Over time, as certain specific objectives are attained or require change, relevant policies will also be amended. The policies guide all future aspects of Pukekura and provide the framework for continuity of management.

## 4.1 Flora and Fauna and Habitat Management

### 4.1.1 Native Fauna and Habitat Management

#### *Aims:*

1. Specific native fauna are protected and their habitats are enhanced through appropriate protection, enhancement and intervention.
2. Specific native fauna are protected at this site to maximise the contribution made to self-sustaining regional (or national) populations from the site.
3. Ecosystems are restored to protect significant biota and their habitats to achieve the above aims.

The protection of native wildlife, particularly the albatross, and the enhancement of their habitats is one of the key aims in the management of Pukekura. Native wildlife are protected under the provisions of the Wildlife Act 1953 and the Reserves Act 1977. A full list of existing native wildlife is provided in Appendix 3.

Initial protection of the albatross at Pukekura occurred in 1937-38 on a voluntary basis by Dr Lance Richdale. Since this time a number of individuals and agencies have been responsible for

the protection of the royal albatross including the New Zealand Wildlife Service and the Department of Conservation.

Since its inception in 1987, the Department of Conservation has undertaken an active programme of intervention to assist and increase the success of albatross breeding at Pukekura.

This programme to increase breeding success of the albatross includes manipulation of eggs, chicks and adults and the use of foster nests, incubators, supplementary feeding and pest control. To maintain the current rates of population increase of this colony, it is considered important that this programme continues into the future. At some point in time the colony may reach a size where the current intensive management is not deemed necessary; however, this is expected to be at least several decades away.

Research and observation has indicated that albatross are sensitive to changes in their habitat and may be affected by the presence of visitors. The birds' responses to habitat degradation or disturbance may include ceasing to nest in the reserves, smaller numbers of nests, moving to less favourable nesting habitats in the reserves and/or having less success in raising their young. For these risks to be best managed, an approach which is both proactive in maximising habitat conditions overall and precautionary in minimising disturbance is considered appropriate.

It is important to acknowledge that wildlife (including albatross) do not recognise statutory boundaries. The boundary between the nature reserve (where protection and preservation of native species is primary) and the adjacent local purpose reserve (where a number of different aims, including wildlife protection, are to be achieved) does not influence them. Native seabirds and other species will continue to select breeding and nesting sites at Pukekura according to their own needs. This may include areas that are used by other species, or by people.

### **Objectives:**

1. To manage native wildlife species, particularly the albatross and other ground nesting seabirds, within the reserves, to maximise their breeding success.
2. To manage ecosystems to protect significant biota and their habitats in conjunction with the management of native wildlife species in Objective 1.

### **Policies:**

1. Priority will be given to the conservation management of the albatross, followed by other regionally significant native species.
2. Information about the status of native wildlife species and their habitats can be made publically available as is deemed appropriate.
3. To prepare an ecosystem enhancement plan if considered necessary to meet Aims 1 and 2 above.

### **4.1.2 Management of Flora**

#### **Aims:**

1. Native and exotic flora are actively managed to protect and enhance the Pukekura values.
2. Specific native plant species are protected at this site to maximise the contribution made to self-sustaining regional (or national) populations from the site.

The vegetation at Pukekura has been extensively modified over time. It is likely that the natural cover consisted of shrubland and tussock, with some forest species, rather than the exotic grasses that predominate today. Some resurgence of silver tussock has occurred since the military occupation ceased in the 1950s. Some planting of native species have been carried out at specific sites in recent years. A list of threatened and at-risk native plant species is provided in Appendix 3.

Vegetation provides nesting material and shelter for some species of the native wildlife present, but it may also shelter predators. Any future planting should take into consideration the habitat requirements of all native wildlife species present, enhance the landscape and be sensitive to any archaeological, cultural and historical values. The planting of suitable native species adjacent to facilities, structures and land boundaries may be appropriate to minimise their impact on the landscape. Security fences can also be made less obtrusive by way of screen planting. Vegetation can also be used to mitigate human disturbance on the Pukekura values, including being used to manage public access to vulnerable sites.

Appropriate planning will be required to ensure that any removal of vegetation or planting programme does not compromise the Pukekura values. In particular, care needs to be taken to ensure that archaeological remains are not disturbed.

Control of some plant species may be required to ensure that these species do not encroach upon areas of native vegetation or spread to other areas where their control is difficult.

#### **Objectives:**

1. To manage vegetation type and cover within the reserve to ensure that the habitats of native flora and fauna are protected and enhanced.
2. To manage known populations of any regionally or nationally significant flora within the reserves.
3. To ensure the Pukekura values are protected and enhanced through management of vegetation (including pest plants).

#### **Policies:**

1. To develop a comprehensive vegetation management plan.
2. Significant native flora values will be protected and enhanced (including remnant vegetation)

when practicable and when this does not impact on the success of the albatross.

3. Changes to vegetation will have regard to the Pukekura values, including: the protection and enhancement of native flora and fauna and their habitats, the protection and conservation of archaeological, cultural and historical sites and the use of local indigenous plant species and the affect on the landscape. The New Zealand Historic Places Trust will be consulted prior to the commencement of any planting programmes.

#### **4.1.3 Pest Animal Control**

##### **Aim:**

1. Pest animals are controlled to protect and enhance the Pukekura values.

The control of pest animals has been ongoing at Pukekura for many years. It is likely that the rich variety and increasing numbers of native wildlife, particularly seabirds, in the reserves is a direct result of this sustained control programme. Control programmes have become more widespread, sophisticated and effective. To be effective, predator control needs to be ongoing and should not be confined to Pukekura. The inclusion of control on adjacent land is considered an integral part of the success of this predator control programme.

Introduced mammals have been recorded within the nature reserve and some of these are known to be predators of birds or their eggs. Fencing borders the nature reserve and lighthouse surrounds. When originally erected, this fence was designed to exclude people, stock and dogs. It has since been modified to exclude rabbits; however, it is not a barrier for smaller pest animals such as rats and mustelids.

Hatching eggs and young chicks of albatross are susceptible to fly strike and therefore flies are managed during critical times.

Several pest species in the Otago region require a regulatory response through the Otago Regional Council's Pest Management Strategy. Under the Pest Strategy, land occupiers are to control the pest animals listed in the Strategy on their properties. There are also Otago Peninsula community initiatives for pest animal control that relate to Pukekura.

**Objective:**

1. To ensure that pest animals are controlled as appropriate to protect the Pukekura values.

**Policies:**

1. Pest animals will be controlled to enhance the Pukekura values including, if necessary, the establishment of predator-proof fencing.
2. To develop a comprehensive pest animal control programme if considered necessary.
3. To work with adjacent landowners to coordinate pest animal control, to achieve greater affect and establish adequate buffer zones.
4. Dogs are not permitted on any part of Pukekura unless authorised under Dunedin City Council bylaws and/or as permitted by the Conservation Act 1987.

**4.1.4 Coastal Zone**

**Aim:**

1. The coastal zone surrounding Pukekura protects the Pukekura values.

The sea surrounding Pukekura provides food resources for many of the wildlife species present and is integral to the bird and marine mammal habitats. Marine pollutants could originate from a number of sources, including disposal of sewage waste, marine pollution events and spills of toxins or pollutants and dumping of solid waste and harbour dredging.

While coastal water quality management and marine pollution responses are Otago Regional Council functions, there are a number of considerations that can be taken by the Pukekura management to work towards maintaining and improving the quality of the coastal habitats at Pukekura.

