Dunedin City Council

Coastal Dune Reserves Management Plan

DUNEDIN CITY COUNCIL
Kaunihera-a-rohe o Otepoti

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Part One: Introduction and Background

1. Introduction

Reserves have a major role in contributing to the maintenance and enhancement of amenity and recreation values in the city. They provide attractive open spaces and facilities for the enjoyment of active and passive recreational activities by both residents and visitors. Coastal reserves, with their often extensive sand dune systems, also act as a buffer zone between the sea and the urban areas which lie behind the dunes, providing protection in the event of storms and other climatic events.

The purpose of the Coastal Dune Reserves Management Plan is to provide a policy framework for the maintenance, protection, use, enjoyment, and appropriate development of a number of Dunedin City Council reserves that are located on the coast. This will ensure consistency in terms of the management of current reserves and the establishment of future reserves. This Management Plan applies to all Council reserves listed below.

1.1 Scope of Coastal Dune Reserves Management Plan

This Management Plan covers reserves vested in the Dunedin City Council that are primarily managed for coastal protection, and also for recreation. The Management Plan is a land-based plan under the Reserves Act 1977, and cannot address issues related to the coastal marine area, including the foreshore, seabed and water, as these are not within the Council's jurisdiction. This Plan does not provide policy for wider management or issues of the coast, as this approach is more appropriate for a strategic document that can consider all aspects of the coastal environment.

1.2 Coastal Dune Reserves included in this Management Plan

The sites identified for inclusion in this Management Plan are those located in the coastal dune environment, where the principal purpose is to provide coastal protection while providing for recreational opportunities. In general, many of the management issues of these reserves are similar and this Plan has been prepared to provide policies that apply to all the sites. Where there are issues that apply to individual sites, policies are included as specific management for that site.

Any additional reserves identified in the future, which are developed to provide access to, or encourage use of the coast, or to provide for coastal protection, will be added to this Management Plan and will be publicly notified in accordance with the provisions of the Reserve Act 1977.

This Management Plan contains policies for the following reserves that are vested in the Dunedin City Council –

- Brighton Reserve
- Island Park Reserve
- Karitane Esplanade Reserves and Karitane Spit
- Kuri Bush Reserve
- Long Beach Reserve
- Ocean Grove Reserve
- Ocean View Reserve
- Te Rauone Reserve
- Waikouaiti Domain (beach front area)
- Warrington Reserve

1.3 Interim Exclusion of parts of Waikouaiti Domain

Karitane Spit and the beach front section of Waikouaiti Domain, comprising the strip immediately adjoining Matanaka Drive and the Mean High Water Spring (MHWS) tide line, will be included in this management plan. The rest of Waikouaiti Domain has been temporarily excluded until its classification under the Reserves Act 1977 has been completed, and the primary purpose for which it is to be managed has been determined. Once the classification process is complete, the Waikouaiti Domain resource information sections and specific policies will be developed through the public consultation processes including a public

submission period and hearing. At the completion of the consultation process the relevant sections will be inserted into this Management Plan.

1.4 Areas Not Included in this Management Plan

There are a number of reserves that are located in coastal areas but are not deemed to have the primary focus of coastal protection. These reserves are not included in this Management Plan and will be incorporated into other appropriate management plans in the future. These include –

- Karitane Foreshore (Barvas Street)
- Karitane Playground
- Karitane Recreation Reserve (Coast Road)
- Mowats Bay / Pūrākaunui Recreation Reserve
- Aramoana Domain
- Aramoana Memorial Park

Ocean Beach Domain is, at the time of preparing this Plan, undergoing an extensive research and consultation programme to consider the management of this coastal area. At the conclusion of this process, a long-term management plan will be prepared and a decision will be made as to whether it is appropriate to include the reserve into this Management Plan or prepare a plan solely for the Ocean Beach Domain.

All reserves and islands within the Otago Harbour that are managed by the Dunedin City Council, are either included in the Otago Harbour Reserves Management Plan 2004 or will be incorporated in other management plans in the future. They are not included in this management plan. Te Rauone, however, is considered to be a coastal dune reserve and will be included in this plan.

The Dunedin City Council manages Pudding Island (Titiremoana). This is a scenic reserve and its management is different to that of the reserves and facilities included in this management plan. Titiremoana is highly vegetated, primarily with native species, and has a conservation focus. It will be incorporated into a more appropriate management plan.

The Otekiho Reserve, which was purchased for the purpose of conservation and wildlife protection and has no recreational purpose, is not included in this Plan. A separate management plan will be prepared for this area in conjunction with other reserve areas at Taiaroa Head. The reserve at Pilots Beach will also be included in a management plan for the Pukekura Reserves at Taiaroa Head.

The Okia Reserve Committee has developed a separate management plan for the Okia Reserve.

A number of coastal reserves (including Sandfly Bay, Allans Beach, Westwood Recreation Reserve, Aramoana Ecological Area, Huriawa Historic Reserve, Doctors Point/Blueskin Beach Reserve and Pūrākaunui Bay) and off-shore islands (Green Island, White Island and Taieri Island-Moturata) that are owned or managed by the Department of Conservation are not included in this Plan. The mole at Aramoana is owned by Port Otago and is, therefore, also not included.

2. Management Planning for Reserves

2.1 Aims and Objectives of Reserve Management Plans

In the Dunedin City Long Term Council Community Plan 2006-2016 (LTCCP), the Council's objective for parks and reserves is:

> *"To encourage and support recreation, sport and leisure by providing accessible, quality playgrounds, sports grounds, parks and reserves while enhancing the city's landscape and natural environment."*

The LTCCP identifies the primary Community Outcomes that parks and reserves contribute to. These are:

Active City
A city that provides and encourages participation in a broad range of sporting, recreational and leisure activities.

Sustainable City and Environment
A city that makes the most of its natural and built environment.

Wealthy Community
A city that encourages strong local business growth and employment growth, and attracts increasing numbers of new businesses and tourists.

2.2 Purpose of a Management Plan

Management planning is the process for determining the direction that the community and the Council would like to apply to reserves, and how it is to be achieved. Management plans should outline the Council's general intentions for use, enhancement, and maintenance of its reserves. The aim of a management plan is to ensure that proposals for the reserves meet the purpose of the reserve, and through the public's involvement, ensure their needs are facilitated while managing the resource in a sustainable manner.

A management plan also provides the Council with efficiency gains in management of the reserve by not requiring public notification or ministerial consent for some routine matters. The ability to forgo some public consultation/approvals recognises that the compatibility of an activity with the overall purpose of a reserve has already been addressed in the management plan.

The reserves included in this Plan provide natural physical protection from coastal hazards for adjacent residential and public land, and the importance of this function is recognised through the classification of Local Purpose (Coastal Protection). Such a purpose is generally compatible with recreational use of the reserve.

2.3 Existing Management Plans

Where the reserves included in this Plan have an existing Management Plan these will be reviewed and incorporated into this Plan. This management plan supersedes the following management plans –

- Island Park Recreation Reserve Management Plan
- Ocean Grove Recreation Reserve Management Plan
- Waikouaiti Domain Reserve Management Plan (Coastal areas as identified)
- Brighton Westwood Reserves Management Plan (Coastal areas as identified)

2.4 Management Planning under the Reserves Act 1977

The Reserves Act 1977 is designed to protect public land, to designate its predominant values and to ensure the land is managed to promote and sustain those predominant values. To promote good management, the Act requires the development of Reserve Management Plans. These plans can vary greatly in their detail, but they must comply with the principles of the Act. This plan has been prepared in accordance with the procedures outlined in Section 41 of the Reserves Act 1977.

Consultation Processes

The process for preparing a management plan provides the public with opportunities to take part

in the decision-making. The procedure in preparing a management plan, as required by the Reserves Act, is summarised below.

Process specified in Reserves Act 1977	Dunedin City Council consultation
Publicly notify intention to prepare the Management Plan and invite those interested to make submissions on the proposed plan within a minimum period of one month.	Notified 22 November 2003 Submissions closed 26 March 2004
The Draft Management Plan is prepared giving consideration to comments received.	24 submissions were received and were considered when preparing the Draft Management Plan.
The Draft Management Plan is adopted and advertised for submissions for a minimum two month period.	25 November 2009 Submissions closed 12 March 2010
Consideration of submissions, objections and holding a Reserves Act Hearing.	14 and 22 April 2010
Appropriate changes are made to the Draft Management Plan.	May 2010
The final Management Plan is adopted by the Council	5 July 2010

Consultation for the Coastal Dune Reserves Management Plan also included a series of public workshops within the communities where the reserves are located. This enabled communities to have input on the reserves in their area.

2.5 Consideration of Other Management Documents

Reserve management planning does not occur in isolation. Management plans provide direction for the ongoing day-to-day and potential development of reserves. However, activities and the development of reserve land remain subject to other legislation, Council policy and bylaws.

The Resource Management Act 1991 (RMA) in particular is relevant and provides overall direction in terms of sustainable management. The Reserve Management Plan must be consistent with the RMA, including documents prepared under the legislation such as the Dunedin City District Plan (2006), the Regional Plan: Coast for Otago (2001), the New Zealand Coastal Policy Statement (1994) and the Kāi Tahu ki Otago Natural Resource Management Plan (2005). Other legislation also has implications for the management of reserves. These include the Conservation Act 1987, the Wildlife Act 1953 and the Ngāi Tahu Claims Settlement Act 1998.

The Ngāi Tahu Claims Settlement Act includes a number of mechanisms to recognise and give practical effect to Ngāi Tahu mana over taonga resources and areas of land and water. These mechanisms include statutory acknowledgements. A Statutory Acknowledgement is an acknowledgement by the crown of Ngāi Tahu cultural, spiritual, historical and traditional association with identified areas. The Statutory Acknowledgement for Te Tai o Arai Te Uru (Otago Coastal Marine Area) lies adjacent to all the Coastal Reserves in this Plan. The Statutory Acknowledgement is attached as Appendix 10.7.

Council plans and documents such as the Long Term Council Community Plan, Annual Plan, Asset Management Plan and other non-statutory documents such as the Physical Activity Strategy (2007), Play Strategy (2006), Fees and Charges Policy (1999), and the Track Policy and Strategy (1998), also provide direction for the policies contained in management plans. The Dunedin City Consolidated Bylaw 2008 also applies to reserves, in particular section 10 Reserves.

The Reserves Management Plan – General Policies incorporates policies applying to all reserves. The General Policies document covers all basic issues of the day-to-day administration of reserves in Dunedin. This Management Plan does not replicate those policies as they are under constant and separate review. The Coastal Dune Reserves Management Plan takes precedence where both the Reserves Management Plan – General Policies and the Coastal Dune Reserves Management Plan address the same issue. Otherwise both documents are used to guide the management of the reserves.

2.6 Review of Reserve Management Plans

As laid down in Section 41(4) of the Reserves Act, this Plan should be kept under continuous review, with a general review at the end of 10 years. This review will be made available for public comment.

Any change or amendment not involving a comprehensive review of this Management Plan should be made by adopting the procedures specified in section 41(6)(a) of the Reserves Act.

The separate document, the Reserve Management Plan – General Policies, may be reviewed at the same time and within the same review process as the site-specific management plans or may be subject to a separate review. This means that while the Coastal Dune Reserves Management Plan will be reviewed every ten years, the Reserve Management Plan - General Policies is reviewed more frequently. This allows policies common to all reserves to be updated on a regular basis. This creates a more flexible and dynamic management planning approach, which means the way the Dunedin City Council manages its reserves is more relevant to the current issues and needs of the people and groups that use the reserves.

3. The Coastal Environment

3.1 The Importance of Coastal Dunes

Coastal sand dune systems, comprising foredunes backing sandy beaches are found at most of the reserves included in this management plan. Dune systems play an important role in protecting the natural and cultural values of beaches, and in mitigating the risk of coastal hazards. While dunes cannot prevent coastal erosion from happening altogether, they can act as a buffer and can allow coastal communities to live with ongoing natural movement of the shoreline. Healthy dune systems, which have adequate space to move and appropriate vegetative cover, can provide a high degree of protection against serious coastal flooding events such as storm surges. Protecting and enhancing remaining dunes is essential to the future of beaches and the land adjacent to them. In particular, maximising the width of dunes and ensuring appropriate vegetation is vital to maintain healthy dune systems.

It is important to clearly identify and understand the natural elements and processes of the coastal environment. A lack of understanding of the natural processes and systems involved, and of the impact of man's influence on these, can reduce our ability to manage coastal areas appropriately. This section of the Management Plan outlines some of the scientific knowledge that underpins the management approach to coastal dune reserves.

3.2 Sand Dunes and Natural Beach Dynamics

The action of wind, waves, currents, tides and floods come together to influence the distribution of sediments along a coastline. During periods of low to moderate wave action sand tends to move onshore, leading to the development of wide beaches that are dry at high tide. Wind blows this dry sand further onshore where it can be trapped by vegetation. As the amount of trapped sand increases, wind speed is reduced. Over a period of time this leads to the increasing deposition of sand and the eventual formation of a foredune.

During a storm event, waves may erode the beach and frontal dunes, moving sand offshore. Immediately after the storm event, the beach may be visibly lowered and the front dune will have developed a characteristic steeply vertical profile.

Once the storm event has passed, the sand that has been moved offshore will gradually return to the beach, restoring the high tide beach and allowing the vertical dune face to revert to a more stable profile.

Backdunes are those dunes located beyond the established foredunes and are typically more stable and covered with intermediate woody and herbaceous species. They are still subject to sand accretion and erosion processes but to a lesser extent.

3.3 Dune Vegetation

Dune vegetation plays a key role in the formation and protection of dune systems. Native sand binding plants including pikao (Desmoschoenus spiralis), spinifex (Spinifex sericeus) and Euphorbia Glauca, and non-natives such as marram grass (Ammophilia arenaria), are critical to the process of dune repair after storm events. Foredune plants slow wind speed and trap wind-blown sand which acts as a reservoir for the beach during periods of wave erosion. Where dune vegetation is disturbed or removed (often by people or vehicles) blowouts can form, which severely damage the dune and can result in dune sand being blown far onshore. Introduced species have been planted to try to stabilise dunes, but native species have been demonstrated to be more effective in this respect.

3.4 Coastal Wildlife

The coastline is a diverse habitat, containing rocky headlands, sand dunes, estuaries, and sheltered bays. Each of these environments sustains its own unique community which has adapted to the prevailing conditions. Invertebrates play an important part in the food chain of avian species and in other ecological processes. There are many shoreline worms that provide food for birdlife and are distributed by the tide and position of the dunes. Sand dunes are the homes to insects and spiders, estuaries provide an enormously rich feeding ground for wading birds, penguins come ashore to breed and marine mammals haul out on rocky beaches. Adjacent grassy or tussock clad slopes are often used for resting.

Dunedin's coastal reserves provide habitats for a variety of bird species, to feed or roost. Some of these species are declining or are nationally vulnerable. In particular Karitane and Warrington Spits are valued for the wildlife that they sustain. Given the productive marine environment offshore, all of Dunedin's beaches are, on occasion, visited by those seabird and seal species that spend some of their time on land. Yellow-eyed penguins, blue penguins and sea-lions are species particularly associated with the natural character of beaches in the Dunedin district.

3.5 Human Modification of Coastal Dune Systems

Dune systems have been extensively modified by a wide range of human activities including residential development, recreational activities, farming practices and sand extraction.

Deforestation of the rear dunes and the displacement of native species by introduced plants can have an adverse impact on native ecosystems and biodiversity. A number of exotic species have become established on New Zealand's dune areas. Such species can have a significant impact on the dune's abilities to build and repair themselves. Marram grass, a European

introduction that has been extensively used in dune restoration projects in New Zealand, now dominates many coastal areas at the expense of native sand binding plants such as pikao and spinifex. Marram-covered dunes tend to develop a higher and steeper profile, which can lead to management problems including beach erosion and loss of amenity values. The dumping of garden waste on dune areas is a common occurrence, leading to the introduction of various weed and exotic species, many of which spread quickly.

Wind erosion commonly occurs where sand-binding vegetation is disrupted by human activities. The introduction of browsing mammals (rabbits and hares) and uncontrolled stock grazing of dune areas has resulted in the reduction and loss of many native dune species. The removal of vegetation (and the creation of footpaths and other tracks through dunes) can seriously impair natural dune building and repair processes and can lead to blowouts and erosion.

The desire of New Zealanders to live and holiday on the coast has resulted in extensive coastal development. Where coastal development is located too close to the shoreline, with only a narrow strip of dunes fronting the development, the width of the dunes can be inadequate to protect from serious coastal erosion and flooding. This can result in a range of structures being put in place to provide for protection of assets and access. However, the fixed nature of these structures can cause erosion elsewhere on the coast and the impacts on beach and dune values can be negative. This Plan aims to avoid hard structures by enhancing the dune processes so that they become the first defence against coastal hazards.

3.6 Climate Change and Sea Level Rise

Climate is naturally variable, however after a long period of relative stability, scientists are now detecting changes which suggest the climate is becoming hotter on average, and more variable. The expected effects of climate change in New Zealand include an increase in the average temperature, drier conditions in the north and east, wetter conditions in the south and west and higher sea levels. The potential impacts on coastal areas, such as Dunedin, include increased frequency and intensity of storm events and an increase in coastal erosion and inundation. Healthy dune systems play an important role in the mitigation of coastal hazards and the protection of the natural and human use values of beaches. These dunes will become increasingly important with projected climate change.

In 2002 the Council initiated the Coastal Dune Conservation Works Programme, which outlines a programme of actions intended to restore and protect the protective function of dune systems located at 14 reserves along the Dunedin coastline, including the reserves covered by this Management Plan. Proposed

actions include planting dune vegetation, establishing formal access tracks and removing informal ones, re-contouring of dunes to establish a more natural profile and, where deemed necessary, re-nourishment of beaches. The Council has also adopted a Climate Change Predictions Policy (October 2006) and has established an inter-departmental working party to oversee the implications of this for the Council.

3.7 Dunedin's Coastal Dune Reserves

The historical use of Dunedin's coastal dunes mirrors that elsewhere in New Zealand. In the eyes of European settlers dune areas were seen as being unproductive, unsightly and no better than wasteland. Various attempts were made to either convert the dune areas to productive land, by grazing or conversion to pasture or forestry. Alternatively, the dune areas were used as a dumping grounds for waste, and as a source of sand for reclamation and construction activities.

Settlements and residential developments stretch right along the Dunedin City coastline, and all the reserves included in this management plan are associated with settlements of varying sizes, from Kuri Bush to the central city itself. While the presence of the coastal dune reserves has restricted subdivision and residential development on the coast to some degree, there are numerous instances of encroaching property developments on a number of coastal dune reserves including Island Park, Ocean View and Brighton reserves. In some places, the development of coastal areas has resulted in a range of structures being put in place to provide for protection of assets and access.

A wide range of recreational activities takes place on the coastal reserves. There are sportsfields that provide for organised sports and recreation, while the relatively wild and undeveloped nature of Island Park reserve provides for casual, informal recreation. Many of Dunedin's most popular beaches, such as Brighton, Tomahawk and Smaills, are accessed through the adjacent reserves.

The importance of the coastal protection function of Dunedin's coastal reserves is such that they are classified as local purpose reserves for the primary purpose of coastal conservation. All the reserves and adjacent beaches contribute to the unique character of Dunedin's coastal landscape. They are also valued for their ecological, cultural, heritage and recreational values. The successful management of Dunedin's coastal dune reserves requires that all these values are recognised and managed appropriately, without compromising the coastal protection function of the dune systems.

Part Two: Aims, Objectives and Policies

The Aims of the Coastal Dune Reserves Management Plan are:

1. to protect and preserve the dunes of coastal reserves;
2. to manage the reserves to conserve their natural, biodiversity, scenic and cultural values while providing for recreation to an extent that is compatible with the purpose of coastal protection.

Management Objectives

The objectives of a management plan identify the outcomes that the Council seeks to achieve.

Management Policies

The policies of a management plan outline the means by which objectives are achieved.

The Reserves Management Plan – General Policies

All general management policies for reserves are described in a separate document, the Reserves Management Plan – General Policies. The General Policies apply to the management of all reserves in the Coastal Dune Reserves Management Plan, unless specifically over-ridden by policies in this document. The General Policies should be referred to as if it was a physical part of this plan.

The objectives and policies are in no order of priority.

4. Administration Policies

4.1 Administration

The reserves that are included in the Coastal Dune Reserves Management Plan are classified as local purpose (coastal protection) reserve. Land status and classification is detailed in Appendix 10.3. Management, use and enhancement of the reserves are subject to the principles and specific provisions of the Reserves Act 1977 relating to the reserve's classification.

Certain developments and management activities on reserves (e.g. erection of buildings, discharges, etc) are subject to the provisions of the Resource Management Act 1991, in particular provisions of the Dunedin City Council District Plan, and the Regional Plan: Coast (Otago Regional Council, 2001). Consents required under the Resource Management Act 1991 and other Acts, are in addition to, not a substitute for, the approval of the Dunedin City Council as reserve administrator and/or land owner.

The Dunedin City Council will liaise with Otago Regional Council over cross-boundary issues. Liaising with the Regional Council allows for the identification and resolution of issues that affect both organisations and require a co-ordinated approach. This might include matters relating to sea walls, coastal structures, and structures or buildings extending from a reserve over the seabed. The Dunedin City Council will liaise with the Department of Conservation over wildlife and coastal conservation issues.

The Dunedin City Council Water and Waste Services Business Unit has a number of structures within the reserves as well as stormwater culverts, piped water courses and outlets. Many of these do not have formal occupation agreements. Formalisation of these occupations of reserve land should be undertaken.

4.1.1 Objectives

1. Management of Coastal Dune Reserves is in accordance with relevant legislation and policies.
2. All reserves are classified according to their primary use and values of coastal protection.
3. Coastal Dune Reserves are managed to preserve the natural function and sustainability of natural dune systems.
4. Liaison with appropriate organisations over cross-boundary and reserve management issues.
5. This Plan will be reviewed on a regular basis.

4.1.2 Policies

1. Activities on the reserves shall be consistent with the requirements, objectives, policies or rules set out in any statute, bylaw, relevant management plan, district or regional plan.
2. Land will be classified as Local Purpose (Coastal Protection) in keeping with the main purpose of the reserves.
3. Manage the dune areas and beaches to protect the natural systems which provide a buffer between the forces of the sea and urban areas (refer to Coastal Management Policies)
4. Recreation on coastal reserves will be permitted as long as the activity is compatible with the aims of this Plan. (Refer to Recreation Use Policies).
5. Esplanade reserves of 20 metres will be sought at the time the land abutting the coast is subdivided, as provided for by the Resource Management Act 1991.
6. Where it is considered that a 20 metre wide esplanade reserve is insufficient to provide for the purposes of coastal protection, the Council will negotiate with landowners to increase the width of the esplanade reserve.
7. Consider purchasing land for coastal protection purposes when suitable coastal land becomes available.

8. Liaise with Otago Regional Council, Department of Conservation or other appropriate organisations over cross boundary issues.

9. Work with Water and Waste Services Business Unit to formalise existing occupations of reserve land.

10. This Plan will be kept under continuous review to ensure objectives and policies are updated in the public interest, and to take account of changing aspirations and requirements.

11. A full review of this Plan will be undertaken within ten years of the date of approval.

12. As part of the review, an ecological assessment will be carried out on all the coastal dune reserves to be included in the Plan.

4.2 Community Engagement and Partnerships

Dunedin City Council encourages people to care for their local parks and reserves. The more people who care for our parks, the more attractive and diverse the parks will be for people and wildlife. Communities will be encouraged to contribute their knowledge of the local area and will be consulted on specific localised issues.

Volunteers help create a vibrant, attractive and ecologically rich network of parks by assisting with tasks such as weeding, planting, pest control and track work. Contributing to reserves also gives the local community a sense of ownership of the parks in their area.

The Council may enter into partnerships with community coast/beach care groups who care about their coastal environment and want to protect and enhance it. Such groups contribute by donating their time, enthusiasm, knowledge and skills.

4.2.1 Objectives

1. Individuals and groups have the opportunity to contribute skills, knowledge and resources to the continuing maintenance and enhancement of coastal dune reserves.

2. Volunteer work on reserves will be managed by the Council to be carried out in a safe manner, consistent with Council policies and relevant statutory requirements.

4.2.2 Policies

1. Promote and provide opportunities for individuals and groups to work in partnership with the Council on activities that are consistent with the management of coastal dune reserves.

2. Consultation will be carried out with key community groups who have a signed Memorandum of Understanding with the Council on the development of both the Implementation Plan and reviews of the Coastal Works Programme.

3. Council staff must be consulted and consent to any project on reserves before any work commences.

4. Encourage and facilitate agreements with individuals and groups wishing to carry out projects on a reserve.

5. Any major development plans proposed for coastal dune reserves will be prepared in consultation with local communities.

6. Volunteer work on reserves will be undertaken as outlined in Section 3.24 Volunteers working on Reserves, in the Reserves Management Plan – General Policies.

5. Coastal Management Policies

5.1 Natural Coastal Processes

Coastal dune systems provide natural protection from coastal hazards such as erosion and flooding. They can protect communities from changing coastal hazards. This role will become even more important with projected climate change and sea level rise. The dunes also enhance the natural, biodiversity, cultural and amenity values of the city's beaches.

Erosion of land, including reserves that are bordered by sea walls, can occur. Action may be required at times to minimise the affects of coastal erosion and ensure coastal stabilisation. Management policies based on conservation of sand on the beach and foredunes as a buffer zone is the preferred approach and structural interference will be avoided unless there are no other practicable options.

Accretion (slow addition to land by deposition of water-borne sediment) is occurring on some of the beaches adjoining the reserves in this Plan, for example Warrington and Long Beach. Generally this land is managed as part of the reserve. Formalising ownership of this land may have some benefit.

Monitoring the coastal dune reserves is important to evaluate the effectiveness of the management programme. Pest control, effects of erosion and recreation use all need to be monitored to ensure that dune systems are maintained in a healthy state. This monitoring will be undertaken for each reserve through the implementation plan and with the aid of key community groups who have a memorandum of understanding with the Council (refer to list in Appendix 10.5). It is also expected that other agencies such as the Otago Regional Council will meet their statutory obligations regarding monitoring.

Activities occurring on land can result in effects across the line of mean high-water springs. Managing the reserves in a way that enhances the natural functioning of the dune systems will also reduce impacts of activities on the adjoining coastal and estuarine environments.

It is important to remember that erosion and accretion are natural coastal processes and are not always detrimental to the reserve. Intervention, therefore, is not always required.

5.1.1 Objectives

1. Ensure protection and enhancement of sand dunes, sand systems and the values of the coastal environment while allowing natural processes to occur.
2. Allow for recreational access and use of coastal reserves where it is compatible with the aims of this Plan.
3. The effects of land use on coastal erosion are identified, monitored and managed to secure coastal stability.
4. Increase public understanding of the natural coastal environment, including biodiversity and coastal processes.
5. Investigate the benefits of formalising ownership of accreted land.

5.1.2 Policies

1. The recommendations of the Coastal Dune Conservation Works Programme (Todd 2002) and revisions will guide work on the Coastal Dune reserves.
2. Manage the effects of coastal erosion and enhance the natural healing of the foredunes.
3. Manage activities that exacerbate coastal erosion or otherwise impact on coastal values.
4. Through liaison with the Otago Regional Council, the Council will seek the removal of illegal structures within the coastal environment that contribute to the instability or erosion of reserves.
5. Investigate the development and use of signage, brochures and lesson plans for schools to educate

people on the natural coastal environment, including biodiversity and coastal processes.

6. Support programmes that provide material to educate people on the natural coastal environment, including biodiversity and coastal processes. (i.e. the enviroschools education programme)

7. Investigate the benefits of formalising ownership of accreted land.

8. Monitor the coastal dune reserves to evaluate the effectiveness of the management programme.

5.2 Protection of Reserve Values

The coastal environment consists of natural processes, the action of waves, tides, wind and rain, as well as the ecosystems that are unique to the coast. Landscapes, seascapes and landforms are also important elements of the coastal environment. Protection of reserve values includes the conservation and restoration of sand dunes, protection of coastal vegetation and habitats as well as protection of places of historic and cultural heritage that are located in the coastal environment.

5.2.1 Objective

1. The natural, landscape, ecological, historical and cultural values of the reserves are protected, maintained and enhanced.

5.2.2 Natural Character

The character of Dunedin's dune systems has been altered by past activity and the introduction of exotic vegetation. The early settlers of the Otago region viewed the extensive 'sandhills' as unproductive land, and many areas were cleared of their native vegetation with the intention of putting them to a more productive use. In some areas considerable amounts of sand were extracted (often for the purpose of reclamation or re-use elsewhere in the city). Elsewhere, the dunes were used as a dumping ground. A variety of activities and uses has developed over time, many of which have reduced the natural character of the coastal reserves to varying extents. While some smaller and less developed reserves, such as Karitane and Warrington Spits, retain a certain degree of natural appearance, larger and more modified reserves do not.

However, natural character always exists to some degree on the coast, even in highly modified environments. This is because of the continual influence of the wind, waves and tides. Protection of natural character includes protection of natural processes, natural elements and natural patterns of landform, vegetation and wildlife use.

5.2.3 Policies

1. All practical steps will be taken to prevent activities on adjoining non-reserve land from compromising the values of the reserves, through negotiation with neighbouring landowners and through the statutory processes laid down in the Resource Management Act 1991.

2. Any development that includes planting or earthworks shall be done in a way that maintains or enhances the natural character of the reserve.

3. Maintain and protect the natural character of the reserve by including conditions with any permission given in its capacity as landowner and manager.

4. Structural engineering shall only be considered for protection where there is good evidence of persistent coastal erosion that has been demonstrated to have significant detrimental effects and no alternative solutions exist. Where coastal protection works are the best practicable option, they should be located and designed so as to avoid adverse environmental effects.

5.2.4 Landscape Values

Coastal landscape environments are renowned for their dynamic natures. The Otago coastline includes a series of headlands, cliffs, arches and other geological features, and sweeping sandy beaches with an agricultural backdrop of farmland, forestry and small communities. Landscape values within Dunedin's coastal reserves include their natural and physical characters, 'pleasantness' and aesthetic coherence.

A number of key coastal landscape features are located within or close to coastal reserves. The significance of these features has been recognised in the designation of Coastal Landscape Preservation Areas (CLPA) in the Dunedin City District Plan, which include the following reserves (a review of the landscape section of the District Plan is currently being undertaken):

- North Coast CLPA: Warrington Domain, Waikouaiti Domain and Karitane Spit and Long Beach Reserve; and
- South Coast CLPA: Ocean Grove Reserve, Island Park Reserve, Ocean View Reserve and Brighton Reserve.

The protection of these valued landscapes is important, and any proposed use or development of the reserves needs to take account of these values.

5.2.5 Policies

1. Maintain, protect and enhance reserve values by permitting landscaping or plantings of appropriate species.

2. Retain adequate open space during any development of reserves to allow for passive recreation and to provide green space.

3. Development on dune areas will be considered only if it needs to be in the coastal environment.

4. Ensure that the scale of any development is in context with the setting in which it is located.

5.2.6 Ecological Values

Coastal vegetation is an important element of all coastal reserves. The vegetation on these reserves is a mixture of managed vegetation that has been planted and maintained for recreation purposes (such as sportsfields and parks), plantings for landscaping, site enhancement and dune stabilisation, and areas of largely unmanaged vegetation, which tends to be dominated by exotic species. Plantings range from well-established trees (including large stands of pines and macrocarpa) to more recently planted pikao and other natives.

Native birds that feed and roost on dunes and adjacent sand flats include variable (black) and pied oystercatchers, godwits, banded dotterels, gulls and terns, including the endangered endemic black-billed gull. Variable oystercatchers are the characteristic nesting birds on the beaches and foredunes.

Owing to the productive marine environment offshore, all of Dunedin's beaches are, on occasion, visited by those seabird and seal species that spend some of their time on land. National vulnerable Stewart Island shags and yellow-eyed penguins come ashore to rest while engaged in coastal foraging, and will often seek refuge in the dunes. Other penguin species such as Fiordland crested penguin, Snares crested penguin and rockhopper penguins come ashore in autumn to moult. A small number of Otago Peninsula based breeding female New Zealand sea lions, a threatened species now classified as "Nationally Critical" and believed to be declining in its sub-antarctic refuge, are regular visitors to most Dunedin beaches. Elephant seals and leopard seals are seasonal visitors, and only rarely venture beyond the beach. Fur seals prefer rocky habitats, but young and sick seals occasionally haul out on sandy beaches.

Of the wildlife listed, variable oystercatchers, yellow-eyed and blue penguins and sea lions are species particularly associated with the natural character of beaches in the Dunedin district.

A primary purpose of these reserves is to facilitate public recreational access to coastal areas, and at peak times there may be considerable pedestrian and vehicular traffic. There is potential for conflict to occur between reserve users and wildlife species. Interpretative signage can assist in educating reserve users and minimising adverse effects on the wildlife values of the reserves.

5.2.7 Policies

1. Recognise and protect ecological values of reserves by maintaining or planting appropriate vegetation. Whenever possible, preference will be given to using local indigenous plant species.

2. Recognise and protect ecological values of reserves by protecting any recognised habitats of wildlife.

3. The Department of Conservation will be advised and/or consulted regarding concerns about wildlife, such as seals, on reserves.

5.2.8 Historic and Cultural Values

The coast has been the favoured place for settlement since humans first arrived in New Zealand, so much of the country's historic heritage is located within the coastal environment. It is important to recognise and retain heritage features, which may include historic structures and archaeological sites. The reserves in this Plan contain a number of features associated with Dunedin's early history, a number of which have been registered by the New Zealand Historic Places Trust.

Many of the plants and animals associated with coastal areas are used by Kāi Tahu and whānau for cultural purposes, including the harvesting of mahika kai in the Araiteuru rohe. Species of interest include pikao (Demoschensus spiralis), flax (Harakeke, Phormium sp.) and materials derived from animals, marine mammals or birds. The Council has policies in place to assist it in managing requests to harvest materials from reserves for cultural purposes.

5.2.9 Policies

1. Recognise and provide for the protection of any site or place of historic or cultural significance within the coastal dune reserves.

2. Where Wāhi Tapu sites (burial places, archaeological sites) and umu-ti ovens exist, action will be taken to prevent damage to these sites during development on and use of reserves, including consultation with NZ Historic Places Trust and local Rūnanga.

3. If any Kōiwi, taoka, wāhi tapu, or archaeological sites are unearthed or discovered within the Reserves the procedures in the Accidental Discovery Protocol, attached as Appendix 10.8 to this Plan, will be followed.

4. Provide for harvesting of materials from coastal reserves for cultural purposes as set out in section 3.23 Harvest of Cultural Material or Harvest of Material for Cultural Purposes of the Reserves Management Plan – General Policies.

5. Requests for accessing cultural materials from reserves will be managed using the procedures in the "Allocation of Cultural Materials" guideline for the takiwā of the Ngāi Tahu whānui prepared by Toitū Te Whenua, Te Rūnanga o Ngāi Tahu and Department of Conservation, Southern Operations (2007).

5.3 Pest Animals and Plants

The management of undesirable plants and animals is often necessary to enhance reserve values. A number of coastal reserves included in this Plan include significant areas of undesirable vegetation. Attempts to replace exotic species with newly planted native species require an effective animal pest control programme, particularly rabbits and possums. Weed and pest control will be carried out on all reserves as appropriate, particularly in conjunction with ongoing native planting programmes. Policies for pest animal and plant control are outlined in the Reserves Management Plan – General Policies and these also apply to coastal reserves.

5.3.1 Objective

1. To undertake sufficient control and management of pest plant and animal species to protect the reserve values as set out in section 5.2.

5.3.2 Policies

1. Pest control will be undertaken as outlined in section 2.8 Pest Animal and Plant Control in the Reserves Management Plan – General Policies.

2. Allow for the removal of exotic and introduced native plant species when appropriate to facilitate the planting of endemic species.

5.4 Sand Extraction

Sand extraction occurs on Island Park Reserve and adjacent to Ocean Grove Reserve. Despite the long-standing nature of these activities, the mining of sand from coastal reserves has become an increasingly contentious issue. Consultation with local communities and reserve users has indicated that while the removal of sand for flood reduction and other such purposes may be acceptable if carefully managed, the commercial extraction of sand from public reserves should not be allowed to have a negative effect on reserve values. The Council supports this view, and will seek to actively manage commercial sand extraction in reserves, to ensure that reserve values are protected. For further discussion on these issues refer to the individual reserves in Part 3 of this Plan.

5.4.1 Objective

1. All sand extraction activities on coastal reserves and the effects of sand extraction on land adjacent to coastal reserves are actively managed to ensure that reserve values are protected.

5.4.2 Policies

1. Only permit sand extraction activities on coastal reserves when there is a demonstrable benefit in terms of reserve values, including coastal protection.

2. Reduce and eventually cease all sand extraction activities on coastal reserves where there is little or no demonstrable benefit in terms of reserve values.

3. Ensure that all sand extraction activities on reserves are actively managed through appropriate landowner access and rehabilitation agreements to minimise the negative impacts on reserve values as set out in section 5.2.

4. Monitor sand extraction activities on land adjacent to reserves to ensure that adverse effects on the reserve are reduced.

6. Use Policies

6.1 Public Access and Reserve Closure

Reserves located on the coast provide opportunities for public access to the coastal environment. Reserves allow for the provision of physical structures to facilitate access to beaches (tracks, footpaths and vehicle paths) and the infrastructure needed to manage human impacts (signage, car parks, toilets, rubbish bins, fencing etc).

Access to parks and reserves should not be limited to able-bodied people. When developments, i.e. accessways and walkways, are planned for reserves, the needs of those with disabilities should be taken into account.

Coastal reserves can include important sand dune systems that are vulnerable to erosion. While the Council usually encourages access to reserves, inappropriate access can lead to the creation of unmanaged paths and tracks through dune systems, and damage to dune vegetation. While the Council does not seek to prevent access to its coastal reserves, it is necessary for the protection of the dune systems to actively manage access ways. This includes closing or removing inappropriate access ways including tracks from private dwellings, or restricting the type of access that is permitted.

Vehicles used for activities such as boat launching or emergency vehicles also need access to the beach, but vehicles have the ability to cause major damage to the dune systems. Access through reserves to the beach or through dune areas by vehicles may be controlled or restricted. Refer to section 6.3 Vehicles on Reserves.

At various times the Council will need to close some reserves for issues of safety, maintenance, or where activities have damaged the reserve and remedial action is required.

Clubs may have areas within their leased area that are generally not open to the public for safety or security reasons.

6.1.1 Objectives

1. Coastal dune reserves are accessible for the benefit, enjoyment and use of the public, subject to any necessary conditions, restrictions, or limitations of use.

2. Access to beaches through coastal dune reserves is managed to minimise the negative impacts on dune systems and vegetation.

6.1.2 Policies

1. Reserves will be open for public use, except where restrictions and limitations are necessary for the reserve's protection, management, or public safety.

2. Occupation agreements will be managed under the Reserves Act 1977 and section 3.7 Occupation Agreements of the Reserve Management Plan – General Policies.

3. Leased areas that are not available for the public to access will be identified.

4. For safety reasons, areas around the following clubs will need to be restricted at certain times. These may be fenced or unfenced. Appropriate signage will be displayed at agreed locations on the reserve. Signage will include the time and duration of the reserve closure.

    a) Island Park Reserve: land leased to Otago Pistol Club (ranges and surrounding leased area)

    b) Island Park Reserve: land leased to the Dunedin Clay Target Club (ranges and surrounding leased area).

5. Pedestrian access through dunes will be managed in order to protect sand binding vegetation and wildlife.

6. Private access tracks through sand dunes will be phased out and the use of formed access ways encouraged.

7. From the date of approval of this Plan, no new private access ways across coastal dune reserves will be permitted.

8. Where car parking is provided, investigate designing accessways to the beach in conjunction with car parking.

9. The needs of people with disabilities will be taken into account when planning and constructing accessways and walkways on coastal dune reserves.

6.2 Recreational Use

Dunedin's coastal reserves constitute a significant and accessible resource for recreational use by the public. The reserves in this Management Plan provide opportunities for sightseeing and viewing wildlife, walking, picnicking and general informal non-motorised recreational activity. A number of more formal, organised recreational uses have also become established (i.e. rugby, soccer) and clubrooms and other structures associated with such use have been built in these areas (see Appendix 10.4 for a list of current leases on the reserves included in this plan). These are provided for as long as they are consistent with the reserves primary function of coastal protection.

Other organised recreational activities (i.e. orienteering) do not require structures or occupation agreements, but do require use of reserve land. These events are managed through the Council's booking system. The impact of any activity on the reserve will be assessed before a booking is permitted.

The coastal environment is highly valued by the community and enjoyed in many ways as a place for recreation. Maintaining and protecting public access to the coast is one of the functions of the reserves in this Plan. Tracks and paths can be used for providing access between areas and for passive recreation. Some activities, such as the use of recreational vehicles, can cause damage to the reserve, sand dunes and wildlife. Restrictions on such activities are necessary to protect the reserve values, as set out in section 5.2, and the public's use and enjoyment of the reserves.

Some structures associated with essential services such as surf lifesaving may have an operational need to be located in sand dunes.

6.2.1 Objectives

1. Recreation opportunities are provided for the benefit and enjoyment of the public, taking into account the ecological sensitivity and natural values of the reserves, and their ability to sustain a particular activity or an increase in use.

2. Existing formal recreation activities are managed in a manner that meets the aims of this Plan.

3. Provide for new formal recreation activities only where coastal or marine environments are essential to their function and they are not detrimental to existing values.

6.2.2 Policies

1. Provide opportunities for informal, non-motorised, recreation.

2. Provide access to beaches in a way that minimises potential damage to the dune system. (Refer to section 5.1.2)

3. Ensure that existing recreation facilities are managed in a manner that avoids any negative impacts on dune areas.

4. Provide for formal recreation activities where coastal or marine environments are essential to their function and they are not detrimental to existing values.

5. Discourage the establishment of new formal recreational activities on coastal dune reserves that do not have a need to locate in the coastal environment.

6. Retain the area of sand dunes free from all formal recreational activity, with the exception of buildings necessary for contributing to the safety of beach users.

7. Provide for removal of vegetation, including native vegetation, for operational reasons, including construction or maintenance of tracks and car parks, where it is compatible with the aims of this Plan.

6.3 Vehicles on Reserves

Sand dunes are fragile environments and are very sensitive to a heavy vehicle driving over them. All motor vehicles can kill plants with a single pass. Vehicles compact the sand, squashing small creatures that live on or under the sand and compressing their habitat. They frighten away birds, lizards and other species sheltering in the dunes, and crush their nests and eggs. Weeds and pest animals spread through the damaged ecosystem. Once the dune plants are destroyed, the foredunes and rear dunes are exposed to the wind and coastal erosion occurs or is exacerbated. Vehicle use can also conflict with other activities on the reserve. Section 10.3 of the Dunedin City Consolidated Bylaw 2008 manages the use of vehicles on reserves.

The Council is interested in making sure we protect our valuable beach resources for everyone. This will mean making decisions about where, when, and for what reasons, vehicles can access our beaches. When inappropriate vehicle use has (or promotes) adverse impacts on beaches, access will be restricted.

6.3.1 Objective

1. Vehicles on coastal dune reserves shall be controlled in order to protect:
   (a) dunes, estuaries and other sensitive natural areas or habitats
   (b) wildlife
   (c) public safety
   (d) the amenity values of the coastal environment for the public
   (e) the maintenance of opportunities for non-motorised recreation
   (f) heritage and cultural values

6.3.2 Policies

1. Prohibit the use of vehicles in the dune areas of any coastal dune reserve, other than on formed accesses designed for vehicular access for activities such as boat launching, flood mitigation, horse training and emergency vehicles.

2. Manage vehicles on reserves in order to protect:
   (a) dunes, estuaries and other sensitive natural areas or habitats
   (b) wildlife
   (c) public safety;
   (d) the amenity values of the coastal environment for the public
   (e) the maintenance of opportunities for non-motorised recreation
   (f) heritage and cultural values

3. Methods of management may include (but are not limited to) physical barriers such as fences and gates.

4. Investigate stopping unformed legal roads and amalgamating them with the reserve to ensure the future protection of the area.

6.4 Animal Control

Uncontrolled domestic pets are a direct threat to wildlife values of coastal areas. The presence of dogs on reserves may also cause health and safety issues, and impact on the enjoyment of the reserves by other users. Section 5 of the of the Dunedin City Consolidated Bylaw 2008 determines where dogs are permitted or prohibited and the rules associated with dogs in public places. If changes to Bylaws are considered appropriate to assist with management of a reserve or protection of reserve values, action will be taken to explore such options. Requiring dogs to be on leashes in the dunes of coastal reserves and prohibited from areas that contain habitat of vulnerable wildlife, in particular the nesting, roosting and feeding areas of threatened bird species, is appropriate. Education material will generally be provided on parks explaining the reasons for these controls.

Horses are permitted on certain reserves under specific conditions. Horse owners use beaches adjacent to Island Park, Ocean Grove and Waikouaiti Domain for exercising and training activities. Access across reserves, on formed accessways can be managed to minimise conflict with other reserve users and to protect reserve values. Horses are permitted on beaches listed in Appendix 2 of Section 10 of the of the Dunedin City Consolidated Bylaw 2008.

Use of coastal reserves by seal species is a predictable component of coastal ecology. Seals may occasionally haul out on reserves, or carcasses may wash ashore. Management of reserves and education of reserve users will aim to reduce any conflicts with these species. Dunedin City Council Animal Control will monitor and enforce compliance with the Dog Control Bylaws and the Department of Conservation is responsible for the protection of indigenous wildlife. Where problems persist, or when dead or injured wildlife are found on the reserves, the Department of Conservation will be contacted to manage the issue in accordance with their protocols.

6.4.1 Objectives

1. The environmental, ecological and landscape values of the reserves are not adversely affected by impacts from domestic and farm animals.

2. To ensure that the use and enjoyment of reserves by the public is not adversely affected by domestic and farm animals.

6.4.2 Policies

1. Initiate a change to Schedule (B) of the Control of Dogs Bylaw (Section 5 of the Dunedin City Consolidated Bylaw 2008) to include the dune areas of Coastal Dune Reserves as places where dogs are only permitted on a leash.

2. Ensure adequate signage to inform where dogs are permitted on a leash and where they are prohibited.

3. Liaise with the Department of Conservation to use the Control of Dogs Bylaw to temporarily prohibit dogs from areas of vulnerable wildlife.

4. Horses are not permitted in the dune areas of any coastal dune reserve.

5. Horses are only permitted on the reserves listed in the Reserves Bylaw (Section 10 of the Dunedin City Consolidated Bylaw 2008) and included as Appendix 10.6 to this plan.

6. Access by horses to permitted beaches through the adjacent reserve is via designated access tracks only.

7. Any wandering livestock or domestic animals will be managed as outlined in section 2.8 Pest Animal and Plant Control in the Reserves Management Plan – General Policies.

6.5 Car Parking

The provision of parking areas associated with reserves is essential for public safety and convenience. Changing circumstances, such as an increase in reserve use, may require further consideration of car parking requirements.

Roadside parking is often not adequate to cope with the number of people using the facilities. Insufficient parking can inhibit the use of facilities. Consideration needs to be given to options for the provision of adequate parking.

Clubs wishing to develop new buildings or expand facilities on reserves will have to provide parking adequate to service anticipated user requirements. This should be addressed as part of landowner permission sought and resource consent applications.

6.5.1 Objectives

1. Parking is provided in association with reserves to allow and encourage their use.
2. Car parking is managed in a manner that meets the aims of this plan.

6.5.2 Policies

1. Car parking will be managed in accordance with section 3.14 Car Parking of the Reserves Management Plan – General Policies.
2. Car parking will be managed so as not to compromise the aims of this Plan.

6.6 Occupation Agreements

Organisations or individuals with buildings (or part of buildings) or facilities on Council land are required by the Reserves Act 1977 to have occupation agreements, generally in the form of leases.

The Council encourages sharing of facilities to reduce the need for further development of buildings on reserves and for cost sharing between clubs. Where necessary, existing occupation agreements will be reviewed to reflect such agreements between clubs.

Clubs or individuals are required to maintain buildings on Council land to a safe standard. When buildings become dilapidated, it is essential that the owner, for safety and aesthetic reasons, remove them. This is a requirement of the Reserves Management Plan – General Policies and is generally included as a condition of any occupational agreement.

Occupational agreements that exist, or are under negotiation, are outlined in Appendix 10.4. Existing activities will continue to be provided for as long as they do not interfere with the reserve's coastal protection values. Any new development will be considered only if the activity requires it to be located in or adjacent to the coastal environment (Refer to Section 7 Development and Change Policies).