The Taiaroa Head Wildlife Sanctuary is adjacent to the nature reserve and forms a ten metre buffer public exclusion zone to protect and maintain the values of Pukekura. The regulations of the Wildlife Sanctuary were established to reduce the risk of illegal entry into Pukekura.

Water craft are not legally permitted in this ten metre buffer zone. In addition, due to the potential disturbance to wildlife, kayakers and users of other water craft will be discouraged from landing or launching at Pilots Beach.

If deemed necessary to avoid wildlife disturbance, commercial and recreational boat operators will be approached regarding the buffer zone.

Access to and use of the coastal zone must be in accordance with other statutory legislation and relevant policy.

The Otago Regional Council has an Otago Regional Marine Oil Spill Contingency Plan which includes the area around Pukekura.

**Objective:**

1. To ensure that adequate safeguards and restrictions are in place to protect the Pukekura values.

**Policies:**

1. The legal status of the Wildlife Sanctuary should be retained.
2. To advocate that the Wildlife Sanctuary is respected to reduce the risk of disturbance to wildlife. To educate the public to be aware of marine pollution, particularly the risks of an oil or hazardous substance spill and to notify as a first response the Otago Regional Council.

3. To discourage water craft from landing or launching at Pilots Beach.

#### **4.1.5 Aircraft**

##### **Aim:**

1. Native fauna on Pukekura are not disturbed by aircraft.

The Civil Aviation Authority of New Zealand (CAA) manages the airspace restriction (NZR 905, Tairaroa Head, Otago Coast) over Pukekura. Aircraft are restricted from flying below a height of 2000 feet above mean sea level within a radius of 0.54 nautical miles (1 kilometre) from the headland.

##### **Objective:**

1. To ensure that adequate safeguards and restrictions remain in place to minimise disturbance to albatross.

##### **Policy:**

1. Advocate for the retention of the existing airspace restriction.

## **4.2 Manawhenua**

##### **Aim:**

1. The use, management and enhancement of Pukekura is consistent with its status as a taoka **to the whānau and hapū who associate with the headland.**

The headland is an important cultural **landscape of connection for whānau and hapū. This linkage is underpinned in the memory archive of the hapū by tradition, waiata, whakataukī, place-names, burial sites, waka landing, mahika kai, access to fishing resources and archaeological remnants.**

While much physical change has occurred to the headland in the last 150 years and many visible signs of the habitations of the tupuna have been built over, the spiritual and physical association remains strong.

This Management Plan assists the kaitiaki duty of reciprocity to manage the headland sustainably for now and for future generations and to ensure all who work on, visit or manage the headland will add to, rather than detract from, the headland's many environmental, cultural and human values.

It is essential that access to the headland and to places of traditional importance for Manawhenua is provided for and that all interpretation of the headland reflects the traditions and **connection of Kai Tāhu** to Pukekura.

The engagement of manawhenua with the headland is more than visitation, more than remembrances and more than participation in the management of the headland, but does encapsulate the right of physical access and management and, where appropriate, use of cultural materials.

Economic activity at the headland is acceptable where it embraces and promotes the cultural connection of manawhenua to Pukekura.

Manawhenua shall continue to pursue a co-operative approach to the management of and participation in the cultural, spiritual, environmental and economic affairs of Pukekura.

##### **Objective:**

1. That all activity on the headland is consistent with Pukekura being a place of spiritual importance and identity to Manawhenua.

##### **Policies:**

1. That the connection of Manawhenua to Pukekura is recognised and provided for through protocols that permit:
  - a) Physical access to all parts of the headland.
  - b) Use and management of cultural materials.
  - c) Input to all interpretation depicting Manawhenua history and associations with the headland.

2. That all activity that has the potential to disturb the soil or surface area of the headland requires an archaeological permit.
3. That all archaeological finds at the headland are notified to Manawhenua.
4. The use of Pukekura should not negatively impact on the Pukekura values.

### **4.3 Archaeological, Cultural and Historical Management**

***Aim:***

1. To ensure the entire Pukekura headland, as an extensive archaeological, cultural and historical site, is protected and conserved and recognises the significance of wahi tapu and wahi toaka for manawhenua.

Pukekura is steeped in history and as a result there are many sites and structures of not only archaeological and historical importance, but also of significant cultural value to manawhenua.

**The 'Pukekura Pā' is listed as a Category II historic place on the New Zealand Historic Places Trust (NZHPT) Register. The NZHPT are reviewing the Pukekura Pā registration to ensure that the boundaries accurately reflect the extent of occupation by, and significance to, mana whenua. This will encompass all the reserves that make up Pukekura. The objectives and policies within this Management Plan reflect that the boundaries of the Pā will be redefined.**

Many specific historical sites and structures on Pukekura are known and separately recorded on the New Zealand Archaeological Association Site Recording Scheme and/or registered by the NZHPT and included on the Dunedin City District Plan schedule. Due to the extensive historic occupation of this headland there are likely to be sites and items that remain undiscovered to date.

All of the historical structures on Pukekura are post European settlement and mainly relate to the strategic position of Pukekura at the Otago Harbour entrance for defence purposes. A number of gun batteries still exist, including the Lighthouse Battery with the restored Disappearing Gun. More historical detail is attached in Appendix 4 and a Features Map is attached as Appendix 5. A conservation plan for the restoration of the Saddle Battery has been developed by Wellington-based conservation architect Ian Bowman.

Approval must be sought from all the appropriate authorities before any site or structure on Pukekura is modified, damaged, or destroyed and for any ground disturbance works. Because the entire land area of Pukekura Pa is an archaeological site, it is a statutory responsibility of all parties planning any ground disturbance work in this area to undertake archaeological assessments and obtain archaeological authority from the New Zealand Historic Places Trust.

The Protected Objects Act 1975 regulates, among a number of things, the sale, trade and ownership of taoka tuturu. Under this Act all taoka tuturu found are Crown-owned in the first instance, in order to allow claims for ownership to be heard through the Maori Land Court.

***Objectives:***

1. To protect or conserve archaeological, historical and cultural sites and structures to the extent that is consistent with the Pukekura values.
2. To develop a comprehensive historical and cultural archive.
3. Wahi tapu and wahi toaka are protected in a culturally appropriate manner.
4. That manawhenua have kaitiaki over cultural material subject to the Pukekura values.

### **Policies:**

1. To support the protection or conservation of archaeological, cultural and historical sites and structures where compatible with the Pukekura values.
2. All proposals to modify or damage a site or structure, or any ground disturbance works, requires the appropriate approvals, and applications may require preparation of a conservation plan and must include potential effects of the proposed activity on the Pukekura values and actions to take to avoid, remedy or mitigate any adverse effects.
3. Manawhenua are recognised as the guardians of all taoka tuturu as required under the Protected Objects Act 1975.
4. To recognise manawhenua kaitiakitaka over archaeological sites and any artefacts originally belonging to Pukekura that are unearthed or located.

## **4.4 Visitor and Commercial Use**

### **4.4.1 Public Appreciation and Commercial Use**

#### **Aims:**

1. The public can appreciate and learn about the ecological, cultural and historic values of Pukekura.
2. Commercial and recreational use of Pukekura is compatible with the Pukekura values.
3. The positive contribution of visitor activity on Pukekura to Dunedin's economy is recognised.