6.6.1 Objective

1. Exclusive occupation of reserves is formalised through occupation or use agreements.

6.6.2 Policies

1. Occupation agreements will be managed in accordance with section 3.7 Occupation Agreements of the Reserves Management Plan – General Policies.
2. Encourage sharing of facilities, and to develop appropriate occupation agreements to reflect this.
3. Abandoned buildings will be managed in accordance with section 4.5 Abandonment of the Reserves Management Plan – General Policies.
4. The Dunedin City Council's Fees and Charges Policy will apply in conjunction with this Plan.
5. Where occupation agreements or easements are not contemplated in this Plan, public notification of the intention to grant such an agreement will be required under the Reserves Act 1977.

6.7 Commercial Use

There are occasions when commercial operators wish to locate activities on a reserve. In some instances commercial activities may enhance the use and enjoyment of the reserve. These activities may be considered if they can operate without having an adverse impact on the reserve, its use or users, wildlife and vegetation or reserve neighbours.

Commercial use of reserves or access over reserves may increase requirements for car parking, toilet facilities, and rubbish collection. In such cases the Council will seek financial compensation for the use of public facilities for commercial gain.

6.7.1 Objective

1. Commercial activities will be considered where they facilitate the use and/or enjoyment of coastal reserves and do not compromise the aims of this Plan.

6.7.2 Policies

1. Consider applications for commercial activities that facilitate the use and enjoyment of the coastal reserves and do not compromise the aims of this plan.

2. Commercial activities will be managed in accordance with section 3.5 Commercial Use – Concessions of the Reserves Management Plan – General Policies.

6.8 Encroachments

An encroachment is the use of reserve land for private purposes that has not been authorised by the Council in writing. A number of coastal dune reserves' neighbours have come to occupy and use areas of reserve land, often as an extension of their property. In many cases, the reserve land has been incorporated into the neighbour's garden, and in some cases buildings and other structures may have been constructed on the reserve.

Where encroachments extend on to dune systems within the reserve there can be implications for the coastal protection function of the reserve. The Reserves Management Plan – General Policies outlines the Council's view on the management of existing and new encroachments. In addition to these policies the Council will seek to identify the location and nature of existing encroachments and will seek the formalisation or removal of such encroachments. While the formalisation of such encroachments may be appropriate where they extend on to dune systems, removal of the encroachment and restoration of the reserves may be the preferred action.

Historic encroachments, prior to 1989, may have some agreement. Where documented evidence exists, formalising the occupation will be investigated.

6.8.1 Objective

1. Encroachments on to reserve land are identified and formalised or removed to protect reserve values as set out in section 5.2.

6.8.2 Policies

1. From the date of approval of this Plan, new encroachments on to the coastal dune reserves will not be permitted.

2. Existing encroachments will be managed in accordance with section 3.6 Encroachments of the Reserves Management Plan – General Policies.

6.9 Camping

Coastal reserves are generally located in attractive areas that are desirable for informal camping. This activity can compromise the use of reserves by others and impact on the environment. It can also cause health problems in relation to toilet facilities, disposal of waste and supply of fresh water, generate rubbish in excess of normal public use and introduce potential fire hazards. Currently camping is not permitted on reserves. However, applications can be made to camp on Brighton Domain and Warrington Domain (refer to the Reserves Management Plan – General Policies) and there is a camping ground on Waikouaiti Domain. The Council has prepared a brochure that provides guidelines for freedom camping in Dunedin.

6.9.1 Objectives

1. To provide for camping in designated camping areas provided that the adverse effects of camping can be avoided, remedied or mitigated.

2. To minimise illegal camping on reserves.

6.9.2 Policies

1. Camping on reserves will be managed in accordance with section 3.18 Camping of the Reserves Management Plan – General Policies.

2. Encourage the formulation a freedom camping policy.

7. Development and Change Policies

7.1 Recreational Facilities

It is important for the public to have opportunities to participate in a range of recreational and sporting activities. The provision of facilities such as sports fields and playgrounds has to be actively assessed and managed by the Council in order to facilitate public use and minimise conflicting use of existing facilities.

While sportsfields are owned and maintained by the Council (often to meet sporting code requirements) some of the other facilities listed in Appendix 10.4 are owned, managed and maintained by clubs and organisations that lease reserve land for the purpose of providing recreational facilities for club members and the general public.

Clubs and organisations wishing to construct facilities or buildings on reserves must obtain appropriate consents from the Council including resource and building consents. Refer also to section 6.2 Recreational Use.

7.1.1 Objectives

1. Adequate recreation facilities are available for public use on coastal dune reserves to meet the aims of this plan.
2. Facilities used by the community are maintained to appropriate standards.
3. Facilities or buildings that are no longer required are removed from coastal dune reserves.

7.1.2 Policies

1. Facilities on reserves will be managed in accordance with section 4.3 Buildings and Structures of the Reserves Management Plan – General Policies.
2. Any new structures or additions to existing structures are designed to complement the character of the reserves and improve their identity while not compromising the reserve values as set out in section 5.2.
3. Clubs and organisations proposing to construct or extend facilities on reserves must obtain landowner consent from the Council under the Reserves Act 1977.
4. All new facilities and services must comply with the requirements of any applicable District or Regional Plan, Building Act 2004 and any other relevant statute or bylaw.
5. Facilities on reserves that are no longer required by the owners will be managed in accordance with section 4.5 Abandonment of the Reserves Management Plan – General Policies.

7.2 Public Amenities

Toilets are provided on reserves for reserve users. Clubs generally provide toilets for club members and these are sometimes available for reserve users. Five of the coastal dune reserves in this Plan have toilets available for reserve users. Other facilities such as showers, drinking water fountains, rubbish bins, barbeques, picnic tables and seating may also provide for the public's use and enjoyment of reserves. The provision of such amenities on reserves has the potential to adversely affect reserve values so, where provided, they should be located and designed so as not to detract from the reserve values.

7.2.1 Objectives

1. Amenities are provided at an appropriate level to cater for the use of the reserves.

2. Amenities will be provided in a way that minimises any visual or adverse effect on the reserves.

7.2.2 Policies

1. Where use warrants it, amenity facilities will be installed around picnic areas and car parks on reserves.

2. Toilets and showers on reserves will be managed in accordance with section 4.4 Toilet and Shower Facilities of the Reserves Management Plan – General Policies.

3. The provision and management of rubbish bins will be managed in accordance with section 3.17 Litter Control and Dumping of the Reserves Management Plan – General Policies.

7.3 Signs

Signs are necessary to identify reserves, to assist access within reserves, to provide for the appropriate use of reserves and the safety of reserves users.

Interpretation panels and signs can enhance enjoyment, awareness and understanding of reserve resources, the environment, ecological, wildlife, cultural and conservation values.

However, signs can detract from the amenity of a reserve and need to be designed, located and maintained to avoid visual clutter and the degradation of the values of the reserves.

7.3.1 Objectives

1. All accessways to the beach are clearly identified by appropriate signage.

2. Signage to promote or protect ecological values, and provide information on coastal processes will be provided as appropriate.

7.3.2 Policies

1. Signs will be permitted where they enhance the safety of reserve users.

2. Allow for interpretative signage that provides information about the natural historic and cultural values of the reserve.

3. Where appropriate, work with local communities, including Kāi Tahu, to develop signage that is specific and relevant to the reserve.

4. Signage will be managed in accordance with section 3.10 Signs of the Reserve Management Plan – General Policies.

8. Policies for Individual Reserves

8.1 Island Park Reserve

The extraction of sand from Island Park Reserve has taken place for many years. At present only one pit remains in use. This is located between the land leased to the Otago Clay Target Club and the foredunes. Sand from Island park reserve is in demand by the iron foundry industry as it is a type that is not available elsewhere within reasonable distance of Dunedin. However, once this pit is exhausted, the industry will have to find an alternative source of supply outside the reserve. A mining permit (Number 41740) issued by Crown Minerals permits the current operator to remove up to 6,000 tonnes a year until 2032. The permit also requires the site to be rehabilitated 'as appropriate'. An access agreement between the current operator and the Council has been signed. There is a recreation benefit of the sand removal for the Dunedin Clay Target Club as the area is cleared and revegetated in a manner to provide for the 200 metre safety zone required in front of the firing stands. Refer also to section 5.4 Sand Extraction.

8.1.1 Objectives

1. Sand extraction at Island Park is managed by way of an access agreement between the operator and the Council.

2. Once Mining Permit 41740 expires or when the pit within the licence area is exhausted, whichever comes first, sand extraction will cease on the reserve.

8.1.2 Policies

1. Manage the effects of sand extraction on the reserve through the access agreement with the operator.

2. Monitor the rehabilitation of the mined-out areas.

3. Encourage the iron foundry industry to find an alternative supply of sand outside the reserve.

8.2 Ocean Grove Reserve

Adjacent to Ocean Grove Reserve, on Tomahawk Beach, sand extraction activities have been ongoing for many years. Sand removal from the mouth of the Tomahawk Lagoon has been carried out to reduce the flooding hazard to low lying residential properties adjoining the lagoon and for commercial benefit. A permit to remove sand from the coastal environment (which does not include the reserve) has been issued by the Otago Regional Council and expires in 2010. Refer also to section 5.4 Sand Extraction.

8.2.1 Objective

1. Sand extraction activities adjacent to Ocean Grove Reserve do not have adverse effects on the reserve.

8.2.2 Policy

1. Monitor and report to the Otago Regional Council if the sand extraction has adverse effects on the reserve.

8.3 Te Rauone Reserve

Te Rauone Beach is subject to a range of coastal processes which have resulted in the northern and middle sections of the beach eroding while the southern end of the beach is accreting. The erosion is exacerbated by the various structures that have been placed along the foreshore at various times in the past. Due to this continued rapid erosion, beach access from the reserve has become unsafe. While continued access to the beach from the reserve is desirable, alternative accesses may have to be investigated.

8.3.1 Objective

1. To provide safe access to Te Rauone Beach.

8.3.2 Policies

1. Investigate safe access to the beach from Te Rauone Recreation Reserve.
2. If safe access from the reserve is not possible or practical, investigate alternative access to Te Rauone Beach.

8.4 Warrington Reserve

Warrington Spit and Rabbit Island have been identified as areas with high wildlife values. Oystercatchers, terns and other seabird species use this area for nesting. Protection of wildlife in this area includes the protection and enhancement of native coastal vegetation, increasing the natural character of the coastal area. Dogs are prohibited on the spit by Council Bylaw and restricting vehicle access to the southern end of the spit would enhance the protection of biodiversity in this area.

8.4.1 Objective

1. Recognise and protect areas of significant wildlife habitat.

8.4.2 Policies

1. Investigate methods to close vehicle access to the southern end of Warrington Spit.
2. Ensure adequate signage to inform where dogs and vehicles are prohibited.
3. Investigate signage to educate reserve users on the biodiversity values of the spit.
4. Initiate an assessment of Warrington Spit and Rabbit Island as Areas of Significant Conservation Values in the District Plan.

Part Three: Individual Reserves

9.Individual Reserves

9.1 Brighton Reserve

9.1.1 Description

Brighton Reserve is located approximately 17 kilometres south of the central city and covers an area of approximately 5.4 hectares. The reserve is situated between Brighton Road and the sea and is made up of four distinct parts. The northern part backs onto the main beach and consists of a strip of dunes and a grassed area containing a toilet block and the Surf Life Saving Club building. Brighton Domain lies to the south of the Brighton River and is located on an elevated landform 4-6 metres above the estuary. This platform has been laid out into sports fields and a children's playground, and contains a club house and car park area. Barneys Rock is a small island approximately 50 metres to the north east of the domain which is accessible at low tide. The south coastal strip is situated between Brighton Road and the beach south of the domain.

9.1.2 History

Brighton township was named by an early resident, Hugh Williams, in the hope it would live up to the reputation of the English town. However, from 1860 until 1890, the main industries in the community were dairy farming, flax dressing and later lignite and coal mining. The school opened in 1870 and used the headland area for its playing fields. This area was permanently reserved for recreation in 1879 and known as the Otokia Recreation Reserve. It was managed by the Otokia Domain Board.

By 1890, development had started and Brighton quickly grew becoming a resort town with a number of large guest houses including Brighton House which was set in seven acres of grounds in Bath Street. During the Christmas holidays the quiet village was

transformed into a bustling township.

In 1915, the name of the reserve and domain board was changed to Brighton and in 1919 Hobbs Brighton Motors carried 60,000 people from Dunedin to enjoy the reserve, the beach and the seaside town.

Further parts of the reserve were vested in 1920 and 1926 as nearby areas were further subdivided for housing.

Poet James K Baxter went to Brighton Primary School in the early 1930s before his family shifted to Wanganui when he was eight. The Brighton coast features in some of his poems.

In 1937, the Brighton Surf Life Saving Club was established and still patrols the beach with its headquarters on the reserve. It is one of the strongest southern surf life saving clubs, competing with distinction at regional and national levels.

The early days of motoring were commemorated when a Dunedin to Brighton veteran car rally began in 1955. It continues to this day and is one of the oldest annual vintage car rallies in the country. The rally has become part of the Brighton Gala day which is held on the reserve every year near the end of January.

In 1975, the appointment of the Brighton Domain Board was revoked and the Taieri County Council was appointed to manage the coastal reserve area, followed by the Silverpeaks County Council and then, in 1989, the Dunedin City Council, as a result of local body amalgamations.

Dogs on the beach worried one nearby resident in 1983 but not for the usual reasons. The person wrote to the 'Otago Daily Times', following several shark sightings at Brighton, that dogs should not be allowed to swim at the beach as sharks could smell dogs for miles in the water. The sharks would be attracted to the area making it unsafe for children swimming.

9.1.3 Landscape Values

Brighton reserve is memorable and distinctive largely for its relationship with the coastline, the estuary and surrounding landform. Its main features are coastal – sandy beach, dunes and rocky outcrops. Within the reserve Barneys Rock is distinctive.

The northern end of the reserve has 8-10 metre high cliffs, a wide sandy beach backed by small dunes and a grassed, sandy car park. The southern part of the reserve consists of a narrow strip of sandy beach backed by lower cliffs upon which dunes have built up.

In the domain and reserve to the north, the overriding visual elements are mown grass, access tracks and buildings. The dune strip to the south of the reserve has a higher level of naturalness due to lack of development and the presence of native tree and shrub plantings.

Apart from the northern end of the reserve close to the cliff, the reserve has a sunny aspect. While the island and coastal dune strip are exposed to prevailing winds, the planting around the edge of the grassed areas and domain provide some shelter.

9.1.4 Ecological Values

The vegetation at the north end of the reserve includes coastal broadleaved scrub, comprising both native and exotic species. Native species includes taupata, ngaio and akeake, while the exotics include gorse, broom and various grasses at ground level. The low shrub at the domain headland comprises shore hebe, taupata and various other shrubs, both native and exotic. The sole remnant of natural vegetation on the reserve is a small patch of broadleaved forest with a single totara tree located on the loess cliff to the north of the domain. Species include mapou, ngaio, kohuhu and kanuka as well as native and exotic shrub species. The grassed areas of the reserve are dominated by cocksfoot and other exotic species, with clumps of native coastal tussock and other species. Marram grass dominates the low dunes on the main beach,

but there are clumps of club rush, creeping bent and a large patch of the native sand sedge Carex pumila.

No mammal or mammal signs have been observed in the reserve, although it is probably used from time to time by common mammals such as rabbits, possums stoats, hedgehogs, rats and mice. The reserve is too small and its vegetation too modified to support significant resident populations of native birds, but bellbirds, starlings, red-billed gulls, oystercatchers and a black-backed gull have been seen or heard. No lizards have been observed but there is suitable habitat for common species of skink and gecko.

The invertebrates community was dominated by spiders and plant bugs. Other groups present included psuedoscorpions, true bugs, booklice, springtails, flies, wasps, thrips, moths, beetles and centipedes.

9.1.5 Heritage and Cultural Values

The south coast of Dunedin provided vital links with other parts of Te Waipounamu (the South Island) with trails located at Brighton that connected the Otago Peninsula to the Taieri. The sea near Brighton and Ocean View Reserves provided an abundance of kai moana, and archaeological sites along the coast indicate frequent occupation and use. In particular, a medium sized moa hunter site was discovered near the mouth of Otokia Stream, near Brighton.

The war memorial – the Travis Memorial - is on the nearby road reserve. Sergeant Richard Charles Travis was born in Opotiki but was a member of the Otago Mounted Rifles when he left New Zealand on 16 October, 1914. He served in Gallipoli and then the Western Front. He was award the Victoria Cross as a result of his actions in an advance in July 1918.

9.1.6 Current Uses

Organised recreation includes activities at the Surf Life Saving Club, and cricket, rugby and other organised events at the Domain. Casual uses of the reserve include picnicking, walking, dog walking, cycling and for access to the beach that lies beyond the dunes.

Buildings and Structures

- Surf Club Building
- Toilet Block (by surf club)
- Toilet Block (by Domain sports field)
- Play equipment (Domain)
- Seats
- Picnic tables
- Rubbish bins
- Sports equipment – Rugby
- Cricket practice strips

Infrastructure

Brighton Reserve contains a subterranean foul sewer pumping station (Brighton Pump Station #7) and a foul sewer rising main running South-West to North-East across the northern strip of the reserve. In addition there are several piped watercourses, stormwater pipes and a culvert which have outlets in the southern most strip of the reserve.

Current Leases

- Brighton Rugby Football Club
- Brighton Surf Life Saving Club

9.1.7 Management Issues

Management Aims

The management aims for Brighton Reserve are to protect and enhance the sand dunes to provide natural protection from coastal hazards, to provide for casual recreation and access to the adjacent beach as well as providing for the activities of the Surf Club, and the domain for more formal sport activity (rugby and cricket) and other community events.

Vehicles on Reserves

In common with most of the reserves that adjoin beaches, vehicles on the reserve, in the sand dunes and on the adjacent beach are management issues. Vehicle access on reserves will be managed as outlined in section 6.3 Vehicles on Reserves of this Plan.

Community Partnerships

Members of the community wish to be involved in the maintenance of the reserve and opportunities for community participation and partnerships are provided for in section 4.2 of this Plan.

Maintenance

All reserves are monitored under contract, and weed control is prioritised accorded to the annual reports. The eradication of marram and the continuation of the successful pikao recovery programme in the area around the Surf Club is identified as a priority in this reserve.

Sports Ground

It is recognised that much of the Brighton Domain is used for organised sport and community events. It is intended to keep this area for these purposes. However, the preservation of vegetation and maintenance of the cliff face is essential to the long-term stability of the sports ground.

District Plan

Brighton Reserve is within the visually prominent area of the South Coast Coastal Landscape Protection Area in the District Plan and this means that the visual impact of any development on the landscape character and quality of its setting will need to be taken into account.

Schedule 25.2 identifies archaeological sites registered by the New Zealand Historic Places Trust: A003 – Midden/Work floor HPT Category II.

Regional Plan: Coast

"The Regional Plan: Coast for Otago" identifies parts of the coastal marine area adjacent to the reserve as:

- A coastal protection area because of historic values;
- A coastal recreation area where there is swimming, walking and surfing; and
- A coastal hazard area because of sandy beach erosion where the beach and road are at risk.

Development / Enhancement

Continued revegetation will be guided by the Ecological Assessment for Dunedin Coastal Reserves (Wildland Consultants, 2003).

Any work planned on the Brighton Reserve will be guided by the Coastal Dune Conservation Works Programme (2002).

The diverse coastal environments in a relatively small location and the existing facilities make this reserve ideal for the development of educational programme including boardwalks and interpretive signage.

9.2 Island Park Reserve

9.2.1 Description

Island Park Reserve is located approximately 10km from the city centre between the outlet of Kāikorai Stream and Blackhead at the northeast end of the Brighton Coast. The reserve covers approximately 162 hectares and is roughly 3km long by 500m wide. The main part of the reserve is situated between the beach, Blackhead Quarry, Blackhead Road, Waldronville, Brighton Road and the Kāikorai Estuary. The reserve also includes an area about 0.5 square kilometres that lies north of Blackhead Road.

9.2.2 History

The reserve land was first set aside for recreational purposes in 1870 and was declared a domain in 1887 to be managed by the Green Island Borough Council as the Green Island Domain Board. Known as Green Island Domain, marram and lupins were planted, with the help of government grants, to control the movement of the sand dunes.

Untreated sewerage which used to be discharged firstly through the Silverpeaks County Council scheme and then the Green Island Borough Council outfall, used to pollute the beach area of the reserve until the Waldronville Sewage Treatment Works by the Kāikorai estuary was commissioned in 1964.

A bid in 1965 by the Dunedin Jaycees to establish a motor racing circuit on the reserve saw the Beachlands Speedway, now known as Island Park Speedway, developed. The area is also home to the Dunedin Pistol Club and the Dunedin Clay Target Club, the oldest gun club in New Zealand, which began in 1887 at St Kilda.

In 1977, the Green Island Borough Council resolved to relinquish its control of the land and it was, for a short

time, controlled by the Commissioner of Crown Lands, Department of Land & Survey, Dunedin. With the Reserves Act 1977, the Silverpeaks County Council took control which was subsequently passed to Dunedin City Council following amalgamation in 1989.

In the 1970s and 1980s, the Otago Rugby Football Union, dealing with a shortage of playing fields in the city, made several attempts to have up to 14 playing fields built on the reserve but the local authority was not prepared to fund the venture.

In the mid-1980s, requests by the Otago Harbour Board to use part of the reserve as a feedlot for sheep prior to live export from the Port of Otago were turned down as it was not a recreational activity.

Several suggestions have been made over the years to drain the swamp and "improve the land". One resident in 1985 suggested a breakwater at the Kāikorai mouth could stop the entrance silting up. The estuary could then be dredged and a boat marina and boat ramp built.

Most sand mining in the area stopped in 1989 after investigations showed the dunes were no longer growing. However, in an area in the south of the reserve, mining continues as the sand from this source is high in quartz and feldspar and is the only known source of these mineral sands in the district.

9.2.3 Landscape Values

The most distinctive feature of Island Park Reserve is the extent and scale of the dunes, the estuary and the forest remnant above Blackhead. Sandy beach and foredune systems lie along the entire ocean frontage.

The western end of the reserve is low lying with the characteristics of an estuarine swamp. East of this area, most of the reserve consists of rolling secondary sand dunes separated with wide swales. In the eastern part of the reserve there are a series of higher sand dunes which rise up to 40 metres above sea level to meet Blackhead Road.

Sand mining and the recreation facilities at the western end of the reserve have significantly modified the dune landform in that area.

The reserve in general has a sunny aspect but is open to wind and weather from the south. The majority of the dunes and estuarine area is also open to north east winds.

9.2.4 Ecological Values

A small area of highly modified podocarp-broadleaved forest is located at the highest point of the reserve, which still contains a few trees of totara, kowhai and narrow leaved lacebark. The lower canopies are somewhat sparse and overgrown with exotic vines species, and the forest will need to be managed if it is to survive. This type of coastal forest is considered to be rare north of the Catlins, and this site is considered to be an Area of Significant Conservation Value (Dunedin City District Plan). The coastal scrub that covers much of the reserve shows signs of regeneration, and will eventually form coastal forest. A native dominated understorey of ferns and herbs beneath most of the scrub, adds to the ecological values of the site.

Other areas of the reserve consists marram grassland on the foredune areas, and pikao plantings at key sites. There is an area of estuarine swamp at the western end. There are also a number planted areas including shelter belts and plantation, and pasture / mowed grassland. Where the sand dunes have been disturbed, mainly due to the sand extraction activities, natural areas of pikao have regenerated.

Rabbits are common in the reserve, especially in the wide swales near the rear of the widest part of the dunes. Ferret and possum footprints have been seen and the reserve is probably also used by other common mammals including cats, stoats, hedgehogs, rats and mice. The reserve is large enough and its vegetation sufficiently natural to support resident populations of native birds. Silvereye, bellbird, fantail, grey warbler, starling goldfinch, blackbird, harrier and black-backed

gulls have all been seen or heard in the reserve. The invertebrate populations are dominated by beetles, spiders, wasps and booklice. Other groups present include plant and true bugs, springtails, flies, wasps, lacewings, thrips, cockroaches, moths, micro-snails and worms.

9.2.5 Heritage and Cultural Values

The first place name applied to any site in the Dunedin area is believed to be Kāikrae, the Kāikorai Estuary, where the Waitaha Chief Rakaihautu made camp and ate a meal of seabird (karae). This indicates that Kāi Tahu have had a long association with the area around the Kāikorai Stream and the Island Park Reserve. There are eight recorded archaeological sites located on the northern side of the mouth of the Kāikorai Stream, six of which are located in the reserve. The majority of these sites are thought to have been temporary camps but at least one may represent a more permanent settlement. A large moa hunter site was also located near the mouth of the Kāikorai Estuary.

9.2.6 Current Uses

Island Park Reserve is the home to a number of organised recreational users, including a clay target club, a pistol club and Island Park Speedway, all of which have existed on the site for many years, with associated car parking areas. The large size of the reserve and its location on the periphery of residential areas has suited it to these uses in the past.

The activities of these clubs are managed through lease agreements, and due to the type of activities undertaken by the Clay Target Club and the Pistol Club, there is a requirement for them to display appropriate safety notices and flags while shooting is in progress.

Casual uses of the reserve include walking, dog walking, horse-riding, cycling and for access to the beach that lies beyond the dunes. Other organised activities such as orienteering, military exercises and search and rescue training occur at times on the reserve.

Sand mining activities have taken place on the southern part of the reserve for many years. The effects of the sand mining are managed by an access agreement. Refer also to sections 8.1 Individual Reserve Policies - Island Park and 5.4 Sand Extraction.

Infrastructure

Island Park Reserve contains a number of foul sewer manholes on reserve land. Adjacent to the reserve is the Waldronville Outfall Pump Station which is on Water and Waste Business Unit land. This has a trunk sewer entering from the North-West and a foul sewer rising main exiting South-East, to the ocean outfall.

Current Leases

- Dunedin Clay Target Club Incorporated
- Otago Pistol Club Incorporated
- Beachlands Speedway Incorporated
- Waldronville Horse Owners' Association

9.2.7 Management Issues

Management Aims

The management aims for Island Park Reserve are to protect and enhance the sand dunes to provide natural protection from coastal hazards, provide for informal recreation and access to the adjacent beach while also providing for the existing recreational opportunities provided by the developed recreation areas.

Vehicles on Reserves

In common with most of the reserves that adjoin beaches, vehicles on the reserve, in the sand dunes and on the adjacent beach are management issues. Despite Council bylaws prohibiting such activities, motorbikes and trail bikes are often ridden in the reserve. Vehicle access on reserves will be managed as outlined in section 6.3 Vehicles on Reserves of this Plan.

Community Partnerships

Members of the community wish to be involved in the maintenance of the reserve and opportunities for community participation and partnerships are provided for in section 4.2 of this Plan.

Maintenance

All reserves are monitored under contract, and weed control is prioritised accorded to the annual reports. The eradication of willow and pines from the wetlands area, and bomarea from the reserve have been identified as priorities for this reserve.

Sand Extraction

Foundry Trade Group is currently extracting sand from Island Park Reserve under Mining Permit 41740 (2002), issued under the Crown Minerals Act 1991. This permit superseded a mining licence issued in 1985 under the Mining Act 1971. The sand extraction was allowed for in the Island Park Reserve Management Plan (1989) on the understanding that it serve a specific local industrial need (foundry industry) and that there were no other local sources of this specific type and quality of sand. The Management Plan also specified that the conditions of access were to be adhered to, that royalties were to be paid to the administering body (Silverpeaks County Council) and that the situation would be reviewed when the pit within the licence area was exhausted. The current Mining Permit does not include any detailed conditions about access, extraction, rehabilitation or compensation. It also does not grant access to the land where the mineral is located. Under the Crown Minerals Act, an access agreement is required between the holder of the permit, the landowner and any occupier of the land. An access agreement has been drawn up which outlines the obligations of the three parties, terms and conditions of the agreement including rehabilitation of the land, and compensation payable by the holder of the permit. There is a recreation benefit from the removal of sand for the Dunedin Clay Target Club as the area is cleared and revegetated in a manner to provide for the 200 metre safety zone that they are required to have in front of their firing stands. Policies for the mining of sand are included in sections 5.4 Sand Extraction and 8.1 Policies for Individual Reserves: Island Park of

this Plan.

Encroachments

Within Island Park Reserve, most of the encroachments lie between the private properties and an open stormwater drain. Most of these encroachments are longstanding, and because of their location, impacts are relatively minor, as public use of this area of the reserve is unlikely. The Council is continuing to explore ways to formalise the encroachments from these properties to three metres from the drain, and in the meantime, encroachment information will be included in Land Information Memorandum (LIM) reports to ensure that any prospective buyers of these properties are aware of the status of the land. Any encroachments that adversely affect the reserve will be required to be removed.

The Council will continue to monitor properties adjoining the reserve to ensure that no new encroachments occur and will require any new encroachments be removed.

General policies on encroachments are outlined in section 6.8 Encroachments of this Plan; and in the Reserves Management Plan: General Policies.

District Plan

Island Park Reserve is within the visually recessive area of the South Coast Coastal Landscape Protection Area in the District Plan and this means that the visual impact of any development on the landscape character and quality of its setting will need to be taken into account.

The edge of Kāikorai Estuary has been identified as a wetland of significant conservation value (C106) and is listed in the Department of Conservation Wetlands of Ecological and Representative Importance (WERI) database.

Regional Plan: Coast and Regional Plan: Water

The "Regional Plan: Coast for Otago" identifies parts of the coastal marine area adjacent to the reserve as:

- A coastal protection area because of Kāi Tahu cultural and spiritual values, and estuarine values; and
- A coastal hazard area because unstable land is being undercut by coastal processes.

The "Regional Plan: Water for Otago" identifies the significant wetland, Kāikorai Lagoon, as being adjacent to the reserve.

Development / Enhancement

Continued revegetation will be guided by the Ecological Assessment for Dunedin Coastal Reserves (Wildland Consultants, 2003).

Any work planned on the Island Park Reserve will be guided by the Coastal Dune Conservation Works Programme (2002).

Improved parking and litter control for the car park area at Blackhead is being investigated.

The development of informative and educational signage is appropriate for this reserve, and given its size and the amount of usage access signs and maps should also be investigated.

9.3 Karitane Esplanade Reserves

9.3.1 Description

Karitane Esplanade Reserves consists of an existing esplanade reserve and two proposed esplanade reserves located at the southern end of the Karitane township. The reserves vary in width from 15 to 20 metres. The reserves can be divided into two distinct landscape areas; the northern coastal strip which adjoins the residential development at 171 Coast Road, and the southern coastal strip which is separated from the northern strip by houses and a stand of tall pines. A drainage channel, which also doubles as an accessway from Rawhiti Street to the beach, is located at the northern end of the reserve. A second access way to the beach is located off Parata Avenue.

9.3.2 History

With the nearby pa settlement at Huriawa, substantial areas of land at Karitane were set aside as native reserves. The first holiday house was built in the 1890s and soon there were two houses on the point, four in the village and two by the long beach. A "seaside train" ran in the weekends until World War II, carrying many Dunedin people to their weekend cribs.

The access from Rawhiti Street and the strip along the beach was vested as a reserve in 1928 and the access from Parata Avenue was vested in 1944. Both occurred due to the developments of housing subdivisions and were passed to Dunedin City Council following amalgamation in 1989.

In the late 1990s, the Council removed illegal barriers on the reserve strips from Rawhiti Street and Parata Avenue which were blocking access to the beach for horses and riders. Other users contested that access ways should not be used by horses as they were muddying the narrow pathways but the Council decided the reserve was for both horse and pedestrian access.

The reserve was classified as accessway by a Dunedin City Council resolution in 2006.

The more recent additions have been set aside as esplanade strips under section 230 of the Resource Management Act 1991 which provides for esplanade reserves of 20 metres to be taken at the time the land abutting the coast is subdivided.

9.3.3 Landscape Values

The natural sweep of this coastline provides an important distance view of significant natural character. The vegetated slopes provide a natural backdrop to the beach and ensure that the development behind it is not visually dominant. All seascape views from the beach are significant, with a pleasant vista extending towards the Karitane Peninsula and south along the beach. The natural slope and elevation of the reserve creates a sense of enclosure which enhances the natural character of the beach.

9.3.4 Ecological Values

The northern strip occupies the steep coastal beach face which is actively eroding. The face is predominantly covered by lupins, marram, flax and ngaio. The southern strip of the reserve is less steep but also actively eroding. Some revegetation has been undertaken with various native species on the strip south of Rawhiti Street. Further revegetation is to be undertaken.

9.3.5 Heritage and Cultural Values

The area around Karitane has a long association with Kāi Tahu. There were a number of Kāi Tahu settlements in and around Karitane and Waikouaiti. The prominent Kāi Tahu chief, Te Wera had his fortified Pa on the Huriawa Peninsula in the 18th century. Middens have been discovered near these reserves and there are also unmarked burials in the vicinity.

Kai moana such as tuatua and sea apples were gathered in this area. In addition, the area above the reserves was cultivated. These cultivations extended from the hills at Puketeraki to south of the Huriawa Peninsula.

9.3.6 Current Uses

Karitane esplanade reserves are generally used only for access to the adjacent beach.

9.3.7 Management Issues

Management Aims

The management aims for Karitane Esplanade Reserves are to protect and enhance the sand dunes to provide natural protection from coastal hazards, and to provide access to the adjacent beach.

Erosion

Erosion is an issue for the esplanade reserves. The potential for adverse effects of erosion should be taken into account when considering activities on these reserves. Planting of the dunes for coastal protection is a priority for these areas.

New Reserves

Any new esplanade reserves acquired along this coastline will be incorporated into this Management Plan.

District Plan

Karitane Esplanade Reserves are within the visually prominent area of the North Coast Coastal Landscape Protection Area in the District Plan and this means that the visual impact of any development on the landscape character and quality of its setting will need to be taken into account.

Regional Plan: Coast

The "Regional Plan: Coast for Otago" identifies parts of the coastal marine area adjacent to the reserve as:

- A coastal protection area because of Kāi Tahu cultural and spiritual values; and
- A coastal hazard area because of sandy beach erosion where beach and roads are at risk.

Development / Enhancement

Any work planned on the Karitane Esplanade Reserves will be guided by the Coastal Dune Conservation Works Programme (2002).

9.4 Kuri Bush Reserve

9.4.1 Description

Kuri Bush Reserve consists of two separate pieces of land located on the Brighton Coast approximately 8 and 9 kilometres respectively to the south of Brighton. The northern site is a narrow piece of land that lies between the sea and Taieri Mouth Road. The southern site lies between the sea and an adjoining row of residential properties. Access to this part of the reserve is from the north behind the row of houses.

9.4.2 History

The area takes its name from the Māori name for dog and was settled by early Scottish migrants – the first was the Dickson family in 1848. The Kuri Bush School opened in 1862 and the post office in 1879. A dairy factory operated between 1918 and 1928. The school closed in 1934.

James K Baxter, one of New Zealand's best known poets, was born at Kuri Bush in 1926 and lived there on the family farm until the family moved to Brighton when he was four.

The two areas of reserve land became Taieri County Council reserves in 1961 (Lot 19 DP10340) and 1962 (Lot 5 DP9712) as a result of a residential subdivision. The reserves were taken to maintain access to the beach.

In 1979 a boat ramp, off the Brighton-Taieri Mouth Road, was proposed an estimated cost of $600. It was never built.

9.4.3 Landscape Values

For most of its extent the reserve is perched above a low coastal cliff; at its southern end it slopes down to a sandy beach and a meandering creek through a dune. Apart from its proximity to the coast, the reserve has no particular feature or aspect that makes it distinctive or memorable. The aesthetic coherence and natural values of the landscape are relatively low. The reserve does enjoy all day sunshine and is relatively sheltered from southwesterly winds, but is open to the prevailing northwesterly winds.

9.4.4 Ecological Values

The majority of plant species present on the reserve are non-native. The grassed areas are dominated by exotic grasses, including cocksfoot, creeping bent and Yorkshire fog, with small areas of native holy grass and sedges. The grassed areas are gradually being replaced by exotic shrubs of gorse and boxthorn. Marram grass is found on the dune areas. Along the cliff that runs the length of the reserve, shore hebe dominates in association with gorse, flax, tree lupin and taupata. A number of planted and dumped garden species including mint, convolvulus and potato are also found. The north end of the reserve is dominated by bracken, muehlenbeckia and blackberry.

No mammals or mammal signs have been observed on the reserve, although it is probably used from time to time by common mammals such as rabbits, possums, ferrets, stoats, hedgehogs, rats and mice. The invertebrate community is dominated by numbers of beetles, booklice, spiders and wasps. Other groups present included pseudoscorpions, plant and true bugs, springtails, lacewings, flies, moths, cockroaches and slaters.

9.4.5 Heritage and Cultural Values

The area of Kuri Bush was originally known as Te Kuri. Middens containing remains of cockle, blue mussel, mud snail, burnt schist, quartz pebble and fish bone have been discovered in the vicinity of Kuri Bush. Artefacts discovered near Kuri Bush, including flakes, fish hooks and bone, are held by the Otago Museum.

9.4.6 Current Uses

The reserve provides access to the adjoining beaches, coastline and tidal creek.

9.4.7 Management Issues

Management Aims

The management aims for Kuri Bush Reserve are to protect and enhance the sand dunes to provide natural protection from coastal hazards, and to provide access to the adjacent beach.

District Plan

Kuri Bush Reserve is within the visually prominent area of the South Coast Coastal Landscape Protection Area in the District Plan and this means that the visual impact of any development on the landscape character and the quality of its setting will need to be taken into account.

Regional Plan: Coast

The “Regional Plan: Coast for Otago” identifies parts of the coastal marine area adjacent to the reserve as a coastal hazard area because of sandy beach erosion where road is at risk.

Development / Enhancement

Continued revegetation will be guided by the Ecological Assessment for Dunedin Coastal Reserves (Wildland Consultants, 2003).

These reserves provide an ideal location for the Pikao Recovery Programme.

9.5 Long Beach Reserve

9.5.1 Description

Long Beach Reserve is located between the headlands of Potato Point to the northwest, and Pilot Point to the southeast. The reserve, a trapezoidal shape of 4.6 hectares in area, extends for the length of Beach Road plus a triangle of ground extending perhaps another 100 metres or so north, being in total approximately one kilometre long and 50 metres wide. The reserve extends from Beach Road to the Long Beach foreshore, encompassing a grassed area and vegetated dunes. The northern section is a developed recreational facility of mown grass. The southern section, known as the "Conservation Area" is separated from the north by Driver Creek, and is fenced off and largely unmodified. It consists of a habitat for indigenous coastal lowland flora and fauna although wilding pines are also present.

9.5.2 History

Remains of Māori occupation can be found the length of the beach. Artefacts show the area was used as a seasonal fishing camp intermittently in the 13th, 16th and 17th centuries and the nearby coast line was also home to both villages and pa sites.

Around 1900 the beach and the sand dunes were a popular camping area for Dunedin families in the summer, accessed through the neighbouring farms. In 1921, James Halliday Spencer, a Dunedin coal merchant and carrier, bought the land by the beach from one of the farmers and subdivided it into quarter-acre sections and a reserve for a holiday township. As the community grew, New Year's Eve bonfires became popular from the late 1940s and were to become a lasting tradition.

In 1953, the Long Beach Domain was vested as a recreation reserve and the Long Beach Domain Board, mostly made up of crib owners in the area, was appointed to control and manage it. Volunteer labour built a shelter shed, toilets and a boiler house. Local farmers used their tractors to clear a cricket field and games were held most weekends in the summer against Dunedin businesses and hotel teams. The reserve was often booked by companies for their annual picnics for workers and Cadbury Fry Hudson and the Hillside Workshops Social Club were regular users.

The 1978 Silverpeaks County Council report on its coastal reserves stated the domain was popular during summer weekends and the facilities were unable to cope with the visitors. In 1980, the County Council took over managing the reserve from the domain board. The reserve was closed for almost a week in 1986 when the poison 1080 was laid to control rabbits, possums and hares in the area.

Following local body amalgamation in 1989, the Dunedin City Council acquired the reserve.

The Mopanui Ecological Environment Society (MEES) has taken an interest in the reserve in recent years, planting an area in natives. The Society also acquired the former Lindsay Creek Bridge from the Dunedin Botanic Garden and shifted it to the reserve. It is now used to gain access over a drainage channel. The Long Beach Amenities Society also carries out work at the reserve such as tree and shrub planting.

Drivers Creek, which passes through the reserve, has caused problems with flooding when its mouth becomes blocked by sand after northerly winds.

As permanent residents have replaced crib owners, the reserve has increasingly become used year round. Nearby rock cliffs on the beach are popular for climbing and bring many groups to the area.

The area was used as a location for the film "Out of the Blue" (2006).

9.5.3 Landscape Values

The reserve encompasses a grassed park area lying behind vegetated dune formations. The northeast boundary is marked by a steep, visually dramatic headland and the southeast boundary is a stand of mature pines. To the southwest are a number of established coastal dwellings that are well-integrated into the coastal environment. The reserve forms an integral part of the overall landscape at Long Beach, and contributes to an overall high degree of aesthetic coherence. Long Beach is included in the North Coast Coastal Landscape Preservation Area.

9.5.4 Ecological Values

The grassed area of the reserve itself is consists of exotic grass species. The adjoining dune system is covered with a largely naturalised and continuous dune vegetation comprising bracken, lupins and marram, as well as a large area of muehlenbeckia, some blackberry, elder and native shrubs. A number of mature macrocarpas are located close to the northern end of the reserve. At the southeast end of the reserve an area is fenced off adjacent to Drivers Creek where a number of native wetland and riparian species are found including kanuka and flax. Planting of native species has taken place along the access road and to the eastern end of the reserve.

The presence of rabbits in the reserve has a detrimental affect on the plants. Dogs and horses regularly use the reserve and most other common mammals are probably present from time to time. There is abundant habitat present for common species of skink and gecko. Thrush, bellbird and silvereye have been observed on the reserve, tui occupy the southern block from time to time and a variety of seabirds forage in the estuary of Drivers Creek including white heron, white-faced heron and royal spoonbills. Pukeko, mallard and Paradise shelduck have been observed on the estuary and gull species and oystercatchers undoubtedly use the beach beyond the reserve. Spiders are common on the divaricating mikimiki plants and beetles are common on mahoe and muehlenbeckia indicating that certain plants are important for different groups of species. Other invertebrates observed on the reserve are psuedoscorpions, plant and true bugs, booklice, springtails, flies, wasps, thrips, moths and cockroaches.

9.5.5 Heritage and Cultural Values

The traditional name of Long Beach was Ko whare wera wera. Remains of middens and ovens have been discovered in the vicinity of the Long Beach Reserve. Kai moana, tui and other resources such as flax were gathered in this area. There was also a dwelling on Long Beach called Ko te ahi tupe and according to sources, cultivations were near this dwelling.

9.5.6 Current Uses

The grassed area of the reserve provides for summer sports including cricket and other casual use. Informal family picnics and recreation are the predominant

uses of the reserve. The car park and associated footpaths provide access to the extensive dune area and the beach that lies beyond, for walking, wildlife viewing and other casual activities. The reserve also provides access to the rock climbing area. The area that has been planted up with native species by the local community includes footpaths and stiles to give access to the far end of the reserve, for walking and nature appreciation.

Public toilets, picnic tables, seats and rubbish bins are provided on the reserve and these encourage informal use of the reserve for activities such as picnics.

Buildings and Structures

- Toilets
- Picnic Tables
- Rubbish Bins

9.5.7 Management Issues

Management Aims

The management aims for Long Beach Reserve are to protect and enhance the sand dunes to provide natural protection from coastal hazards, provide for informal recreation and access to the adjacent beach.

Maintenance

All reserves are monitored under contract, and weed control is prioritised accorded to the annual reports. Planting of pikao is proposed for the sand dunes adjacent to the reserve.

Vehicles and Dogs on Reserves

In common with most the reserves that adjoin beaches control of dogs and vehicles on the reserve, in the sand dunes and on the adjacent beach are management issues. Despite Council bylaws prohibiting such activities, motorbikes and trail bikes are often ridden in the reserve. Vehicle access on coastal dune reserves will be managed as outlined in section 6.3 Vehicles on Reserves and control of dogs on coastal dune reserves will be managed as outlined in section 6.4 Animal Control of this Plan.

Community Partnerships

Members of the community wish to be involved in the maintenance of the reserve and opportunities for community participation and partnerships are provided for in section 4.2 of this plan.

Accreted Land

There is an area of accreted land on the seaward boundary of the reserve and this is informally managed by the Council. Formalising ownership of this area will be investigated as per Policy 5.1.2(7).

District Plan

Long Beach Reserve falls within the visually recessive area of the North Coast Coastal Landscape Protection Area in the District Plan and this means that the visual impact of any development on the landscape character and quality of its setting will need to be taken into account.

Regional Plan: Coast

The “Regional Plan: Coast for Otago” identifies parts of the coastal marine area adjacent to the reserve as a coastal recreation area where there is swimming, walking, surfing, fishing, scuba diving and snorkelling.

Development / Enhancement

Continued revegetation will be guided by the Ecological Assessment for Dunedin Coastal Reserves (Wildland Consultants, 2003).

Any work planned on the Long Beach Reserve will be guided by the Coastal Dune Conservation Works Programme (2002).

A car park at northern end of the reserve, a playground, a fitness course and a children’s bike track have all been suggested as possible developments at Long Beach Reserve.

Fencing of the northern part of the reserve with a post and chain fence is proposed to prevent vehicles from damaging the park.

9.6 Ocean Grove Reserve

9.6.1 Description

Ocean Grove Reserve is located 6 kilometres from the city centre. The entrance to the reserve is off Tomahawk Road. The reserve covers 28.2 hectares, is 2.1 kilometres long and varies between 180 – 500 metres in width. The reserve includes a playground, playing fields (soccer/cricket) and two sand beaches (Tomahawk and Smaills Beach) between the rock headlands of Lawyers Head to the west and Māori Head to the east. Tomahawk Road, Tomahawk School and residential sections form clear boundary lines along the northern edge.

9.6.2 History

The reserve at Ocean Grove was formally established in 1931, though much of the area was classified as government reserve from 1897. The beach provided a walking track for early Māori travelling between Ōtākou and neighbouring settlements. The first settler is said to have been James Patrick who sailed on the Philip Laing and took up a holding in the area in 1857 with his family. Soon the area was populated by farmers and market gardeners and in 1870 a committee, including Patrick, raised funds for a community building which was used as a church, school and hall. As roads improved, the township developed as a weekend holiday resort. Many cribs were built which later became permanent residences.

In the early 1900's a sewage outfall was constructed at Lawyers Head, making the beach at Ocean Grove unpopular for swimming and fishing.

In 1924 the ratepayers' association in the area requested two allotments in a residential subdivision be set aside as a recreational reserve. Further Crown land was added in 1928 and a Domain Board set up to administer the land for the Department of Lands

and Survey. In 1936 the Board allowed sand-mining to begin which flattened some of the dune areas and allowed sports fields to be built. Royalties from the mining were paid back to the Domain Board and financed many of the developments on the land. From 1950 the Ocean Grove Domain Board administered the land and some of the inaugural members were still serving thirty-five years later when the reserve came under Dunedin City Council control.

The new Domain Board's title was the result of residents lobbying for a name change for the area. Tomahawk had become known for its weekend parties and jerry-built cribs. A much publicised murder had occurred in 1932 when a resident was shot in his home, adding to Tomahawk's reputation. The assailant was convicted of manslaughter and sentenced to 14 years imprisonment. In 1949 the controlling authority agreed to the suburb's name change, distancing the area from its past dark days.

In March 1942 the Southern Military Command chose the high point between Tomahawk and Smaills beaches for a two-gun battery of 6" P 111 naval guns to provide protection for the Dunedin's port and residents from naval bombardment. By September the guns, magazine and observation post were completed. As many as 89 service personnel were based there including 26 WAACS (Women's Army Auxiliary Corp), necessitating extra bathroom and laundry facilities – and a hair salon! By September 1945, the guns and the ammunition had been removed and only the fortifications remained. The guns had never been fired in defence. The Ocean Grove Domain Board first sought to have the two gun emplacements destroyed but instead, in 1961, it was granted responsibility for them and turned the structures into a storage space and scenic lookout.

The reserve's boundaries continued to alter and in 1957 part of the domain became the grounds of the new Tomahawk School and in 1966 another part was taken for the Ocean Grove Sewage Works.

Although the Lawyers Head Sewer sewage outfall polluted the water, the beach was a busy place with an ice cream stall from 1948 to 1967 and a surf life saving club which supervised a watch tower in the 1950s. The Domain Board complained about the outfall in the early 1960s and finally, in 1981, the Tahuna treatment plant was built to partially treat the raw sewage. However, pollution of the beach continued until 2009 when a 1.1 kilometre-long outfall pipe from the treatment station was completed replacing the outfall at Lawyers Head. Planned upgrades of the treatment station will improve water quality further.