Pukekura has an international reputation as a place to view wildlife. However, its continuing popularity for visitors depends on the protection of wildlife and their habitat in the long-term. Managed in the correct way, tourism and the other values of Pukekura are compatible.





The wildlife viewing and education opportunities at Pukekura draw a large number of visitors to the headland each year. Visitors are able to learn about the native flora and fauna and the history of Pukekura during organised tours and from interpretative materials available in the Royal Albatross Centre.

Opportunities to view wildlife on Pukekura include the cliff-top viewing area, Pilots Beach Reserve and the visitor centre (where there are video and live feed images and interpretative displays). Viewing of the albatross nesting colony and the Armstrong Disappearing Gun are accessible to visitors taking commercial tours.

The number of visitors taking tours through the Royal Albatross Centre has fluctuated between approximately 37,500 and 47,700 visitors per year from 2003 to 2010.

Commercial use is a major aspect of Pukekura and significantly contributes to promoting the ecological and historical values of the headland. To ensure that all the Pukekura values are protected in the long-term, the type and amount of public and commercial use must be managed. There is an upper limit (capacity) of public and commercial use that Pukekura can sustain before there are negative effects on the Pukekura values. The Conservation Act 1987 requires that an assessment of cumulative effects be undertaken as part of the application process for certain types of authorities (concessions). Preference to commercial operators using Pukekura will be given to those who enhance the Pukekura Values.

Commercial activities include commercial filming and photography.

Pukekura management considers it important to have a good relationship with commercial operators. This is to be achieved through all parties communicating effectively and with a 'no surprises' approach.

An authority to undertake commercial activities on Pukekura, if approved, will be granted for a period of no more than 14 years. This will enable Pukekura management to review and if necessary,

modify, aspects of use to ensure that the Pukekura values are protected. 14 years is also considered sufficient time for commercial operators to benefit from their investments. However, in special circumstances, authorities may be granted for a longer period as provided for under the empowering legislation (the Reserves Act 1977 and the Conservation Act 1987).

To ensure that management will not be burdened with responsibilities and expenses that are directly related to public use, all authority holders must cover all costs related to their authority including any other costs associated with their use of Pukekura (eg, monitoring and contribution to general visitor provision).

Reporting is a requirement for all organisations with authorities granted for Pukekura. This enables Pukekura Management to have a complete understanding of commercial activity on the headland. This information will be used by management to monitor use and its effects on Pukekura to ensure that Pukekura values are protected. In addition, reporting provides Pukekura Management with the opportunity to request additional information. Specific reporting requirements will not be unilaterally imposed on any organisation with authorities to operate on Pukekura, but would be included as a condition of any new authorities issued or by agreement.

While public access is generally encouraged, this needs to be balanced against any potential adverse impacts. The approach to encouraging appropriate behaviour has been to advise and educate the public and commercial operators through signage and details within the authorities granted.

Attracting visitors to Pukekura also has the potential to affect access to, or the operation of, local landowners. It is important to manage the Reserves to ensure that the public respect the private property rights of neighbours.

### **Objectives:**

1. To encourage public appreciation and enjoyment of the ecological, cultural and historic values of Pukekura to an extent that does not negatively affect the Pukekura values.
2. To ensure all commercial operators have the appropriate authority to undertake commercial activities.
3. To ensure all organisations that occupy a building have an appropriate authority to do so.
4. To ensure authority holders meet all costs associated with and resulting from their activities (including monitoring of impacts, changes and contribution to general provisions).
5. That economic activity contributes to Dunedin's economy and the management of Pukekura.
5. Any authority granted after this Plan becomes operative, in general, will be for a period not exceeding 14 years.
6. All organisations with authorities for Pukekura are required to submit an annual report.
7. Any groups using Pukekura are required to independently gain all relevant statutory authorities (licences etc) necessary to undertake their activities.
8. To encourage effective communication between Pukekura management and authority holders.

### **Policies:**

1. To monitor the effects of public and commercial use on the Pukekura values and, if deemed necessary, determine the capacity of such use and establish an upper limit, including necessary restrictions.
2. All proposals to develop activities or structures for recreation, tourism or other commercial ventures require the appropriate approvals, and applications must demonstrate that they add to the public enjoyment and appreciation of Pukekura and include potential effects of the proposed activity on the Pukekura values and actions to take to avoid, remedy or mitigate any adverse effects.
3. All proposals will be assessed against other policies within this Management Plan and the Pukekura values.
4. All commercial activities (including use of buildings) require authorisation and may be required to pay an appropriate fee and/or meet costs associated with the

#### **4.4.2 Signage and Interpretation**

##### **Aim:**

1. Signage and interpretation material will be designed to enhance visitors' appreciation of the Pukekura values.

Interpretative material can enhance visitors' appreciation and enjoyment of Pukekura by increasing their understanding of its many values. Signage also aids visitor management.

Signs should be obvious to the visitor, but at the same time should not be obtrusive or detract from the landscape. The standard of signage (interpretative content and presentation) will reflect that Pukekura is a site of international significance.

Interpretative material both onsite (by Pukekura management or authority holders) and offsite (by authority holders or other organisations) should reflect all the Pukekura values. To ensure the accuracy of information presented, Pukekura management considers it important that it has the opportunity to review all draft material containing information on Pukekura.

**Objective:**

1. Signage and interpretative material is provided for visitor information, education and management and is consistent with protecting or enhancing the Pukekura values.

**Policies:**

1. The use of signs will be kept to a minimum.
2. A signage and interpretation plan will be considered if necessary.
3. Any onsite signage or interpretative material will be consistent with the Pukekura values and require the appropriate approvals, and applications must include potential effects of the proposed activity on the Pukekura values and actions to take to avoid, remedy or mitigate any adverse effects.
4. To advocate that Pukekura management has the opportunity to review and sign-off offsite interpretative material relating to Pukekura.

**4.4.3 Filming and Photography****Aim:**

1. That all filming and photography on Pukekura is compatible with, and promotes, the Pukekura values.

There are many requests to use Pukekura for filming both from New Zealand and international interests. Some requests relate to the coastal location of Pukekura and the lighthouse as part of this landscape. Other requests are specifically to film native fauna and flora, including the albatross.

Visitors will continue to be guided by their tour operators on appropriate filming and photography during their tour. Commercial film crews and photographers are sometimes permitted to use Pukekura if it contributes to the enhancement of the Pukekura values.

Because these activities have the potential to disturb wildlife and to

negatively impact on visitors' experience, access is often restricted to the areas used for tours, outside the tour schedule. Authority to access areas with restricted public access is assessed according to the benefits and the likelihood of disturbance to wildlife, which includes seasonal considerations. Strict criteria apply for entry into the fenced area of the Nature Reserve, lighthouse surrounds and Wildlife Sanctuary.

Authority for commercial filming and photography will attract a fee.

**Objectives:**

1. That filming/photography promotes and does not negatively impact upon the Pukekura values.

**Policies:**

1. Filming or photography within the Nature Reserve will be strictly controlled.
2. Filming or photography on Pukekura will be considered against their compatibility with the Pukekura values.
3. All proposals require the appropriate approvals and applications must include potential effects of the proposed activity on the Pukekura values and actions to take to avoid, remedy or mitigate any adverse effects.
4. Copies of commercial film and photographs may be required to archive for monitoring of habitat changes, erosion, etc.
5. A fee will apply to all applications for filming or photography, unless an exemption is granted by Pukekura management.