9.6.3 Landscape Values

The reserve is visually contained within the surrounding hills and valleys above the lagoon and settlement areas. It is characterised by high dune formations and a volcanic cliff set back from the foreshore, with playing fields behind. The open channel of Tomahawk Lagoon to the west provides a visual link from the settlement area to the beach. The scale and physical qualities of the volcanic cliffs provide an important natural landscape feature. Significant views into the reserve are provided from the three headlands, and there is a wide range of compelling views from the reserve to the surrounding hills and cliff faces, and to Bird Island, beyond the shoreline. There is a high degree of naturalness, particularly at the beach where the sand dunes are active, and the natural pattern of sea swells impact on the shoreline.

9.6.4 Ecological Values

The dunes are predominantly covered in marram grass with traces of fireweed, ice plant and bidibidi. Behind the foredune are areas with a covering of taupata and, to the west, shore hebe, lupins and flax. Old plantings of radiata pine and macrocarpa are also found. Undesirable species include gorse and muehlenbeckia. Tomahawk Creek at Smaills Beach is congested with watercress and sweet grass. Some planting with native species is helping to redress the balance of exotic to native plants at the reserve.

From time to time, both Smaills and Tomahawk Beaches have visiting yellow-eyed and blue penguins, particularly Smaills Beach. Sea lions are relatively common and a New Zealand sea lion has been observed on Tomahawk Beach. Dogs and horses use much of the reserve and other common mammals such as possums, cats, ferrets, stoats, hedgehogs, rats and mice are probably present from time to time. Flocks of variable oystercatchers and starlings have been observed on the playing fields and red and black billed gulls and black-backed gulls have been observed on the beach. Other common bird species undoubtedly use the reserve. The reserve also contains suitable habitat for common species of skink and gecko.

Beetles and booklice dominate the invertebrate community. Other species present are spiders, plant and true bugs, springtails, flies, wasps, thrips, moths and slaters. Overall the invertebrate communities are similar at Smaills and Tomahawk Beaches, but the diversity of habitats is greater at Smaills Beach.

9.6.5 Heritage and Cultural Values

The Ocean Grove area was part of a series of trails utilised by the Ōtākou Māori to travel along the coast to gather shellfish from the rocks and eels from the lagoons. This old trail could still be seen along the sand hills from St Clair and ran through the site of the current Andersons Bay Cemetery. From there the track continued along the Tomahawk Lagoon, over the Tomahawk hills and continued down to the kāik on the northern side of Muaupoko (Otago Peninsula). An early resident of the Tomahawk area reported that there were several Māori ovens in the area and that he had discovered a pounamu axe under a tree stump.

There is some debate over the origin of the name Tomahawk which was documented as early as 1852 in the "Otago Witness". It could be a corruption of the Māori word tomahaka – toma means a place of bones, particularly human bones and haka is a southern use of the northern word hanga which means to build or create. This suggests the lagoon area was used to keep human bones of either an important person or the storage of bones generally. However, there are no known burial sites in the area, or reported finds of bones. Another suggestion is the area was named Tomahawk as European settlers called a mere a tomahawk and a battle between Ngati-mamoe and Kāi Tahu warriors may have occurred among the sand dunes.

9.6.6 Current Uses

The reserve includes a sports ground that lies adjacent to the beach, but the majority of the site is used for walking, dog walking, running and other casual recreation activities. The reserve provides access to the adjacent beaches for activities including fishing, casual recreation and watersports, though such activities have been limited by the presence of sewage disposal works. Horseriders use the reserve for access to the beach. Sand extraction occurs adjacent to the Ocean Grove Reserve. Refer also to sections 8.2 Individual Reserve Policies – Ocean Grove and 5.4 Sand Extraction.

The decommissioned sewage treatment area has now been incorporated into the reserve and will be included in the management of the wider reserve.

Buildings and Structures

- Hall (Soccer Clubrooms)
- Soccer Posts
- Floodlights
- Rubbish Bins
- Play Equipment
- Historic Gun Emplacements

Current Leases

- Grants Braes Association Football Club

9.6.7 Management Issues

Management Aims

The management aims for Ocean Grove Reserve are to protect and enhance the sand dunes to provide natural protection from coastal hazards, to protect, maintain and enhance coastal biodiversity, to provide

for casual recreation and access to the adjacent beach as well as the existing sports field for more formal sport activity (soccer and cricket).

Erosion

Wind erosion is an ongoing problem in the reserve and blowouts occur at both the western part of the reserve, adjacent to Tomahawk Beach and the eastern end of the beach, adjacent to Smaills Beach. It is considered that the best way to address the blowouts at Tomahawk and Smaills Beach is to contour the dunes, removing the high spots and filling in the blowouts. This will provide a stable foreshore slope and, undertaken in conjunction with revegetation, is the recommended measure for erosion control along this stretch of the beach. Limiting pedestrian access through the dunes to formed access ways will also address the effects of traffic entering the beach at blowout sites.

Sand Extraction

Sand extraction occurs adjacent to the reserve at the Tomahawk Lagoon outlet under a Coastal Permit from the Otago Regional Council. It is considered that the extraction of small volumes of sand from the mouth of the Tomahawk Lagoon will not have any adverse effect on dune stability, and the extraction has a positive outcome in reducing flood risk from the Tomahawk Lagoon. However, the effects of this activity on the reserve will need to be monitored. Refer also to sections 8.2 Individual Reserve Policies – Ocean Grove and 5.4 Sand Extraction. There are also potential adverse effects from the uncontrolled vehicle access to the beach. Limiting this access to authorised vehicles should be investigated.

Vehicles and Dogs on Reserves

In common with most of the reserves that adjoin beaches, control of dogs and vehicles on the reserve, in the sand dunes and on the adjacent beach are management issues. Despite Council bylaws prohibiting such activities, motorbikes and trail bikes are often ridden in the reserve. Vehicle access on coastal dune reserves will be managed as outlined in section 6.3 Vehicles on Reserves and control of dogs on coastal dune reserves will be managed as outlined in section 6.4 Animal Control of this Plan.

Sports Ground

There is a section of Ocean Grove Reserve that is used for organised sport. It is intended to keep this area for these purposes. However, the preservation of vegetation and maintenance of the dune system is essential to the long term stability of the sports ground.

Community Partnerships

Members of the community wish to be involved in the maintenance of the reserve and opportunities for community participation and partnerships are provided for in section 4.2 of this plan.

District Plan

Ocean Grove Reserve falls within an Urban Landscape Conservation Area (ULCA 17) in the District Plan and this means that the impact of any development on the 'natural' landscape qualities and character of the setting will need to be taken into account.

Regional Plan: Coast

"The Regional Plan: Coast for Otago" identifies parts of the coastal marine area adjacent to the reserve as a coastal hazard area because of sandy beach erosion where property and road are at risk.

Development / Enhancement

Continued revegetation will be guided by the Ecological Assessment for Dunedin Coastal Reserves (Wildland Consultants, 2003).

Any work planned on the Ocean Grove Reserve will be guided by the Coastal Dune Conservation Works Programme (2002).

Public toilets have been suggested for possible development at Ocean Grove and this could be investigated by the Council.

Interpretation signage regarding wildlife and natural beach processes may be appropriate for the reserve and would assist with visitor education.

9.7 Ocean View Reserve

9.7.1 Description

Ocean View Reserve is located approximately 12 kilometres south of the central city, at the southwest end of the long stretch of beach between Blackhead and the headland separating Brighton and Ocean View. The reserve has a coastal frontage of approximately 1,500 metres on the seaward side of Brighton Road. The majority of the reserve is an extensive sand dune environment, 80-100 metres wide.

9.7.2 History

House sites were first subdivided in the area in 1902 when the Duncan Farming Estate was bought by the Crown and offered for purchase. The beachfront was subdivided in 1916 and the area between the beach and the growing town was permanently reserved for recreation in 1932 and managed by the Brighton Domain Board as part of the Brighton Domain.

Police requested a sign be placed at the Brighton end of the beach warning of the dangers of often-present rips after a drowning nearby in 1952.

In 1955, the reserve was withdrawn from the Brighton Domain and renamed the Ocean View Domain and administered by the Ocean View Domain Board.

Flooding in Taylors Creek caused problems for residents in the 1960s.

In 1982, the Silverpeaks County Council accepted control of the reserve and then in 1989, following amalgamation, the Dunedin City Council.

9.7.3 Landscape Values

The reserve is enclosed by the ribbon settlement of Ocean View and has the skyline of Saddle and Scroggs Hill as a backdrop. The reserve is, on average, about 70 metres wide, running along the coastline. At seven locations the reserve widens out to meet the road. For

much of its extent it consists of a series of dunes that run back from high water mark. At the southwestern end of the reserve is a series of schist headlands that reduce in height into the sea for about 100m to disappear beneath the dunes.

9.7.4 Ecological Values

An area of coastal broadleaved scrub, predominantly ngaio and taupata occupies the headlands to the west of the reserve. Associated shrub species include gorse, shore hebe and broom. A mixture of natives and exotics, including taupata, cocksfoot, marram, blackberry and muehlenbeckia cover the dunes and hollows to the east. Dense canopies of blackberry / muehlenbeckia / bracken scrub cover large expanses of the foredunes near the estuary. Grassed areas are dominated by cocksfoot and herbaceous weed, gorse and broom. The dunes themselves are predominantly marram-covered, with lupins, purple groundsel and other non-natives present. A small patch of pikao (probably planted) is located amongst the marram. A number of wetland species, including umbrella sedge and weedy grasses are found at the edge of the estuary.

There are signs that rabbits are common in the dunes east of the estuary. Dogs and horses are frequent visitors to the reserve. The reserve is probably also used by other common mammals including possums, cats, stoats, ferrets, hedgehogs, rats and mice. Bellbirds, starlings, red-billed gulls, variable oystercatchers, pied stilts, plover and mallard ducks have all been observed on the reserve and introduced terrestrial birds probably use the reserve occasionally. There is suitable habitat on the reserve for common species of skink and gecko.

The dominant communities of invertebrates consist of spiders, booklice and beetles. Other groups present include plant and true bugs, springtails, flies, wasps, lacewings, thrips, stick insects, moths, micro-snails and worms.

9.7.5 Heritage and Cultural Values

The south coast of Dunedin provided vital links with other parts of Te Waipounamu (the South Island) with trails located at Brighton that connected the Otago Peninsula to the Taieri. The sea near Brighton and Ocean View Reserves provided an abundance of kai moana and fish, and archaeological sites along the coast indicate frequent occupation and use.

9.7.6 Current Uses

Ocean View Reserve is used for casual recreation activities. The reserve provides access to the adjacent beach for activities including shellfish gathering, casual recreation and watersports and horseriders also use the reserve for access to the beach.

Infrastructure

Ocean View Domain contains two foul sewer pumping stations; the subterranean Brighton Pump Station #3 and Brighton Pump Station #4 which sits on a Water and Waste Services Business Unit land parcel. There are also a number of foul and stormwater manholes on the reserve's borders and an open watercourse/ stormwater pipe which discharges on to the beach.

Buildings and Structures

- Play equipment

9.7.7 Management Issues

Management Aims

The management aims for Ocean View Reserve are to protect and enhance the sand dunes to provide natural protection from coastal hazards, provide opportunities for passive recreation and access to the adjacent beach.

Encroachments

The Council's long-term goal is to have the encroachments at Ocean View Reserve removed, the property boundaries clearly identified and the reserve re-instated. Encroachments will be considered on a case-by case basis. However, where they impede natural processes, restrict proposed works or are

having an adverse effect on the reserve, the Council will require their removal.

Encroachment information will be included in any Land Information Memorandum (LIM) reports to ensure that any prospective buyers of these properties are aware of the status of the land.

The Council will continue to monitor properties adjoining the reserve to ensure that no new encroachments occur and will require any new encroachments be removed.

General policies on encroachments are outlined in section 6.8 Encroachments of this Plan; and in The Reserves Management Plan: General Policies.

Vehicles on Reserves

In common with most of the reserves that adjoin beaches vehicles on the reserve, in the sand dunes and on the adjacent beach are management issues. Despite Council bylaws prohibiting such activities, motorbikes and trail bikes are often ridden in the reserve. Vehicle access on reserves will be managed as outlined in section 6.3 Vehicles on Reserves of this Plan.

Community Partnerships

Members of the community wish to be involved in the maintenance of the reserve and opportunities for community participation and partnerships are provided for in section 4.2 of this plan.

District Plan

Ocean View Reserve falls within the visually prominent area of the South Coast Coastal Landscape Protection Area in the District Plan and this means that the visual impact of any development on the landscape character and quality of its setting will need to be taken into account.

Regional Plan: Coast

The "Regional Plan: Coast for Otago" identifies parts of the coastal marine area adjacent to the reserve as:

- A coastal protection area because of Kāi Tahu cultural and spiritual values, and estuarine values; and
- A coastal hazard area because of sandy beach erosion where the beach, road and property are at risk.

Development / Enhancement

Continued revegetation will be guided by the Ecological Assessment for Dunedin Coastal Reserves (Wildland Consultants, 2003).

Any work planned on the Ocean View Reserve will be guided by the Coastal Dune Conservation Works Programme (2002).

Redevelopment and extending the existing walkway has been proposed.

Interpretation signage regarding wildlife and natural beach processes may be appropriate for the reserve and would assist with visitor education.

Public toilets have been suggested for possible development at Ocean View and this could be investigated by the Council.

9.8 Te Rauone Reserve

9.8.1 Description

Te Rauone Reserve is located on the southern side of Otago Peninsula near the entrance to Otago Harbour. The reserve covers 5 hectares on Harington Point Road between Te Umukuri/Wellers Rock and Harington Point. There are two distinct parts to the reserve. The northern part includes an extensive grassed picnic area (approximately 4 hectares) behind a 30-50 metre wide single foredune. The southern 400 metres of the reserve comprises a narrow 20 metre wide strip of foreshore and foredune.

9.8.2 History

Otago Peninsula was uneasily shared by Kāi Tahu and Ngati Mamoe tribes. Early mariner Captain J Herd's map of 1826 shows two Māori settlements at Te Rauone and an 1845 map shows three villages – one at either end and one in the middle.

A European fishery venture started on the beach in 1836 but was short-lived unlike its neighbouring whaling station at Ōtākou which began in 1831. In the 1850s, sand blown from the beach buried the nearby Māori village of Te Ruatitiko and the Kelvin Grove farm. In Māori, Te Rauone means 'many sands'.

On 22 May 1951, landowner Donald McGregor Reid gifted the area to the Crown for use by the public. Ten years later this was declared a public domain, known as the Harington Point Domain and the Harington Point Domain Board was appointed to control and manage it. In 1962 the name was changed to the Te Rauone Beach Domain.

In 1968 the Commissioner of Crown Lands entrusted the reserve to the Dunedin City Council as the Domain Board had "done nothing to improve the area". In 1970 the Domain Board appointment was formally revoked and the Council named in its place. By then,

the Dunedin Lions Club had offered to make it one of their projects and began to clear the area, developing car parking and picnic sites. As one of only two sandy beaches on the Peninsula side of the harbour, Dunedin Lions wanted to improve the area for families visiting as part of their Sunday drives. It was a safe swimming beach and was used by sail boats and fishing dinghies. The Otago Peninsula Lions Club took on the project in the late 1970s, building a toilet block. However, by the mid-1980s, erosion of the beach was becoming obvious. What were once two rows of sand dunes was now one.

In 1986 it was renamed the Te Rauone Reserve.

9.8.3 Landscape Values

The reserve lies between the Harington Point and Wellers Rock headlands. The hills behind the bay are generally pasture with intermittent stands of macrocarpa and native bush. Residential properties line the roadside. The beach is crescent shaped and stretches between the two headlands, with a north west aspect. At high tide the beach is narrow with only a few metres remaining exposed at the foot of the dune. From the beach, there are views across the harbour to Aramoana and the mole, as well as to Port Chalmers.

9.8.4 Ecological Values

The reserve is a mixture of exotic and native plantings, open space and dunes bordering the beach. Large trees in the reserve are limited to Pinus radiata and eucalyptus. Marram grass and young ngaio trees dominate the dunes. However, there is a mixture of vegetation on the dunes including pikao near the accessway.

Yellow-eyed and blue penguins occasionally roost on the beach and dune area. Te Rauone has significant entomological values, having been identified as a key site for native Lepidoptera (ORC & DCC 1991b). Of particular significance is a population of undescribed copper butterfly that feeds on extensive areas of muehlenbeckia in the reserve.

9.8.5 Heritage and Cultural Values

Kāi Tahu have had a long association with Muaupoko (Otago Peninsula). Many kāik (villages) were locate around Muaupoko. Te Rauone was known as the middle kāik and was part of the core settlement on Ōtākou in the nineteenth century. As the beach has eroded, the sand dunes now occupy the early village site. Te Ruatitiko was another important village back from the beach near Te Rauone. The removal of bush cover saw the mass movement of sand that eventually overran the Te Ruatitiko village site (ORC & DCC 1991a).

The beach has tuaki (cockle) beds that are an important source of kai moana for local Rūnanga.

9.8.6 Current Uses

The reserve provides important open areas and access to the beach. Areas of grassed open space, interspersed with vegetation, are available for passive recreation activities such as picnicking, walking and exploring. The beach provides opportunities for access to the harbour.

9.8.7 Management Issues

Management Aims

The management aims for Te Rauone Reserve are to protect and enhance the sand dunes to provide natural protection from coastal hazards and to provide opportunities for passive recreation.

Erosion

Te Rauone Beach is subject to a range of coastal and estuarine processes, resulting in periods of both shoreline retreat and advance at different times. Currently the northern end of the beach is eroding and the southern end accreting, probably due to a combination of changes in waves, currents, sediment supply and human actions. Dunedin City Council, Otago Regional Council and the Te Rauone community will be working together to determine the best option for management of coastal erosion at Te Rauone.

Access to the Beach

Due to continued rapid erosion, beach access from the reserve has become unsafe. While continued access to the beach from the reserve is desirable, alternative accesses may have to be investigated. Refer to section 8.3 Individual Reserve Policies – Te Rauone.

District Plan

Te Rauone Reserve is within the visually prominent area of the North West Peninsula Landscape Conservation Area in the District Plan and this means that the visual impact of any development on the landscape character and quality of its setting will need to be taken into account.

Regional Plan: Coast

The "Regional Plan: Coast for Otago" identifies parts of the coastal marine area adjacent to the reserve as:

- A coastal protection area because of Kāi Tahu cultural and spiritual values, and estuarine values; and
- A coastal hazard area because of sandy beach erosion where the beach, road and property are at risk.

Development / Enhancement

Continued revegetation will be guided by the Ecological Assessment for Dunedin Coastal Reserves (Wildland Consultants, 2003).

Any work planned on the Te Rauone Reserve will be guided by the Coastal Dune Conservation Works Programme (2002).

Interpretation signage regarding wildlife, natural beach processes and the cultural association of Kāi Tahu with Muaupoko (Otago Peninsula) may be appropriate for the reserve and would assist with visitor education.

Upgrading the public toilets and providing a formed parking area have been suggested and these should be investigated by the Council.

9.9 Waikouaiti Domain (Beachfront) and Karitane Spit

9.9.1 Description

Waikouaiti Domain is located on a wide coastal bay between Cornish Head and the Karitane isthmus. The coastal frontage of the reserve is a 4.2 kilometre strip of sand beach and dune formations. For 1.2 kilometres, from the north-eastern boundary to Beach Road, the reserve is a narrow strip of foreshore and low foredune backed by a shingle road that ends in a car park and grassed open area. From the car park, the reserve widens to approximately 300 metres to include an extensive area of back dune occupied by a Council owned pine plantation. The southern 1.7 kilometres of the reserve consists of the Karitane Spit. The sand spit varies in size and height above high tide levels, threatening, at its most extensive, to cut off boat access to the wharf, while almost disappearing in strong northeast gales. After the last disappearance in 2001, sand traps were used to stabilise the area.

9.9.2 History

The Waikouaiti Spit is known as Ohinepouwera by Māori with a fortified pa settlement nearby at Huriawa. The Māori chief Te Wera, of Kāi Tahu, occupied the pa from 1730. It proved a wise choice as it withstood a six-month siege by Taoka and his warriors, who camped on the spit. The pa had its own water supply and food – paua, crayfish and fish – was plentiful among its rocky shores. After six months, Taoka gave up and left.

A whaling station was established at the river mouth in 1837, the headlands at either end of the bay – Cornish Head to the north and Huriawa to the south – were used by spotters looking for the whale's distinctive water spout across the winter's sea. After several poor seasons when few whales were caught, the station closed in 1844. However, the sand dunes on the spit were by then littered with the enormous whales' skulls, ribs, vertebrae and other bones bleached by the sun.

Johnny Jones, a Sydney based entrepreneur, had bought land from the Waikouaiti River to Cornish Head and ten miles inland and he established the first colonial farming settlement, Matanaka, at Cornish Head in 1839. The next year he brought farming families to the area from New South Wales on the ship "Magnet". In the early 1840s, the area was probably one of the most thriving settlements in the country with 100 Europeans living there and a large number of Māori.

In the 1850s, stores, unloaded in the river mouth, were hauled along the spit and up Beach Street to the general store to serve the growing town which was still isolated from Dunedin. Other, larger ships, anchored in the bay, used landing boats to bring their goods onto the beach. Passengers were carried ashore on the backs of Māori, often Māori women, at a shilling a head. Meat, vegetables and wheat, provided by Jones' farming enterprises, were shipped back to the growing Dunedin. West Hawksbury, generally known by its Māori name Waikouaiti, was put on the market by Jones as a private township in 1860. The name of the town was formally changed in 1907 from Hawksbury to Waikouaiti by which it was better known.

Gold was discovered at Dunstan in August 1862 and soon diggers, travelling by boat from Australia to Dunedin and then up the coast by smaller ships, were making the spit home for the night before heading inland on foot by what is now known as the Pig Route. Thousands of diggers landed on the beach with their swags and a canvas-town, two restaurants and several stores were quickly built on the spit to accommodate them. In one day, 600 men arrived, destined for the goldfields. However, the township on the spit was short-lived and when a flood in 1968 destroyed Mr Paget's store, there was nothing left to show it had ever been there. The road, pushed through across the hills from Dunedin in 1863, meant the beach and river harbour was no longer the only access north of the city.

In 1880, the Karitane spit was described as "a narrow point of land with heaps of drifting sand, lying between

the river mouth and the bay. The almost entire absence of vegetation gives the spot the aspect of a miniature African desert." However, the beach along the bay "cannot be excelled as a bathing place in summer. A great variety of shells, seaweed, moss and other marine spoils can be gathered on the shore by visitors. Ships can be seen as they appear in the offing near the Heads, and in Dunedin Harbour." (History of Waikouaiti, Rev. John Christie)

In 1902, Dr Truby King, the medical superintendent at the nearby Seacliff Mental Hospital and a resident of Karitane, instigated the planting of English marram grass to stabilise the sand dunes. The marram grass soon took over from the native pikao.

The railway brought holiday makers to the beach and in 1904 the spit was permanently reserved for recreation. In 1905, the Karitane Domain Board was appointed to control and manage it. The land along the beach frontage was vested as a reserve in 1918 and the two areas looked after by the Waikouaiti Domain Board along with the rest of the domains in the area which included land leased to the golf club and various sports codes. The Board built a bathing pavilion which included toilets at the end of Beach Street in 1967 for £1159. In 1972, the reserve areas were handed to the Waikouaiti County Council after a public meeting failed to rekindle local interest in the neglected area.

Pinus radiata was planted in the sandy soil in 1978 and water from the Karitane and Waikouaiti sewage oxidation ponds used to irrigate the trees.

In the late 1980s, the bathing pavilion became derelict and the Dunedin City Council closed it in 1992. It was later demolished.

9.9.3 Landscape Values

The reserve provides a strategically important visual backdrop to views from Karitane township and headland, and is included in the North Coast Coastal Landscape Preservation Area. To the north the reserve consists of a strip of foreshore and low foredune.

The central area of the reserve is wider, and includes forested areas: the topography of the plantation is typically undulating, reflecting the underlying dune landforms of the area.

The Karitane sand spit is a key landform that lies between the Waikouaiti River and the sea. The height and formation of the spit changes over time, varying with climatic conditions and weather events.

9.9.4 Ecological Values

Along the length of the reserves, the dunes are dominated by marram grass, with lupins (where trees are not dominant) and a variety of exotic grasses including cocksfoot, tall fescue and prairie grass. Planting with the native sedge, pikao, is taking place, particularly on Karitane Spit itself. Closer to the pine plantation that lies to the north of the dunes are occasional small trees of kohuhu, karamu, broadleaf, cabbage tree and koromiko. There are extensive areas of salt marsh on the low ground to the west of the spit. The main species here is glasswort and other native salt-marsh plants.