**4.4.4 Research****Aim:**

1. Research will increase the knowledge and appreciation of the Pukekura values.

Ongoing research on Pukekura is essential to ensure sufficient information is available to further understand the Pukekura values and to help management make informed decisions. Ongoing wildlife research helps ensure that management decisions contribute to the conservation of native flora and fauna in the long-term.

Other types of research that could occur include onsite research of archaeological, cultural or historical sites or structures, public use/commercial use management, or how these aspects interrelate. It is likely that future research will be required to determine the capacity for public and commercial use of Pukekura to ensure the Pukekura values are protected.

Applicants requesting to undertake research must demonstrate how it will contribute to the understanding of Pukekura or how it will assist management.

#### **Objectives:**

1. To encourage appropriate research to be carried out on Pukekura to inform management and increase the understanding of the Pukekura values.
2. To encourage on-site research projects that do not negatively impact on the Pukekura values.

#### **Policies:**

1. All proposals require the appropriate approvals and applications must demonstrate that the research will complement and add to the understanding of the Pukekura values, have no immediate or long-term negative impacts on native wildlife populations and habitats and include potential effects of the proposed activity on the Pukekura values and actions to take to avoid, remedy or mitigate any adverse effects.
2. Approvals may be conditional on the research findings being presented to, and available for use by, Pukekura management.

## **4.5 Protection of Landscape**

### **Aim:**

1. Landscape values (which include landmark features, cultural and historic associations and the aesthetics of the coastal environment) are protected.

The Otago Peninsula has significant landscape values and Pukekura, as the headland and defining the entrance to the Otago Harbour, is a major landmark feature. Pukekura is a significant cultural landscape for Kai Tāhu. The profile of the headland and historic structures such as the lighthouse and defence remnants reflect the strong cultural heritage and history of Pukekura and are important visual features.

The Otago Peninsula has an international reputation as a location to view wildlife, of which Pukekura is a key attraction. High public use can place pressure on visitor facilities and such developments have the potential to impact on the landscape values.

It is important that any developments on Pukekura are sympathetic to the topography and the character of the landscape. This includes the effect of buildings, signs, tracks, fencing, hard surfacing and plantings on the landscape. It must be recognised that the landscape value of Pukekura also includes the views of the headland from the west harbour area, the northern coast and from sea.

Views and vistas on Pukekura are visual amenities and it is important for public appreciation that these are maintained or enhanced.

It is important to consider the condition of the Pilots Beach dune area as this could potentially impact on the Pukekura values. It is therefore important that all decisions made in respect of the marine area adjoining Pilots Beach (both by Pukekura management and other organisations) take account of the need to mitigate any negative impacts on the Pilots Beach dune area.

Conserving important landscape characteristics and associated amenity values is also an aim of the Dunedin City District Plan. The District Plan has specific rules for particular landscape areas which regulate developments. Therefore any development on Pukekura (Taiaroa Head) is also directed by the detail in the District Plan.

**Objectives:**

1. To protect or enhance the landscape values of Pukekura through appropriate management.
2. To protect the existing profile of Pukekura, including landmark features that are part of its cultural heritage.
3. To advocate that measures are taken to avoid/remedy or mitigate any adverse effects to Pilots Beach.

**Policies:**

1. Developments should be sympathetic with the landmark features and profile of Pukekura that are part of its cultural heritage.
2. The visual impact of new developments or existing provision including hard surfacing, buildings and fencing should be minimised.
3. Proposals for new developments or changes to existing provision must demonstrate that the effect on landscape values and visual amenities has been considered.
4. To advocate that where human activities or natural changes outside the Pukekura management boundaries are likely to have a negative effect on the Pukekura values (including below high water), these adverse effects be mitigated.



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## 4.6 Operational Management

### 4.6.1 Access

#### **Aim:**

1. Access into and through the reserves is in accordance with the Pukekura values.

Managing access within Pukekura is a key factor in successfully protecting the headland's many values. It is considered that uncontrolled public access to sensitive areas could negatively impact on the Pukekura values. Therefore public access is restricted in certain areas to protect Pukekura values, while in other areas the public have unrestricted access.

Continuing customary access to sites of wahi tapu and wahi taoka is very important in recognising the cultural significance of Pukekura to manawhenua. This right is facilitated through the **Korako Karetai Trust and the Ōtākou Rūnanga**. Such access includes the annual visit into the nature reserve for manawhenua, activities as part of a **wānaka and for historical relevance**.

Access is required to the signal station and lighthouse areas to maintain equipment for marine navigation and related maritime safety services and to maintain the existing meteorological station.

Under the Reserves Act 1977 a permit is required for access to the nature reserve. Commercial tours to the Richdale Observatory, the Disappearing Gun and the observation point are authorised under such a permit and concession.

It may be necessary to further restrict public access to minimise impact on the Pukekura values. Other authorities may be investigated for tourism industry activities which have an effect on Pukekura.

Overnight camping (tents/campervans/vans) is not permitted as it may negatively impact on the Pukekura values, including wildlife and infrastructure. Such activity poses a potential fire risk. In addition, many vehicles do not have self-contained toilets

and there is no public toilet provision on Pukekura after the visitor centre closes.

#### **Objective:**

1. To manage access as appropriate and where compatible with the Pukekura values.

#### **Policies:**

1. Public access will be managed in accordance with the Pukekura values as follows:

Public access is generally supported but will be monitored to ensure the Pukekura values are protected.

- a) Public pedestrian access to Pilots Beach is available when organised tours are not in operation. Public access will be appropriately managed at penguin nesting areas.
- b) Vehicle access to Pilots Beach is for emergency vehicles and upon request to provide for disabled access only.
- c) General public access to this area is only possible as part of an authorised tour to the following areas: areas of local purpose reserve to the north of the parapet wall; signal station and surrounds, between the rear of the visitor centre and the boundary of the nature reserve.
- d) Access to the nature reserve, wildlife sanctuary and lighthouse and surrounds will be by an authority granted and subject to strict criteria.

2. Ensure manawhenua access to sites of wahi tapu and wahi taoka is continued.
3. Management and operational access is available when appropriate.
4. Camping is not permitted.

## **4.6.2 Fencing**

### **Aims:**

1. Fencing is kept to a minimum yet allows for effective management and ensures the Pukekura values are protected.

Fences are required on Pukekura to help manage public access to control public access into the nature reserve and the lighthouse and surrounds as well as other areas sensitive to human disturbance. The fencing which borders the nature reserve and lighthouse surrounds was likely designed (and since been modified) to exclude people, domestic animals and some pests.

In the future this fencing may need to be moved to ensure minimum human disturbance to nesting albatross and other flora and fauna. Although the area available for albatross nesting sites is not yet near capacity, nest site selection or future increases in demand may mean albatross and other birds nest close to or even outside of the existing 'permit only' fenced area.

Fences also have a public safety role, namely at lookout points next to cliff edges. Fencing also prevents the chance of any wandering stock accessing sensitive areas.

A review of fencing will assess the relocation or removal of fences. Consideration will also be given to the need for predator/pest proofing, wildlife management, sensitivity to wahi tapu and wahi taoka, design and type of fencing, access requirements, impact on landscape/visual amenity, reserve maintenance and the effect on the Pukekura values.

### **Objective:**

1. To ensure that areas are adequately fenced to protect the Pukekura values.

### **Policies:**

1. To review the appropriateness and effectiveness of existing fences and the need for new fences.
2. If deemed necessary, fences will be relocated to minimise human disturbance to nesting albatross and other species requiring such protection.
3. All organisations proposing to undertake fencing require the appropriate approvals, and applications must include potential effects of the proposed activity on the Pukekura values and actions to take to avoid, remedy or mitigate any adverse effects.
4. Any proposal to establish new fences must consider Section 4.3 - Archaeological, Cultural and Historical Management.

## **4.6.3 Buildings and Structures**

### **Aim:**

1. Buildings and structures in the reserves are appropriately designed, located and used in a way that enhances the Pukekura values.

There are a number of buildings and structures on Pukekura. They range from historical structures to modern buildings such as the Royal Albatross Centre. Buildings and structures on Pukekura perform various functions; from provision of facilities for visitors, to the management of native wildlife and the housing of shipping control/meteorological equipment.

Buildings and structures at Pukekura and their various uses can have both positive and negative impacts on the Pukekura values. Evidence suggests that native wildlife species, particularly albatross, react to the noise and movement of humans by choosing to move their nesting sites away from the source of disturbance.



The effect of existing buildings and structures and new developments on the Pukekura values is an important management consideration. The Otago Peninsula Trust is a significant stakeholder in this regard due to the Trust's existing legal interests, existing legal activities and associated access rights (see Section 1.6).

A number of buildings and structures relate to shipping navigation of the Otago Harbour. Some of these buildings are no longer required as systems are now remotely operated and therefore no longer staffed. However, the lighthouse is still operational and there is shipping navigation equipment mounted on and located within the Signal Station building, which also houses a backup generator.

Buildings are also required for conservation management of the albatross.

Structures such as viewing areas/platforms, seating and interpretation panels are important for visitors' enjoyment of Pukekura and protection of the site. Taiaroa Head has an international reputation as a place to view wildlife. It is therefore important that the aesthetics of the area and quality of developments meet visitor expectations.

Details and policy regarding historic buildings and structures is provided in Section 4.3 - Archaeological, Cultural and Historical Management.

It is expected that the use of buildings will change, especially buildings related to navigation services. Any potential reuse of buildings will be in accordance with the Pukekura values and will take into account the existing legal interests and existing legal activities of the Otago Peninsula Trust.

#### **Objectives:**

1. To provide buildings and structures (including use) only if consistent with the protection and enhancement of the Pukekura values.

2. To eliminate or mitigate any negative effects of buildings and structures on the Pukekura values.

#### **Policies:**

1. To ensure the existence and use of buildings and structures are consistent with the Pukekura values.
2. All organisations proposing to modify or develop buildings or structures, or change the use of structures, require the appropriate approvals, and applications must include potential effects of the proposed activity on the Pukekura values and actions to take to avoid, remedy or mitigate any adverse effects.
3. Buildings will be maintained to an appropriate standard in relation to its use and the Pukekura values.
4. Authority holders must ensure that the impact of all buildings and structures (including their ongoing use) on the Pukekura values is continually monitored and minimised.
5. To confirm ownership and maintenance responsibilities of all buildings on Pukekura.

#### **4.6.4 Utilities and Waste Management**

##### **Aims:**

1. All services required, including the disposal of waste and sewage materials, will be managed in a way that is consistent with the protection of the Pukekura values and the cultural position of manawhenua.
2. A water and sewage system that reduces demand for fresh water and does not burden or overload the sewage system.

The underground reticulation of utilities is preferred in order to protect or enhance the landscape value of Pukekura.

There is a water supply easement over neighbouring land for the purposes of Pukekura. However, all fresh water used on Pukekura is currently brought in from elsewhere and stored in a small reservoir.

There is significant demand for fresh water on the headland, and water supply and water conservation are major management issues for Pukekura.

The Department of Conservation requires water for albatross conservation management and for staff use. The main demand for water, however, is from the Royal Albatross Centre, namely for visitor use.

The sewage plant on Pukekura dates back to 1989. It only services the Royal Albatross Centre. The Otago Peninsula Trust is responsible for its management.

In the past, sewage was disposed of through an outfall at Waiwhakaheke (a wahi tapu). Sewage currently undergoes primary treatment and is then disposed of offsite. Discharge of human waste into water is offensive to manawhenua and discharging at a wahi tapu is not consistent with the Pukekura values.

Pukekura management acknowledges that a long-term solution is needed regarding water supply and use and how to best manage sewage disposal. A solution will require expert advice and the support of stakeholders. Efficient use of water will benefit the sewage system (eg recycling of grey water). All options for off-site sewage disposal must be exhausted before considering using land on Pukekura.

Stormwater runoff is predominantly associated with the vehicle parking area where channelling of water occurs.

#### **Objectives:**

1. To allow necessary management utilities and services (including waste) in a manner that is compatible with the Pukekura values.
2. That no contaminants are discharged into the sea.

3. To explore more efficient ways of managing water use.

#### **Policies:**

1. To review the current water regime and develop a sustainable solution for a reliable water supply, water conservation measures and a method of sewage disposal – all of which are consistent with the Pukekura values.
2. A solution for sewage disposal must exhaust all off-site options before considering use of Pukekura.
3. A minimum quantity of water is reserved for conservation management purposes.
4. To retain existing water access rights to Pukekura.
5. There is no discharge of human waste directly to water.
6. All rubbish is to be appropriately removed as a requirement of all authorities granted.
7. All efforts should be made to avoid or mitigate containments reaching the ocean.
8. To identify the location of all utility connections, including pipes and underground cables.

#### **4.6.5 Roads, Tracks and Vehicle Parking**

##### **Aim:**

1. Provision of roads, tracks and vehicle parking will be kept to a minimum but will be adequate to manage visitor numbers and meet operational requirements while not compromising the Pukekura values.

The presence and use of existing roads, tracks, vehicle parking and any new developments will be managed to protect the Pukekura values.

The vehicle parking area at the Royal Albatross Visitor Centre will be the only public parking area on Pukekura. The parking area is maintained by the Dunedin City Council.

Visitor access to all other areas on Pukekura will be pedestrian only. The access to Pilots Beach is only for pedestrian use but will continue to be maintained as a road for emergency purposes and to facilitate disabled access when necessary.

Vehicle parking provision must consider clearways for emergency vehicles and existing right of way access for neighbouring properties.

The road to the main vehicle parking area is Harington Point Road and is the only legal road on Pukekura.<sup>3</sup>

A number of existing tracks and footpaths are located on Pukekura. Tracks are required to allow for practicable, safe and managed access for visitors, operational staff and other users.

Traffic speed restrictions are for the safety of not only pedestrians but also any native fauna on the road.

Consideration regarding the effect of this type of infrastructure on the landscape value of Pukekura and relevant policy is detailed in Section 4.5 - Protection of Landscape.

#### **Objectives:**

1. To ensure that roads, tracks and vehicle parking effectively manage visitor and operational access but do not compromise the Pukekura values or the access rights of neighbouring properties.
2. To maintain a single vehicle parking area at the Royal Albatross Centre and encourage pedestrian access to all other areas.

#### **Policies:**

1. To continue to manage vehicle access and parking to protect the Pukekura values.

2. A review of roads is to be undertaken.
3. To formalise maintenance responsibilities of the vehicle parking area.
4. Advocate for an appropriate vehicle
5. Existing and new tracks and roads will not negatively impact on the Pukekura values.
6. Organisations proposing to undertake road, track or vehicle parking development require the appropriate approvals and applications must include potential effects of the proposed activity on the Pukekura values and actions to take to avoid, remedy or mitigate any adverse effects.
7. Overnight vehicle parking is not permitted.