Rabbits are present on the Karitane Spit, and dogs use both the domain and the spit. Horses use parts of the spit. Cats, possums, ferrets, stoats, hedgehogs, rats and mice are probably present from time to time. Suitable habitat is present for common species of skink and gecko.

Blackbird, dunnock, harrier, silvereye, fantail and spur-winged plover have been observed on the reserve. Other common terrestrial birds probably use the reserve from time to time, but there is little suitable habitat to support resident populations of species apart from common insect and seed eaters. Birds use different parts of the estuary for different things and many of them also use adjacent habitats as well. Ten species of birds, including oystercatchers, bar-tailed godwits, pied stilts, terns and gulls have been identified as commonly using the spit for roosting and black oystercatchers and black-backed gulls use the spit for nesting.

Beetles and thrips dominate the invertebrate community. Spiders, plant and true bugs flies, wasps and moths are also present.

9.9.5 Heritage and Cultural Values

One of the earliest settlements in the Waikouaiti district was a Waitaha settlement that was located at the northern end of the Waikouaiti Domain and Karitane sand spit. The traditional name of the Waikouaiti Beach and Bay is Ohine Te Moa.

Ohinepouwera is the traditional name of the sand spit that divides the Waikouaiti Beach and Bay from the Waikouaiti River opposite Karitane. Artefacts and middens have been discovered on this sand spit providing evidence that various settlements existed on the spit. There are also known burials in the vicinity of the spit.

9.9.6 Current Uses

The Waikouaiti Domain is a large reserve and provides for a number of different recreational uses. The beachfront area of the reserve is used for casual picnicking, walking, swimming and cycling. A car park is provided for visitors to the beach. Karitane Spit is more isolated, given the long walk to the end of the beach, primarily used for walking and wildlife viewing.

9.9.7 Management Issues

Management Aims

The management aims for Waikouaiti Reserve are to protect and enhance the sand dunes to provide natural protection from coastal hazards, provide opportunities for passive recreation and access to the adjacent beach.

Vehicles on Reserves

In common with most of the reserves that adjoin beaches, vehicles on the reserve, in the sand dunes and on the adjacent beach are management issues. Four-wheel drive vehicles also use the unsealed sections of Matanaka Road and the beach itself. Vehicle access on reserves will be managed as outlined in section 6.3 Vehicles on Reserves of this Plan.

Waikouaiti Waste Water Effluent Irrigation Area

The Waikouaiti wastewater effluent irrigation area lies adjacent to the reserve and milling of the pine plantation is scheduled. An adequate dune buffer of suitable plants needs to be created in front of the plantation.

Removal of other large trees and wilding pines on the Spit and replacing them with suitable planting is also recommended at the same time as the plantation is milled. Using natural debris (fallen trees) as sandtraps is an erosion control measure that is recommended for the Karitane Spit. If the milling of the plantation pines does not commence in 2011, the timing of the removal of the pines on the Spit will be reviewed.

District Plan

Waikouaiti Reserve is within the visually prominent area of the North Coast Coastal Landscape Protection Area in the District Plan and this means that the visual impact of any development on the landscape character and quality of its setting will need to be taken into account.

The edge of Waikouaiti Estuary mudflat has been identified as a wetland of significant conservation value (C113) and is listed in the Department of Conservation Wetlands of Ecological and Representative Importance (WERI) database. Enhancing this wetland could be considered as part of this revegetation project.

Regional Plan: Coast

The "Regional Plan: Coast for Otago" identifies parts of the coastal marine area adjacent to the reserve as:

- A coastal protection area because of Kāi Tahu cultural and spiritual values, and estuarine values;
- A coastal development area because of fishing facilities, recreational facilities and moorings;
- A coastal recreation area where there is swimming, walking and surfing; and
- A coastal hazard area because of sandy beach erosion where the beach and roads are at risk.

Development / Enhancement

Continued revegetation will be guided by the Ecological Assessment for Dunedin Coastal Reserves (Wildland Consultants, 2003).

Any work planned on the Waikouaiti Reserve will be guided by the Coastal Dune Conservation Works Programme (2002).

Waikouaiti reserve is identified as a major area for the pikao recovery programme.

The block of land on the landward side of Matanaka Drive has also been identified for future planting.

9.10 Warrington Reserve

9.10.1 Description

Warrington Reserve is located at the mouth of Blueskin Bay, approximately 25 kilometres north of the central city. The reserve occupies much of a long sand spit, mostly of low relief dunes and covers an area of 70 hectares. There is a grassed picnic area near the northern end of the reserve. An oxidation pond and associated sewage works are located adjacent to the reserve on the spit. Rabbit Island and two other islands are raised sand banks in the Blueskin Bay estuary. Warrington Spit has been identified as an area with high wildlife values.

9.10.2 History

Blueskin Bay is thought to be named after a local Māori chief Hikutu or Te Hikututu who was so deeply tattooed that he became known to early settlers as Blueskin. The Māori name for the area is Waiputi which means dried out water – referring to the estuary at low tide.

The bay was a food source for Māori and successive tribes, Rapuwai, Waitaha, Kati Mamoe and Kāi Tahu, occupied the area for 1,000 years. Warrington Beach appears to have been a cross-roads for foot travellers heading inland to Central Otago and south or north along the coast. Evidence has been found of Māori settlements on the Warrington Spit, and on Rabbit Island, including bones from butchered moa which are thought to have become extinct in the area around the 1500s.

Early European settlement included a whaling station at Pūrākaunui which was set up in 1837 and a small farming settlement. The population grew again once a bridle track from Dunedin to the bay was formed over Mt Cargill in 1861 and a road pushed through in 1863. The first train ran between Dunedin and Hawksbury in 1878.

In 1869 Thomas Poynton, an ex-gamekeeper from England, and William Armstrong, won the lease for what is now known as Rabbit Island. The lease was

£22 per annum for the 68 acre island and ran for seven years. The Otago Acclimatisation Society had released rabbits on the island from 1866 to 1868 for people to shoot and Poynton, who had a hut near the end of the Spit, was paid to shoot and trap hawks which preyed on the young rabbits. However, "The Otago Witness", in 1871, recorded how rabbits from the island had crossed to the mainland, much to the annoyance of the settlers. By the late 1870s the rabbits had been declared a pest. In 1876, when Poynton's lease ended, Rabbit Island and its two, smaller, neighbouring islands in the bay were vested in the Blueskin Reserve Trust for recreation of the inhabitants of the district under the Blueskin Recreation Reserve Act 1876. The five members of the first trust are listed as three gentlemen and two merchants.

By the early 1900s Warrington became a popular holiday destination. One of the early summer residents was Arthur Barnett who rented the Manor House by the beach, built in 1896. The growing town also housed employees of the nearby Seacliff Mental Hospital which, at one time, was the largest mental institute in the colony.

The Spit was gazetted as a recreation reserve in 1914 and, in 1927, a winter storm cut a new channel through the middle of the beach. For at least two years the tip of the beach was joined to Rabbit Island but the channel eventually moved back to its previous location, building the beach up again behind it.

In 1938 the Blueskin Recreation Reserve Act was repealed and the islands were combined with the Spit as the Warrington Domain with the Warrington Domain Board in control. In 1964 the land by the township was added to the Domain but two years later, due to lack of funds, the Board handed over control of all three areas to the Waikouaiti County Council.

Erosion of the Spit has caused concern with the sea washing over it again in 1938 bringing into the bay behind it large quantities of sand and silt. Recent storms have once again blown out parts, leaving no vegetation to stabilise the sand. Vehicles driven on the beach have also damaged the dunes and threatened bird life on the Spit. Barriers have been tried to prevent vehicle access but have proved unsatisfactory as emergency vehicles are required to have access to the beach which is popular for swimming and boating.

Sand taken from the 1950s to the 1970s from the township end of the reserve was used to build nearby roads including the Kilmog. The level area left was used to build bathing sheds and toilets.

The National Surf Life Saving Championships were held at Warrington Beach in 1961, 1967 and 1974, bringing nationwide publicity to the area. In 1977, the Moana Rua Ladies Surf Life Saving Club moved from Middle Beach to Warrington as the surf was less dangerous and in 1985 the club was renamed the Warrington Surf Life Saving Club and was open to all. The clubrooms are near the reserve and members patrol the beach in the summer months.

In 1983 the reserve was named the Warrington Recreation Reserve by the Silverpeaks County Council who had control of it since 1977. The Dunedin City Council gained control of the reserve in 1989 following local body amalgamation. In 2001 a new playground was installed.

From the late 1990s to 2006, Rabbit Island was used by Te Whanau Arohanui St Clair for growing flax and pikao which was used in Māori weaving classes. An area of the island was also used for taiaha practice.

9.10.3 Landscape Values

The entrance to the reserve is a grassed area with public facilities. To the north, relatively high dune formations dominate the spit, whereas to the south erosion and blowouts have resulted in a much lower dune profile. The islands are effectively raised sand banks located in Blueskin bay, and are surrounded by salt marsh.

The sand spit and islands are visible from the northern motorway several kilometres to the south, and the views across Blueskin Bay are also significant. Warrington Domain provides a natural backdrop to the bay. Built forms are largely absent, particularly from the southern end of the Spit.

9.10.4 Ecological Values

The vegetation at Warrington Reserve includes mature pines in the more elevated areas, to salt marsh communities near the Spit and island, where a large area of calystegia soldanella and coprosma acerasa) is found. Undesirable plant species found throughout the reserve include lupins, marram, blackberry, elder and a range of exotic grasses, which currently threaten the remaining native plant values of the reserve. Wilding pines and other exotic tree species are found on the more elevated areas of the dunes.

Rabbits are common throughout Warrington Spit and most other common mammals are probably present there from time to time, including cats, possums, ferrets, stoats, hedgehogs, rats and mice. There is suitable habitat for common species of skink and gecko on the reserve. There are also occasional sea mammal visitors.

Native harrier, falcon, welcome swallow, bellbird, fantail and grey warbler are present in the reserve and vegetated parts of the spit, along with large numbers of introduced thrushes, finches and skylarks. Native waterfowl, terns and waders use the adjacent estuary. Large numbers of godwits, pied oystercatchers, banded dotterels and gulls, including the endangered endemic black-billed gull, regularly roost at the end of the Spit. Black oystercatchers nest on the ocean beach and the end of the Spit and moulting penguins have been observed in the dunes.

Spiders, beetles and plant bugs dominate the invertebrate communities. Other species present in the reserve are pseudoscorpions, harvestmen, true bugs, booklice, springtails, flies, wasps, lacewings, thrips, moths cockroaches and microsnails. The presence of the alpine tortricid moth, Eurythecta leucothrinea, on Rabbit Island emphasises the high conservation value of the saltmarsh community represented there.

9.10.5 Heritage and Cultural Values

Prior to European contact, the Blueskin Bay area contained many areas of occupation. The traditional name of Blueskin Bay is O tama kai papa. In the general locality there were various kāik (villages), umu (ovens), an urupā (cemetery), wāhi tapu sites and tauraka waka (canoe mooring sites). Remnants of middens have also been discovered in the locality of Blueskin Bay. Blueskin Bay is an important source of kai moana, including tuaki (cockles), for Kāi Tahu whānui and the community.

9.10.6 Current Uses

The reserve provides mainly for casual recreation opportunities, including walking, picnicking, horseriding and access to the adjacent beaches for swimming and fishing. There is heavy use of this site by campervans in the season.

The provision of playground equipment, picnic tables, seats, rubbish bins and barbeques, which encourage people to stay and picnic, are seen by the community as beneficial to the reserve. Public toilets are provided on the reserve.

Infrastructure

The Warrington wastewater treatment works is located on Water and Waste Business Unit land within the Warrington Reserve. A foul sewer pump station and rising main are located on the northern part of the reserve.

Buildings and Structures

- Toilet block
- Play equipment
- Seats
- Picnic tables
- Rubbish Bins

9.10.7 Management Issues

Management Aims

The management aims for the Warrington Reserve are to protect and enhance the sand dunes to provide natural protection from coastal hazards, protect wildlife and provide access to the adjacent beach.

Wildlife

The southern end of the tip below the first blowout and Rabbit Island is recognised as a significant area of nesting for oystercatchers, terns and other sea birds. Dogs are currently prohibited here and more signage is needed to indicate that they are banned. Vehicles should be prohibited from this area as well. Educational signage outlining the biodiversity values of the area should be investigated. Refer to section 8.4 Individual Reserve Policies – Warrington Reserve.

Vehicles and Dogs on Reserves

In common with most of the reserves that adjoin beaches, control of dogs and vehicles on the reserve, in the sand dunes and on the adjacent beach are management issues. Vehicle access on coastal dune reserves will be managed as outlined in section 6.3 Vehicles on Reserves.

Dunedin City Council Dog Control Bylaw (2004) prohibits dogs from Warrington Spit and Island. The rest of the reserve is managed as outlined in section 6.4 Animal Control of this Plan.

Accreted land

There is an area of accreted land on the seaward boundary of the reserve and this is informally managed by the Council. Formalising ownership of this area will be investigated as per Policy 5.1.2(7).

Maintenance

All reserves are monitored under contract, and weed control is prioritised accorded to the annual reports. Removal of wilding pines has been identified as a long term goal for this reserve.

District Plan

Warrington Reserve is within the visually prominent area of the North Coast Coastal Landscape Protection Area in the District Plan and this means that the visual impact of any development on the landscape character and quality of its setting will need to be taken into account.

The edge of Blueskin Bay has been identified as a wetland of significant conservation value (C104) and is listed in the Department of Conservation Wetlands of Ecological and Representative Importance (WERI) database as a mudflat, saltmarsh, reed swamp and succulent herb swamp of regional and local significance.

Regional Plan: Coast

The "Regional Plan: Coast for Otago" identifies parts of the coastal marine area adjacent to the reserve as:

- A coastal protection area because of Kāi Tahu cultural and spiritual values, and estuarine values;
- A coastal recreation area where there is swimming, walking and surfing;
- An outstanding natural feature and landscape because of Kāi Tahu cultural and spiritual values, landscape values, islands and offshore stacks providing important habitat for birds and seals, and botanical values; and
- A coastal hazard area because of sandy beach erosion where the spit and saltmarsh are at risk.

Development / Enhancement

Continued revegetation will be guided by the Ecological Assessment for Dunedin Coastal Reserves (Wildland Consultants, 2003).

Any work planned on the Warrington Reserve will be guided by the Coastal Dune Conservation Works Programme (2002).

Interpretation signage regarding wildlife and natural beach processes are currently located on the reserve and these may be extended to include signs regarding beach care and biodiversity values and the cultural association of Kāi Tahu with Te Tai O Arai Te Uru (Otago Coastal Marine Area).

Development of Rabbit Island as a re-generation site for native vegetation is proposed.

Part Four: Appendices

Appendix 10.1: Glossary

In this Plan:

Biodiversity means the variety of all biological life and includes diversity within species, between species and of ecosystems. Components include:

Ecological Diversity: *The variety of different habitats or ecosystems types, the biological communities within them and the ecological processes and functions they perform.*

Species Diversity: *The variety of different species in a given area. This might include the range of types of the birds, fish, insects, bacteria and plants that live in a particular ecosystem, such as a wetland.*

Genetic Diversity: *The variety of genes among individuals of a single species from another. These provide species with the ability to adapt to changing environments.*

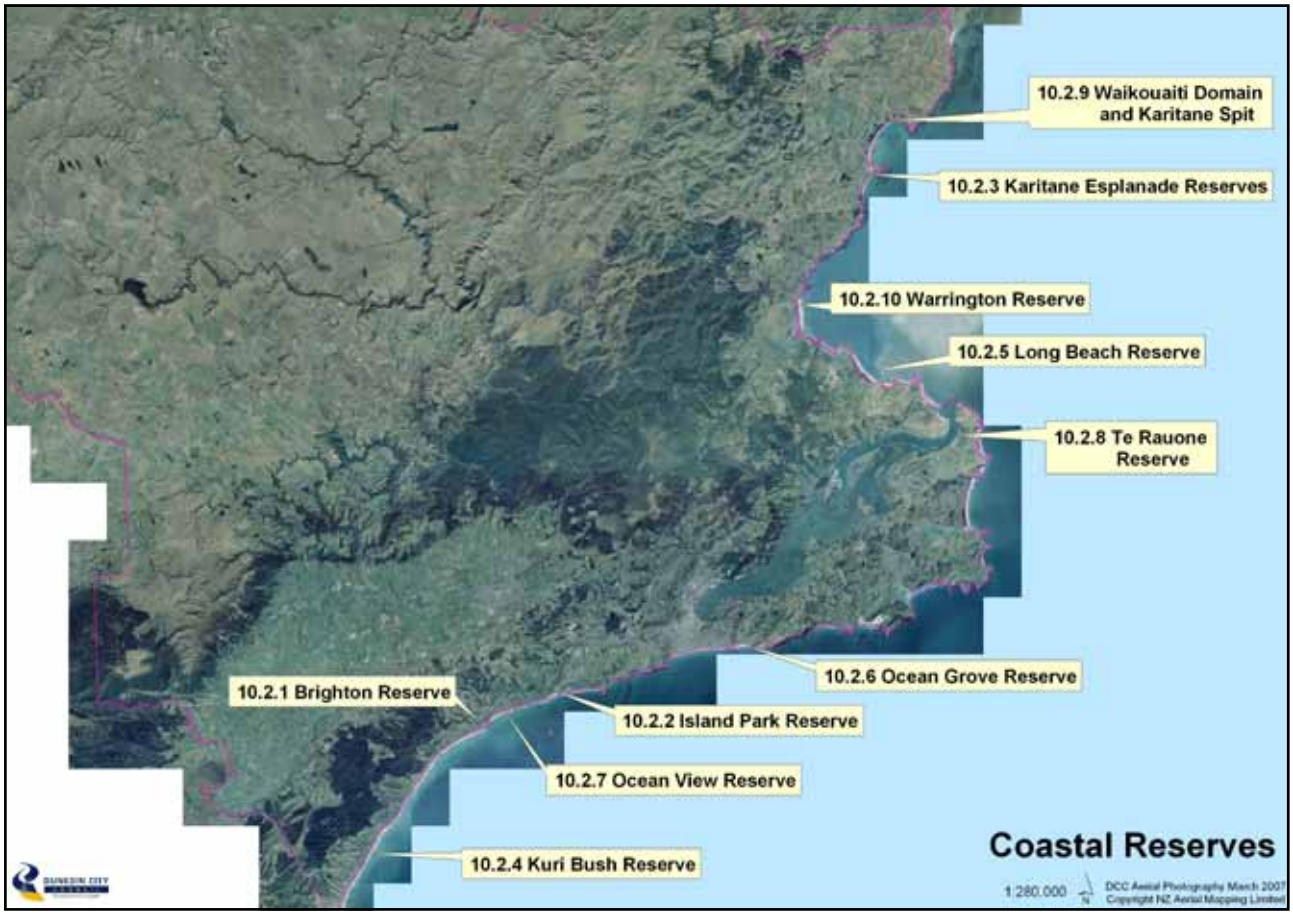
In this Plan biodiversity includes indigenous biodiversity and valuable introduced biodiversity.

Coastal Environment means an environment in which the coast is a significant element or part. The extent of the coastal environment will vary from place to place depending on how much it affects, or is affected by, coastal processes and the management issues concerned. It includes at least three distinct, but inter-related, parts: the coastal marine area, the active coastal zone, and the land back-drop.

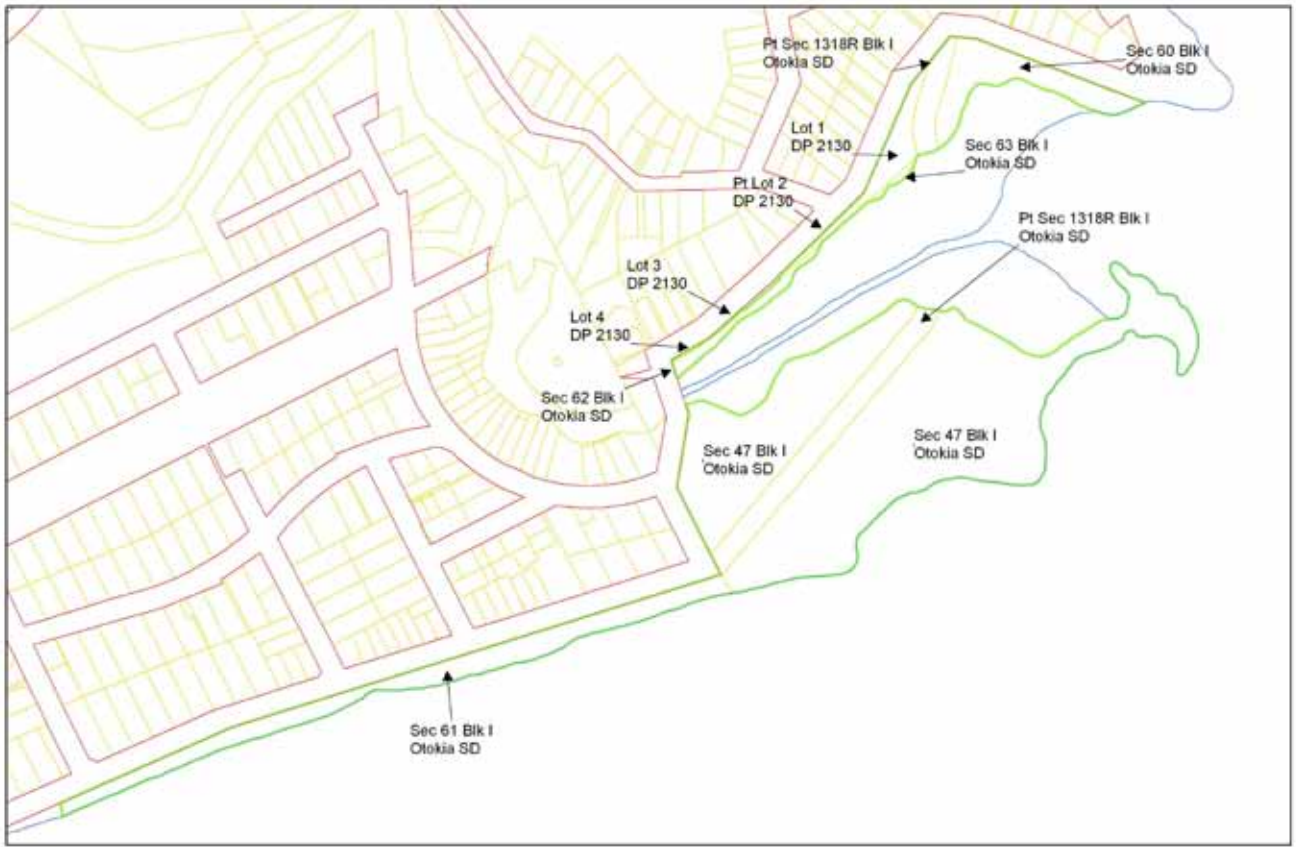
Coastal Protection means preserving and enhancing the natural functions of dune and beach systems.

Wildlife means any animal that is living in a wild state; but does not include any animals of any species specified in the Pest Management Strategy for Otago and Schedules 5 (Wildlife not protected) and 6 (Animals declared to be noxious animals) of the Wildlife Act.