#### **4.6.6 Fire Risk Management**

##### **Aim:**

1. Protect the Pukekura values and minimise risk to visitors from fire by managing risk and effectively responding to a fire event.

A fire on Pukekura has the potential to have significant negative effects on the Pukekura values, putting people, wildlife and property at risk.

Due to the values of Pukekura, the geography and the number of organisations involved, it is crucial that all stakeholders (including neighbouring land occupiers) work together and share the responsibility for fire prevention and protection from fire. Therefore it is important that management and stakeholders work with emergency management agencies to develop a Pukekura Fire Emergency Plan.

Fire plans cover a number of issues such as vegetation management, establishing priority zones, access routes, water supply, fire restrictions and will consider local elements such as significant wildlife, visitor numbers and behaviour and aircraft restrictions.

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<sup>3</sup> Reference to this can be found in NZG 1970 p145 SO Plan 16512.

**Objectives:**

1. To minimise the risk of fire events occurring.
2. To ensure that in the event of a fire, an effective fire response is in place.

**Policies:**

1. A Pukekura Fire Emergency Plan will be developed in consultation with the appropriate emergency agencies and Pukekura stakeholders.

**4.6.7 Shipping Control Operations and the Meteorological Station****Aim:**

1. The use of Pukekura in respect to marine navigation services is supported where it does not compromise the Pukekura values.

Due to the location of Pukekura at the Otago Harbour entrance, shipping navigation and related safety services are an important function of the headland. Marine navigation equipment and related safety services includes CCTV coverage of the entrance to Otago Harbour, a sand bar warning light and an AIS/radar system.

All Otago Harbour shipping control is remotely operated from Port Chalmers and therefore personnel are not required to be stationed at Pukekura. However, access is required to carry out regular service maintenance and upon equipment failure.

A number of buildings were built onsite for marine navigation and related safety purposes. When these buildings are no longer required for this purpose, the future use of buildings will be assessed in accordance with the Pukekura values.

An area of land within the Lighthouse Reserve is designated (in the Dunedin City District Plan) as the 'Taiaroa Head Weather Station Designation' for 'Meteorological Purposes'.

The Meteorological Service is the requiring authority for this designation. Although the Meteorological Service no longer requires a weather station at this location, Port Otago Limited continue to maintain an automated wind gauge (mounted off the Signal Station building) and water rainfall gauge (within the fenced off area).

This designation for 'Meteorological Purposes' is a land use planning authority and does not give any entitlement to the ownership of the land. Pukekura management consider this designation is to assist with shipping navigation and related safety services concerning the Otago Harbour.

Conditions of this designation are provided in Appendix 2.

**Objective:**

1. To acknowledge the importance of retaining marine navigation and related safety services at Pukekura.

**Policies:**

1. To ensure that provision is made for relevant bodies/organisations to have access to the necessary marine navigation and related safety services concerning the entrance to the Otago Harbour and the Meteorological designation.
2. Marine navigation and related safety services and Meteorological designation use will not negatively impact on the Pukekura values.
3. Any changes to the conditions of the designation, use of buildings or sites on Pukekura requires the appropriate approvals and applications must include potential effects of the proposed activity on the Pukekura values and actions to take to avoid, remedy or mitigate any adverse effects.

## 4.7 Administration

As described in Section 3, the management of Pukekura is a collaborative approach between the Korako Karetai Trust, **Te Rūnanga o Ōtākou**, the Department of Conservation and the Dunedin City Council. Such an approach ensures that the four parties are all involved in management decisions and thus the future of Pukekura.

Throughout this Management Plan the term 'appropriate approvals' is used when stating issues that require consultation and approval. The relevant 'appropriate approvals' differs depending on each scenario. 'Appropriate approvals' can include: Pukekura management, the statutory role of organisations, administering bodies and any other relevant parties as identified by Pukekura management. Protocols of how management decisions will be processed (including the relevant 'appropriate approvals') will be developed.

The details in this section provide consistency of administration and management of all the reserves that form Pukekura.

The purpose of this section is to ensure that administration of Pukekura protects and, if necessary, enables the enhancement of the Pukekura values.

This administration section primarily involves the implementation of this Pukekura Management Plan. There are, however, administration issues (eg commercial use) detailed in other sections of this plan that are not repeated in this section.

Pukekura Management will meet on a regular basis to administer this Pukekura Management Plan.

These management meetings will not only be the forum to consider proposals for activities or developments, but is where Pukekura management are updated on issues (eg development progress / wildlife monitoring / research/ etc), relevant information is shared, issues discussed, implementation of this

plan is monitored and where future planning priorities are determined.

A Memorandum of Understanding will be developed between the four parties.

Until such time as a formal joint management option is in place, the Department of Conservation and the Dunedin City Council will continue to meet the respective management costs associated with their relevant responsibilities.

This management plan will be under continuous review so that it can be adapted to changing circumstances or in accordance with increased knowledge.

Given the many uses and values of Pukekura, it may be necessary to develop a long-term vision for how Pukekura will be enhanced. Such a strategic approach will produce the best overall outcome for all uses and protect the Pukekura values. It is recognised that whatever management model exists for Pukekura in the future, the administration of the Management Plan will require and benefit from input from the Otago Peninsula Trust in an advisory role on matters that affect the Trust as a significant stakeholder.

The production of Pukekura 'secondary' plans will be considered if appropriate and will be consistent with and complement this management plan.

### **Aim:**

1. To administer Pukekura in accordance with this Pukekura Management Plan.

### **Objective:**

1. To achieve efficient, effective and lawful delivery of the aims, objectives and policies of this plan and ensure that the plan administration is consistent with the Pukekura values.

### **Policies:**

1. All authorities granted will be issued by the relevant formal administering body.
2. Protocols will be developed to process management decisions.
3. Promote transparency through the sharing of all information relevant to Pukekura between the individual Pukekura management parties.
4. Pukekura Management will meet regularly to ensure implementation of this Plan.
5. Pukekura Management will be responsible to report to their respective organisations on management issues including an annual report of activities.
6. Pukekura Management will actively source funding for the implementation of the Plan.
7. A Memorandum of Understanding will be developed until such time as a formal Board or Joint Management Body is established.
8. To consider a long-term vision for the enhancement of Pukekura.
9. The development of 'secondary plans' will be considered if necessary.
10. This management plan will be under continuous review.
11. To investigate confirming the formal use of the traditional names of this headland.

## **4.8 Cooperation and Collaboration with Local Land Owners**

### **Aim:**

1. A good rapport with adjoining landowners, neighbours, relevant stakeholders and the local community is established and maintained in a manner that supports the protection of the Pukekura values.

Protecting the Pukekura values is not just about what takes place on Pukekura but can also be influenced by what occurs on adjacent properties, Otago Harbour and the wider environment.

The Otekiho Reserve, administered by the Dunedin City Council and managed by the Yellow-Eyed Penguin Trust, adjoins part of Pukekura. The remaining adjoining land is privately owned and has a covenant with the Minister of Conservation to protect the sooty shearwater colony.

There are cross-boundary considerations that directly relate to protecting the Pukekura values. Pest animal control carried out on adjoining land is beneficial to maintaining and protecting the Pukekura values. Other cross-boundary considerations relating to management include fencing, management of flora and fauna, fire risk management and access.

Awareness that traditional use by manawhenua extended beyond the boundaries of the Pukekura reserves is an important cross-boundary consideration.

Adjoining private land is accessed through Pukekura from the vehicle parking area.

Developments on Pukekura have the potential to impact on neighbours and the neighbouring community. Equally, developments or activities on neighbouring properties can potentially impact on the Pukekura values. An understanding of the Pukekura values, honest communication and a good rapport between neighbours and Pukekura Management mean that any issues concerning Pukekura can be managed more effectively.

**Objective:**

1. To promote awareness of the Pukekura values and work with neighbours, relevant stakeholders and the local community to protect these, including adjoining landowners regarding cross boundary issues.

**Policies:**

1. To encourage dialogue between Pukekura management, neighbours, relevant stakeholders and the local community regarding intentions that may impact on each other, potential effects and ways that these can be mitigated.
2. To work with adjoining landowners regarding cross boundary issues.
3. Any existing or proposed access across Pukekura will need to be formalised.



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# APPENDIX 1: SECTIONS 20 AND 23 OF THE RESERVES ACT 1977

## Section 20 Reserves Act 1977

### Nature reserves

- (1) It is hereby declared that the appropriate provisions of this Act shall have effect, in relation to reserves classified as nature reserves, for the purpose of protecting and preserving in perpetuity indigenous flora or fauna or natural features that are of such rarity, scientific interest or importance, or so unique that their protection and preservation are in the public interest.
- (2) It is hereby further declared that, having regard to the general purposes specified in subsection (1), every nature reserve shall be so administered and maintained under the appropriate provisions of this Act that—
- (a) it shall be preserved as far as possible in its natural state:
  - (b) except where the Minister otherwise determines, the indigenous flora and fauna, ecological associations, and natural environment shall as far as possible be preserved and the exotic flora and fauna as far as possible be exterminated:
  - (c) for the better protection and preservation of the flora and fauna in its natural state, no person shall enter the reserve, except under the authority of a permit granted under section 48A or section 57 or in accordance with a notice given under subsection (2) of that section and, for the purposes of this paragraph, the expression "enter the reserve" shall, in the case of a nature reserve or part of a nature reserve that is an island or that comprises most of an island, be deemed to include any physical contact with the land by a boat; and for this purpose any physical contact with the land shall be deemed to include the attaching (by rope or otherwise) of a boat to the reserve or to a wharf constructed on or partly on the reserve:
- (d) where scenic, historic, archaeological, biological, geological, or other scientific features are present on the reserve, those features shall be managed and protected to the extent compatible with the principal or primary purpose of the reserve: provided that nothing in this paragraph shall authorise the doing of anything with respect to fauna that would contravene any provision of the Wildlife Act 1953 or any regulations or Proclamation or notification under that Act, or the doing of anything with respect to archaeological features in any reserve that would contravene any provision of the Historic Places Act 1993:
- (e) to the extent compatible with the principal or primary purpose of the reserve, its value as a soil, water, and forest conservation area shall be maintained.
- (3) For the purposes of subsection (2) (c), where the foreshore of any nature reserve which is an island or part of an island does not form part of the reserve which it adjoins, the foreshore shall be deemed to form part of the reserve.

## Section 23 Reserves Act 1977

### Local Purpose Reserves

- (1) It is hereby declared that the appropriate provisions of this Act shall have effect, in relation to reserves classified as local purpose reserves for the purpose of providing and retaining areas for such local purpose or purposes as are specified in any classification of the reserve.
- (2) It is hereby further declared that, having regard to the specific local purpose for which the reserve has been classified, every local purpose reserve shall be so administered and maintained under the appropriate provisions of this Act that—
- (a) where scenic, historic, archaeological, biological, or natural features are present on the reserve, those features shall be managed and protected to the extent compatible with the principal or primary purpose of the reserve:  
provided that nothing in this paragraph shall authorise the doing of anything with respect to fauna that would contravene any provision of the Wildlife Act 1953 or any regulations or Proclamation or notification under that Act, or the doing of anything with respect to archaeological features in any reserve that would contravene any provision of the Historic Places Act 1993:  
provided also that nothing in this paragraph shall authorise the doing of anything with respect to any esplanade reserve created under section 167 of the Land Act 1948, or section 190(3) or Part 25 of the Municipal Corporations Act 1954 or Part 2 of the Counties Amendment Act 1961 and existing at the commencement of this Act, or any local purpose reserve for esplanade purposes created under the said Part 25 or Part 2 or under Part 20 of the Local Government Amendment Act 1978 or under Part 10 of the Resource Management Act 1991 after the commencement of this Act, that would impede the right of the public freely to pass and repass over the reserve on foot, unless the administering body determines that access should be prohibited or restricted to preserve the stability of the land or the biological values of the reserve:
- (b) to the extent compatible with the principal or primary purpose of the reserve, its value as a soil, water, and forest conservation area shall be maintained.
- (3) Where a local purpose reserve is vested in a local authority or where the administering body is a local authority, it may from time to time, by public notice, prohibit access to the whole or any specified part of the reserve, and in that case no person shall enter the reserve or, as the case may be, that part, except under the authority of a permit issued by the local authority.
- (4) Where a local purpose reserve is not vested in a local authority and a local authority has not been appointed to control and manage it, the Minister may from time to time, by public notice, prohibit access to the whole or any specified part of the reserve, and in that case no person shall enter the reserve or, as the case may be, that part, except under authority of a permit issued by the Minister.

## **APPENDIX 2: TAIAROA HEAD WEATHER STATION METEOROLOGICAL SERVICE NEW ZEALAND DESIGNATION**

### **D485 (Tairoa Head Weather Station)**

This designation is confirmed without modification and subject to the conditions set out below.

Conditions:

1. The maximum height of any new building or other structure shall be no greater than the maximum height of the tallest equivalent structure existing at the site on 20 November 1996.
2. The maximum floor area of any new building or structure shall be no more than 50 percent of the floor area of the largest equivalent structure existing at the site on 20 November 1996.
3. Any new structure shall be finished in the same or similar colour, hue and materials as the most similar structure existing at the site on 20 November 1996.
4. The maximum floor area of any addition to any structure existing on the site at 20 November 1996 shall be 100 percent of the floor area of the existing structure.
5. Any addition to any structure existing on the site at 20 November 1996 shall be finished in the same or similar colour, hue and materials as the existing structure.
6. MetService shall consult with the Department of Conservation prior to modifying existing mast structures with the effect that their height or the number of associated guy wires is increased.
7. MetService shall consult with Te Runanga o Otakou, the Department of Conservation, the Dunedin City Council and the Korako Karetai Trust prior to erecting any new structures.