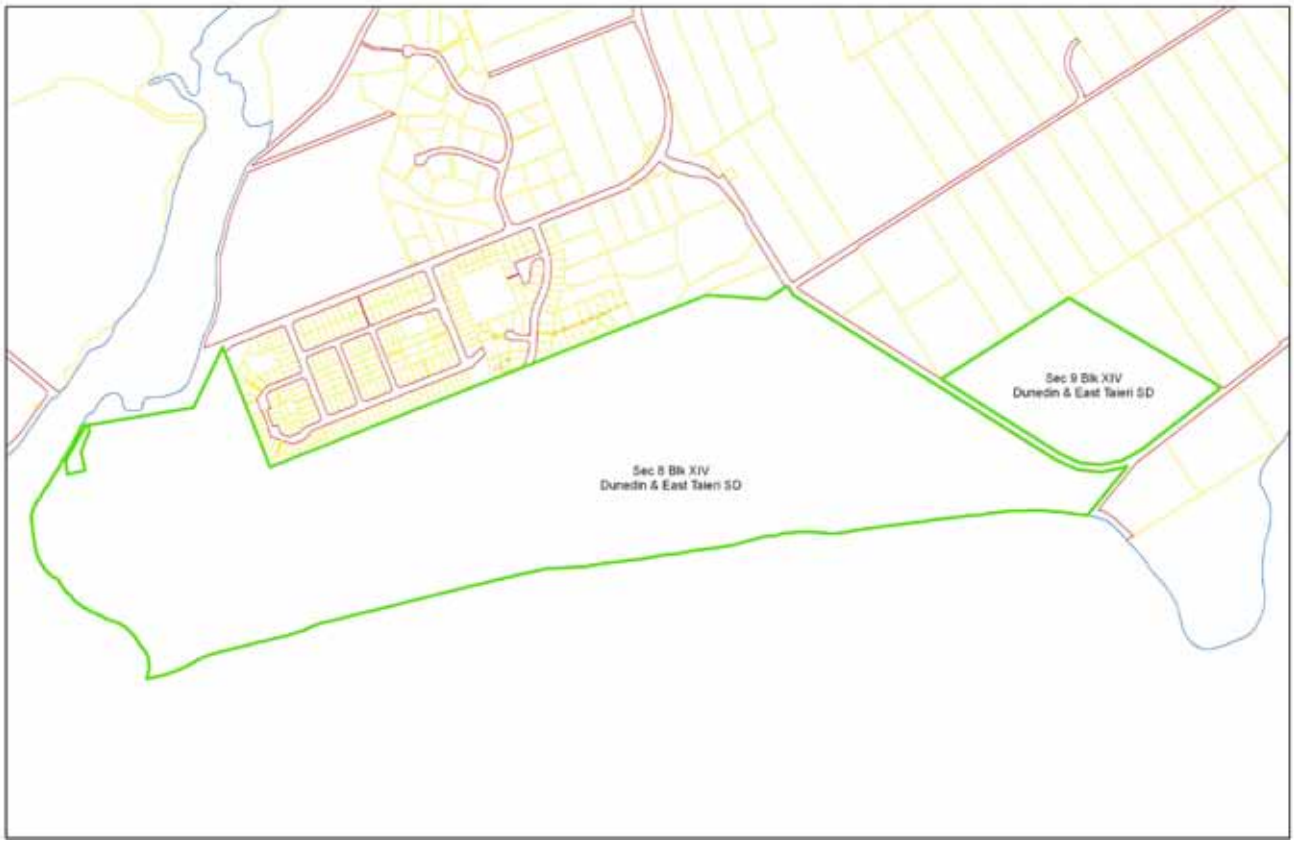
Appendix 10.2: Maps



10.2.1 Brighton Reserve

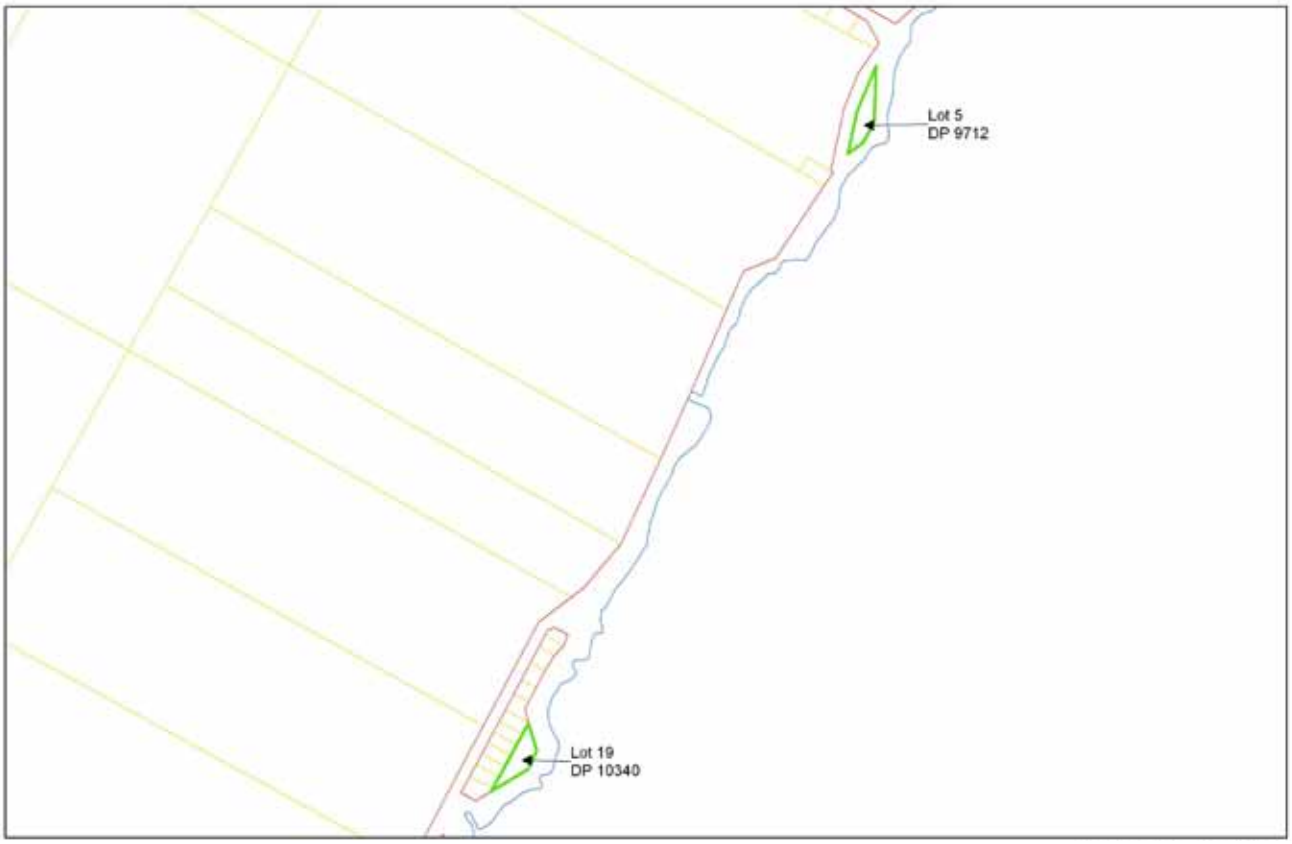


10.2.2 Island Park Reserve

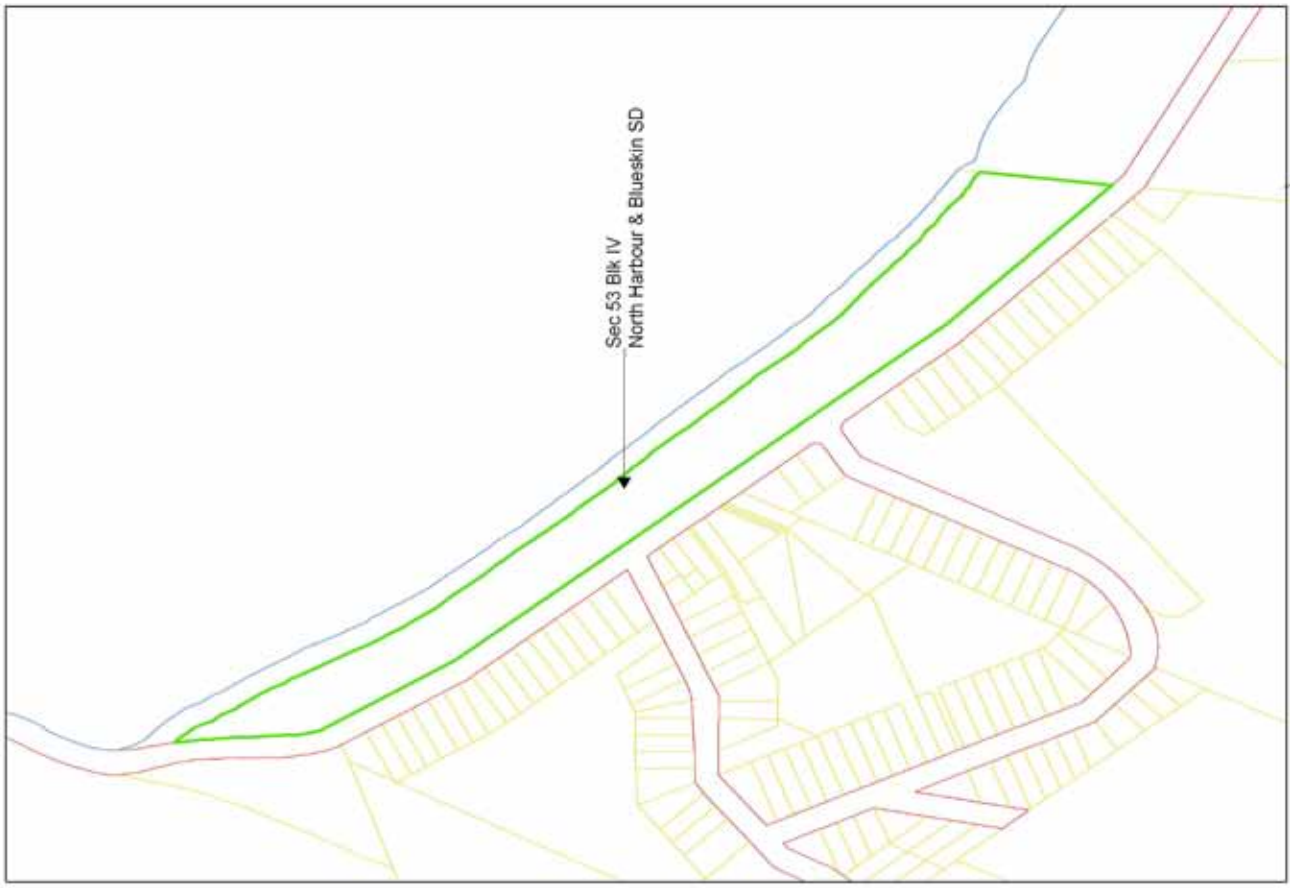


10.2.3 Karitane Esplanade Reserve

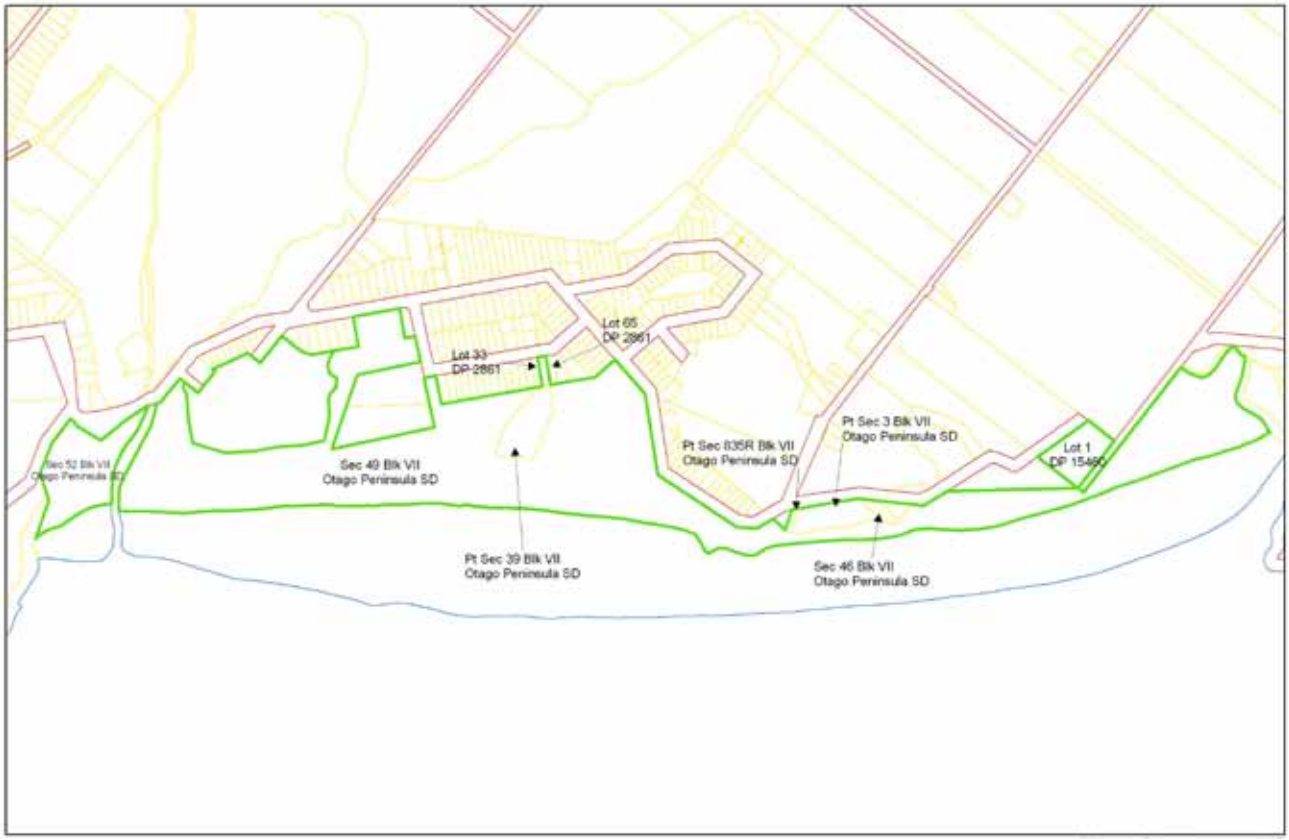
10.2.4 Kuri Bush Reserve



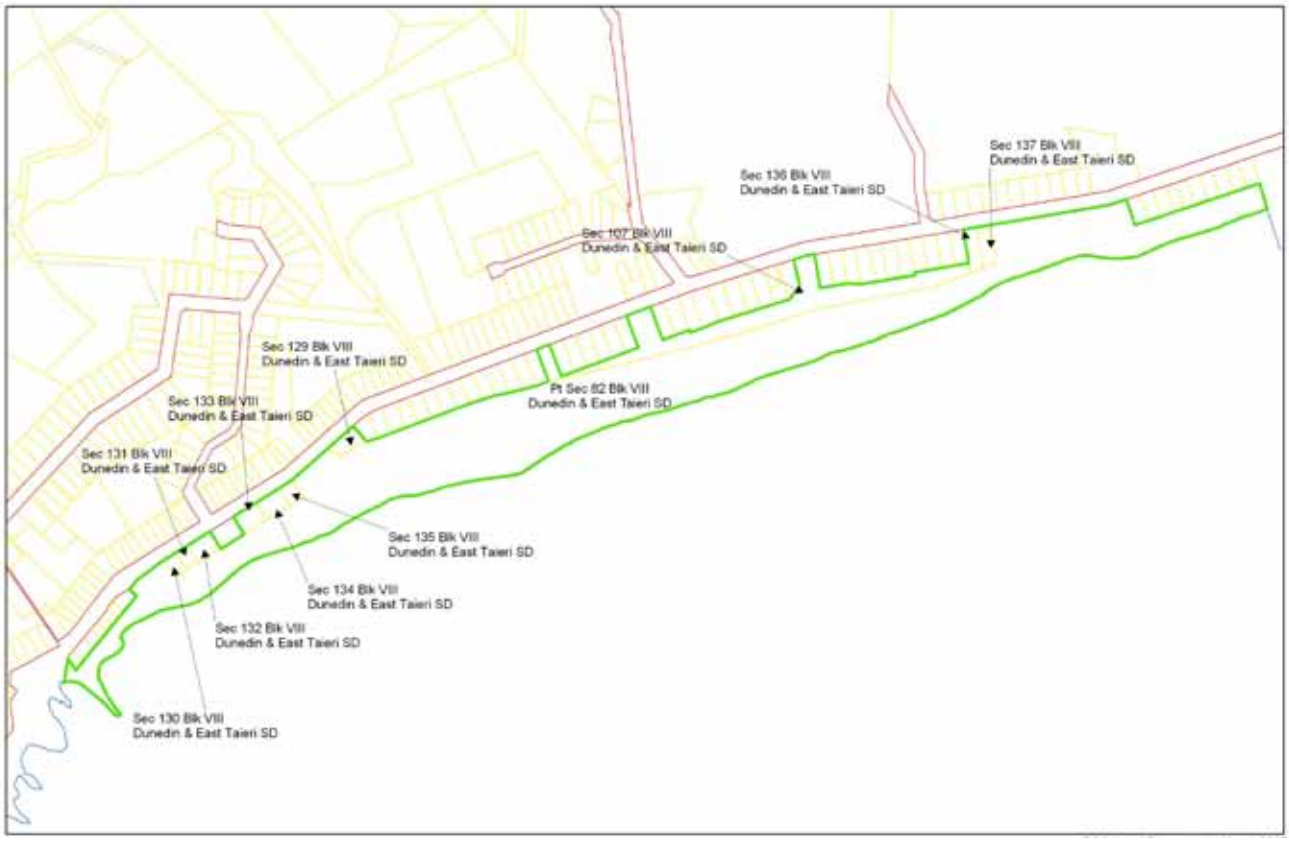
10.2.5 Long Beach Reserve



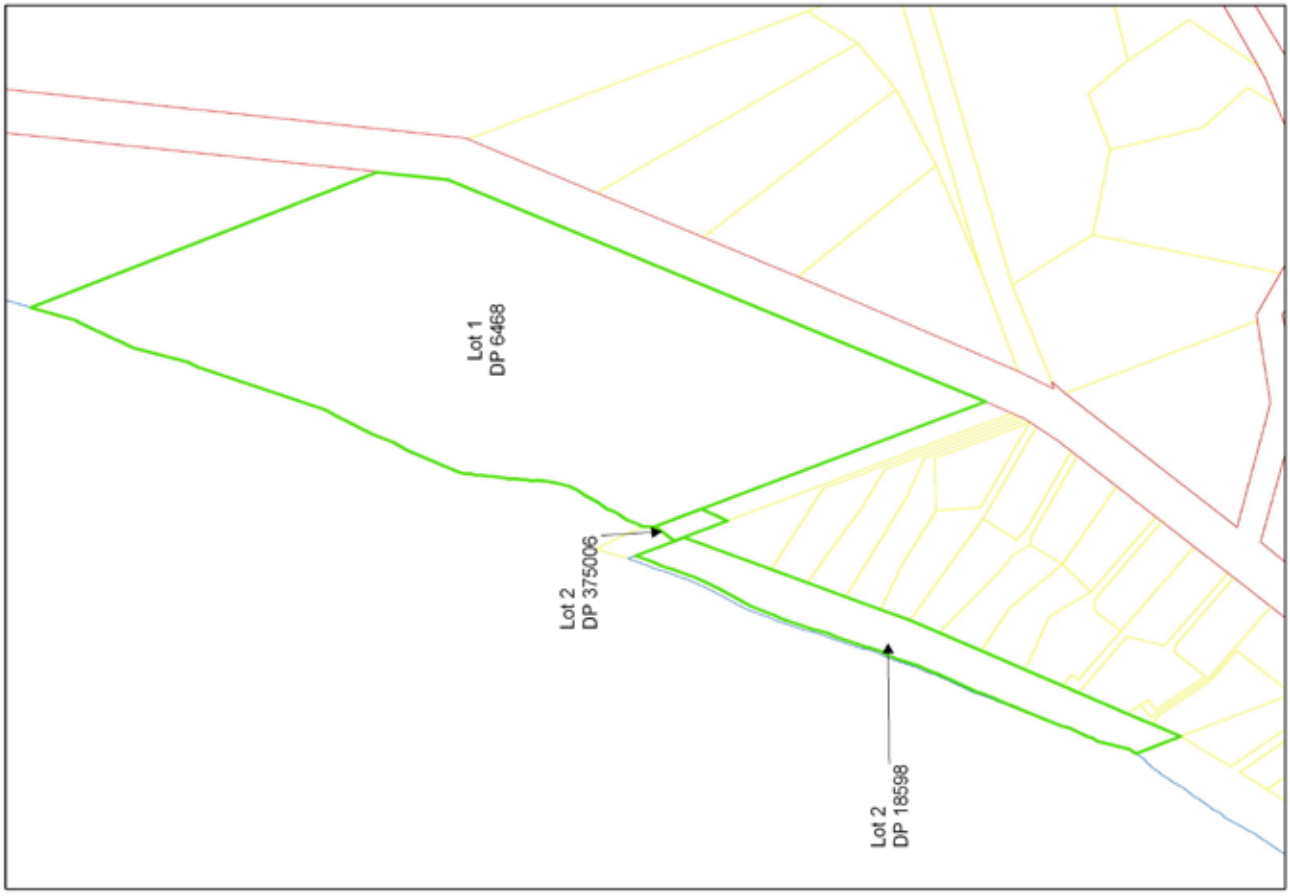
10.2.6 Ocean Grove Reserve



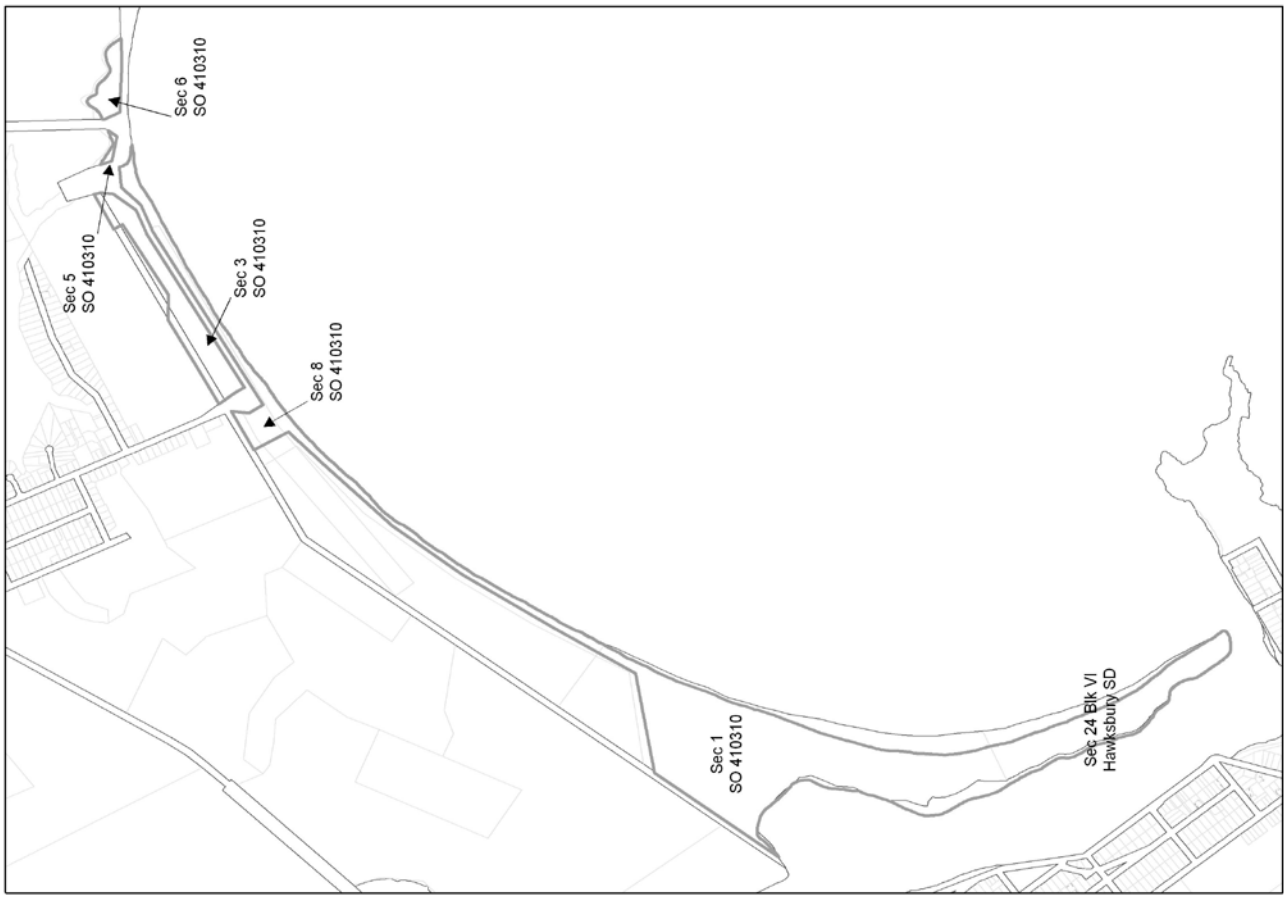
10.2.7 Ocean View Reserve



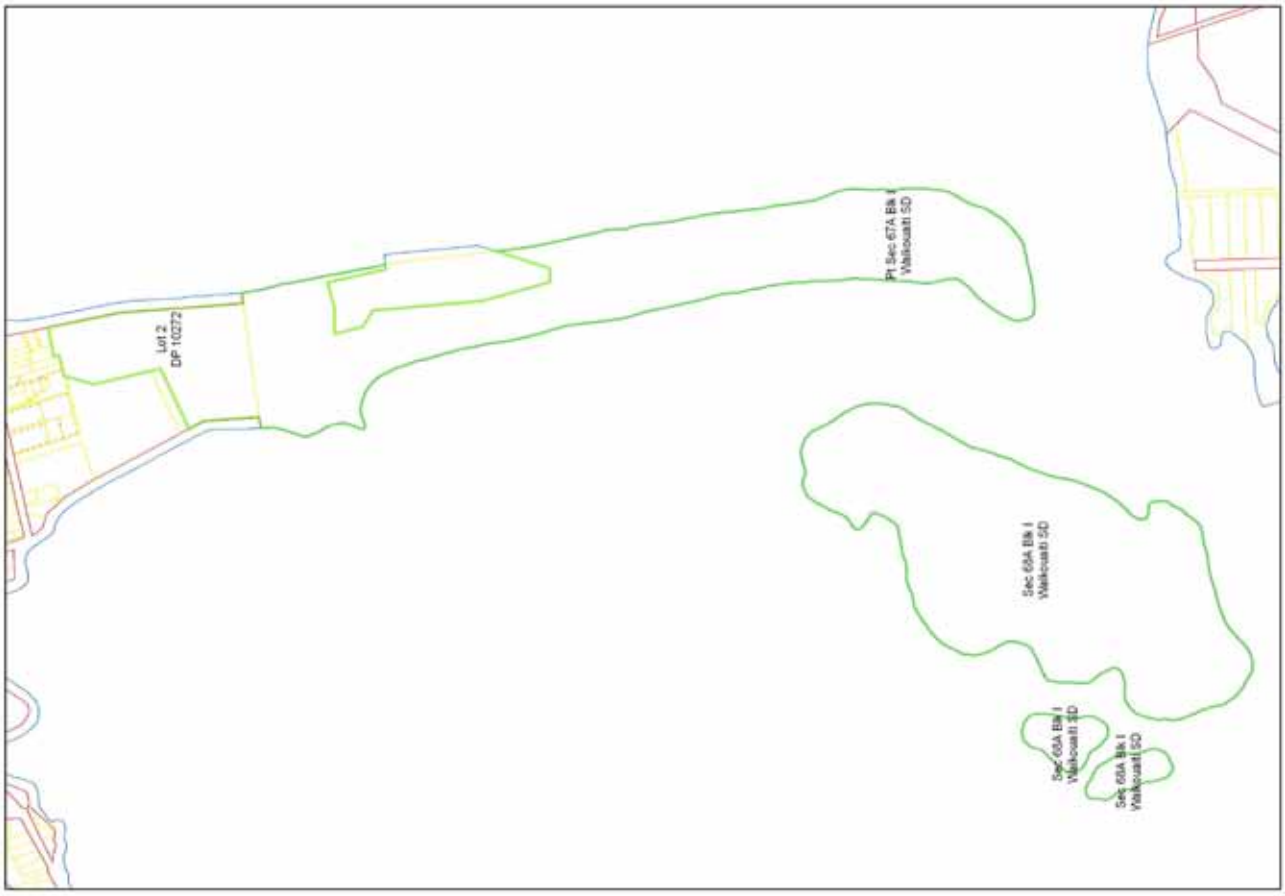
10.2.8 Te Rauone Reserve



10.2.9 Waikouaiti Domain and Karitane Spit



10.2.10 Warrington Reserve



Appendix 10.3: Land Schedule

NOTE: Only Operational encumbrances only are noted against the Computer Freehold Register e.g. Rights of Way