### APPENDIX 3: SIGNIFICANT NATIVE SPECIES

English	Maori	Latin	Current Threat Status (DOC, 2008)
<b>Birds</b>			
Northern royal albatross	Toroa	<i>Diomedea sanfordi</i>	Naturally Uncommon
Stewart Island shag	Kōau	<i>Leucocarbo chalconotus</i>	Nationally Vulnerable
Little shag	Kōau paka	<i>Phalacrocorax melanoleucos brevirostris</i>	Naturally Uncommon
Spotted shag	Kōau tikitiki	<i>Stictocarbo punctatus punctatus</i>	Not Threatened
Royal spoonbill	Kōtuku-ngutupapa	<i>Platalea regia</i>	Naturally Uncommon
Sooty shearwater	Titi	<i>Puffinus griseus</i>	Declining
Variable oystercatcher	Tōrea	<i>Haematopus unicolor</i>	Recovering
Little penguin	Kororā	<i>Eudyptula minor</i>	Declining
Yellow-eyed penguin	Hoiho	<i>Megadyptes antipodes</i>	Nationally Vulnerable
Fiordland crested penguin	Tawake	<i>Eudyptes pachyrhynchus</i>	Nationally Vulnerable
Red-billed gull	Tarāpunga	<i>Larus novaehollandiae scopulinus</i>	Nationally Vulnerable
Southern Black-backed gull	Karoro	<i>Larus dominicanus dominicanus</i>	Not Threatened
Australasian gannet	Takapu	<i>Morus serrator</i>	Not Threatened
<b>Plants</b>			
Cook's scurvy grass	Nau	<i>Lepidium oleraceum</i> agg.	Nationally Vulnerable
Buchanan's orache	-	<i>Atriplex buchananii</i>	Naturally Uncommon
Short-hair plume grass	-	<i>Dichelachne inaequiglumis</i>	Naturally Uncommon
-	-	<i>Einadia allanii</i>	Naturally uncommon
Pikao	Pikao	<i>Ficinia spiralis</i>	Relict

English	Maori	Latin	Current Threat Status (DOC, 2008)
-	-	<i>Senecio carnosulus</i>	Naturally Uncommon
-	-	<i>Senecio glaucophyllus</i> subsp. <i>Basinudus</i>	Naturally uncommon
<b>Marine Mammals</b>			
New Zealand sea lion	Whakahao	<i>Phocarctos hookeri</i>	Nationally Critical
New Zealand fur seal	Kekeno	<i>Arctocephalus forsteri</i>	Not Threatened
Leopard seal	Rapoka	<i>Hydrurga leptonyx</i>	Vagrant
Southern elephant seal	Ihu koropuku	<i>Mirounga leonina</i>	Nationally Critical

## **APPENDIX 4: KNOWN HISTORICAL STRUCTURES**

- 1850s–1987 Cottage and school foundation platforms for employees of the Harbour Board, the Maritime Board, the Education Board and the Defence Department.
- 1864 Lighthouse.
- 1885 Channel Battery Emplacement for two 64-pound Rifled Muzzle Guns, together with underground magazine and store rooms and above-ground Observation Post.
- 1885 Summit Battery Emplacement for one 6-pound Quick-Firing Gun. The current Albatross observatory is now built over this emplacement.
- 1885 Saddle Battery Emplacement – one 7-inch RML gun, together with underground magazine and storerooms and above-ground Observation Post.
- 1885 Howlett Point Battery Emplacement – one 64-pound RML Gun, together with underground magazine and storerooms and above-ground Observation Post.
- 1885 Stonework defensive Musketry Parapet – still in place across headland but with gate pillar lowered and gates removed.
- 1885 Two-cell stonework jail for army defaulters and Justice Department prisoners.
- 1889 Lighthouse Battery Emplacement – one 6-inch Breech Loading Armstrong Disappearing Gun Mark 4 together with underground magazine and store rooms and above-ground Observation Post. In addition, there is a 1943 World War II shell hoist modification for servicing a Mark-7 6-inch Breech Loading gun from Rerewahine located alongside the gunpit.
- 1908 Howlett Point Battery Emplacement – two 12 pound Quick-Firing Guns, with underground magazine and storerooms.
- Wire rope at Pilots Beach for the tramline from the landing place to the top of the parade ground for servicing the Defence Department and Harbour Board facilities. (Vintage unknown).
- Remnants of wharf at Pilots Beach.
- 1941 World War II Concrete Searchlight Pad – on harbour side of entrance.
- 1941–45 World War II Foundations and remnants of Pilots Beach Army Camp buildings and facilities.

**APPENDIX 5: FEATURES MAP**





## **APPENDIX 6: BIBLIOGRAPHY**

### **Publications and Policy Documents**

- Kāi Tahu Ki Otago, 2005: *Natural Resource Management Plan*.
- Department of Conservation, Dunedin: *Otago Conservation Management Strategy 1998*.
- National Rural Fire Authority, 2004: *FireSmart: Protecting our Communities from Interface Fires*.
- Department of Conservation, 2007: *Conservation General Policy*.
- Dunedin City Council: *Dunedin City District Plan*.
- Dunedin City Council: *Reserves Management Plan – General Policies 2005*.
- Otago Regional Council, 2009: *Pest Management Strategy for Otago*.
- Boffa Miskell Limited, 2007: Dunedin LMA Review: *Landscape Assessment Final Report*.
- Dunedin Visitor strategy 2008-15.

### **Government Acts and Gazette Notices**

- Ngāi Tahu Claims Settlement Act 1998.
- Reserves Act 1977.
- Conservation Act 1987.
- Wildlife Act 1953.
- Historic Places Act 1993.
- Wildlife Refuge Status - NZ Gazette 1938 p.2084 (section 14(5) Wildlife Act 1953).
- Wildlife Sanctuary – Taiaroa Head Foreshore - Proclaimed by the Governor-General in Council pursuant to Section 9 of the Wildlife Act 1953.

## **APPENDIX 7: GLOSSARY**

<b>Hapū</b>	Kinship group, clan, tribe, sub-tribe – section of a large kinship tribe.
<b>Hoiho</b>	Yellow eyed penguin.
<b>Kai Tāhu</b>	Southern Tribes word for Ngāi Tahu.
<b>Kaitiaki</b>	Trustee, minder, guard, custodian, guardian, keeper.
<b>Kaitiakitanga</b>	Guardianship/trustee.
<b>Karoro</b>	Black-backed seagull.
<b>Kāti Māmoe</b>	Local dialect for <b>Ngāti Māmoe</b> , a tribal group which was largely replaced by <b>Ngāi Tahu</b> through intermarriage and conquest.
<b>Kawau</b>	Black shag.
<b>Kawau Tikitiki</b>	Spotted shag.
<b>Kekeno</b>	New Zealand fur seal.
<b>Kōau</b>	Shag – variations of kowau.
<b>Kororā</b>	Blue penguin.
<b>Kōtuku-ngutupapa</b>	Royal Spoonbills.
<b>Māui</b>	Name of well known character in narratives.
<b>Manawhenua</b>	Territorial rights, power from the land.
<b>Nau</b>	Cooks Scurvy Grass.
<b>Ngāi Tahu</b>	Tribal group of much of the South Island, sometimes called Kai Tahu by the southern tribes.
<b>Ōtākou</b>	An important village near the Otago Harbour entrance at the time of early contact with Pākehā. Still occupied by Ngāi Tahu.
<b>Pā</b>	Fortified village.
<b>Pōhuehue</b>	A native plant.
<b>Popoiangore</b>	Leopard Seals.
<b>Tara</b>	White-fronted tern.
<b>Tawaki</b>	Crested penguin.
<b>Tarāpunga</b>	Red billed seagull.
<b>Titī</b>	Sooty shearwaters.
<b>Tōrea</b>	Oyster catcher.

<b>Toroa</b>	Albatross.
<b>Waiata</b>	Song, chant.
<b>Waitaha</b>	The tribe that formerly occupied much of the South Island before they were displaced by Ngāti Māmoē, who in turn were later dominated by Ngāi Tahu.
<b>Whakahao</b>	New Zealand sea lion.
<b>Whakapapa</b>	Genealogy, genealogical table, lineage, descent.
<b>Whakatauki</b>	Proverb, saying.
<b>Whānau</b>	Extended family.