Map No.	Legal Description	Controlled & Managed/ Vested in the DCC	Status and Name	Classified
10.2.1	***Brighton***			
	1.2141 ha Section 61, Block I, Otokia Survey District CFR 372375	Vested under Section 26A of the Reserves Act 1977	Subject to the Reserves Act 1977	Local Purpose (Coastal Protection) by GN 8350969.1
	5.6656 ha Section 47 and part Section 1318R, Block I, Otokia Survey District CFR 373311			
	0.0911 ha Section 62, Block I, Otokia Survey District CFR 372760			
	1.2374 ha Section 60 and 63, part Section 1318R, Block I, Otokia Survey District and Allotment 1, DP 2130 CFR 373795			
	0.0392 ha Part Lot 2, DP 2130 CFR OT 276/14			
	0.0080 ha Lot 3, DP 2130 CFR OT7D/744	Vested by T 5159260.1	Subject to the Reserves Act 1977	Local Purpose (Coastal Protection) by GN 8350969.1
	0.0245 ha Part Allotment 2 and Allotment 4, DP 2130 CFR OT160/69	n/a	Fee Simple	n/a
10.2.2	***Island Park***			
	162.2300 ha Sections 8 and 9, Block XIV, Dunedin and East Taieri Survey District CFR OT97/7 Subject to Mining Permit 5254750.1 and Access Agreement	Vested by all GN 556117/3	Subject to the Reserves Act 1977 Named Island Park Recreation Reserve by GN 556117/2	Local Purpose (Coastal Protection) by GN 8350965.1
10.2.3	***Karitane (Coast Road)***			
	0.1193 ha Lot 10, DP 405722 CFR 420604	Vested on deposit of DP 405722	Subject to the Reserves Act 1977	Local Purpose (Coastal Protection) by DoC 8319224.1
10.2.3	***Karitane (Rawhiti Street)***			
	0.2056 ha Lot 36, DP 3734 CFR 271238	Vested under Section 44(1) of the Counties Amendment Act 1961	Subject to the Reserves Act 1977	Local Purpose (Coastal Protection) by all DoC 7036371.1

Map No.	Legal Description	Controlled & Managed/ Vested in the DCC	Status and Name	Classified
10.2.9	***Karitane Spit***			
	7.6890 ha Section 24 Block VI Hawksbury Survey District CFR 255215	Vested under Section 26A of the Reserves Act 1977	Subject to the Reserves Act 1977	Local Purpose (Coastal Protection) by all GN 7076540.1
	28.4138 Section 1, SO 410310 Part CFR OT5C/398	Vested underSection 26A of the Reserves Act 1977	Subject to the Reserves Act 1977	Local Purpose (Coastal Protection) by GN 8425740.1
10.2.4	***Kuri Bush***			
	0.2089 ha Lot 5, DP 9712 CFR 250768	Vested under Section 44(1) of the Counties Amendment Act 1961	Subject to the Reserves Act 1977	Local Purpose (Coastal Protection) by PT GN 8350959.1
	0.2504 ha Lot 19, DP 10340 CFR OT1C/1074	Vested on deposit of DP10340	Subject to the Reserves Act 1977	Local Purpose (Coastal Protection) by PT GN 8350959.1
10.2.5	***Long Beach***			
	4.6033 ha Section 53, Block IV, North Harbour and Blueskin Survey District CFR 336015	Vested by all GN 7164836.1	Subject to the Reserves Act 1977 Named Long Beach Domain by part Order in Council 6356	Local Purpose (Coastal Protection) by GN 8350973.1
10.2.6	***Ocean Grove***			
	0.7127 ha Lot 1, DP 15460 CFR OT6C/168			
	25.0 ha Section 49, Block VII, Otago Peninsula Survey District CFR 482679	Vested by part GN 8192274.1	Subject to the Reserves Act 1977	Local Purpose (Coastal Protection) by GN 835977.1
	1.9 ha Section 52, Block VII, Otago Peninsula Survey District CFR 456176			
	0.7054 ha Part Section 39, Block VII, Otago Peninsula Survey District All CFR 370463	Vested by all GN 1966 p418 and GN 7634548.1	Subject to the Reserves Act 1977	Local Purpose (Coastal Protection) by GN 8351004.1
	0.0607 ha Allotment 33, DP 2861 All CFR OT191/9	n/a	Fee Simple	n/a

Map No.	Legal Description	Controlled & Managed/ Vested in the DCC	Status and Name	Classified
	0.0100 ha Lot 65, DP 2861 All CFR OT313/244	n/a	Fee Simple	n/a
	0.6717 ha Parts Section 3 and part Section 853R, Block VII, Otago Peninsula Survey District All CFR OT1C/831	n/a	Fee Simple	n/a
	0.1118 ha Section 46, Block VII, Otago Peninsula Survey District All CFR OT3A/473	n/a	Fee Simple	n/a
10.2.7	***Ocean View***			
	13.2575 ha Part Section 82, Block VIII, Dunedin and East Taieri Survey District CFR 393724	Vested by part GN 591213	Subject to the Reserves Act 1977	Local Purpose (Coastal Protection) by PT GN 8350996.1
	1.8084 ha Section 107, Block VIII, Dunedin and East Taieri Survey District CFR 392428			
	0.0653 ha Section 130, Block VIII, Dunedin and East Taieri Survey District CFR 393500			
	0.1113 ha Section 129, Block VIII, Dunedin and East Taieri Survey District CFR 393476			
	0.1265 ha Section 136, Block VIII, Dunedin and East Taieri Survey District CFR 393337			
	0.1113 ha Section 137, Block VIII, Dunedin and East Taieri Survey District CFR 393979			
	0.0562 ha Section 131, Block VIII, Dunedin and East Taieri Survey District CFR 392928	Vested by all GN 7622237.1	Subject to the Reserves Act 1977	Local Purpose (Coastal Protection) by PT GN 8350968.1

Map No.	Legal Description	Controlled & Managed/ Vested in the DCC	Status and Name	Classified
	0.3101 ha Sections 132, 133 and 135, Block VIII, Dunedin and East Taieri Survey District CFR 411173	Vested by all GN 671311/1	Subject to the Reserves Act 1977	Local Purpose (Coastal Protection) by PT GN 8350996.1
	0.1214 ha Section 134, Block VIII, Dunedin and East Taieri Survey District CFR 31770	Vested by all GN 5192314.2	Subject to the Reserves Act 1977	Local Purpose (Coastal Protection) by PT GN 8350968.1
10.2.8	***Te Rauone***			
	4.1885 ha Lot 1, DP 6468. CFR 99423	Vested underSection 26A of the Reserves Act 1977	Subject to the Reserves Act 1977 Named Te Rauone Recreation Reserve by all GN 667351/1	Local Purpose (Coastal Protection) by GN 8350981.1
	0.5050 ha Lot 2, DP 18598 CFR 40236	Vested on deposit of DP 18598	Subject to the Reserves Act 1977	Local Purpose (Coastal Protection) by GN 8351012.1
	0.0252 ha Lot 2, DP 375006 CFR 307226	Vested on deposit of DP 375006	Subject to the Reserves Act 1977	Local Purpose (Coastal Protection) by RES 8319221.1
10.2.9	***Waikouaiti***			
	4.1748 ha Section 3, SO 410310 Part CFR 334205			
	0.1613 ha Section 5, SO 410310 Part CFR 334205	Vested underSection 26A of the Reserves Act 1977	Subject to the Reserves Act 1977	Local Purpose (Coastal Protection) by GN (8351000.1
	1.3432 ha Section 6, SO 410310 Part CFR 334205			
	10.4875 ha Section 8, SO 410310 Part CFR 334205			
10.2.10	***Warrington***			
	6.3131 ha Lot 2, DP 10272 All CFR 34682 1 Subject to Right of Way created by Deed of Easement CIR OTA2/1320	Vested underSection 26A of the Reserves Act 1977	Subject to the Reserves Act 1977 Named Warrington Recreation Reserve by part Gazette 606573	Local Purpose (Coastal Protection) by GN 8350993.1
	25.3379 ha Section 67A, Block I, Waikouaiti Survey District All CFR 347775			
	29.8456 ha Section 68A, Block I, Waikouaiti Survey District All CFR 347774			

Appendix 10.4: Occupation Agreements

Reserve	Occupier	Activity / Group	Leased by DCC	Facility/ building on reserve?	Ownership of Facility	Purpose	Type of Agreement	Term (Years)	Expiry Date	Area (ha)	Legal Description of Area
Brighton Domain	Brighton Rugby Football Club	Rugby	Land	Clubrooms	Lessee	Recreation	Lease	14	30-Jun-2013	0.033	Section 47 Block I Otokia SD
Brighton Domain	Brighton Surf Lifesaving Club	Surf Lifesaving	Land	Clubrooms	Lessee	Community	Lease	14	30-Jun-2013	0.020	Lot 1 DP 2130
Island Park	Waldronville Horse Owners Association	Community	Undeveloped land	None	N/A	Grazing	Licence	5	30-Nov-2012	2.850	Pt Sect 8 Blk XIV Dunedin and east Taieri SD
Island Park	Beachlands Speedway	Commercial	Land	Clubrooms & Land	Lessee	Recreation	Lease	21	31-Mar-2028	6.340	Pt Sect 8 Blk XIV Dunedin and east Taieri SD
Island Park	Dunedin Clay Target Club Inc	Shooting	Land	Clubrooms & Land	Lessee	Recreation	Lease	21	31-Mar-2028	10.884	Pt Sect 8 Blk XIV Dunedin and east Taieri SD
Island Park	Otago Pistol Club	Shooting	Land	Clubrooms & Land	Lessee	Recreation	Lease	21	31-Mar-2028	1.282	Pt Sect 8 Blk XIV Dunedin and east Taieri SD
Ocean Grove	Grants Braes Association Football Club	Soccer	Land	Clubrooms	Lessee	Recreation	Lease	Year to Year	30-Jun-2008	0.006	Pt Sec 49 Block VII GN 1986 p 1899

Appendix 10.5: Community Groups with Memorandum of Understanding

1. Tomahawk Smaills Beachcare Trust

Appendix 10.6: Coastal Reserves Where Horses are Permitted

1. Ocean Grove Reserve: Access to Beach – Designated accesses only

2. Waikouaiti Reserve: Access to Beach – Designated accesses only

3 Island Park Reserve: Access to Beach – Designated accesses only

4. Island Park Reserve (Area leased by Waldronville Horse Owners' Association)

Note: Horses are not permitted in the dunes of any coastal reserve.

Appendix 10.7: Statutory Acknowledgement

Ngai Tahu Claims Settlement Act Schedule 103

Statutory Acknowledgement for Te Tai O Arai Te Uru (Otago Coastal Marine Area)

Specific Area

The statutory area to which this statutory acknowledgement applies is Te Tai o Arai Te Uru (the Otago Coastal Marine Area), the Coastal Marine Area of the Moeraki, Dunedin Coastal and Molyneaux constituencies of the Otago region, as shown on SO Plans 24250, 24249, and 24252, Otago Land District and as shown on Allocation Plan NT 505 (SO 19901).

Preamble

Under section 313, the Crown acknowledges Te Rünanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Te Tai o Arai Te Uru as set out below.

Ngai Tahu Association with Te Tai o Arai Te Uru

The formation of the coastline of Te Wai Pounamu relates to the tradition of Te Waka o Aoraki, which foundered on a submerged reef, leaving its occupants, Aoraki and his brothers, to turn to stone. They are manifested now in the highest peaks in the Ka Tiritiri o Te Moana (the Southern Alps). The bays, inlets, estuaries and fiords which stud the coast are all the creations of Tu Te Rakiwhanoa, who took on the job of making the island suitable for human habitation.

The naming of various features along the coastline reflects the succession of explorers and iwi (tribes) who travelled around the coastline at various times. The first of these was Maui, who fished up the North Island, and is said to have circumnavigated Te Wai Pounamu. In some accounts the island is called Te Waka a Maui in recognition of his discovery of the new lands, with Rakiura (Stewart Island) being Te Puka a Maui (Maui's anchor stone). A number of coastal place names are attributed to Maui, particularly on the southern coast.

The great explorer Rakaihautu travelled overland along the coast, identifying the key places and resources. He also left many place names on prominent coastal features. Another explorer, Tamatea, sailed along the Otago coast in the waka Täkitimu. After the waka eventually broke its back off the coast of Murihiku, Tamatea and the survivors made their way overland back to the North Island, arriving at the coast by the place Tamatea named O-amaru (Öamaru).

Place names along the coast record Ngāi Tahu history and point to the landscape features which were significant to people for a range of reasons. For example, some of the most significant rivers which enter the coastal waters of Otago include: Waitaki, Kakaunui, Waihemo (Shag), Waikouaiti, Käikrae (Käikorai), Tokomairiro, Mata-au (Clutha), Pounawea (Catlins). Estuaries include: Waitete (Waitati), Ötäkou (Otago), Makahoe (Papanui Inlet), Murikauhaka (Mate-au and Koau estuaries), Tahaukupu (Tahakopa estuary), Waipätiki (Wapati Estuary). Islands in the coastal area include Okaihe (St Michaels Island), Moturata (Taieri Island), Paparoa, Matoketoke, Hakinikini, and Aonui (Cooks Head).

Particular stretches of the coastline also have their own traditions. The tradition of the waka (canoe) Arai Te Uru and its sinking at the mouth of the Waihemo (Shag River) has led to the coastal area of Otago being known as Te Tai o Araiteuru (the coast of Arai Te Uru). Accounts of the foundering, the wreckage, and the survivors of this waka are marked by numerous landmarks almost for the length of the Otago coast. The boulders on Moeraki coast (Kai Hinaki) and the Moeraki pebbles are all associated with the cargo of gourds, kumara and taro seed which were spilled when the Arai Te Uru foundered.

For Ngāi Tahu, traditions such as these represent the links between the cosmological world of the gods and present generations. These histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

Because of its attractiveness as a place to establish permanent settlements, including pā (fortified settlements), the coastal area was visited and occupied by Waitaha, Ngati Mämoe and Ngāi Tahu in succession, who, through conflict and alliance, have merged in the whakapapa (genealogy) of Ngāi Tahu whänui. Battle sites, urupā and landscape features bearing the names of tüpuna (ancestors) record this history. Prominent headlands, in particular, were favoured for their defensive qualities and became the headquarters for a succession of rangatira and their followers. Notable pā on the Otago coast include: Makotukutuku (Öamaru), Te Raka-a-hineatea (Moeraki), Te Pā Katata, Pā a Te Wera, (Huriawa Peninsula), Mapoutahi (Purakaunui), Pukekura (Taiaroa Head), Moturata (Taieri Island). The estuaries from the Waitaki River to the Chaslands also supported various hapu.

Tüpuna such as Waitai, Tukiauau, Whaka-taka-newha, Rakiiamoa, Tarewai, Maru, Te Aparangi, Taoka, Moki II, Kapo, Te Wera, Tu Wiri Roa, Taikawa, Te Hautapanuiotu among the many illustrious ancestors of Ngati Mämoe and Ngāi Tahu lineage whose feats and memories are enshrined in the landscape, bays, tides and whakapapa of Otago.

The results of the struggles, alliances and marriages arising out of these migrations were the eventual emergence of a stable, organised and united series of hapu located at permanent or semi-permanent settlements along the coast, with an intricate network of mahika kai (food gathering) rights and networks that relied to a large extent on coastal resources. Chiefs such as Korako (several), Tahatu, Honekai, Ihutakuru, Karetai, Taiaroa, Potiki, Tuhawaiki, and Pokene being some among a number who had their own villages and fishing grounds. Otago Peninsula (Muaupoko) had many kaunga nohoanga with a multitude of hapu occupying them. At one time up to 12 kainga existed in the lower Otago harbour, some larger and more important than others.

The whole of the coastal area offered a bounty of mahika Käi, including a range of kaimoana (sea food); sea fishing; eeling and harvest of other freshwater fish in lagoons and rivers; marine mammals providing whale meat and seal pups; waterfowl, sea bird egg gathering and forest birds; and a variety of plant resources including harakeke (flax), fern and ti root. In many areas the reliance on these resources increased after the land sales of the 1840s and 1850s, and the associated loss of access to much traditional land-based mahika kai.

Many reefs along the coast are known by name and are customary fishing grounds, many sand banks, channels, currents and depths are also known for their kaimoana. One example is Poatiri (Mt Charles — Cape Saunders) the name of which refers to a fish hook. Poatiri juts out into the Pacific, close to the continental shelf, and is a very rich fishing ground. Another example is Blueskin Bay which was once a kohanga (breeding ground) for the right whale, although it is well over 150 years since it has seen this activity.

Other resources were also important in the coastal area. Paru (black mud used for dying) was obtained from some areas. Some of the permanent coastal settlements, such as those at the mouth of the Mata-au (Clutha River), and at Ōtākou and Purakaunui, were important pounamu manufacturing sites. Trading between these villages to the south and north via sea routes was an important part of the economy.

The Otago coast was also a major highway and trade route, particularly in areas where travel by land was difficult. Pounamu and titi were traded north with kumara, taro, waka, stone resources and carvings

coming south. Travel by sea between settlements and hapu was common, with a variety of different forms of waka, including the southern waka hunua (double-hulled canoe) and, post-contact, whale boats plying the waters continuously. Hence tauranga waka (landing places) occur up and down the coast in their hundreds and wherever a tauranga waka is located there is also likely to be a nohoanga (settlement), fishing ground, kaimoana resource, rimurapa (bull kelp — used to make the poha, in which titi were and still are preserved) with the sea trail linked to a land trail or mahika kai resource. The tüpuna had a huge knowledge of the coastal environment and weather patterns, passed from generation to generation. This knowledge continues to be held by whänau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the coast.

Numerous urupā are being exposed or eroded at various times along much of coast. Water burial sites on the coast, known as waiwhakaheketupapaku, are also spiritually important and linked with important sites on the land. Places where kaitangata (the eating of those defeated in battle) occurred are also wähi tapu. Urupā are the resting places of Ngāi Tahu tüpuna and, as such, are the focus for whänau traditions. These are places holding the memories, traditions, victories and defeats of Ngāi Tahu tüpuna, and are frequently protected in secret locations.

The mauri of the coastal area represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu whänui with the coastal area.

Appendix 10.8: Accidental Discovery Protocol

1. Introduction

This protocol records those procedures that will be followed in the event that koiwi, taoka, wāhi tapu, or archaeological sites, are unearthed or discovered within the Coastal Dune Reserves.

2. Definitions

In this Protocol the following terms are used:

Archaeological Sites – as defined by the Historic Places Act 1993 (as amended).

"Koiwi takata" means human skeletal remains.

"Papatipu Rūnaka" means Kāti Huirapa Rūnanga ki Puketeraki and Te Rūnanga o Ōtākou

"Taoka" means cultural artefacts such as implements, weapons or decorations traditionally and historically utilised by tangata whenua and include parts or the remains thereof.

"Wāhi tapu" means any site of religious, cultural or spiritual significance for takata whenua.

3. Nominated Contacts

The Manager
Community and Recreation Services"
Dunedin City Council
PO Box 5045
Moray Place
Dunedin 9058
(03) 477 4000

Kāti Huirapa Rūnanga ki Puketeraki
C/O Post Office
KARITANE 9064
(03) 465 7300

Te Rūnanga o Ōtākou
Tamatea Rd
RD 2
Ōtākou
DUNEDIN 9077
(03) 478 0352

4. Accidental Discovery Protocol

The following procedure shall be adopted in the event that koiwi takata, taoka or wāhi tapu are unearthed or discovered, or are reasonably suspected to have been unearthed or discovered, within the Coastal Dune Reserves.

a. If koiwi takata (human skeletal remains), taoka or a wāhi tapu site are uncovered all activity in the immediate vicinity of the site shall cease and the Dunedin City Council shall be notified of the discovery.

b. The Dunedin City Council shall take steps immediately to secure the area in a way that ensures that the discovery remains untouched so far as possible in the circumstances.

c. The Dunedin City Council will immediately advise the Papatipu Rūnaka of the occurrence.

d. The Dunedin City Council shall, dependent on the nature of the discovery, notify the New Zealand Police; the Public Health Unit (in the event of a koiwi takata discovery); the New Zealand Historic Places Trust; and the Department of Conservation.

e. The Dunedin City Council will ensure that assistance is made available to guide staff to the site, assisting with any requests that they may make.

f. The Dunedin City Council shall ensure that kaumatua are given the opportunity to undertake karakia and such other religious or cultural ceremonies and activities at the site as may be considered appropriate in accordance with tikanga Māori (Māori custom and protocol).

g. Where the koiwi takata, taoka or wāhi tapu are of Māori origin, any materials discovered will be handled and removed by the kaumatua who are responsible for the tikanga (custom) appropriate to their removal or preservation.

This protocol is effective as from [insert date]

_____

The Manager
Community and Recreation Services
Dunedin City Council

_____

For and on behalf of
Kāti Huirapa Rūnanga ki Puketeraki

_____

For and on behalf of
Te Rūnanga o Ōtākou

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